

# **ECONOMIC SCIENCE FOR RURAL DEVELOPMENT**

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Home Economics  
Finance and Taxes

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## Time schedule of the conference

**Preparation of the proceedings and organization:** December 2016 – April 2017

**Conference:** 27-28 April 2017

Researchers from the following higher education institutions, research institutions, and professional organizations presented their scientific papers at the conference:

Agency for Restructuring and Modernisation of Agriculture in Leczna	Poland
AGH University of Science and Technology	Poland
Aleksandras Stulginskis university	Lithuania
BA School of Business and Finance	Latvia
College of Law	Latvia
Estonian University of Life Sciences	Estonia
Gdynia Maritime University	Poland
Groupe ESC Troyes	France
Institute of Agricultural Resources and Economics	Latvia
Institute of Soil Science and Plant Cultivation State Research Institute	Poland
Kaunas University of Technology	Lithuania
Kuban State University	Russia
Latvia University of Agriculture	Latvia
Lithuanian Institute of Agrarian Economics	Lithuania
Maxwell School of Syracuse University	USA
Pennsylvania State University	USA
Plekhanov Russian University of Economics	Russia
Pope John Paul II State School of Higher Education in Biala Podlaska	Poland
Poznan University of Economics and Business	Poland
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Riga Teacher Training and Educational Management Academy	Latvia
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Russian State Agrarian University - Moscow Timiryazev Agricultural Academy	Russia
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State University of Applied Sciences in Konin	Poland
Sumy State University	Ukraine
Siauliai University	Lithuania
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The authors are responsible for the content and language of their papers.

## Reviewers

Every article included into the Proceedings was subjected to a scientific, including international review.

All reviewers were anonymous for the authors of the articles.

The following 105 reviewers from scientific and academic institutions of 8 countries (Estonia, Germany, Latvia, Lithuania, Poland, Russia, Slovakia and USA) have written 105 reviews.

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The Editorial Board is responsible for, among other, preventing publication malpractice. Unethical behaviour is unacceptable and the authors who submit articles to the Conference Proceedings affirm that the content of a manuscript is original. Furthermore, the authors' submission also implies that the material of the article was not published in any other publication; it is not and will not be presented for publication to any other publication; it does not contain statements which do not correspond to reality, or material which may infringe upon the intellectual property rights of another person or legal entity, and upon the conditions and requirements of sponsors or providers of financial support; all references used in the article are indicated and, to the extent the article incorporates text passages, figures, data or other material from the works of others, the undersigned has obtained any necessary permits as well as the authors undertake to indemnify and hold harmless the publisher of the proceedings and third parties from any damage or expense that may arise in the event of a breach of any of the guarantees.

Editors, authors, and reviewers, within the International Scientific Conference "**Economic Science for Rural Development**" are to be fully committed to good publication practice and accept the responsibility for fulfilling the following duties and responsibilities, as set by the *COPE Code of Conduct and Best Practice Guidelines for Journal Editors of the Committee on Publication Ethics (COPE)*.

It is necessary to agree upon standards of expected ethical behaviour for all parties involved in the act of publishing: the author, the editor, the peer reviewer, and the publisher.

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Unpublished materials disclosed in a submitted manuscript must not be used in an editor's own research without the express written consent of the author.

### **DUTIES OF REVIEWERS**

Every submitted manuscript has been reviewed by one reviewer from the author's native country or university, while the other reviewer came from another country or university. The third reviewer was chosen in the case of conflicting reviews. All reviewers were anonymous for 9 the authors of the articles, and the reviewers presented blind reviews. Every author received the reviewers' objections or recommendations. After receiving the improved (final) version of the manuscript and the author's comments, the Editorial Board of the conference evaluated each article.

#### **Contribution to editorial decisions**

Peer review assists the editor in making editorial decisions and through the editorial communications with the author may also assist the author in improving the paper.

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Any selected referee who feels unqualified to review the research reported in a manuscript or knows that its prompt review will be impossible should notify the editor and excuse himself from the review process.

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Proper acknowledgment of the work of others must always be given. The authors should cite publications that have been influential in determining the nature of the reported work.

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Authorship should be limited to those who have made a significant contribution to the conception, design, execution, or interpretation of the reported study. All those who have made significant contributions should be listed as co-authors. Where there are others who have participated in certain substantive aspects of the research project, they should be acknowledged or listed as contributors.

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When an author discovers a significant error or inaccuracy in his/her own published work, it is the author's obligation to promptly notify the editor or publisher and cooperate with the editor to retract or correct the paper.

***Editorial Board***

## Foreword

The international scientific conference "Economic Science for Rural Development" is organized annually by the Faculty of Economics and Social Development of Latvia University of Agriculture.

The proceedings of the conference are published since 2000.

The scientific papers presented in the conference held on 27-28 April 2017 are published in 3 thematic volumes:

**No 44** Rural Development and Entrepreneurship

Bioeconomy

Production and Co-operation in Agriculture

**No 45** Integrated and Sustainable Regional Development

Marketing and Sustainable Consumption

**No 46** New Dimensions in the Development of Society

Home Economics

Finance and Taxes

The proceedings contain scientific papers representing not only the science of economics in the diversity of its sub-branches, but also other social sciences (sociology, political science), thus confirming interdisciplinary development of the contemporary social science.

This year for the first time the conference includes the section on a new emerging kind of economy-bioeconomy. The aim of bioeconomy is to use renewable biological resources in amore sustainable manner. Bioeconomy can also sustain a wide range of public goods, including biodiversity. It can increase competitiveness, enhance Europe's self-reliance and provide jobs and business opportunities.

The Conference Committee and Editorial Board are open to comments and recommendations concerning the preparation of future conference proceedings and organisation of the conference.

## Acknowledgements

The Conference Committee and editorial Board are open to comments and recommendations for the development of future conference proceedings and organisation of international scientific conferences.

We would like to thank all the authors, reviewers, members of the Programme Committee and the Editorial Board as well as supporting staff for their contribution organising the conference.

On behalf of the conference organisers

**Anita Auzina**

Associate professor of Faculty of Economics and Social Development  
Latvia University of Agriculture

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## **NEW DIMENSIONS IN THE DEVELOPMENT OF SOCIETY**

## EMPLOYER ATTITUDE TOWARDS TELEWORK IN REAL ESTATE SECTOR

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**Abstract.** Telework usage is increasing together with wide spread of information communication technology (ICT). White-collar workers are familiar with working from outside of the regular workplace, e.g. from home or when travelling. Nevertheless, the employers' attitudes towards teleworking vary in a large extent and the companies have different rules concerning enabling teleworking to their employees. Purpose of the study was to find out managers' attitudes towards telework and how they perceive factors that are related to telework of older employees. Special interest is paid on senior employees, who are more experienced and therefore more independent when choosing their way and place to work. Interviews with chief executive officers (CEO) from 10 real estate companies from Estonia were conducted to collect primary data for this study. The results: telework in real estate companies is ordinary; CEOs see flexibility as the main benefit of telework; the main threats that were indicated by CEOs, were: a) communication between employees is insufficient, b) there is nobody in office sometimes, c) reasons of employees' poor results remain unclear. From one side, telework suits better to the experienced employees as working alone is easier for them compared with less experienced employees and they need less help from colleagues regarding their job-related issues; from the other side, the older people have more challenges with using ICT.

**Key words:** telework, real estate sector.

**JEL code:** J14, J26, J28, J62

### Introduction

Telework as a concept was first introduced as telecommuting by Jack Nilles (Nilles J., 1976). Telework is often defined as a way of work where information communication technology (ICT) enables employees access to work remotely, usually from home (Sullivan C., 2003). According to the European Trade Union Confederation, telework is defined as a form of organizing and/or performing work, using information technology, where work, which could also be performed at the employers' premises, is carried out away from those premises on a regular basis (Implementation, 2006). In current research, telework is defined as a work that is carried out outside the central office, involving new technology that permits communication (Arvola R. *et al.*, 2015). Working from home offers a lot of benefits to the employees and employers. For employees the benefits could be: savings in time and expenses; strengthening of working motivation; flexibility of the working mode; fitting work into own rhythm and situation of life; peace to do work etc. From the viewpoint of the employers, the benefits, the advantages are: lower overhead costs; increase in productivity; keeping the skilled employees etc. There are also advantages on less impact on the environment:

less traffic; decrease in emission caused by fuel consumption and traffic; less consumption of resources; savings in infrastructure; improved local economy etc. Some of the authors bring out the disadvantages for the employees connected with telework: having to reserve space for work at home; the health hazards of office equipment; the risk of social alienation; the risk of burnout as the work continues at home endlessly. The disadvantages for the employer are as follows (Heinonen J., 2000): risk concerning data security, initial investment expense etc. Most of the teleworkers visit their office at least once a week, so many of the risks can be reduced. The possibilities and willingness to carry out telework is individual and one of the main factors that incline the worker towards telework is the distance from home to work. There are other important factors, like the place where the (nursery) school of children is located or the quality of info-communication equipment at home and they are much better at the permanent workplace (Arvola R., 2006).

There are examples from the foreign literature (Krugman P., 1988; Nuur C. & Laestadius C., 2012) that since 2000 the people who have left their places of birth to the bigger cities for work, are now coming back as their living conditions in

big towns are not good (noise, stress, pollution), particularly not healthy for the young generation (small children); the housing is expensive in the cities etc. Therefore, young people and also elderly who want more silent places for living, are going back to their roots. The tendency in Latvia is yet that the proportion of rural population is decreasing because of the lack of challenging jobs in the countryside (Vitola A. & Baltina I., 2013). Here, telework can help. According to research, there are some work procedures that are better organized on the permanent workplace, like copying, scanning and printing services. Therefore, the company has to invest in the beginning of the telework organization, but afterwards the investments will stabilize. There are advantages and disadvantages of telework. The Latvian research (Vitola A. & Baltina I., 2013) showed that the majority of working age people in cities as well as in rural areas is willing to be involved in telework.

There are some determining factors for "yes" or "no" to telework or for developing the telework at the rural area (Sullivan C., 2003): 1) transportation; 2) ICT-equipment level; 3) ICT systems security; 4) individual factors, like small children or elderly people wish to live away from towns; 5) the workplace location of the partner/husband.

Generally, the authors point out that home-based telework appears to be as one of the major areas where the new technology has the potential to change people's daily practices and thereby create better life quality to the individual (Vitterso J. *et al.*, 2003).

There are many problems connected to the development possibilities of telework. For example, as said above, the responsibilities for childcare would restrict participation in conventional on-site work. This gives the advantage to telework (Sullivan C. & Lewis S., 2001). There are some sources that deal with the gender influence on choosing "telework" (Bae K.B. & Kim D., 2016). The results showed the

positive relationship between the organizational adoption of telework and the employees' job satisfaction. Female workers are likely to have a more favourable attitude toward teleworking than their male counterparts (Bae K.B. & Kim D., 2016). Telework in particular is one of the most widely implemented types of family friendly policies. It is defined as "periodically, regularly, or exclusively overforming work for their employers from home or another remote location that is equipped with the appropriate computer-based technology to transfer work to the central organization" (Hunton J.E. & Norman C.S., 2010).

Results of Morganson *et al.* (2010) investigation showed that the main office and home-based workers had similar high levels of work-life balance support and job satisfaction. Thus, allowing employees flexibility in choosing their work locations is related to positive outcomes.

The current paper is concentrated on the real estate workers whose work is "networked" (Garrett R.K. & Danziger J.N., 2007) in such a way that they regularly work in a combination of home, work and field contexts. Unfortunately, telework can be a source of work-life imbalance. Especially, in high stress jobs, working from home may not allow workers to escape work, both mentally and physically (Russell H. *et al.*, 2009). Telework enables workers to continue working for longer hours (Hill E.J. *et al.*, 2003). As a result, teleworkers may experience increased stress and overload (Konradt U. *et al.*, 2003; Russell H. *et al.*, 2009; Towers I. *et al.*, 2006).

Technology continues to be a catalyst for change in all areas of business and industry, and the real estate market is no exception (Garebaglow S., 2016). Today's worker is more mobile and business can operate anywhere. While telecommuting may not be a viable option for all companies or for all employees within the company, many organizations have utilized



remote work models with great success. This mode of work is reducing the amount of office space and is changing the dynamics of what constitutes an ideal-real expensive location. In addition to reducing the amount of office space that company needs, and re-imagining how that space is used, technology is also bringing down barriers between potential tenants and real estate owners. Developments in cloud-effective and real-time property information, which means many leasing activities, are taking place online. As young families want more space for living, they retreat to suburban and exurban homes and this will not limit the professional options for work to them.

As of September 2015, more than 3.7 million employees work from home in the U.S. at least half of time, according to Global Workplace Analytics (Thorsby D., 2015). One of the biggest problems for people working at home is that they do not work 7-8 hours, but they work 24 hours per day, 7 days per week. A special space for your office helps. Everyone works differently, and the great advantage of the home office is: it can be personalised so that people become as productive and happy as possible. Telecommuting has a growing influence on commercial real estate sector: telecommuting is on the rise; companies have trimmed costs by reducing their need for physical space. Fewer employees are required to be on site; improving productivity and retaining employees; continuity (work is possible also in extreme weather conditions, not go out from home), expanding the talent pool (teleworking gives the possibility to work for disabled people, living in other geographical regions, as well as for single parents etc.) (Hauser D., 2014). The author suggests that from 2014 based on the trends in teleworking, a 69 % increase of teleworkers from 2014 levels is expected by 2016.

**Problems:** 1) What are the main factors that are considered by the employers when they consider telework in their company?

2) Is telework seen as a tool for extending work life of older employees?

**Aim and tasks** of the research to solve the problem: are ageing people eager to work further when reaching the retirement age if telework is proposed to them as the mode of work?

**Novelty and topicality** of the research: the work topic is very topical for Estonia, where the work-force is decreasing. Are older workers (with the experience in the real estate field 10 years and more) more appreciated by the employers than very young workers or even students in the shortage of workforce?

The problem was solved by the qualitative study in 10 real estate companies from Estonia. The analysis of the interviews with the CEOs of these real estate companies was used.

A great number of real estate companies have experienced telework for many years. Therefore, the real estate sector was selected as a focus for the current research.

**Research questions:** (1) To what extent the managers of the real estate companies see that telework is applicable for senior employees?

(2) What are the circumstances that affect telework utilization for senior employees?

### **Research method**

Qualitative approach was applied for solving the research questions.

Data for the research were collected by the semi-structured interviews. An interview guide with open-ended questions was prepared.

Content analysis was applied. Thematic units were used for coding and the coding schedule was as follows in Table 1.

Table 1

**Coding schedule**

No	Topic
1	Share of teleworkers in the company
2	Assessment on possibility to apply telework in the company, that interviewee represents
3	Time that employees work remotely
4	Importance of employees' presence in the office
5	Management's attitude towards teleworking
6	Employees' attitude towards teleworking
7	Existence of senior employees in the company
8	Attitude towards employees who postpone their retirement with the help of telework
9	Senior employees' ability to cope with telework
10	Senior employees' motivation to postpone their retirement

Table 2

**Sample description**

Interviewee	Company size (number of employees)	Approximate amount of teleworkers
1	65	0
2	40	0
3	35	25
4	150	10
5	70	20
6	20	15
7	15	3-4
8	12	0
9	25	23
10	30	0

**Source: interview transcriptions**

Sample was compiled from 10 chief executive officers (CEO) of real estate companies as the nature of research question needed experts as interviewees. In the beginning, 11 companies were selected, but one CEO was not able to find time for the interview. Company profiles are described in Table 2. Information about demographic profile of interviewees was not collected because it is less important information

in expert interviews. Only company size was asked in the interview.

Interviews were conducted from September to November 2013. Each participant was introduced with telework definition before the interview.

Interviews were in face-to-face form and each interview lasted about two hours. All interviews were recorded and later on transcribed.

**Research results and discussion**

Interviews revealed that managers' experiences and attitudes vary in a large scale. Some CEOs said that their experience with telework has shown rather undesirable results, while others expressed that the place of work does not matter much. None of the CEOs said that telework in their company has been imposed by the employer.

The following results were derived from the analysis of the interviews by the topics presented in Table 1.

**1. Share of the teleworkers in the company**

Share of teleworkers among all employees also varied. One CEO said that in their company it is almost impossible to do telework because the nature of the job requires the presence and telework is conceivable only in some rare cases.

There were also companies where telework is feasible, but it is not supported by the company and the presence in office is required, except when meeting with the clients at sailing objects etc. These CEOs also had previous experience with telework in their company. One CEO who did not favour telework, expressed his own opinion that employees in their company seem to prefer working in their office together. However, majority of CEOs recognized that many or even prevailing majority of the employees are teleworkers as they work remotely a part of their work time. Recently mentioned interviews with particular CEOs revealed that the decision for teleworking is made by the employee and accepted by the employer.

## **2. Assessment of possibility to apply telework in the company**

As mentioned above, telework cannot be utilized in every job or company. In the current research, there was one company, whose profile was entirely related to the real estate maintenance and majority of the jobs in this area are difficult to adapt for teleworking.

Others admit that it is possible. Some interviewees justified their resistance to telework with lack of control, social contact or with their earlier experience.

Interviewee 3: *"/.../ "we do not control people and we cannot know what they actually do and where they actually are."*

Interviewee 6: *"You can communicate with people and exchange your thoughts, because this work needs colleague's opinions, even on price levels. Therefore, this immediate contact is also good as well as having a cup of coffee together in the mornings"*.

Interviewee 10: *"We have had years ago people who have wanted it (telework) and we have allowed these people to use it, but the economy requires to measure the results and they do not show that working from home is expedient, effective, lucrative or more profitable compared to being out from home at the office"*.

Nevertheless, most of the interviewees stated that telework is not only possible but also a natural work mode in their sector. It was also seen as an advantage to provide flexibility, which is considered to be important for customers.

Interviewee 2: *"The reason why we use telework is to adapt to new circumstances and flexible use of working-time is one of the valued benefits in real estate broker's work"*.

Many interviewees expressed that telework needs special attention by stakeholders and its impact is wider than only employee's individual result.

Interviewee 9: *"If it is organised in the company so that there are certain times when people need to get together and they know what*

*they do and to whom and how they provide service to, then I think it is very OK"*.

They also referred that telework suits individually. Even those interviewees who did not support telework generally, admit that telework is suitable if an employee is experienced.

Many interviewees indicated that together with telework there is one "important aspect" connected with the image of the company that needs to be settled: some of the customers want to visit the company's office without warning and it needs to be taken care of that there is always somebody present and available.

## **3. Time that employees work remotely**

Interviewees altogether estimated that the share of work time when employees work remotely is 30 % to even 90 %. A common assessment was that employees work at least half of their work time remotely. Exception was one company that stated that telework generally couldn't be applied in their company.

## **4. Importance of the employees' presence in the office**

Prevailing opinion was that employee's work results are more important than being present. It was also common to suppose that for older and experienced employees' presence is less important than for younger employees.

Some interviewees see employees as entrepreneurs and therefore it is up to employees to decide over how they work and the company cannot forbid telework. They also pointed out that telework is common in real estate sector.

At the same time, some interviewees referred to the importance of communication and direct contact in team.

Interviewee 3: *"Firstly, information goes around here and secondly it motivates people and thirdly, according to training, because /.../ there are million different situations, then from each situation it is learnt case by case"*.

## **5. Management's attitude towards teleworking**

Some interviewees said that they do not support telework. One admitted that managers in their company do not share the same views on telework.

Compared to telework opposition, the majority of the interviewees liberally tolerate telework, letting employees to decide over their work form. Two interviewees mentioned telework's individual suitability. One of them told that telework can be supported only if work results show the improvements due to that and the other interviewee emphasized on telework's unsuitability for younger and inexperienced employees.

One CEO said that for an owner it is pleasant to work in the same office with others rather than to work remotely even if it is possible.

There was no sign of attitude that some companies impose telework for their employees.

## **6. Employees' attitude towards teleworking**

Interviewees expressed their opinion about employees' attitude. Two interviewees said that employees' opinion is not considered. One of them added that telework issue was discussed already within their recruitment process.

Two interviewees who supported telework, reported employees' attitudes that were different from them. One told that older employees prefer working from office because they do not feel comfortable with ICT while telework is preferred by their younger colleagues. The other interviewee expressed some disappointment regarding the issue. Interviewee said that employees' attitude is unfavourable, because employees would like to see more colleagues in the office, but at the same time, it happens sometimes that there is nobody in the office on Friday.

Half of the interviewees communicated positive attitude towards telework by employees.

## **7. Existence of the senior employees in the company**

Majority of the interviewed companies had about 10 % of employees that were at least 50 years old.

There was only one company with employees without any worker who is 50 years or younger. Nevertheless, the same company had earlier positive experience with over 70 years old worker, whose work results were the best in the company.

## **8. Attitude towards employees who postpone their retirement with the help of telework**

Only one interviewee reported that in their company it would be impossible to use telework regardless of age.

Rest of the interviewees expressed at least in some extent positive attitude towards enabling teleworking for the older employees.

Some interviewees said in the retirement context that telework is not suitable for every employee and this is individual, but the prevailing attitude was rather favourable.

All examples that interviewees gave regarding telework, as an option to postpone retirement, were exclusively positive. It is important to point out that among them were two interviewees who did not support telework in general, but, as an option for older employees, it was considered to be benefit for the company.

One interviewee added exception for these older employees who had no experience in real estate sector.

Interview 6: *"But I do not approve the training of a new one and I am negative about it".*

Several interviewees emphasized that company benefits a lot if an employee postpones retirement and telework is suitable for the experienced employees.

Interviewee 9: *"/.../ "I believe that in some target groups pension-aged people are more trustworthy".*

Interviewee 7: */.../ "because loyalty and personnel stability are great values".*

Interviewee 2: *"Experienced worker's continuing is in a favour compared to new ones".*

### **9. Senior employees' ability to cope with telework**

Opinions were divided. One common view was that telework, as it requires ICT use, is usually more challenging for older people. However, at the same time some of them added that the situation is improving. Others were positive about the older employees' coping with telework, but most of them still had to admit that older people have more challenges regarding ICT. Several interviewees pointed out that these ICT usage problems would be easier to solve from office than remotely.

### **10. Senior employees' motivation to postpone their retirement**

A common opinion was positive and the majority of interviewees mentioned additional income as the main reason.

Interviewee 8: *"Estonian pension is as it is".*

Other reasons were brought out only by two interviewees.

Interviewee 7: *"I believe so, because real estate brokers' work enables communication with people and /.../ keeping active in life and I think for these reasons to do something, /.../ is the reason why people still continue to work".*

One of the interviewees added that older employees seem to enjoy their work and being with the others.

Interviewee 10: *"/.../ at this time as a manager I watch how nicely younger and older workers communicate with each other, then at least the pension-aged employees were excellent".*

### **Discussion, conclusions, recommendations**

The majority of interviewees did not see that the form of working (i.e. teleworking) had significant impact on work results. Some managers see that the disadvantages of telework do not outweigh the flexibility created by

telework. Main threats concerning teleworking that interviewees pointed out were reduced social contact and communication between employees and reduced productivity, that were also described by Heinonen (2000). Current results did not support same circumstances (i.e. transportation, ICT-equipment level etc.) that were described by Sullivan (2003).

Although some interviewees pointed out that the older people have more challenges concerning ICT that is crucial for teleworking; attitude that prevailed, was following: when an employee is experienced and decides to continue working in telework form in retirement age, manager's reaction is positive.

Some pointed out that older employees are more experienced compared to younger ones and therefore more efficient when working alone.

Analysis of interviews led to conclusions:

- 1) telework in real estate companies is widely used;
- 2) CEOs see flexibility as the main benefit of telework;
- 3) main threats that were indicated by CEOs were: (a) communication between employees is insufficient, (b) possibility of having nobody in the office to serve unexpected customers, (c) reasons of employee's poor results remain unclear;
- 4) (a) on the one hand, telework suits better to experienced employees as working alone is easier compared to less experienced employees and they need less help from the colleagues regarding their job-related issues; (b) on the other hand, older people have more challenges with using ICT.

Later survey (n=73; carried out by the authors of the current paper) among employees from real estate companies in Estonia in 2017 showed that telework is still widely used by employees, mainly because it provides more freedom for employees. Less than 10 % of respondents were not using telework at all.

Telework was considered a popular incentive to support postponement the retirement.

Authors see great potential in intergenerational knowledge transfer in both directions regarding work arrangements in companies where telework is relevant.

Following suggestions were made:

- 1) senior employees need more training regarding ICT;
- 2) it is also important to set work arrangements that enable social contact, including mutual help of colleagues and knowledge transfer from more experienced to less experienced workers.

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## TRICKY CIRCLE OF ADVERSITY: PROBLEMS OF SOCIAL SUPPORT FOR VULNERABLE GROUPS IN RURAL AREAS

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**Abstract.** The risk of poverty or social exclusion is considered to be an important problem in all European countries, but the share of population in Latvia at-the-risk-of-poverty or social exclusion is above average in the European Union. The aim of this study is to explore the experience of poverty and social exclusion of women with dependent children and the state efforts how to address and to overcome these problems, focusing on rural areas. The biographical perspective is used in order to elucidate the lived experience of vulnerable persons. The available statistical data are used to provide information about welfare funding. The results show that, despite the state spends considerable resources on social assistance and social services, the urban and rural population with the same needs do not have equal opportunity to receive the support. Analysis of lived experience of women with low level of education and children has illuminated the main problems experienced by this group and the limited assistance they receive.

**Key words:** poverty and social exclusion, adversity, social support

**JEL code:** I38 Introduction

The present thesis explores intersection of lived experience of poverty and social exclusion and the available social support to mitigate the adversity with focus on the case of one particularly vulnerable social group, i.e., - women with low level of education, two and more children, living in rural areas in Latvia.

According to the Universal Declaration of Human Rights, "everyone, as a member of society, has the right to social security and is entitled to realization [...] of the economic, social and cultural rights indispensable for one's dignity and the free development of one's personality" (UN, 1948). Poverty and social exclusion are related to lack of resources, rights, goods and services and seriously restricts participation in normal activities whether in economic, social, cultural or political arenas (Levitas 2007 in Bak, Larsen, 2015). Experience of poverty jeopardises dignity and creates a feeling of shame that results in social withdrawal and a sense of powerlessness (Walker, 2014).

A risk of poverty or social exclusion is considered as an important problem in all European countries, though Latvia protractedly is among the countries with a highest share of persons at-risk-of-poverty or social exclusion. However, the social assistance has a positive impact on the material situation of households and social transfers considerably reduces at-risk-of-poverty rate (Dobelniece et al, 2015),

spending on benefit programmes targeted at low-income groups is low and have low coverage (The World Bank, 2013). Significant regional development disparities complicate the situation even more, as the state efforts to mitigate negative consequences of poverty – the amount and availability of social assistance and social services, in different municipalities vary significantly (Bela, Rasnaca, 2015, LR Saeima, 2014). Citizens are in an unequal situation - "two people with identical needs receive different amount and types of social services depending on the municipality" (Ministry of Welfare, 2013: 11). In addition, some social groups are more prone to social risks than average population - single parents (41.1 % in 2013; 37 % in 2014) and adults with three and more dependent children (27.7 % in 2013; 34,5 % in 2014) are at greater risk of poverty than the rest of population (21.0 % in 2013; 22.5 % in 2014) in Latvia (CSB, 2015, CBS 2016). Signe Dobelniece and colleagues have analysed the situation of social risk families having children and noted that those in rural areas are in worse situation (Dobelniece et al, 2015). Ministry of Welfare commissioned initial evaluation of needy households with children, have explored the data about 945 households (GFK, 2013). This study reveals alarming figures, i.e., - only 42 % of needy households with children receive guaranteed minimum income benefit, 58 % receives housing

benefit, 55 % receives food packages, 31 % uses the opportunity to visit a specialist, 21 % receives health care benefit, 24 % receives service of social worker, only 14 % receives service of psychologist, only 6 % receives legal service (GFK, 2013). The list of theoretically available benefits, help and incentives to needy households with children states also covering the costs on transport, clothing, even support for leisure and extracurricular activities and various other things. However, this support was received by less than 3.5 % to 0.1 % of needy households with children (GFK, 2013). As it has been stated in the conception "On defining the minimum income level", currently the national minimum income levels are not linked to the socio-economic indicators, neither supported by a specific calculation methodology (LR Saeima 2014). The Data from the study presents a serious question as to whether the state really helps low-income families with children and how they cope with difficulties and balances needs and resources.

The above-mentioned studies focus on statistics and opinion of social work specialists. Also, the review of the scientific publications, social policy documents and the Latvian Welfare Ministry commissioned studies, highlights that the social problems in social policy discussions and scientific research are mainly discussed on the basis of quantitative indicators. In Latvia, like in the UK (Fahmi, Pemberton 2012), insufficient attention is paid to the people experiencing adversity themselves, to their experience of living in poverty and social exclusion. The topicality and novelty of this research is to look at the adequacy of the social support through highlighting the lived experience of vulnerable women, who have a number of mutually reinforcing poverty and social exclusion risk factors.

The research has been conducted by the support of the National Research Programme "Innovation and sustainable development:

Latvia's post-crisis experience in a global context" (SUSTINNO 2014-2017) Project No 2 "Social dimension of sustainability and social innovation". The project's goals are in-depth analysis of Latvia's post-crisis social problems, the options to overcome these problems and their impact on sustainable social and regional development, with a particular focus on contribution of social innovation to population's securitability and community's resilience. Data for this study is collected using quantitative and qualitative research methods. A representative survey of the Latvian residents (2000 respondents) was carried out in 2015, thus exploring not only income deprivation, but also deprivation of goods, services and activities which are seen as essential factors to a modern, prosperous lifestyle. The biographical perspective was used in order to elucidate the lived experience of vulnerable persons. Twenty five life story interviews with persons representing various experiences of adversity (seniors, pre-retirement age persons, unemployed, working poor, persons with disabilities, single parents and young persons with low level of education) were recorded in 2015 and 2016.

The aim of this study is narrower, i.e. - to explore the experience of poverty and social exclusion of a group being more prone to the social risks than an average population - women with dependent children, and the state efforts to address and to overcome these problems, focusing on the rural areas. The main tasks are: 1) to conceptualize poverty and social exclusion as a complex problem; 2) to look at the available social support instruments and welfare funding in a regional context; 3) to analyse experience of poverty and adequacy of social support instruments from perspective of individual.

In order to gain an in-depth understanding of the experience of difficulties and the received support from the perspective of an individual, the analysis is based on three life stories told by rural women with low level of education, having two



and more children, and the experience of complicated relationships, including the partner's alcohol addiction. Two life stories of women with similar experience, but living in Riga, are used for comparative reasons. To ensure the anonymity of the research participants all names are changed and all identifying details are anonymised. However, a sample provided is very limited and not representative, it has data saturation characteristics, because certain elements show up in each story. A single story stands alone, but several live stories taken from the similar set of sociostructural relations (or socioeconomic conditions) support each other (Bertaux, Bertaux-Wiame 2003). The available statistical data are used to provide information about welfare funding.

### **Complex understanding of poverty and social exclusion**

Understanding of poverty and social exclusion is changing over time and even modern social sciences lack consensus on the definition, just as there is no consensus on the underlying causes of poverty (Walker, 2014). In this thesis, Buck and Larsen's perspective on poverty as combination of social class (structural conditions) and individual biographies has been used (Buck, Larsen 2015). Insufficiency of income as a poverty assessment criterion is seen to be too narrow, because it is not displaying the diverse problems, their mutual ties and constraints faced by a person who has insufficient income. Understanding the multidimensional character of poverty and social exclusion is based on the concept of resource deprivation, including income poverty, material deprivation and psychological wellbeing (Walker 2014). Multidimensional approach also takes into account access to health care (Whelan, Maitre, 2012 in Walker 2014), access to rights, opportunities and resources (Todman et al 2009 in Walker 2014) as well as housing and neighbourhood conditions. All these restrictions are interrelated and mutually reinforcing.

It is noted that life with fewer opportunities in rich societies is much more difficult. In the context of general welfare it is much more difficult to maintain self-esteem in person's own eyes and get respectful treatment from others. The people under temporary or prolonged difficulties perceive the terms "poor", "marginalized", "excluded" as humiliating and stigmatizing. Several authors (Fahmy, Pemberton 2012, Walker 2014) indicate that these concepts are used by scientists and by a dominant part of society, but they have never been used by poor people when talking about themselves.

### **Research results and discussion**

#### **1. Social support instruments and welfare funding in a regional context**

A social security system has to provide various forms of support (social assistance, social services) in order to mitigate the negative consequences of social risks and limitations related to poverty and social exclusion. As it has been mentioned in the introduction, some social groups are in critical situation also after social transfers. In addition, there are significant differences in the availability of support between cities and rural municipalities. The families and persons in need can receive the state's issued universal benefits (childbirth allowance, childcare benefit, parental benefit etc.) and the means-tested social assistance, which is mainly responsibility of the local governments - guaranteed minimum income benefit, housing benefit etc. However, "they fail to address the problems because of inadequacy of these benefits and low coverage" (Dobelniece et al, 2015: 147). Family (person) is recognized as needy if the average income per family member per month in the last three months does not exceed 128.06 euro, but the guaranteed minimum income (GMI) level is 49.80 euro. Although the GMI level and income floor is identical across the country, local governments can determine higher level (like in Riga municipality it is 59.91 euro for adults and 64.03 euro for children). Moreover, the amount of housing benefit is determined

according to binding regulations issued by each local government, as well as the calculation and award criteria are different. Therefore, families (individuals) with equivalent income and material situation receive different coverage and amount of benefits. The data show considerable differences in welfare spending for needy families - persons in rural areas receive lower protection than in urban areas (Table 1).

Table 1

**Municipal social assistance for needy families (persons) in 2015**

No		Spending, euro	Number of families	Number of persons	From them children
1.	Cities	12 709 050	14 674	28 164	8 805
2.	Other Municipalities	8 602 467	24 635	54 197	17 902

**Source: An overview of the social services and social assistance in cities/ rural local governments in 2015, Ministry of Welfare**

A serious problem is also the gap between the state fixed income floor – 128.06 euro and the at-risk-of-poverty threshold – 291 euro in 2014 (260 euro in 2013), set by international standard as 60 % of the national median equivalent disposable income. The status of a low-income person (in Latvian - maznodrošināta persona) is well intended to address the needs of those, whose income is slightly above the state fixed income floor of needy person, but still below at-risk-of-poverty threshold. However, the problem is: the law does not specify how this is to be determined. In some local governments low-income person may be with income of 143 euros per month (in Nereta, Nica), but it can also be a resident with income of 360 euros per month (in Malpils, Salaspils) (Welfare Ministry, 2015). Valmiera and 10 municipalities have not defined the income level for status of a low-income person at all. Therefore, families (individuals) with an equivalent income and material situation do not have the same rights to obtain a low-income family (person) status and to get benefits intended by laws and regulations. The number of

low-income persons is high; however, these data cannot be compared among municipalities because of the differences in criteria; and there is a lack of statistics on number of low-income families (persons) in Latvia. For example, Liepaja’s social service information indicates that in 2015, a needy person / family status, at least for a day, has been set for 1,789 persons, while the low-income status for 6,905 persons (Darzina, 2015). The data show that the municipal spending on social assistance benefits in total is considerably higher in cities for considerably lower number of persons (for approximately the same number of families, the number of children differs twice) (Table 2). It is highlighted that the households have more difficulties to meet their children’s needs in rural areas than in urban areas (Dobelniece et al, 2015), but at the same time data show that the spending on welfare in rural areas is considerably lower than in urban areas (Table 2).

Table 2

All municipal social assistance benefits in total in 2015

No		Spending, euro	Number of families	Number of persons	From them children
1.	Cities	22 157 459	51 292	80 334	14 043
2.	Other Municipalities	16 378 255	51 338	106 455	31 115

**Source: An overview of the social services and social assistance in cities/ rural local governments in 2015, Ministry of Welfare**

What does it mean for rural residents, especially vulnerable social groups, that due to lack of national regulation they receive considerably lower social support when needed?

**2. Experience of poverty and adequacy of social support instruments from perspective of individual**

In order to understand the life in adversity and adequacy of support, lived experience of three women, who have had the status of a needy family for a shorter or longer period, are explored. Life stories of two women living in Riga

are used for the purposes of comparison. First, research participants and their living conditions will be introduced. Then, using a multidimensional perspective on poverty and social exclusion, women's experiences, received social support and their opportunities to escape adversity will be discussed.

Anna and Lily live in a multi-apartment house in a village (Vidzeme and Zemgale regions); Rita rents a flat in a small town (Zemgale region). Lily has not finished a primary school, but Anna and Rita have not acquired secondary education. Anna is the only one having lasting relationships. She and her husband have three children. Anna works in a garden during summer, grows food for family consumption. Recently she has lost a position of office assistant in her husband's company due to downsizing of business. Now a few hours per week she is nursing a child with a mental development disorder. Lily and Rita are single mothers. Lily has five children (one child is under a father's care), but Rita has two children. Both work as cleaners, because it is possible to combine this work with childcare responsibilities, despite it being a low paid job and not allowing to climb above the poverty line. Lily also keeps poultry, for their own consumption and for additional income. Olga and Liene lives in Riga. Olga has unfinished primary school education, four children under school age, she is unemployed. Liene has secondary school education, five children, she works as a cleaner. Both have partners at the time of the interview, however the history of their relationships is complex.

The interviewed women face similar problems that result from insufficient income - difficulties to meet basic needs for food and clothing, other forms of material deprivation, problems related to housing conditions, difficulties with access to medical services. They worry about the children's education and talent development. The social support plays an important role to overcome the crisis periods, however the stories reveal various

obstacles to receive it, low coverage and inadequacy of received support.

Firstly, the data reflects the quality of service delivery, some legal obstacles and rigidity of criteria. Although women are very positive about the assistance received, all of them have encountered also humiliating attitude of social workers at least once (with the exception of Anna). Received attitude is similar to what is identified in the study by Fahmy and Pemberton in the UK - aid recipients are suspected of concealing income; the benefit is granted with an attitude as if it were a charitable gift from the official's personal pocket, not the human right to assistance in crisis situation (2012). Lily and Rita also encountered difficulties to receive the status of needy persons and the social assistance related to this status. Rita has been refused the social assistance simply because she did not look poor. Only with the support of the psychologist from her congregation she took a courage to return to the social service and to claim assistance. Her experience shows that a social worker's attitude and responsiveness plays a key role as next social worker also helped to arrange all legal matters to get full assistance in a crisis situation. Lily has been refused social assistance twice because of the legal obstacles and rigidity of the criteria, as she had declared residence in one flat with her grandmother in the first case and with her husband in the second case who both had stable income. Unfortunately, relatives in dysfunctional families do not care about each other, and formal criteria can not take this into account. Only after divorce she could legally qualify for social assistance, but all procedures took almost a year. Anna's case also illustrated rigidity of the system, but regarding income threshold. Anna's family has had the status of a needy family since 2010. Housing benefit once a year and assistance for children's education (free meals at school; assistance for a purchase of school supplies once a year) were the main support they have received and it was very

important for the family. Since January 2016, they have lost the status of a needy family due to an increase in family allowance. Their income rose for a few euros above the threshold, the social assistance was cut and their living standards decreased. The women's experience shows both legal and treatment difficulties to get help at the time when it is needed.

Secondly, the data sheds light on low coverage and inadequacy of the social support. There is support to meet the basic needs in periods of crisis - for food, for housing, for basic education of children. Rita and Lily did not mention a guaranteed minimum income benefit, but they stressed the importance of food packages; besides, Rita also had the service of free soup kitchen during the most difficult period. All were thankful for free meals at school for their children. Housing benefit was important for Rita and Anna. As regards Anna's family, where children are already teenagers, overcrowding is a serious problem: everybody wants a private living space, but this is not possible even for the parents. Unfortunately, overcrowding is not considered in housing policy in Latvia. It should be noted that housing is the only dimension of poverty where both inhabitants of Riga reported more difficulties regarding access to housing.

Access to health care is a serious problem for all three women. Women put in the foreground the needs of the children and medical care of themselves is taken only in severe acute cases. Although the status of the needy family allows reimbursing expenses for medical services, and for children up to the age of 18 health care is free, rural inhabitants are in a worst situation than those who live in capital city. Specialists are not available in rural areas and some are available only in Riga. Public transport is expensive, besides a journey to the capital city takes up the whole day. The list of theoretically available benefits, help and incentives to needy households states also compensation for travel expenses, but none of rural women have

received this. Moreover, not all medicines prescribed by a doctor is covered even for needy persons, those are only the medicines from the reimbursed medicine list. According to Eurostat data, 5 % of Europeans (in the lowest income quintile) self-reported unmet needs for medical care due to being too expensive. Whereas in Latvia 25 % in the lowest income quintile confirmed self-reported unmet needs for medical care due to being too expensive (Eurostat, 2014). This suggests a very dramatic inadequacy of support. Rural women's stories show the human dimension of this situation - despair when one is forced to make hard choice about health needs - to visit a doctor in Riga to solve a child's health issues or to take care for one's own health problems.

Women who spent their childhood in functional families, like Rita and Anna, better manage in the times of crisis; they have better life skills and social networking skills. Lily grew up in terrible environment and she lacks many basic social skills. The family assistant could be of a great help. Unfortunately, her municipality cannot afford this service. In comparison - Olga's family, like Lily's family, represents a social risk family. Olga receives service of a family assistant, who helps her with problemsolving and motivates for personal growth. Service of family assistant (like service of social worker) is helping to build resources - skills and capabilities, so necessary to break out of poverty.

Considerably neglected is the dimension of psychological wellbeing. For example, Lily repeatedly and in a long duration has experienced violence in her relationships, yet she has never received service of a psychologist, even though theoretically she could have it. Although Rita had severe depression after divorce; she even couldn't receive the state covered service of psychologist. Luckily, she received free of charge consultations of a psychologist from her congregation, but not all women belong to congregations and not all

congregations have such a service. Anna also received the service of a psychologist after a very traumatic experience of the death of her oldest son, but only because of the project funding, not as a part of municipal services. Anna's husband has problems with alcohol addiction, Anna feels helpless about this. All cases suggest that service of a psychologist is very needed, but it is insufficiently covered. A low self esteem, depression, hopelessness are not at all helpful to overcome difficult circumstances these women face.

However social assistance is aimed to cover the basic needs in periods of crisis, the question still remains about help during longer periods of adversity in order to ensure human rights, including the right of free development of personality. The most unmet needs are for culture and joint family adventures, as well as for education. None of the rural families can afford sightseeing or attending of cultural events jointly (cinema, theatre, museum or zoo). Lily is happy that her children have food, housing and clothing, but Anna and Rita are concerned that lack of cultural activities and joint family adventures can hinder development of their children. Those who live in Riga are in a much better position - there are various cultural events free of charge and significant discounts on public transport makes these events accessible.

But the most critical is the unmet needs for education. Rita and Anna would very much like to advance their own development - to get a profession, but it is impossible in their places of residence. To commute to the nearby towns is not possible - because of the expensive transport, childcare duties, Rita also cannot quit her job. Rita and Lily are not aware of various options offered by the National Employment Agency, but Anna evaluates available options as not meeting her interests. Anna would like to work with old people or to do social care, but these are low paid jobs, even if she could get qualification. The benefits would be lower than

the necessary investments. Also the available municipal support for education is 35-50 euro per year (actually intended to support children not their parents education needs). There is a limited assistance and services targeted on personality development and acquisition of professional qualifications. The rural location and childcare duties complicates any action - the phrase "*when children grew up, then...*" is repeated in almost all life story interviews.

The low education, childcare duties, available low paid jobs on the one hand, and the social assistance and services targeted to overcome mainly income deprivation on the other hand, traps these women in the circle of adversity. Low education and childcare duties limits the employment opportunities, but low-income work (or unemployment) does not allow to meet all needs. For obtaining a professional qualification (in order to get a better paid job) these women have neither time nor money, nor support (neither from family or friends, nor from state). Rural location makes the access to many resources complicated. Women have been circling around the same problems for years, as Anna puts it: "*I can't see the future*".

### **Conclusions, proposals, recommendations**

- 1) Although the state spends considerable resources for social assistance and social services, urban and rural population with the same needs do not have equal opportunity to receive the support. Municipalities are responsible for means-tested social assistance, but the amount and coverage of assistance can vary considerably between municipalities.
- 2) Lived experience reveals the vulnerability of needy persons - without proper assistance of a social worker they have difficulties to get social support, for example, due to legal obstacles. It is highly recommended that the social support has to be provided in a way so that it does not humiliate the beneficiaries.

- 3) Women with low level of education, two and more children, living in rural areas faces many mutually reinforcing difficulties - low education gives access only to a low paid job or causes an unemployment; a lack of resources restricts from further education; women receive assistance to cover the basic needs (food, housing, children's education) but do not have assistance to deal with psychological problems (like traumatic loss, depression, violence or co-addiction) or to meet their own educational needs. The complex long-term approach could be more helpful to overcome accumulation of adversity.

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## YOUTH REFLECTIONS ON THE DEVELOPMENT OF SOCIETY IN LATVIA

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**Abstract.** Development of the society is one of the core issues in sociology. Macro and micro perspectives are used in order to explain social development and social changes in societies. The youth is seen as a significant potential driver of social changes. The study of youth's reflections of existing social order permits to predicting issues and directions of development of the society. The aim of the theses is to find out what the main perceptions and reflections of youth are concerning current situation in Latvia in terms of the development of society. Qualitative approach was used, e.g. summative content analysis method of qualitative content analysis. Results of the research show that young people can identify main characteristics of Latvian society; they see the main points of necessary changes but they are not viewed as significant drivers of changes on macro level of the society.

**Key words:** social development, social structure, social changes, youth.

**JEL code:** I21.

### Introduction

Development of society is one of the core issues in sociology. Different approaches of defining and estimating of social development are observed. Theoretical statements on the development of society include directions (also paths, stages) of development of society as well as driving forces that initiate and promote the development of society. There are different keywords in theoretical literature that address the development of society – social differentiation and social integration, social order and social development, modernisation and transformation as well as social innovations (Howaldt J., Kopp R., Schwarz M., 2015).

American sociologist Gerhard Lenski reveals the the development of society in the macro-sociological perspective and describes society as an imperfect system where not all of the parts function to strengthen the whole system. Many patterns and behaviours contribute nothing to the general welfare of the society, but rather serve the interests and needs of individuals or constituent groups. However, it is a sociocultural system, and as such it must have sufficient cooperation among the members of the society so that the system can maintain itself (Lenski G., Nolan P., 2009).

Thus, Gerhard Lenski represents a structuralist view to the social development, considering society as a whole and stressing massive movements and changes of it. As

German sociologists write, "social change in the sense of fundamental transformations at macro level, which sweep over us as mega-trends, or as a sequence of phases separated by (epochal) upheavals, belongs to the field of sociological diagnosis of the times" (Howaldt J., Kopp R., Schwarz M., 2015). From this perspective individuals are rather passive receivers of social changes that are involved in current economic, political, social and cultural processes of society and trying to adapt to them.

Macro-processes in the society are characterised by such terms as postmodern society (Jencks C., 2011), risk society (Zinn, J.O., 2008) and recently with rebirth of radicalism and populism movements (Muranyi I., 2015). Also, the term "post-truth" appears in order to describe society nowadays: "Post-truthfulness builds a fragile social edifice based on wariness. It erodes the foundation of trust that underlies any healthy civilization. When enough of us peddle fantasy as fact, society loses its grounding in reality" (Keyes R., 2004).

As mentioned above, individuals are under the pressure of the developmental stages of society but they are also able to influence changes in social structures to some extent, especially in the circumstances the circumstances of widespreading flows of globalization and mutual interconnectedness. In terms of the paper, authors emphasise the crucial role of individual

responsibility and power to force changes in social structures and functions.

According to micro-sociological social development theories, human beings are both the source and the primary motive force for development. This means that society progresses only by developing and bringing into expression the higher potentialities of its members; therefore the extent of people's education, the intensity of their aspirations and, the quality of their attitudes, beliefs, ideas, values, skills and information are crucial in each developmental process according to the environmental conditions available (Striano M., 2010). Austrian philosopher Rudolf Steiner confirms this idea in his theory of social renewal: "The only way to renewal, to a really healthy economy and healthy system of justice, is to create free space for the good impulses and aspirations living in humans to come to the surface" (Steiner R., 2000). Social development implies a qualitative vertical movement to a higher level of performance from whatever level of organization the society has reached in a particular field. This means that each developmental action or practice is aimed at promoting significant performances characterized by an effective and aware use of human potential. Social development implies also a qualitative change in the way society carries out its activities, such as through more progressive and more reflective attitudes and behaviour by the population, the adoption of more democratic and participative social forms of organization, the use of more advanced technology, and the dissemination and circulation of more advanced forms of knowledge (Striano M., 2010).

In the context of interaction between individual and collective responsibility for social development, the role of young people is crucial. They are seen as people with naturally existing innovative potential and power to drive social changes that is especially important when any society faces historical challenges connected with deep and thorough reforms (Youth in

Transition..., 2015). The youth is a very good starting point for observing what is happening in the whole society. It is a lens, which brings into focus gives focus to various problems and system tensions. It also serves as a barometer of social changes and moods. The situation of the youth, their world perception, aspirations and ambitions for life reflect the changes, which have occurred, and the distance, which is still left to be, covered (Szafraniec K., 2011).

Considering all above mentioned and being a part of an international project "Youth in Transition Countries: Innovative Potential, New Context, New Challenges and New Problems" (2014-2016) researchers of Latvia state the aim of the theses as the following: as finding out what the main perceptions and reflections of youth are concerning current situation in Latvia in terms of the development of society. Tasks are related to describing theoretical aspects of social development and analysing of empirical information. It is considered as a relative innovation to explore youth's perception of society as a whole and not in particular details. The following research questions were highlighted with both macro and micro perspective: 1) How do young people estimate the current situation in Latvia? What are the main problems of society? What aspects of Latvian society (as a system) do they estimate as positive and negative? 2) What aspects of the existing order in society would young people want to be changed? 3) What things young people are ready to do by themselves in order to bring changes in society.

Sketching out eventual results of the research, it is worth to mention the main trends from international and national researches. Thus, the results of MYPLACE project show that in Latvia the proportion of politically alienated (young people – auth.) is the highest in Europe (39.2 %), while the emancipatory activist, the traditional and the populist anti-democrat is far below average. In a certain sense, this



constellation expresses defeatist indifference. Those young people who can afford it, resolve it into "civic privatism", the others relate to the public issues helplessly (Muranyi I., 2015). National research about the different aspects of participation of youth reveals similar results. Thus, only 11 % of young people (13-25 years old – auth.) take part in any youth organizations, 79 % of young people do not feel able to influence events in the world; only 10 % seem to be powerful enough to influence anything in Latvia (Par Jaunatnes politikas..., 2016).

In order to find answers to research questions, qualitative social research approach was used. The research was carried out at the Latvia University of Agriculture in 2015-2016. 173 full-time and part-time undergraduate students (who studying economics, sociology, IT) were asked to write essays during certain study courses giving their reflections on the processes and phenomena seen in Latvian society according to above mentioned research questions. Summative content analysis approach (Hsieh H.F., Shannon S.E., 2005) or supplementary counting (Hannah D.R., Lautsch B.A, 2011) were used in order to explore usage of typical answers, to identify patterns and to interpret the context that is beyond mere word counts to include latent content analysis. This approach gives opportunity to get a more precise picture of the situation and develops new insights into the phenomenon of interest.

Empirical analysis of the information was based on the following aspects:

- 1) macro vs micro levels – the processes and phenomena of which level are marked by youth as topical for Latvian society;
- 2) individual vs collective accountability – the level on which, according to the youth, the identified problems must be addressed.

## **Research results and discussion**

### **1. Positive and negative aspects of Latvian society**

Using the summative method of content analysis, the authors sum up youth's positive and negative assessments into tables (tables 1 and 2). The number of assessments (n=) is summed up by grouping the most typical answers (or assessments) into thematic blocks and categorizing them on the micro and macro levels.

Analysing the assessments expressed in the essays about the Latvian society as a whole, we note a trend that young people express more negative assessment (n=555) than positive (227) on both micro and macro levels.

The compiled results show that young people see and appreciate certain positive aspects pertaining to the social structure and processes in it, e.g. the importance of culture and education as social institutions; patriotism and unity on the issues of public interest; an interest in global issues and their impact; the realization that generational change causes transformation of society. Particular emphasis can be placed on the different manifestations of national identity in Latvian society (Song and Dance Festival; clothing with Latvian symbols and characters; Latvian holiday traditions; sport games and sports fan movement etc.), the unity of society during "difficult times", growing patriotism that can be seen as factor that unifies different groups and categories in society. Analysing the thematic blocks of negative assessments, we must point out the signs of social inequality in society. The most significant one is economic inequality that is linked to sex, age, and regional disparities. The young people view prejudices, stereotypes and discrimination as negative features of Latvian society, as well as subsequent fragmentation of society, particularly highlighting ethnic and religious aspects. It points both to the specifics of Latvian political and social environment and to the reflection of global processes on the society. The young people express their desire to see

more rapid economic, political, social changes and criticize different structures on the macro level. It can be concluded that mentally they are ready for a different stage of the development of society, but on a macro level this transition has not yet occurred: *"I wish society to move to a different level of existence", "I want to live in a healthier society", "the common public opinion must be changed", "society must be more productive"*.

Evaluating particular positive initiatives that pertain to the micro level, young people emphasize the individual freedom of action and thought, as well as different initiatives where they engage in volunteer work and help fellow human beings by donating money to charity, donating blood, engaging in the search for missing people, finding like-minded people on social networks to help the needy. Such highly specific and affirmative actions promote mutual respect and tolerance towards diversity. Young people value a variety of new initiatives, business forms and the creation of economic activities, for example, the use of ancient Latvian symbols in daily production of goods, craftsmanship,

production of home compounders, ecological products, other local products and services thereby showing their preference for local resources.

The most significant thematic block of negative assessments on the micro level is linked to the safety and well-being of children. Cruelty and aggression among children, bad relationship with parents and addiction to technologies are the risks that can deepen the social fragmentation in the future.

Young people see others around them as negative-minded, frustrated, and gloomy, as the "grey mass" that demonstrates indifference and intolerance towards others. Such individuals are passive; they do not want to act in order to initiate changes in society, and young people see this attitude as an obstacle to the development of society.

The youth emphasizes the dominance of individual and material values over moral and ethical principles and the lack of respect and tolerance: *"In Latvia, people like to show off their superiority, especially in the financial area; you really can't see it abroad on the same scale"*.

Table 1

**Youth's assessment of Latvian society at the macro level**

Positive	Negative
National identity (culture, traditions and sports) (n=59) Public unity, cohesion (n=46) Youth is more tolerant towards other ethnicities and cultures (n=19) Significance of education (n=18) Change of generation causes transformations in society (n=16) Rise of interest in global problems (n=9) Demographic issues (number of children in families, support for families with children etc.) (n=7)	Social inequality (economic, gender, age, ethnic, religious, regional) and social exclusion (n=115) Prejudices, stereotypes, discrimination (age, gender, people with special needs, ethnic) (n=74) Fragmentation of society (relationships between ethnic groups, economic) (n=53) Necessity of systemic transformations (tax system, health care, benefits etc.) (n=40) The influence of media, especially social networks on the formation of public opinion (n=24) Security and military threats, refugee issues, terrorism (n=17) Various forms of deviance (crime, addictions, pedophilia, drugs, accidents) (n=15)

**Source: authors' calculations based on the research results**

**Youth's assessment of Latvian society at the micro level**

Positive	Negative
Voluntary work and helping fellow human beings (n=16) New micro-level economic forms (home compounders, crafts and workshops, ecological and natural products) (n=16) Individual freedom in thought and actions, a chance to reach one's goals (n=14) Family values (n=7)	Concerns about children's safety and welfare (cruelty and aggression among children, relationships with parents, dependence on technology, security) (n=49) Negativity and unhappiness, gloominess (n=34) Money as a value, search for work and better life abroad (n=31) Indifference to others, unwillingness to help, individualism, selfishness (n=30) Principles of respect, tolerance, moral and ethics; people feel unappreciated (n=29) People are not ready to act and initiate changes (n=25) Formation of relationships, their volatility, unwillingness to solve problems (n=12) Unwillingness to learn Latvian (n=7)

**Source: authors' calculations based on the research results**

Micro- and macro-level analysis shows that young people's assessments of the society include relatively few positive areas (culture, helping fellow human beings, strengthening of national identity, patriotism) where it operates and feels emotionally "together", as opposed to inequality, which deepens social stratification and divisions in society, integration and ethnic problems, the threat posed by globalization.

**2. Aspects that would be changed**

The second research question addressed issues that young people would like to change in society. The types of changes vary greatly; they cover both the macro and micro levels, affecting both individuals and society as a whole. The wording of the desired changes is both specific and very general. Macro-level changes are associated with recent current events in the world – war performance, safety, increasing migration. According to these, there are statements about the need to ensure world peace and the desire "to not involve civilians in the solution of political conflicts". Respondents also accentuate the necessary transformations on the national level in both economic and social areas, such as "solutions to tackling the country's economic development and growth, creation of favourable environment for business, reducing unemployment, helping the needy" etc., that have not presented enough positive solutions for a long time. A part of the desired changes concerns the politicians and government: "I wish

*the government would listen to the people", "to hear them".*

One of the changes that young people desire to see in society the most is the reducing of public fragmentation, which includes several aspects. First, stratification of society by income. Young people mention the following changes: "reducing of stratification to avoid evaluation by the material resources; for children not to be offended by not having the most stylish clothes, the newest mobile phones or lots of money; equality in educational establishments for children not to be divided by their parents' financial status and for children not to split in groups according to their parents' economic status; discrimination because of the social status". Public stratification by income is connected to the change of values in society; young people point out the need to emphasize spiritual values versus material values "so that the humanity would prevail over the material", "so that we would think less about the money", "so that people would understand that money or expensive things are not the most important thing". Second, the changes need to take place in the areas related to race, ethnicity and language. The third aspect that divides society is religion. Young people highlight this aspect in connection with the growing immigration in Europe and Latvia, the entry of Muslims in our society, and the lack of tolerance in society towards those members of the public that are different in some way. Disagreements between different religions

puts a young person to make the following conclusion: *"The situation in the world shows that religion kills; people would live much better without religion; they would not have to worry about whose beliefs are more correct or who is the bad guy"*. Also, young people believe that the attitude of the public towards those that are different can be changed by socialization, as children take over behaviour patterns and opinions of their parents.

One of the most significant group of desired changes are the changes related to the moral and ethical values, the transformation of people's attitudes and behaviour linked to individual accountability and not the responsibility of a state, an organization or government. Young people mention things like reducing of passivity, negativity and intolerance as one of the necessary steps towards public unity and solidarity. Society needs to be more united, just like *"politicians need to unite in order to pursue common goals"* – the youth sees divisions not only among the members of society in general, but also among politicians.

Young people desire to see changes in the aspects that are linked to reduction of social inequality (n=87), change of attitude on the individual and institutional levels (n=75), reducing of indifference and passivity (n=69), security and peace in the world (n=51). Youth's expectations are formulated both in general and in particular way with the emphasis on the individual's potential to contribute to this change, highlighting the need to change one's personal attitude, position, behaviour at the micro level.

### **3. Individual readiness to implement changes in society**

Young people's readiness to change society is the final research question. Proportionally, significantly less definite answers were given to this question than to the questions about what young people do not like in society and what they would like to change. It can be explained by the fact that it is a lot harder to suggest concrete

actions and understand one's responsibility before the society than to point out the negatives and the desirable changes. 16 young people were unable to give any concrete, even theoretical answer to this question. To a comparatively lesser extent, young people see themselves as active agents of changes in the society in the future. Answers to this question were rather general and not specific. Many of respondents acknowledged that changes must start at an individual level, with person's attitude, actions, behaviour; they pointed out that the most important thing is *"my own actions and attitude and that of others; what kind of society we want to be a part of"* (n=129). Another point is the significance of family values (n=62), especially accentuating the importance of the cultivation of spiritual values in the family. It corresponds to the effort to balance spiritual and material values opposing the values that dominate in consumer society. Practical involvement in the transformation of society is often linked to the raising of future generations: *"raising my children I will install into them an understanding that it is important to contribute to the society"*, *"I will teach my child what is money, power, love and respect"*. Young people mention the following actions as important: *"being responsible, being you, resisting peer pressure, acting ethically, promoting integration, discouraging aggression and fighting for justice"*. Specific actions were more often linked to voluntary work, getting involved in charity work, helping victims of different disasters, protection of nature, caring for the loved ones, avoiding the use of technology to have more time for family and friends. Only a small part of the youth expressed willingness to join some organization or participate in its founding (n=21) and political activities (n=9). A few young people did not believe that anything must change, *"because every person must understand these things"* or felt that they would not be able to change anything in society.

### Conclusions and suggestions

- 1) In their assessments of the positive and negative aspects, young people accentuate the negative, which can be linked to the processes of social differentiation in Latvian society, especially emphasizing inequality and social exclusion evident in the society. Positive assessment is related to culture and national identity at the macro level, and individual choice and freedom of action is emphasized at the micro level, which leads to the conclusion that young people have opportunities to initiate changes in society.
- 2) In theory, young people are aware of what changes are needed in society, are able to identify them, but there is a wide gap between

their expectations and willingness to bring about any real changes.

- 3) The study results confirm the thesis included in the introduction that Latvian society is passive. Young people see themselves as capable agents of change at the micro level, but the same results do not indicate the readiness of young people to engage in initiation of changes in the macro-level structures.

The research results confirm that young people see the need for the various transformations of Latvian society, but at the moment it is difficult to identify potential drivers of change

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## MEANINGFUL EMPLOYMENT OF YOUNG ADULTS WITH INTELLECTUAL DISABILITIES IN LATVIA

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**Abstract.** Employment is a right of citizenship and one of quality of life determinants remaining low among the persons with disabilities, especially those with intellectual disabilities (ID). Initiated Deinstitutionalization (DI) process encourages for an open discussion whether there is a need for more radical change in shift from the individual or medical (more institutionalized) model towards the *social model of disability* in Latvia (DI action plan 2015-2020). Development and initiation of alternative social services goes in line with recognition and usefulness of social model of disability but lacks legal and even political voice in the process of its implementation. The aim is to assess the availability of meaningful employment opportunities for persons with ID in realm of DI action plan. It is an attempt to raise attention about the need for the *social disability model* signifying the practices for development of applicable comprehensive services for persons with ID in Latvia. Literature studies (research analysis on the topic) as well as empirical evidence (conducted in 2014-2016 from primary sources: in-depth interviews, life-stories, focus-group interviews with involved parties in DI process in Latvia, case study of Vidzeme region) raise a serious concern and demonstrate inconsistency in policy planning and its actions. Finally, preconditions for employment opportunities are discussed.

**Key words:** intellectual disability, deinstitutionalization, and meaningful employment

**JEL code:** H75

### Introduction

"It is hard to achieve the EU overall target rate of 75 % employment without increasing employment rate of disabled people" (Priestley, May 11-12, 2015). Meaningful employment or daily activities for persons with intellectual disabilities (ID) is supportive service that is challenging human right activists, policy makers, service providers and even person's themselves (families and carers) in many countries. In Latvia Deinstitutionalization (DI) process (DI action plan 2015-2020) has initiated a hot debate among different interrelated groups regarding the development of appropriate services on local level in existing socioeconomic and cultural contexts (Broka, 2014; 2015; Rajevska et al. 2015; the Ministry of Welfare webpage).

The aim of the thesis is to assess the availability of meaningful employment, daily activity and supportive employment services for persons with ID taking into consideration DI action plan in Latvia.

In this study author's attempt is to apply M. Oliver's methodological indication that it is the researchers who have expertise or specific knowledge and skills, and should decide what topics should be researched, being in control of

the whole process of research production provoking change of social relations (Oliver 1992: 102). Instead of following the mainstream (medical and individual model of disability) the purpose is to introduce the most recent studies relating the *social model of disability*, i.e., to explain the relevance in use of the term "intellectual disability" instead of "mental retardation" and discuss it in realm of meaningful employment service development in Latvia.

Literature studies, secondary data analysis and theoretical reviews were conducted by selecting relevant articles on the topic from electronic academic databases and library (used terminology: "disability studies", "mental retardation", "intellectual disability", "deinstitutionalization" separately and in combination with "community-based services", "supports", "employment", "job", "work", "daily activities". Empirical evidence from primary sources conducted during the period from 2014-2016: in-depth interviews, life-stories, focus-group interviews with involved parties (social workers, charity organizations, representatives of disabled community in Latvia, case study of Vidzeme region, visits in Norway and Sweden). Research results raise a serious concern whether

DI process will improve quality of life of people with ID in near future, still observing inconsistency in policy planning, legal framework and mistakes made in actions on different levels?

### **1. Role of meaningful employment in the process of deinstitutionalization (DI)**

Deinstitutionalization (DI) Action plan (issued 2015-2020) implies the development of qualitative community based services and independent living opportunities for persons with mental disabilities (i.e., psychosocial and ID). At the moment it is rather difficult to identify the exact number of persons with ID (both residing in institutions as well as in other living arrangements), registered and not-registered in Latvia. In the end of 2015 there were at least 17758 persons registered with ID (according ICD-10 classification: mental retardation F70-79: mild, moderate and severe). The most of them are in working age group (15-17 years: 1115; 18 and older: 14262 persons) (The Centre, 2015). This might be the closest estimate as prevalence of ID is regarded being between 1 % and 2 % of the general population (Krahn, Fox, 2013). In 2015 there were 2163 adults (18 and older) with ID (F70-F73: mild, moderate and severe mental disorders) residing in institutions (LM 2015). Community-based living and day care arrangements were provided for at least 273 persons living in group houses, 811 persons in Day care centres and for 12519 persons in home care (Jasjko, 2015). Employment, e.g., meaningful activity, supported employment and daily activities of person with ID, is an important domain in transition to adulthood (school-to-work transition) (DISCIT January 2014; Holburn et al. 2000, 402-416). Therefore DI process shall take into consideration the state of young persons with ID not being living in their communities and families, but residing at primary and secondary special boarding schools, e.g., professional education institutions often located in rural, rather isolated areas with limited access to social life activities (Broka, 2014; Broka, 2015:56-70).

Previously mentioned assumptions regarding DI process are challenging the shift from *Individual or medical disability* model towards *Social model of disability* in Latvia; it is about to go against the post-socialist traditional attitude and culture, not being afraid to challenge the view of mainstream society favouring institutions, participating in discrimination or neglecting the rights of persons with disabilities (agreeing with M. Oliver's methodological considerations, 1992). Therefore the most recent debate about term *intellectual disabilities*, role of its application and contradictions in its use will be explained in the following paragraph. Then will be clarified the usefulness of *Social model* of disability with its additional attention regarding meaningful employment and other employment support services for persons with ID, strength and weaknesses in its application and practice. Finally, social services, supported employment and other related support mechanisms enhancing individuals right to meaningful employment are going to be presented.

#### **1.1. Defining and understanding "intellectual disability" (ID)**

Over the past 50 years important conceptualizations, assessments and observations have been introduced and influenced persons with ID life worldwide. Shift from such terms as "idiot", "imbecile" towards "mental retardation" and "intellectual disability" has the political, economical as well as cultural context. It is evident that inaccurate or misuse of the important terms may lead to fragility and inability for political, social or civic action. Authors attempt is to explain the most recent term "intellectual disability" - defined in disability studies and used in line with Human rights approach.

In the most recent publication group of experts from American Association on Intellectual and Developmental Disabilities (AAIDD) proposes to use "intellectual disability" as the new term for mental retardation (the two major classifications

of mental disorders: the ICD-10, primarily used by 194 WHO member countries, and the American Psychiatric Association (APA)'s Diagnostic and Statistical Manual of Mental Disorders have been revised) (Schalock et al. 2010). According to AAIDD definition:

*"Intellectual disability is characterized by significant limitations both in intellectual functioning and in adaptive behaviour as expressed in conceptual, social, and practical adaptive skills. This disability originates before age 18."*(Schalock et al. 2010)

Current debate is whether "intellectual development" should be considered as a disability or health condition. In many countries ICD categories are often used with an aim to define eligibility criteria for specific health care, educational or social services (Bertelli et al. 2016; Harris, Greenspan, 2016:11,17). In Latvia term "person with mental retardation" or "person with disorders of a mental nature" is most commonly used among professionals both for clinician judgment of person's state of functioning, self-advocacy, intelligence and adaptive criteria, as well in legal context regarding eligibility of particular social and employment services (Cabinet regulation No 288, Article 3.3, 3.4, 3.5, 3.6; 24.04.2008.; Taube, Leimane-Veldmeiere, 2007:19). Unfortunately "intellectual disability" term is totally missing in Latvian legislation, service provision and until now has been used only in few important publications (Open Society Institute, 2005; The Ministry of Welfare, 2015, NGOs "Saule", "Apeiron"; NGO "Rigas pilsetas rupju bernu").

"Intellectual disability" is a term aiming to understand person's environment, its social interface within the environment (the social model), not only emphasizing the person-centred neurobiological deficit (the medical model). The term "mental retardation" also is significant as it is clarifying the severity and persons limitations regarding intellectual functionings and adaptive behaviours, which cannot be seen in isolation

from certain environment (Schalock et al., 2002; 2010; Salvador-Carulla et al. 2011; Harris, Greenspan, 2016).

In Latvia "intellectual disability" and "mental retardation" are not used and understood as synonyms as may cover other diagnoses of psychiatric matter (Taube, Leimane-Veldmeiere, 2007). Additionally such terms like "mental retardation" or "psychiatric disorders", "persons with special needs", "person with disabilities", "functional impairments" or "disabilities due to mental illness" are even more confusing eligibility criteria for services.

The authors point out that the term *mental retardation* is the former construction viewing disability as the defect within the person, whereas the current *intellectual disability* term is viewing the disability as the fit between the person's capacities and the context in which the person is functioning. Still the condition (as in mental retardation) or the state of functioning shall be understood in terms of limitations in typical human functioning. Assessment of ID shall be conducted in order to state the diagnosis of disability, classify characteristics of it and plan individualized needed supports. Assessment tools and process shall stress both on limitations and those individualized support plans, being valid as possible and result orientated or useful practices. And resources and strategies aiming to promote the person's development, education, interests, and well-being shall enhance person's limitations (Schalock et al., 2002; 2010).

Missing term "intellectual disability" in general legislation and public policy restricts determining appropriate eligibility criteria and develop comprehensive *individualized supportive mechanisms*, e.g., systematic and continuous, long-term educational, social and health care, training, employment, income supports. This is the main reason why it is useful to introduce the importance of terminology and address it in realm of *Social disability model* as well.



## 1.2. Social disability model and meaningful employment

Environmental factors and supportive disability mechanisms are fundamental part of person's with intellectual disabilities everyday life. Furthermore, in its origins the *Social disability model* states that impaired person's exclusion from society depends on the way the society is responding to the person's needs (UPIAS, 1976:14). Disabling environments, economic, social and cultural barriers are of the same importance (social model) as the functional or individual inabilities, limitations (medical model), not excluding the need for appropriate medical interventions (rehabilitative, educational or employment initiatives) (Oliver, 1996). It has demonstrated political success and positive activism in UK, North America and Scandinavian countries, i.e., the Social relational model of disability, Nordic social relative model of disability and North American social model of disability (Owens, 2014:2-4). Thus *intellectual disability* term has been introduced and adapted as an umbrella for supported services in those countries.

Shift to this model is linked to transition from institutional care to self-determination, empowerment and autonomy (independent living) within DI process, evolving development of a variety of living arrangements (supported living) and supported employment and even supported parenting (Bradley, Knoll, 1995, in Harris, Greenspan, 2016:24-7).

T.W. Shakespeare (2006:214-221) highlights the usefulness and limitations of the *social disability model*. On the one hand, it is strengthening person's with disabilities political power and rights, encouraging for ideological change and developing new services. Still is a blunt instrument for explaining and combating the social exclusion, neglecting the complexity of disabled individual needs and experiences of the world. Finally, without strong theoretical foundation and well-defined practices the social

model is an utopian idea, hard to operationalize and generalize to common group.

For instance, lack of *social competences* of persons with ID - the way the person is functioning and interacting with environment, may become a real challenge for service providers and parents. Integrated work and living settings does not promise that person with ID will understand the diversity and rules of society, thus in the end being dependant from professional assistance and continuity of support settings. Person's life will remain vulnerable, experiencing high risk for social isolation or friendlessness, bullying, financial and even sexual exploitation. In society person with ID may be judged as aggressive, self-harming and expressing other problematic, "strange" behaviours (Andersson, 2014; Borthwick-Duffy, Greenspan, Ho, 2006 in Harris, Greenspan, 2016:28). In development of alternative social services and changing environments clear focus has to be both on the person's diagnosis, limitations (medical model) and his/her abilities in meeting the social world (Harris, Greenspan, 2016).

On the one hand, high institutionalization is the main reason why the community-based services are almost absent in supportive settings for persons with ID in Latvia. Children with ID are residing at special boarding schools, later in state long-term social care institutions, home care and living in isolation from society. On the other hand, transforming social service settings, high NGO engagement and best practices are confirming the slight movement towards social disability model. Even employment service models are developed for persons with severe ID (Broka, 2014; 2015; Rajevska et al. 2014; Taube, Leimane-Veldmeiere, 2007).

The reason for slow and inconsistent development of those comprehensive services for persons with ID relies in missing and misleading legislation. There is contradiction between ratified

international treaties, declarations, agreements and national legislation applied in practice.

One cruel mistake is found in UN Convention on the Rights of Persons with Disabilities, whereas well-known term for services available for persons with ID "habilitation" has been translated into Latvian language as "adaptation" (Article 26, in force since 31.03.2010). It states that:

*State Parties at the earliest possible stage shall take effective and appropriate measures, organize, strengthen and extend comprehensive habilitation and rehabilitation services and programmes in the areas of health, employment, education and social services. (...) It is a way the person should live independent, able to participate mentally, physically and socially. Furthermore, individual needs and strengths should be assessed in multidisciplinary manner. Multidisciplinary can be achieved if there is initial and continuing training for professionals and staff working in habilitation and rehabilitation service (Article 26).*

It is absolutely clear that *habilitation and rehabilitation* are two different terms and both terms refer to service settings available for persons with disabilities. Unfortunately, no one of main general national laws protecting and ensuring the rights of persons with disabilities have stated any services referring to "habilitation" or "adaptation" (Law on Social Services and Social Assistance, 12.12.2002., hereafter Social service law; Law on Disabilities 01.01.2011.). As one of the best practices of Social disability model should be mentioned law regulating Support and Service to Persons with Certain Functional Disabilities (LSS) in Sweden. It clearly defines the target group: persons with ID and people with autism or conditions similar to autism, persons with significant and permanent intellectual functional disabilities (children and adults). Accordingly the Habilitation centres, other related institutions and social partners are ensuring 10 forms of assistance and adapting

environment to person's capabilities (Stockholm lans landsting webpage; Table 1).

According to the LSS law Habilitation centres on county level assess individual needs (as early as possible), offer different treatments and expert help with in-depth knowledge of a certain disability, looking at all aspects of their life. The person can receive help from occupational therapists, counsellors/ social workers, speech therapists, psychologists, physiotherapists and special education teachers, curator working together to combine medical, psychological, social and educational perspectives. Parents and relatives are offered psychosocial support. Habilitation centres work in close collaboration with other related social partners (schools, preschools, work environments, residential care centres, governmental, medical and other partners) (Stockholm lans landsting webpage).

In Latvia available services and professionals are not functioning in the same manner and comprehensive team-work is absent. Parents and NGO representatives have admitted that they are missing the *one* person who would give correct advice, important information about services and further appointments (as *Curator* working with families in Habilitation centres in Sweden) (Interviews with parents, NGOs and representatives of person's with ID, Conducted in period 2014-2016, Vidzeme region, Riga).

*Meaningful employment or supportive employment* services for intellectually disabled person is not just a service *per se* but an important measure representing outcomes of other *Quality of life* dimensions across life domains (Felce, Perry 1995 Jan-Feb, 51-74; Felce April 1997, 126-35, in Broka 2015).

Furthermore, several international treaties and national legislation acknowledge those principles. Recognition of persons with disabilities to work on an equal basis with others is stated in the Disability right Convention (Article 27) and Labour Law (Article 7, in force 01.06.2002). Large share of responsibility in creation of working

environment, e.g., *inclusive and accessible, with general technical vocational guidance programmes, placement services and continuing training* (Disability Convention, Article 27) is an obligation of employer as far it is not putting unreasonable burden (Labour law, Article 7).

Case study in Sweden and Norway (2014) demonstrates that often job opportunities and working places are created in the public sector or public sector is using the services provided by the Social entrepreneurs hiring the persons with ID and other related syndromes (Autism, ADHD, Asperger etc.).

Table 1

**Assistance provided for persons with ID in Sweden**

No	Description	Service provider
1.	Advice and other personal support	Habilitation and rehabilitation services
2.	Personal assistance	Personally designed care in everyday life by professional
3.	Companion service (get out to leisure or cultural activities, or to participate in social life otherwise)	Personnel helping to
4.	Contact person	Friend giving personal support
5.	Relief service	Personnel comes to the family home in order to take care of the person with functional disabilities
6.	Short-term stays away from home (a short-term home, with a family or at a camp or similar)	Social activity ensured by social partners, local government etc.
7.	Short-term care (before and after school) for school children over 12	After-school clubs, in special groups or based on personal needs
8.	Living in family homes or housing with special services	Housing arrangements dependant with special services if the person is not able to live in his/her own family (children and young people)
9.	Housing with special services for adults or other specially adapted housing for adults	especially adapted housing, service housing or group housing
10.	Daily activities (for persons with ID, autism or functional disabilities following brain damage as an adult, Groups 1 and 2 as above).	At a day centre or at another place of work

**Source: Stockholm lans landsting webpage: LSS in brief.**

The empirical evidence from other countries demonstrates correlation between investments, supportive programmes and the positive outcomes – increasing person’s capacity to cope and function in social environments. The interventions shall be very carefully and individually designed (as they are not fitting for all persons with disabilities, and shall be different for each diagnosis) (Andersson 2014; visits in Norway and Sweden, 2014).

“Person-centred” and “family” centred planning offers alternative supportive system enclosing community channels, families and friends (Mansell, Beadle-Brown 2004, 1-9), nor neglecting existing educational or training, post-school activity settings (Broka 2015; Blacher 2001, 173-188; Neece et al. February 2009, 31-43). Meaningful employment activities may start

already in general education (class 7-9) or vocational/ professional training (class 10-12) or even during life-long learning (post-secondary) education in different periods of life. The main tasks are: (a) to identify person’s with ID strength, what she/he can do, specifying person’s interests and motivation, identifying the best adjustable practice/ training place in real work environment; (b) job development service or job finding, which may be fulfilled in close collaboration with National Employment Agency, Daily activities centres and Social support service providers; (c) job analysis, job matching or job (re) design shall be fulfilled by *occupational therapists, counsellors/ social workers and other careers involved (team work)*; (d) introduction to the workplace, training on the job tasks (*occupational therapists, ergo therapist*) and

*other careers involved (team work); (e) supportive mechanisms outside the work place (public transportation facilities, living arrangements and social activities)* (Author's suggestions in accordance with WASE, 2012; Scandinavian support service analysis; visits in working places in Norway and Sweden; Daily activity centres in Latvia). In Latvia the opportunity to assess the person's capabilities often depends on special schools and their ability to interfere with family environments (Interviews; Broka, 2015).

The professional education programmes offered for persons with ID are in highly institutional environment (isolated) and very restricted (Broka, 2014; 2015). Despite large investments for inclusive education (2007-2013) there are missing special integrated classes for persons with ID in mainstream schools (general or vocational training) (in comparison to Scandinavian countries, visit in Rud School, Norway).

To sum up, good initiatives relating inclusive education, professional training and their ability to interact with other professionals (speech therapists, physiotherapists, psychologists, and others when necessary) can be identified (Zake, 2013). Still professional shortages, teamwork and comprehensive planning model is absent. Authors encourage to make a bridge between "What is" and "What can be" and focus the educational and habilitation service system on reducing the gap between requirements and person's abilities (competences) (Thomson, 2009:135-146).

### **Research results and discussion**

On the one hand, M. Oliver invites to practice social model of disability by using available resources in more efficient way, not just creating special working places but adapt techniques the way of work can be carried out, making it more accessible for different groups (Oliver 1996, 2004, 18-31). On the other hand, still one of the

most vulnerable groups – persons with ID, remain in the end of supportive settings.

The main challenge is to create and adapt environments for person's with ID well-being in Latvia. The supported employment settings shall start already in school age, making transition of persons with ID easier in later stages. Rather high emphasis still follows the "pedagogical correction", "medical diagnosis" and "professional rehabilitation" doctrine. The habilitation services and supportive settings in collaboration with different social partners are fundamental in DI process.

The most of the Human right principles for persons with disabilities have been ratified after Latvia regained its independence in 1990s. Main legal instruments protecting the equal rights of persons with disabilities to employment are the Labour law (Article 7), and entitlement for services is specified in the Law on Disability, the Social service law, and binding Cabinet regulations. There are several state bodies and procedures assessing the person with ID in regard to different purposes. Funding for social service provision is divided between state and local authorities and has been identified as one of the problems in appropriate community-based service development (Interviews, 2016; Rajevska et al., 2015). Individuals and their families (parents, carers) are *"tired and exhausted in current assessment procedures that primarily looks out for medical diagnosis, identifying the person's inabilities and are useless, as again and again they just check into their forms what person is not able to do"* (Interviews, 2014; 2016;). In major assessment settings still dominating is *medical disability model* and identified practices in Vidzeme region are few, not exactly representing meaningful employment settings in community-based environments (Case study in Vidzeme region, 2015-2016). For instance *Day care centres* are not supposed to be Day activity centres whereas person can realize meaningful employment or daily activity; and

have restrictions for funding (differs from given example in Table 1; Interviews, 2015-2016).

The employability highly depends on community-based living arrangements, transportation facilities and careful application of DI Action plan that have been already initiated. Even though professionals and society are not ready: "*DI is alarming. We have no such experience, knowledge. Neighbourhood, society is stressful and experiencing fear*" (Interviews, 2016). Preliminary evaluation of planned DI actions in respect to the project "Vidzeme includes" ("Vidzeme ieklauj") demonstrates the challenges rather than opportunities.

To sum up, the *social model of disability* allows us to explore people with disability opportunities, experiences and abilities in more complex way, on different levels of analysis and interventions, including medical, social, economical, political and cultural experiences and interdisciplinary approaches.

### Conclusions, proposals, recommendations

1) DI Action plan (issued 2015-2020) implies the development of qualitative, community based services and independent living opportunities for persons with mental disabilities (i.e., psychosocial and ID). At this moment it is rather difficult to predict the results due to

several fundamental shortages in assessment procedures, general legislation and lack of comprehensive practices (team-work). There is a need for a coordinated set of supports for intellectual and social functioning of persons with ID (see Schalock et al., 2002; 2010).

- 2) The Social disability model is appropriate for interventions of community-based practices, still shall be carefully applied in line with individual model. Meaningful employment of person's with ID is a challenge due to their limitations in development of *social competences* and shortages in bridging "what is" and "what can be".
- 3) Assessment of person's abilities, capacities and motivations still has too high emphasis on "rehabilitation" and "pedagogical" correction (medical model) instead of evaluation of environments (social model). The habilitation services and team-work are a necessity for people with ID inclusion into society.
- 4) Professionals (local authorities, social workers, teachers) have no practical experience, while representatives of disability community have no political power to implement the DI plan, and actions influencing the person's with ID quality of life. There is a need for collaboration between all parties for one purpose.

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## "GLASS CEILING" PROBLEM IN RURAL AREAS IN POLAND

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**Abstract.** The opportunities for women professional advancement in rural areas are much lower compared with urban. The aim of the paper is to evaluate the role of women in management bodies of different generally public institutions conducting activity in rural areas. For analysis, the concept of "glass ceiling" was applied. The investigation was carried out on the sample of randomly chosen rural gminas (basic units of administrative division in Poland). In the paper, structures (by sex) of the authorities of leading public entities in 60 gminas were examined. The analysis results confirmed the validity of the concept of glass ceiling in rural areas in member countries of European Union and in Poland as well. It is hardly to find women on the gmina mayor position. There is a serious problem how to encourage women to apply for this position and stand as a candidate in elections. Gminas where woman is a mayor are rather small (by area and inhabitants number). Better situation is observed in gminas' councils where the proportion of women in total number of counsellors is amounted to 27 %. It corresponds with the position of women as village mayors at the village level. It is worth to mention, that in rural areas women prevail on the top positions in schools and libraries what stems from high degree of feminisation of the school and culture systems in Poland.

**Key words:** glass ceiling, village mayor, rural areas, women.

**JEL code:** J16, J71

### Introduction

The term "the glass ceiling" was coined in the mid of the 1980s. It refers to a set of barriers preventing women from participation in top positions in management. Although the problem gained the wide public attention and during the next 30 years considerable progress in promotion of women took place, the systematic reviews and analysis of the present-day situation should be carried out for better recognising of the determinants, dimensions and outcomes of the phenomenon.

The opportunities for women professional advancement in rural areas are much lower compared with urban. From technical point of view, it stems from the fact that the number of local entities enabling professional or social carrier is limited to local authorities, some public administration, education, culture entities or rather small enterprises. According to Krzyzanowska (2013), rural labour market creates much less opportunities than urban, and discrimination in the form of lower wages, lower chance for getting job, higher risk of losing job is observed. People taking the top positions in local government bodies and other public agents like schools or libraries certainly form local elites. Moreover, such positions are a source of stable

incomes. In such situation, the competition between applicants is strong.

Rural communities are considered as more conservative compared with urban. In rural areas, the traditional duties' division between women and men prevail (Rykowska, Sawicka, Stolarczyk, 2013), and as a result, the women face social and infrastructural (lack of nurseries and kindergartens) barriers that hinder them in their carries. But, on the other hand, rural women are better educated than rural men<sup>1</sup>, which would help them and encourage in their professional life.

The aim of the paper is to consider the situation of women in management bodies of different generally public institutions conducting activity in rural areas. For analysis, the perspective of the concept of glass ceiling was applied. There is a need for such analysis in Poland as although, quite large literature on rural labour market exists, there are not many researches on the problem of glass ceiling.

In the paper, some questions were raised: (i) what is the scope of women participation in local governments at basic level so called gminas; (ii) if the gminas with the highest role of women have special characteristics; (iii) do women

<sup>1</sup> According to Last National Census of Population and Housing from 2011, 12,4 % of women in rural areas have higher education, compared to only 7,9 % of men.



support/encourage other women in their professional carrier.

In the research, some different methods were applied. In theoretical part of the paper, descriptive method was applied for introduction into different aspects of glass ceiling phenomenon. For empirical data analysis, the statistical method was used. The data was presented in tables.

As aforementioned, the basic administrative unit in Poland is called gmina. For the detailed analyses of the problem, 60 rural gminas (3.8 %) from 1559 of such kind gminas in Poland were selected randomly. Next, the information on the current (January of 2017) position of women in gminas' governments and public enterprises was gathered and analysed. The data refers to the fact who, man or woman takes the top position like for example gmina's mayor or how many women are members of gmina council. The relevant information were found at gminas' internet websites, at websites of public information bulletin and websites of schools and gminas' culture centres/libraries<sup>1</sup>. The characteristics of gmina sample is given in table 1. As data indicates, the gminas are differentiated noticeably. The population of the biggest gmina is 13 times higher than the smallest one and in the case of area 11 times. For the general analysis, the data from Central Statistical Office in Poland and European Union Statistics was used.

The paper is organized as follows. It starts with the characteristics of glass ceiling concept. Next, the involvement of women in local level government bodies in the EU is given. It is followed by presentation of the results of the inquiry carried out by author on position of women in different kinds of institutions conducting activity in rural areas. The examination focus on position of women in main local authority entities like management of rural

gminas, gminas' councils, villages councils, and such institution like schools and gminas' culture centres/libraries. At the end, the conclusions were drawn out.

Table 1

**The characteristics of gmina sample**

Specification	Minimum	Maximum	Average	Valid obser.
Area (km <sup>2</sup> )	21.1	252.0	121.0	60
Population	1 871	24 405	7 539	60
Number of village administrators offices	5	51	19	60

*Source: Author's calculation based on sample data*

**Research results and discussions**

**1. The concept of glass ceiling**

The term of glass ceiling as the impediment in organizational hierarchies that prevents women from being on the top positions in governance bodies was popularised by journalists Carol Hymowitz and Timothy D. Schellhardt in 1986 in their article in The Wall Street Journal (Hymowitz, Schellhardt, 1986). The term has become very popular and triggered wide discussions, research projects, and practical activities for women promotion in professional and social life. The improvement in the area was so noticeably, that twenty years later, the validity of the term was questioned by Alice H. Eagly and Linda L. Carli. They argued that "the glass ceiling" is no longer a useful metaphor as the barriers had become more permeable. They proposed a new metaphor - labyrinth (Eagly, Carli 2007, p.1).

The results of research carried out by different authors, confirm women upgrading in rural areas in Poland. The investigation of the women position in social life and on labour market in Poland carried by Sawicka (2013) indicates gradual improvement. Michalska (2013) confirms advance of the rural women position in politics but shows that the results in other areas are rather ambiguous. Danilowska (2016) pointed

<sup>1</sup> There is not culture centre in every rural gmina, in such cases the gmina's library was taken into consideration

out quite high position of women in cooperative bank located in villages and small towns.

## 2. The scope of the problem in European Union

The problem of unequal position of women and men is monitored by the European Commission. The results are published systematically in the form of different kinds of reports. As data shows (table 2), the participation of women in local level government bodies in EU countries is generally low and varies between EU countries. The average share of women in position of mayor in local government for EU(28) is amounted to 15 %, but in 18 countries it is below this level. The extremely unfavourable situation is in Cyprus where no woman holds leader/mayor position. Only a

slightly better situation is observed in the Czech Republic and Greece. Relatively much higher levels of the indicators are for Sweden, Latvia and Slovakia. Poland with the share at 11 % level locates at the end of the ranking. The proportion of women in local government bodies seems better. Average share of women in such bodies is at 35 %. Women constitute at least one quarter of members of government bodies in 77 % of member countries. Even for Cyprus, the indicator is at 18 % level. Like in the case of former indicator, the best situation is in Sweden. In Poland, the share is much lower than average.

Generally, it can be said that across the EU, women are underrepresented in local level government bodies.

Table 2

**Proportion of women in local level government bodies in EU countries (%)**

Country	Mayor or leader	Member of government bodies	Country	Mayor or leader	Member of government bodies
EU-28	15	35	Lithuania	5	25
Belgium	13	36	Luxembourg	10	22
Bulgaria	11	26	Hungary	20	30
Czech Republic	4	27	Malta	15	22
Denmark	12	30	Netherlands	22	29
Germany	10	26	Austria	6	X
Estonia	14	31	Poland	11	27
Ireland	19	20	Portugal	8	26
Greece	4	18	Romania	4	:
Spain	17	35	Slovenia	8	32
France	16	40	Slovakia	23	26
Croatia	7	20	Finland	17	36
Italy	13	27	Sweden	37	44
Cyprus	0	18	United Kingdom	14	31

Source: Local/municipal councils, European Commission [http://ec.europa.eu/justice/gender-equality/gender-decision-making/database/politics/municipal-councils/index\\_en.htm](http://ec.europa.eu/justice/gender-equality/gender-decision-making/database/politics/municipal-councils/index_en.htm)

### Glass ceiling problem in rural areas in Poland - empirical evidence

Gmina is a basic level unit of administrative territorial division in Poland. There are three types of gminas, i.e.: urban gmina - town, rural gmina -rural areas, urban-rural gmina - town and surrounding it rural areas. The municipal council so called "Rada gminy" is a legislative and

controlling body of each gmina. It consists of local society representatives and is elected for four years. The gmina is administrated by the directly elected mayor. He is a chair of gmina office. At the village level, the board of village residents conducts activity. It is headed by mayor of village (soltys). So, the list of top positions in a

typical gmina is not long and involves: mayor, deputy(ies) of mayor, main secretary of gmina office, treasurer<sup>1</sup>, head of gmina council, his

deputy(ies), councillors, village mayors, heads of gmina entities like schools and libraries/culture centres.

Table 3.

**The proportion of women in top management in rural gminas(%)**

Gmina's management		Municipal (gmina) council		Village council	
Position	Share of women in total sample	Position	Share of women in total sample	Position	Share of women in total sample
Mayor	5.0	Head of gmina council	16.7	Village mayor	29.0
Deputy of mayor	21.9	Deputy of gmina council head	30,9		
Secretary of gmina office	64.8	Counsellor without the position	32.1		
Treasurer	87.9	Counsellor (all female in council)	26.6		

Source: Author's calculation based on sample data

It is hard to believe that women are mayors of only 5 % of examined gminas (table 3). It stems from the fact that that women rather rarely decide to stand for election. In Poland, in the last election to local government bodies in 2014, the share of women applying for position of mayor in all types of gminas was at 16.3 % (State Election Board, 2014). It indicates that the women are afraid to stand for election and apply for the top position. The low proportion of women being deputies of mayors are not optimistic as well. The fact that the women in many gminas' offices hold important third position (secretary and treasurer) prove that they are qualified officers. They are especially appreciated as accountants. The situation appears slightly better in the case of municipal councils. The women head of 17 % of them and the share of women in the councils is amounted to 32 %. Women are less afraid to apply for the membership in councils compared to mayor position. In aforementioned election, the share of women in the number of candidates was amounted to 38 %. The best situation is observed at the level of village where women manage 29 % of village authorities.

In rural labour market, schools and culture centres/libraries play a very important role as the biggest employers. Education is a sector where women prevail. According to public statistics in

2014 in Poland, the proportions of women in employment in education and culture sectors were amounted to 78.2 % and 63 % respectively (Yearbook of Labour Statistics, 2015). As investigation shows, professional position of women in that area is high. Women head 75 % of schools and 83 % of culture centres in examined gminas.

**3. Determinants of women participation in top positions in examined gminas**

As it was shown, women hold the mayor positions only in a few gminas, so the question arises if such gminas have a special characteristics or whether there is a higher level of women's political and professional activity.

The gminas with a woman on mayor position are located in different parts of Poland. As information (table 4) indicates, the gminas are small in respect to area and population and number of villages, in two cases from three much smaller than average gmina in sample. The share of women in gminas' councils is below the average in the sample. There are no women in position of the head of gmina council; however, in two gminas women are deputies of the heads of councils. The worse than average situation is in the case of women's top position in schools and culture centres/libraries. What is interesting, the activity of women at village level is much

<sup>1</sup>Traditional but a little old fashioned name used

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higher than average level. In one gmina, women prevail as village mayors. The question arises

why the activity does not influence the women participation in gminas' councils.

Table 4

**Gminas with woman as a mayor**

Gmina	Czemierniki	Hyzne	Kodrab
Population	4 700	7 013	4 879
Area (km <sup>2</sup> )	107.7	51.0	1058
Share of women in gmina council (%)	21.4	21.4	28.6
Number of village administrators offices	9	7	19
Woman as a council head	No	No	No
Woman as a deputy of council head	No	Yes	Yes
Proportion of women in a number of village mayors (%)	66.7	42.9	42.1
Proportion of women in a number of school heads (%)	50	43	100
Woman as a Head of cultural centre/library	Yes	No	Yes

**Source: Author's calculation based on sample data**

**Conclusions, proposals, recommendations**

- 1) The analysis' results confirmed the existence of the concept of glass ceiling in rural areas in European Union countries and in Poland as well.
- 2) In Poland, it is hard to find women on mayor position. Women don't want to candidate in public elections, which is the way to this position. There is an important problem how to encourage women to participate in elections not only as a voter but as a candidate, too. Gminas where woman is a mayor are rather small (by area and inhabitants number). What is interesting, in such gminas women are much more active at

the village level than on average and less active in gminas' councils.

- 3) Better women position is observed in gminas' councils where the proportion of women in total number of counsellors is amounted to 27 % and in the group of deputies of the council heads even more.
- 4) It is worth to mention that in area of education and culture in rural areas women prevail on the top positions, which stems from high degree of feminisation of school and culture systems in Poland.

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## **SOCIAL ASSISTANCE: COMPARATIVE ANALYSIS**

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**Abstract.** Social assistance is an important element of welfare states. Each country has some social assistance, but its structure, production and eligibility criteria can differ. In last decades, researchers have focused on the comparative analysis of social assistance. The aim of the paper is to introduce the comparative analysis of social assistance and its complexity. This paper is based on descriptive analysis of literature and statistical data. It discusses the concepts 'social assistance' and 'comparative analysis', as well as gives an overview of indicators and proposed typologies of social assistance. The analysis of social assistance mostly focuses on the following aspects: what resources are used, who and on what pre-conditions can get different types of benefits, and whether it affects poverty. The paper gives an insight into several typologies of social assistance, based on different criteria – ideas and values, relations between assistance, insurance and social work, generosity, selectivity, targeting etc. To illustrate the complexity of the comparative analysis of social assistance, the case of the Baltic countries is used.

The comparative analysis of social assistance has faced several methodological problems – there is no precise definition of the concept 'social assistance', and different terms are used as synonyms of it. Often it is difficult to make distinction between social assistance and other elements of social protection. Social assistance varies significantly from country to country in different dimensions.

**Key words:** social assistance, comparative analysis.

**JEL code:** I31, I38

### **Introduction**

Social assistance is a significant and important part of the social protection system in all developed welfare states. Being the last resort in the system of social protection, it provides support to individuals in need, prevents poverty, promotes social inclusion and, at the same time, indicates how well other systems, such as the labour market, employment policy and family policy, offer adequate provision for individuals and families.

Nevertheless, the term 'social assistance' neither has a fixed or universal meaning, nor a precise, common international understanding. In general, it refers mostly to the means-tested benefits that are paid to individuals in need to provide a definite level of subsistence or basic needs. The structure of social assistance may be complicated: it often consists of a standard benefit adjusted for household size, supplements to cover special needs (disability), and one-off payments for occasional needs (funeral expenses) (Nelson, 2007), but it can be designed in other way, too.

The comparative analysis has a long tradition – the field of social policy focuses on it since the 1960s–1970s. The development of comparative

analysis in EU and OECD countries has been facilitated by the process of globalization, EU initiatives and programmes. Although the research has been carried out on a regular basis, it faces several methodological problems, and some of these problems will be discussed in this paper.

The aim of the paper is to introduce the comparative analysis of social assistance and its complexity. The following tasks are set: 1) to conceptualize social assistance and comparative analysis; 2) to summarize and evaluate indicators used in the comparative analysis, as well as typologies of social assistance. The descriptive analysis is based on the literature review and on the publicly available statistical data that provide information about social protection and social assistance.

### **Research results and discussion**

#### **1. Conceptual framework**

Some consensus among researchers is reached regarding interpretation of the concept 'comparative analysis'. It has been defined as systematic and contextual analysis of one or more phenomena in more than one country (Kennett, 2001). Similar definition is given by Hantrais, adding the aim of such analysis – "to

seek explanations for similarities and differences, to generalise from them or to gain a greater awareness and a deeper understanding of social reality in different national contexts" (Hantrais, 1995). Although some agreement is reached about the concept, there is a wide range of opinions about what phenomena should be compared, i.e., historical development, "products" (specific services), performance, expenditure, results etc., and how to compare them.

Since the end of the 20<sup>th</sup> century researchers have paid increasing attention to the comparative analysis of social assistance and have developed different approaches based on different criteria and indicators. These authors have studied various aspects – dimensions and performance of social assistance, benefit levels, similarities and differences in social assistance schemes, focusing on inputs, production, outputs and outcomes etc. Some researchers, such as Leibfried, Eardley, Lodernel, Gough and others, have made attempts to classify and create typologies of social assistance regimes (Kuivalainen, 2004). However, there is an opinion that much of the international research is not strictly comparative at the design and data collection stages, therefore the findings cannot be compared systematically. Despite considerable progress in the development of large-scale harmonised international databases, such as Eurostat, which tend to give the impression that quantitative comparisons are possible, attempts at cross-national comparisons are still too often ineffective, due to the lack of common understanding about main concepts and the societal contexts within which the phenomena are located (Hantrais, 1995). This refers also to the comparative analysis of social assistance.

**Social assistance** is a part of a broader range of societal provisions, and "present social assistance bears a strong trait of policy inheritance and historical traditions" (Kuivalainen, 2004) characteristic of the specific social

contexts. Disregarding the importance of social assistance, no commonly accepted definition exists. Even more – different terms, such as 'targeted income support to the poor', 'means-tested social assistance', 'means-tested social transfers', 'targeted social assistance' or 'safety nets' (de Neubourg, 2007), are conventionally used to denote the concept of social assistance. Policy makers in European countries most often refer to social security and social assistance, but EU bureaucrats use the term 'social protection' (Walker, 2005). For example, "social protection benefits are transfers to households, in cash or in kind, intended to relieve them from the financial burden of a number of risks or needs" (Eurostat Statics Explained). Social assistance may be defined also as the range of benefits and services available to guarantee a minimum (whatever defined) level of subsistence to people in need. In some countries, a key element of the social safety net comes through non-contributory citizens' benefits or pensions (Eardley et al, 1996).

In general, social assistance refers to last-resort income support programmes and is looked upon as the last safety net "to which citizens can turn when they have exhausted all other options" (Daigneault, 2014), i.e., if they do not get sufficient income from work, social insurance or do not have a family support (in relation to the latter, differences depending on countries apply). Social assistance usually is provided on the basis of evaluation of the material resources (income and possessions) of a claimant and his/her family. The aim of the social assistance is to give support to individuals and families in a situation of crisis when the basic needs cannot be met.

Another methodological issue of the comparative analysis of social assistance is related to the complexity of social protection systems that consist of different components, and social assistance is just one of them. The distinction between social assistance and other social protection programmes in different

countries is sometimes vague (de Neubourg, 2007). In addition, the design and performance of social assistance are related to national contexts and differ significantly from country to country. In some countries, social assistance is associated not only with income maintenance and support of the individuals in need, but also with social work and social rehabilitation, in other - it is understood as supplementary schemes that are subsidiary to the main means-tested minimum income benefit.

Another problem relates to the use of the terms 'means-tested', 'income-tested', 'income-related' and 'asset-tested' to refer to different forms of resource testing (Eardley et al., 1996) that is implemented in different countries.

Discussion about the concepts and their meanings within different countries and contexts is extremely important in the context of the comparative analysis, as researchers must use common terminology and have a shared understanding of the phenomena they are studying. Otherwise, the proper comparison is not possible.

## 2. Criteria of analysis

Social assistance programmes differ considerably in the EU countries, and this fact makes the comparative analysis a challenge. To find a solution, different approaches have been developed. C. de Neubourg and the colleagues offer to conduct analysis of five dimensions in order to find similarities and differences and to make comparison of social assistance in different countries. These dimensions characterize systems and include several basic questions that must be addressed by policy makers in the process of designing a system of social assistance (de Neubourg et al., 2007).

Solidarity between family members. What is primary – individual or collective solidarity? Does collective solidarity apply only after individual solidarity among family members is exhausted? For example, such countries as Italy and Germany prefer the approach of individual

solidarity – family members are responsible for each other, the income of family members is a part of the means test. Sweden pursues a completely different approach - individuals are treated independently and entitled to assistance irrespective from the income of other family members.

Selectivity and targeting. Who is entitled to assistance - everybody whose income is below the set threshold, or people who belong to specific categories? What is the income threshold? How is it defined? And how "income" (means) is calculated? For example, Sweden takes into consideration more income sources, if compared to other countries. How is the budget of the programmes determined? Are the programmes designed as entitlements, or are they subject to quotas?

Institutional decision level. Which level in the administration system defines the amount of benefits? Is the entitlement defined as rights of the citizens? How are local authorities involved, and what decisions can be made on the local level? For example, in France decisions are made by central authorities, in many other European countries – by local authorities.

Generosity. What is the level of the benefit? What is taken into consideration when the level is defined? For how long period the benefit is allocated? Benefit levels differ widely among EU countries.

Re-integration efforts. How does the system avoid welfare dependency of the beneficiaries? Do they have duties? How does the system stimulate re-integration of the beneficiaries into the labour market?

M. Pfeifer suggests different approach - the analysis of such indicators as expenditure, generosity and accessibility of social assistance (Pfeifer, 2012). Some researchers in their analysis focus on the costs, effectiveness and efficiency of the system, emphasizing the difference between eligibility and inclusion or real coverage (Slater, Farrington, 2009). S.



Kuivalainen in her study uses the model of the production of welfare elaborated by M. Hill and G. Bramley (Kuivalainen, 2004). The analysis of social assistance is performed focusing on inputs – allocated resources, production – the policy instruments to distribute social assistance and entitlement, and on what grounds benefits are granted. It also focuses on outputs – the level and the incidence of payments, as well as on the outcomes – the final distribution of income that shows the effectiveness of the system in the protection against poverty.

Different authors propose slightly different criteria or indicators for the analysis. However, some consensus is achieved – the analysis focuses on what resources are used, who and on what pre-conditions can get benefits, and whether poverty is eliminated.

### **3. Typologies of social assistance**

One of the outputs of the comparative analysis is classification and typology of countries. Although it is difficult to conduct typologies, especially of so different phenomena as social assistance schemes because of their unique and distinctive character (Kuivalainen, 2004), there have been several attempts since the 1990s.

One policy based attempt is made by P.-M. Daigneault. He introduces three social assistance paradigms – entitlement, workfare and activation, that are based on values, ideas about policy ends and objectives, as well as on appropriate policy means that “provide a stepping stone toward a more systematic study and evaluation” (Daigneault, 2014) of the system of social assistance. More detailed characteristic of the paradigms is presented in Table 1.

Another typology is elaborated by Lodernel and Schulte. This typology is based on the following criteria – combination of social assistance and social work/ treatment measures, the degree of social assistance centralization and the relationship between social insurance and social assistance. These authors distinguish four “poverty regimes”: residual, institutionalized, differentiated, and incomplete differentiated.

Residual poverty regime (Nordic countries) is characterised by division between social insurance and social assistance; generous insurance benefits apply in these countries, therefore, social assistance has a marginal role. Administration of social assistance operates at the local level, stigmatizing effects of assistance benefits, and great emphasis is put on social work. Institutionalized poverty regime (United Kingdom) has social assistance integrated with non-means-tested social insurance benefits; administration of social assistance takes place at the central government level; social assistance is distinct from social work; there is strong entitlement and high degree of standardization. Differentiated poverty regime (Continental welfare states) is characterized by medium division between social insurance and social assistance; separate categorical schemes exist in parallel with the general schemes providing support for specific groups. Incomplete differentiated poverty regime (Southern European countries) is characterized by dominance of categorical schemes for non-able-bodied; no or very limited general assistance is strongly tied with social control/ treatment national framework on social assistance is developed recently, and social insurance has a predominant role (Kuivalainen, 2004).

**Three paradigms of social assistance**

	<b>Entitlement paradigm</b>	<b>Workfare paradigm</b>	<b>Activation paradigm</b>
Main objectives	Reducing poverty by guaranteeing a decent level of income and decommodification	Improving the work ethics, attitudes, and self-esteem of welfare claimants	Boosting the economic activity rate, enabling to work and reducing poverty in work
Generosity of social assistance benefit	High	Low: "less eligibility" principle	Moderate: low basic benefit but relatively generous income supplements
Preferred policy instruments	Unconditional cash transfers	Cash transfers are conditional on work-related requirements (including workfare) and control measures	Unconditional cash transfers, conditional income supplements and active measures (e.g., training, job search assistance)
"Targeting" (i.e., who is targeted by policy)	Low: few distinctions are drawn between clients (i.e., broadbased or universal eligibility)	High: segmentation of assistance between "deserving" and "undeserving" clients	High: income supplements are restricted to clients who comply with work-related conditions

Source: Daigneault, 2014

T. Eardley and the colleagues in the analysis are aiming at identifying common patterns in different systems of social assistance. They distinguish seven types of social assistance. In the selective systems, all benefits are means-tested. There are several categorical programmes nationally organized, inclusive and rights-based. The means-testing is carefully constructed; disregards of assets and earnings are relatively generous. The public assistance state has an extensive set of means-tested benefits, arranged in a hierarchy of acceptability and stigma; assets tests are strict, benefits tend to be low. Welfare states with integrated safety nets are characterized by providing national general safety net (as Income Support in UK or Canadian Assistance Plan). Dual social assistance provides categorical assistance schemes, supplemented with general basic safety net. Assets tests are flexible. In Rudimentary assistance, national categorical assistance schemes cover mainly elderly and the disabled individuals. The support for the rest of the population is provided by local municipalities or religious organizations. Cash benefits tend to be integrated with social work and generally are very low. For Residual social assistance, full employment is typical. Because of universal welfare provision, social assistance is not so important. The system has a single general, nationally regulated scheme with high

benefit level. Strict means-tests with the emphasis on the individual, not on the family, are typical. Highly decentralized assistance contains some elements of other systems. Localised relief is linked to social work. Great emphasis is put on family obligations. Benefit levels are below average, and there are few claimants of social assistance, as it is stigmatized (Eardley et al., 1996).

Basing on the comparative analysis of nine European countries and using the above discussed five dimensions, de Neubourg and the colleagues have distinguished three types of social assistance systems.

Supportive social assistance system is characterised by universal approach. Social assistance is residual, as social insurance is well developed and extensive; social assistance is the last resort, based on strict means-testing. At the same time, the system is generous, social assistance benefits are high with no time limits. There is a focus on re-integration in the labour market. The model is characteristic of the Nordic and Central European countries.

Selective social assistance is centred on family solidarity, and family support is primary in this system. Social assistance is limited in time, and it is provided by local governments; therefore, there are great differences not only among countries, but also within a country itself. This

model is typical to the Southern European countries.

Inclusive social assistance – social assistance is integrated within the system of social protection. There is a focus on poverty; therefore, social assistance benefits are based on strict means-testing. Great Britain is an example of this model (de Neubourg et al., 2007).

Since the analysis was made in particular countries, there is a little probability that these typologies can be applied to any of the other countries. This occurs mostly because the

systems of social assistance differ so much across countries.

#### 4. Social assistance in Baltic countries

To make comparison and illustrate its complexity, an overview with some statistical data of the systems of social assistance of the Baltic countries is presented further in this paper.

Different data can be used to characterise expenditure or inputs in the system – total expenditure for social protection, expenditure as per cent of GDP or of total expenditure, expenditure per inhabitant and other (Table 2).

Table 2

#### Social protection expenditure

	Social protection benefits as % of GDP			Means-tested benefits as % of GDP			Total social protection expenditure EUR per inhabitant		
	2012	2013	2014	2012	2012	2014	2012	2012	2014
EU-28	27.6	27.8	27.6	3.1	3.1	3.1	7644	7730	7903
Latvia	14.2	14.4	14.3	0.4	0.3	0.2	1556	1550	1714
Estonia	14.8	14.7	14.9	0.1	0.1	0.1	2036	2132	2273
Lithuania	15.5	14.4	14.0	0.9	0.7	0.5	1818	1806	1838

Source: author's calculations based on Eurostat Social protection data

Expenditure for social protection, as well as per one inhabitant is higher in Estonia; however, it is still almost three times less than in the EU-28. At the same time, Estonia spends less on means-tested benefits, if compared to the other Baltic countries. To explain this phenomenon, it is necessary to understand national contexts, structure of the social protection system, also, what is the place of social assistance within this system, as well as the structure of assistance (what kind of benefits are included in the system).

Estonia has one social assistance benefit - **the subsistence benefit** for those suffering from material deprivation. The benefit is paid by the local government to persons living below the subsistence level, including people without a place of residence. In 2016, the subsistence limit was **EUR 130** a month for a person living alone or firstborn member of a family and **EUR 104** for the second and each succeeding member of the

family (EUR 130 for every underage family member) (Subsistence level and ..., 2016).

Lithuanian social assistance system consists of three state guaranteed benefits - social benefit or cash social assistance, reimbursement of house heating costs, hot water, drinking water and social assistance pensions. Social benefit varies depending on family structure and time of reciprocity; it is reduced for long-time recipients, and there is time-limit up to 60 months. The benefit is granted to beneficiaries without children for longer period. The amount of the benefit is lower than in Estonia, but it can be supplemented with the benefit for heating and water (European Commission, 2014).

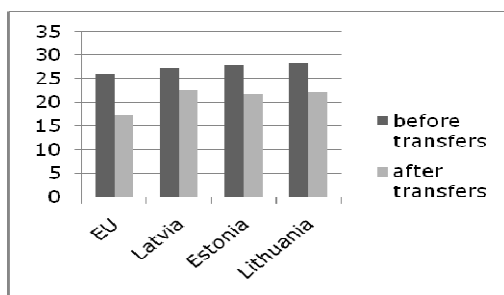
Latvia's system of social assistance is more complicated. There are two compulsory benefits - benefit for ensuring the guaranteed minimum income level (GMI benefit) and housing benefit. In addition, there is a great variety of other municipal social benefits that have an important place in the system of social assistance: the rate

of GMI benefit is 23 per cent, housing benefit – 40 per cent, and other benefits – 37 per cent (The Ministry of Welfare).

The decision about GMI benefit and its amount as well as regarding housing benefit is made by the government, but other benefits are the matter of the local authorities. Local authorities can decide what benefits are paid, their level as well as the eligibility criteria. Therefore, significant differences are seen among different counties. Individuals are entitled to social assistance benefits, if they have the status of a needy (income level of EUR 128.06 set by the government) or low income (the level set by local authorities) person (family). Wide local differences apply in this respect. For example, in Riga, low income status is awarded, if income does not exceed EUR 320 per family member and EUR 400 for single pensioners. In Jelgava, the status is awarded to working-age individuals with dependent children, if income does not exceed EUR 180 per person, EUR 232 for pensioners and EUR 261 for single pensioners. In addition to compulsory social assistance, Riga municipality offers 12 benefits but Jelgava even more -17. (Rigas Dome; Jelgavas pilsetas pasvaldibas...).

Although there are so many benefits, it is impossible to speak about generosity of the system, as benefits are generally low.

The comparison of the outcomes of the social assistance systems of Baltic countries, their redistributive effects and elimination of poverty are presented in Figure 2.



Source: author's calculations based on Eurostat 2016a; Eurostat 2016b

Fig. 2. At-risk-of-poverty rate before and after social transfers, 2015

Social transfers that include social assistance benefits reduce poverty in all countries. The poverty level is for 6.4 per cent points lower in Lithuania, 6.2 in Estonia and 4.8 in Latvia after social transfers. The outcomes of social assistance in relation to poverty reduction are similar in the Baltic countries, but smaller, if compared to the EU-28.

The case of the Baltic countries reveals significant differences in the structure (offered benefits) of assistance, entitlement, generosity, decision-making level but differ less in expenditure and outcomes.

### Conclusions, proposals, recommendations

- 1) The comparative research of social assistance has attracted attention of many researchers. Nevertheless, it includes several unsolved methodological problems related to the concepts, definitions and common understanding that are essential for a proper comparative research. Social assistance is generally understood as means-tested benefits but often it is difficult to differentiate between social assistance and other elements of social protection.
- 2) There is a variety of criteria used for the comparative analysis. In addition, different classifications are proposed. However, none of the typologies is universal, as they are closely linked to a limited number of the countries studied.
- 3) The systems of social assistance of the Baltic countries differ considerably. The most obvious are differences of the structure but differences can be noticed also in relation to other indicators.
- 4) The comparative analysis of so different phenomena as social assistance systems is extremely complicated; however, it does not prevent researchers from studying it.

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## HUMAN LIFE COURSE IMPACT ON MIGRATION PATTERNS: THE CASE OF JELGAVA CITY, LATVIA

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**Abstract.** The life course theory has become very popular in social sciences in last decades, and it can be used also in migration processes. The aim of the study is to assess human life course impact on migration patterns by study of previous research and the case study of Jelgava city. Such methods as analysis of theoretical literature, analysis and summary of statistic data and spatial analysis were used in the study. The migration to Jelgava was examined by means of analysing unpublished data from the Population Register of Latvia concerning persons declared and registered in the city from 2000 to the first half of 2015. The results showed that life course influences migration patterns, and transition between life course stages often triggers a migration event. The majority of migrants to Jelgava were youth and families with small children. Correlation between life course stages, region of origin and destination neighbourhood in Jelgava city was found.

**Key words:** human life course, life course stages, migration to cities, Jelgava.

**JEL code:** R23; J11; J61

### Introduction

According to previous research (e.g. Heinz, Kruger, 2001), there are few areas in the social sciences which document the intensity of recent social changes better than the life course approach. In recent decades, the life course concept has become more popular and can be widely found in theoretical literature (Zhou and Moen, 2001; McHugh et al., 1995; Bailey, 2008; Karachurina, 2016; Assuncao, 2016) but usually it is used as a generally accepted concept.

Basically, the life course is defined as a sequence of events and the social roles of the individual's life (Bailey, 2008). According to theory (Mitchell, 2003), these events and roles do not necessarily proceed in a given sequence but rather constitute the sum total of the person's actual experience. Thus, the concept of life course implies age-differentiated social phenomena distinct from uniform life course stages and the life span. According to Macmillan and Eliasson (Macmillan, Eliasson, 2003), the life course is described as a multidimensional concept between related trajectories - work, marriage and becoming a parent. At the same time, they unlike other authors indicate that the life course is age graded but like other authors they believe that the gradation is different for each individual.

The aim of the study is to evaluate human life course impact on migration processes and residential preferences. The tasks of the study

are: 1) to study theoretical framework and previous research on the life course impact on people's migration patterns; 2) to investigate if human life course impacts migrant behaviour to Jelgava city.

In order to evaluate human life course impact on migration processes, the fourth largest city in Latvia – Jelgava – was taken as the case study and migration to it was defined as research object.

The following methods were used in the study:

- 1) analysis of theoretical literature in order to understand theoretical framework of the life course impact on people's migration patterns and previous studies in other countries;
- 2) the analysis, grouping and summary of statistic data from Population Register of Latvia about persons in different age groups who have declared or registered residence in Jelgava from 2000 to the first half of 2015;
- 3) spatial analysis to evaluate where were the main migration flows from and which neighbourhoods migrants have chosen in different human life course stages.

### Research results and discussion

#### 1. Connection between human life course and migration in previous studies

The life course consists of succession of stages in which person's social, economic, family and household characteristics change as he or she

ages. A transition between stages often triggers a migration event and within each life course stages the principal migration motivation changes and hence the spatial patterns of migration (Rees et al., 1998). According to Mulder (Mulder, 1991), for a substantive interpretation of migration dynamics more information about the migrants is needed than age alone. However, although people do not necessarily go through particular stages at the same time of life, many authors have found out there is a general association between age since birth and life course stage.

Life course starts with person's birth, and period from 0 to 17 years can be called as the childhood ages. During this period migration activity is controlled by parental decision (Mulder, 1991), because in this period usually children do not have special alternative of choice, they have to follow their parents. As some authors (Rees et al., 1998) have mentioned, in this period it is expected that childhood and family ages, which can differ from 25 to 45 years, to be very similar and mostly influenced by the desire for safe and pleasant environment in which to bring up children.

When children have grown up at the age of 18 begins adolescent and till year 29 it is young adult age. In this time, young adolescents start to migrate for educational reasons or in order to start their own life. To find out the motives why people migrate, Mulder (Mulder, 1991) carried out a survey, in which people were asked to mention main reasons why they migrated. Results showed that young people at age 18 – 21 mainly migrated because of educational reasons, followed by marriage or cohabitation while independence and housing search were less important. For young people at age 22 – 24, the main reason for migration was marriage and searching for housing was still not such important factor for them, but at age 25 – 29 the search for housing became one of the main motives for migration as well as marriage.

Motives that were mentioned before also influence migration patterns in this age group. As it is known, access to education is higher in urban than in suburban and rural areas. However, migration for educational reasons can act in two ways: (1) education-related moves can offer the first migration experience, favouring subsequent moves to find a job; (2) individuals may also migrate to complete their education and find a job afterwards in their place of education (Detang-Desendre et al., 2008). These effects are particularly important for young people from rural areas who leave their place of origin to obtain college education. When people have graduated university, they usually start their professional career and because of better opportunity to find good and highly paid work, individuals empowered with high skills and technological levels migrate from rural to urban areas as it is proven also in France (Detang-Desendre et al., 2008), in the United States of America (Chen, Rosenthal, 2008) and in Russia (Karachurina, 2016).

In overall, people in this life course stage prefer to leave rural areas and migrate to urban areas, where opportunity to get good education, higher paid job is higher and where social life is much intensive, and there they can also easier find cohabitant with whom to develop a family.

When people have become stable in their own lives, usually they start to think about family formation and at this time, their view on the things changes and this age group (approximately age 25 – 40) can be called as family age. According to Mulder (Mulder, 1991), people in this life course stage relatively often migrate for housing reasons or to become homeowners, especially at short distances, because now they can afford it and they start to evaluate the suburban and rural areas as a better place where to grow up children. People at this age do not move between different regions often, and if they do so, work is the main reason, followed by housing and marriage. According to a survey in

France (Detang-Desendre et al., 2008), family changes are strong determinants of migration behaviour, showing the powerful impact of land rents on migration to suburban areas and migration tends to favour rural areas as household size increases. At the age when children are brought up, people have some years to continue career and then at the age of 60 or some years later retirement age has come. At this age, people want to spend their time in peaceful and safe environment and, according to Detang-Desendre, Goffete-Nagot and Piguet (Detang-Desendre et al., 2008) attraction to rural and suburban areas increases with age. In the same time, senior citizens are the part of society whose income is usually only pension. This means that amenities, housing prices, and distance to service centres are important elements in determining the location of these kinds of households, which are likely to choose a rural location as long as they can locate near service centre.

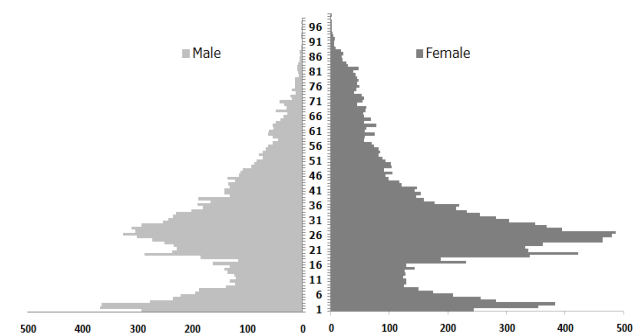
Summarizing above mentioned, the variation in migration propensity by initial location reveals that human life course and its stages greatly influence migration. The tendency is that youth more than others migrate to urban areas but as individuals get older, they are less mobile and migrate more often to nonurban areas. In addition, family size influences migration patterns, because families without children more often choose to live in urban areas while parents with children try to find peaceful environment outside urban territories. Such tendency was observed also in the United States of America (Plane et al., 2005).

## 2. Human life course impact on migration to Jelgava city

In order to assess the impact of human life course on migration processes to Jelgava city, Population Registers data about persons who have moved to the city of Jelgava were analysed. Data array contained information about almost 25 000 persons who had declared or registered

their residence in Jelgava from other municipalities in time period from 2000 to 1 July 2015.

The results showed (Figure 1) that persons at the age 20 till 30 was the most mobile part of society and Jelgava as a place of residence the most often was attractive for persons at the age 26. There were not observed significant differences in immigration patterns between males and females.



Source: author's calculations based on the data of Latvia Population Register

Fig. 1. Age and sex dynamics of in-migrants to Jelgava in period 2000 - 1 July 2015

A significant part of all immigrants was children particularly small children at the age 0 till 10. As it was mentioned above, children migrate together with their parents, thus the results confirm that Jelgava is appropriate residence for families with small children who evaluate peaceful and adjusted living environment.

As it was mentioned before, human life course is age graded and in this study data array was divided in six age groups taking into account the main life course events such as attaining legal age, studies in university, establishment of a family and reaching the retirement age:

- 0 till 17 years (included 6957 persons or 27.9 % of all data array);
- 18 till 24 years (included 4408 persons or 17.7 % of all data array);
- 25 till 39 years (included 7764 persons or 31.1 % of all data array);
- 40 till 55 years (included 3172 persons or 12.7 % of all data array);



- 55 till 61 year (included 852 persons or 3.4 % of all data array);
- 62 years and over (included 1797 persons or 7.2 % of all data array).

All data were analysed considering the municipality of origin where the immigrant had come from; later data were grouped according to the planning region of Latvia or abroad (Table 1) and correlation among age groups and residence of origin was observed. Relatively large number of families with children had moved to Jelgava from abroad, especially with young children aged less than 3 years. Likely, these were persons who had gone abroad after studies or as the first working experience, had developed family there and later had decided to return to Latvia and to bring up children in their native country. Later in other human life course stages, there were relatively fewer persons who returned from abroad.

Table 1

**Structure of migrants to Jelgava based on their origin region and life course stage**

Age group	Abroad	Kurzeme planning region	Latgale planning region	Riga planning region	Vidzeme planning region	Zemgale planning region	Total
0-17	6%	6%	3%	29%	4%	52%	100%
18-24	3%	12%	10%	27%	11%	38%	100%
25-39	6%	8%	5%	32%	6%	42%	100%
40-55	4%	7%	4%	39%	3%	43%	100%
55-61	3%	5%	4%	44%	4%	40%	100%
over 62	2%	6%	5%	46%	4%	37%	100%

Source: author's calculations based on the data of Latvia Population Register

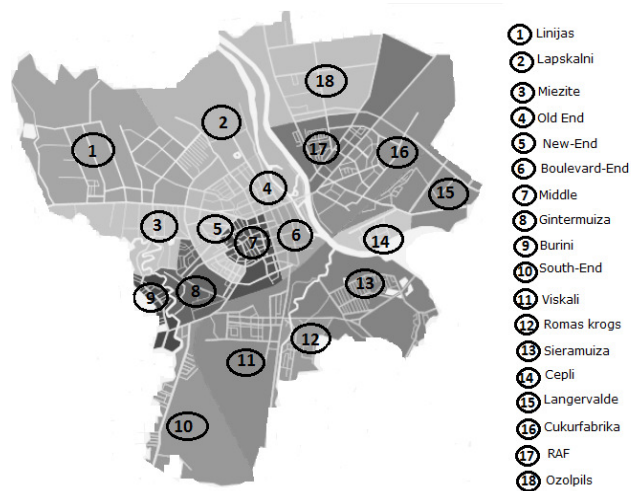
A significant part of the children moved from nearby municipalities in Zemgale (relatively, higher number was children at the age 15-17 when children moved from rural primary schools to the secondary schools in the city) as well as from Riga (particularly, families with small children).

Compared to other age groups, young people at the age of 18-24 migrated to Jelgava from the outermost regions such as Kurzeme, Latgale and Vidzeme more often than people in other humane life course stages. It is certainly influenced by Latvia University of Agriculture, which is situated

in the city and which attracts youth from all the country.

The results also showed that people in later human life course stages moved to Jelgava city from Riga region more often than in other life course stages. It could be linked to the fact that Jelgava as a place of residence is relatively cheaper than the capital city Riga and its suburban region, which is an important factor for the elderly. At the same time, social and cultural life is sufficiently active in Jelgava as well as the accessibility of different services is in high level, thus providing seniors with qualitative living environment.

The data array also included information about the address where the person had declared his/her residence, thus it was possible to do spatial analysis in order to determine correlation between human life course stage and the chosen neighbourhood.



Source: Ozols, 2014

**Fig.2. Division of neighbourhoods in Jelgava**

In this study, neighbourhood division created by Ozols (Ozols, 2014) was used, which offered to divide Jelgava in 18 neighbourhoods based on historical and housing structure indications (Figure 2).

As the results showed (Table 2), the most attractive neighbourhoods for all human life course stages were the neighbourhoods situated in the central part of Jelgava (e.g. Old End, Middle, Boulevard End, New End) where the best

accessibility to services and shopping facilities were and where there were mainly blocks of flats. Though people in age group 18 till 24 have chosen central neighbourhoods such as Middle and Boulevard End more often than people in the other age groups. It can be explained by the fact that Latvia University of Agriculture is situated in the central part of the city as well as dormitories are situated mainly in the city centre; therefore, students prefer to live near university.

A significant amount of migrants in age group 25 till 39, which is life course stage when people develop families and try to improve their living conditions, had chosen such neighbourhoods as Cukurfabrika and Raf, which were to the direction of capital city Riga with mixed buildings – blocks of flats as well as private houses.

Table 2

**Structure of migrants to Jelgava based on destination neighbourhood and life course stage**

No.	Neighbourhood	Age group					
		0-17	18-24	25-39	40-55	55-61	over 62
1	Linijas	3,3%	2,4%	3,4%	3,7%	4,0%	3,3%
2	Lapskalni	3,3%	2,6%	3,4%	4,3%	3,8%	4,4%
3	Miezīte	0,4%	0,6%	0,5%	0,9%	1,1%	0,7%
4	Old End	15,6%	12,3%	15,3%	14,7%	15,4%	13,9%
5	New End	14,8%	10,3%	14,1%	13,8%	12,9%	13,3%
6	Boulevard End	12,0%	22,5%	14,0%	11,1%	11,2%	12,0%
7	Middle	13,8%	22,7%	13,0%	14,1%	14,7%	13,0%
8	Gintermuiza	2,3%	1,3%	2,1%	2,0%	2,2%	1,9%
9	Burīni	0,4%	0,3%	0,3%	0,3%	0,9%	0,6%
10	South End	0,6%	0,6%	0,6%	0,9%	0,8%	0,8%
11	Viskālī	4,0%	2,9%	3,3%	5,4%	3,8%	4,3%
12	Romas krogs	1,5%	0,7%	1,3%	1,5%	1,1%	1,1%
13	Sieramuiza	1,9%	1,2%	1,6%	2,3%	2,0%	2,6%
14	Cepļi	1,5%	1,1%	1,6%	1,9%	1,6%	2,4%
15	Langervalde	1,8%	0,8%	1,0%	1,7%	1,3%	1,2%
16	Cukurfabrika	9,2%	8,6%	10,2%	8,3%	8,2%	8,6%
17	Raf	10,9%	7,4%	11,4%	9,0%	10,9%	11,0%
18	Ozolpils	2,5%	1,8%	2,9%	4,1%	4,2%	4,7%
Total		100%	100%	100%	100%	100%	100%

At the life course stages after age 40 when people have become financially stable, people had chosen also neighbourhoods in outskirts of Jelgava such as Linijas, Viskālī, Ozolpils, Lapskalni, which were not such popular in earlier life course stages. Private houses dominate in these neighbourhoods, services are more difficult to access but living environment is much peaceful than in the centre of Jelgava.

**Conclusions**

1) Human life course influences migration patterns and a transition between life course stages often triggers a migration event -

within each life course stage the principal migration motivation changes and hence the spatial patterns of migration.

- 2) Human life course influences immigration patterns to Jelgava – the majority of immigrants were persons in age group between 20 and 30 as well as children in age of 0 till 10, which means that families with small children considered the city as appropriate residence.
- 3) Correlation between human life course stage and municipality of origin was found - young people at the age of 18-24 migrated to Jelgava from the outermost regions such as Kurzeme, Latgale and Vidzeme more often than people in other humane life course stages, while elderly moved to Jelgava city from Riga region more often than in other life course stages. Furthermore, families with small children more often returned from abroad to Jelgava than other people in other life course stages.
- 4) There was found connection between life course stage and the destination neighbourhood in Jelgava – while the most attractive part of the city for people in all life course stages was central part of Jelgava, people in age group 18 till 24 had chosen central neighbourhoods such as Middle and Boulevard End more often than people in the other age groups. When people became financially stable and entered later life course stages, outskirts of Jelgava became more attractive for them.

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## SOCIAL CAPITAL AS A DEVELOPMENT SUPPORT TOOL IN ZEMGALE REGION

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**Abstract.** Regional development policy is a constituent part of the national development policy whose goal is to reduce differences of social and economic development among the regions via measures and actions. Reasonable management and well-considered governance by the country and local governments require a high potential of social capital. Insufficiently activated potential of social capital in the territories of municipality provinces has disturbed a full-fledged economic development. Regional development cannot happen without an active participation of the public.

**Key words:** regional development, social capital, public activity.

**JEL code:** R1

### Introduction

Uneven development of the regions of Latvia has already been a long-lasting problem that is being solved with a number of laws adopted in Latvia (Regional, 2002; Development, 2008; Spatial, 2011; On local, 1994) and planning documents – at the national level, it is the National Development Plan of Latvia 2014 – 2020 (NAP, 2012); at the municipality level, these are the development strategies of municipality provinces. In the present situation when the development of Latvia falls behind the countries of the European Union (EU), the leading role of the population and the social capital should be evaluated as the potential driver of the economic development of a territory.

In Latvia, there are few publications and little research about social capital, and even less about the evaluation of its use in fostering regional development, but this research could enhance benefits at both local governmental and regional level.

The election of local government of 2017 is approaching in Latvia. The political forces elected in the local governments will decide about the development of the governed territory in the following four years, will try to allocate expenditures based on their political views and personal understanding about the significance of one or another expense. In the world, research has been conducted about the capacity of communities, which indicates that the developed programmes and their performed measures do

not always attain the goals if the capacity of communities does not possess the required social capital (T. Marsden, E. Eklund, A. Franklin, 2004; J. Moseley, T. Cherrett, M. Cawley, 2001; I. Kovach, 2000).

**Research goal:** evaluation of the aspects of social capital for the development of the municipality provinces in Zemgale region.

To attain the goal, the following **objectives** were achieved: 1) to clarify the essence of social capital; 2) to analyse the impact of social capital.

### Materials and methods

The indicators of Bauska and Dobeles municipality provinces in Zemgale region were compared. The research comprised the changes in the number of societies and foundations, employing the term “non-governmental organizations” (NGOs).

The data of the Central Statistical Bureau (CSB) of the Republic of Latvia, the database of the State Regional Development Agency (SRDA), the information available on the webpage of the Central Election Commission (CEC) of Latvia, publicly available annual financial statements of the local governments of municipality provinces (VARAM, 2017), statistics of the Rural Support Service (RSS) about the European Union (EU) Funds, data of the State Employment Agency (SEA) about employment indicators, data of the Enterprise Register (ER) of the Republic of Latvia (LR) about the number and dynamics of non-governmental organizations are used as informative basis. The data of the CEC available

about the results of 2009-2013 and 2014 elections are analysed.

**Research methods:** content analysis of literature and internet resources was conducted; the selected data were processed and interpreted applying statistical data processing and interpretation methods.

To compare social capital, the authors used quantitative influence indicators. The period for the analysis was 2009 – 2016.

### Research results and discussion

In the theory of economics, there are four types of resources: capital, production, entrepreneurship and human resources. According to M. Pelse (2007), G. Becker (1998), E. Igaune (2010) and R. Garleja (2006), human resources are divided into human capital and social capital (**SC**). Both capitals supplement each other, interact and accumulate.

SC is the substantial advantages that better contacts provide to the individual, a family or a group (Ziverte L., Austers I., Zilinska Dz., 2003). In other words, it is private and public benefits and it can also be defined as a joined approach.

The authors' research emphasises the approach of the public benefit, SC at the public level – as people's ability to work together in groups and organizations to attain shared goals. SC refers to the characteristics of social organizations, such as trust (Putnam R., 1995; Fukuyama F., 2001).

SC characteristics is not limited by only these definitions; they allow to be grouped by the cooperation levels, impact and potential.

Summarizing the opinions of researchers in economics J. Coleman (1988), S. Kneks (1997), G. Becker (1998), M. Vulkok (2000), J. Moselei (2001), J. Manza (2006), M. Pelse (2007), E. Igaune (2010), J. Stiglitz (2012), P. Skinkis (2015), I. Vilka (2016) and R. Cimdins (2015), the similar characteristics can be combined and the **essence of SC** can be expressed, separating them in micro and macro levels, **SC impact** and **SC potential**:

- at the micro level, when individuals interact, personal contacts, formal and informal networks are made, trust to other individuals, entrepreneurs, the country and the government is developed;
- at the macro level, the involvement of the social groups in public, non-governmental and political organizations and civic initiatives develops, the responsiveness of social groups develops, the social potential creates a strong mutually linked network of groups, the tolerance of society increases, the society becomes more consolidated.
- In addition, the authors mark that SC is a long-term means in which resources can be invested with the objective to acquire a range of benefits in the future.
- **SC impact:** economic development of the territories, development and implementation of the action policy of the country and local governments, increase of the level of life of society.
- **SC potential** is the competence knowledge, skills and abilities possessed by individuals and groups. There exists a correlation – the higher the level of knowledge, the higher the social potential and the more active social engagement (Iyer S., et al., 2005).

Researchers P. Skinkis (2015), I. Vilka (2016) and R. Cimdins (2015) have used indicators to compare SC, dividing them into directly influential and subordinate indicators.

**Core indicators of SC** – participation in various civic and public activities, political parties or groups, professional societies, unions, associations, public and religious organizations, work groups, participation in local governments, collaboration in attracting funding, as well as education indicators.

**Indicators subordinated to SC impact:** the number of population, its changes, density, the proportion of the working-age and until the working-age population, the unemployment rate, the revenue of local governments, expenditures

of local governments for the economic activity, economically active businesses, education of the population, the municipality decision-making power and executive power, funding of the local governments allocated to culture, sports, the number of supported NGO projects.

As it was observed, the SC structure was divided into three groups: private, social and public. The levels of SC analysis are divided into national, regional and local ones, among which this research emphasises the regional and the local (the one of municipality provinces in the research) level.

The authors decided to base the SC comparison on the model developed by R. Cimdinis (2015), which comprises three groups of indicators: inhabitants and society as developers of social potential, population's participation in social processes, activities of social interaction and communities. The direct and subordinate indicators are distinguished in the indicator groups. The indicators: the number of population, its changes, age structure and employment are the indicators characterising the **inhabitants and society as SC developers** (Table 1) and are selected for comparison. The **population's participation in social processes** (Table 2) is the main indication of the population's activity. To compare the evaluation of participation, indicators about the operation of non-governmental organizations, activity during elections, as well as intensity of implementing the projects of the EU Funds were selected. The **existence of social interaction and activities of the communities (Table 3)** is the most significant and the most difficult element of social capital to be identified. As it was concluded from the SC theory, the quality of the human life is determined by the society's ability to interact socially and to trust, but a full-fledged course of these procedures requires the existence of communities and uniform and purposeful actions. Moreover, the development and the existence of communities are linked with shared priorities,

beliefs, interests, traditions and mutual relations whose functioning demands social interaction and networks.

To clarify the **SC potential**, the authors chose to compare Bauska and Dobeles municipality provinces (Table 1). The choice was determined by the following characteristic similarities: municipality provinces are located in Latvia, Zemgale region; similar distance to the capital; the size of the territory; the number of the population, as well as agriculture as the leading industry. Moreover, in both municipality provinces the number of population has reduced much faster (Table 1) in 2009-2016 than on average in Zemgale region, which indicates to the loss of SC potential. The population density is larger in Bauska municipality province, which is by 23 % larger than on average in Zemgale region. A larger population density (Table 1) allows the inhabitants to develop more compact networks for social interaction, which can be considered the prevalence of SC potential in Bauska municipality province.

The reduction of the working-age population (Table 1) can be observed in both provinces and in Zemgale region in total in the analysed period. The SC potential is related to the age structure of the population. The decreasing number of the working-age population reduces both the total SC of the territory and the number of choice for the local leaders who can influence the SC of the local governments both positively and negatively.

The number of population until the working age (Table 1) indicates to the SC potential that municipality provinces will have in the future. In Bauska municipality province, the future SC – the number of population until the working age – is by 2.2 % larger than that in Dobeles municipality province and by 0.3 % larger than the average in Zemgale region.

The unemployment (Table 1) level is similar in both municipality provinces and on average in Zemgale region, except the difference in 2016. The unemployment indicators in Dobeles

Table 1

**Indicators characterising inhabitants as the shapers of the social capital of society in Bauska and Dobele municipality provinces, the average in Zemgale region**

Indicators	Year	Bauska municipality province	Dobele municipality province	Average in Zemgale region
<b>Territory (thou. km<sup>2</sup>)</b>	2016	0.78	0.89	10.7
<b>Distance to Riga (km)</b>	2016	60	62	-
<b>Number of population (2016, thou.)</b>	2016	23.9	20.5	239
<b>Changes in the number of population(%)</b>	2009/2016	-9.3	-10.5	-8.5
<b>Population density (people/km<sup>2</sup>)</b>	2016	30	23	22
<b>Proportion of the working-age population(%)</b>	2014	63.7	63.4	63.1
	2015	63.7	63.4	63.1
	2016	62.6	60.4	62.3
<b>Proportion of the population until the working age(%)</b>	2014	15.3	15.0	15.1
	2015	15.5	15.1	15.3
	2016	15.7	15.2	14.6
<b>Unemployment rate(%)</b>	2014	6.3	8.5	6.5
	2015	7.1	7.2	6.5
	2016	6.7	7.3	6.2
<b>Revenue of local governments per capita</b>	2014	1164	1037	1049
	2015	1064	1062	1020
	2016	993	1134	1035

Source: authors' calculations based on CSB, MEPRD, NGO

municipality province are by 0.9 % larger than the average in Zemgale region, which purports a more unfavourable social and economic situation. The revenue of the local governments per capita indicates that in Dobele municipality province, the inhabitants utilise their SC potential more successfully and the population's remuneration for work increases in difference from Bauska municipality province where the revenue of the local government reduced by 7 % in 2016 if compared with 2015. The observations of the authors correspond to the conclusions of R. Cimdins (2015) that the internal social and economic processes of local governments have a large impact exactly regarding social activities or aspects of the SC potential.

According to J. Grizans (2015), revenues of local governments are directly linked with the business environment in the territory and the businesses able to operate in it. Insufficient budget resources of local governments, growing social problems, the outflow of inhabitants, the poor technical condition of roads and engineering infrastructure, a weak city management, crime and ecological problems are considered the most significant threats for the development of the business environment. The attitude, competence and capacity of the state and municipality institutions and local public organizations are becoming more topical. These drawbacks are directly related to the social capital of regional and local governments.

The indicators of the population's participation (Table 2) approve the activity of social groups and individuals, which is closely linked with the use of the opportunities of SC potential.

Indicators in attracting the EU Funds (Table 2) indicate to the activity of the social potential of the population of Dobele municipality province – by 212 EUR per inhabitant more than in Bauska municipality province and by 504 EUR per inhabitant more than the average in Zemgale region. In Bauska municipality province, this number is lower – 292 EUR per inhabitant.

The Funds relate to the EU funding allocated to the support for agriculture, also to LEADER projects that are meant for the support of local communities. Projects are submitted by entrepreneurs, NGOs and that approves the ability of the society and a sufficient knowledge capacity, thus also the impact of SC.

In Dobele municipality province (Table 2), SC has favourably enhanced the increase of both the total number of NGOs and the number of NGOs per 1000 inhabitants.

The increase of the number of NGOs (Table 2) indicates to the development of social relations and the ability of people to collaborate. Among the indicators of 2016, both municipality provinces exhibit an increase in the number of NGOs. Comparing with the average in Zemgale region, it has increased by 57 %. The rapid growth in the number of NGOs in both

municipality provinces approves the society's ability and sufficient capacity of SC when developing and implementing certain projects.

After the analysis of the financial statements of local governments available via the MEPRD, the authors conclude that expenditures of local governments for the economic activity (Table 2) (expenditures for maintaining the building authority and roads, implementing projects, tourism activities) are a feature of the SC quality and competence of local governments. In Bauska municipality province, these expenditures per capita are even by 79 % larger than in Dobele municipality province and by 57 % larger than on average in Zemgale region. It approves that **SC** competences for attracting resources of Funds is larger in Bauska municipality province.

The population's participation at the Council meetings indicates to the formal civic engagement activity and the population's sentiments. In the local government of Dobele municipality province the civic engagement at the meetings and the work of the committees is recorded, the active part of the society in an average period is 0.05 % of the total number of population. In Bauska municipality province, such an accounting is not performed, therefore it is impossible to compare the data. It is advisable to account for such data because the operation of the active social groups is a significant element of the existence of social capital.

Comparing the social interaction and the activity of communities of both municipality provinces (Table 3), the authors' opinion coincides with the one of R. Cimdins (2015) that the social structure in the studied territories with a sufficient interaction of the active social groups and the existence of community links characterises the quality of social capital, where the sufficient size of the part of the active public and the socially organized activity are the main basic elements of the social potential. An explanation for the sufficiency of the size of the part of the active public cannot be found in the

theory, which can be understood like this: the more active the part of the public, the better.

Table 2

**Indicators characterising the population's participation in Bauska and Dobele municipality provinces, on average in Zemgale region in 2014-2016**

Indicators	Year	Bauska municipality province	Dobele municipality province	Average in Zemgale region
Resources of the EU Funds (EAGF, EAFRD, EFF) per capita (EUR)	2002/2015	1539	1751	1247
Population's participation at the meetings of the Council and committees	2013	0	89	-
	2014	0	91	-
	2015	0	96	-
Expenditures for economic activity per capita (EUR)	2013	122	145	45
	2014	247	69	48
	2015	75	16	43
Economically active businesses (per 1000 inhabitants)	2014	64	59	63
	2015	66	64	67
	2016	66	64	66
Number of registered NGOs	2014	75	99	47
	2015	83	112	49
	2016	153	152	87
Registered NGOs per 1000 inhabitants	2014	2.6	4.7	4.2
	2015	2.7	4	4.5
	2016	6.4	7.4	8.04
Voters' activity(%)	2009	44.5	46.5	50.9
	2013	32.3	35.1	42.0
	2014	55.2	53.9	56.5

**Source: authors' calculations, based on RSS, MEPRD, CSB, ER, CEC**

During the theoretical research, a regularity was stated: that a higher level of knowledge determines a higher social potential (Iyer S., et al., 2005); therefore, the authors considered it significant to investigate the higher education level of the population, the executive power and the decision-making power of the municipality provinces, which is a significant indicator of the society's social potential. Moreover, the authors support M. Pelse's (2010) opinion about the relation of the potential of social capital with the individual's-leader's role in rural territories, which



is especially important for the support to the regional development and the development of a municipality province.

Table 3

**Social interaction and activity of the communities in Bauska and Dobele municipality provinces, on average in Zemgale region**

Indicators	Year	Bauska municipality province	Dobele municipality province	Average in Zemgale region
Inhabitants with higher education(%)	2011	13	13	15
Employees of local governments with higher education(%)	2013	57	49	-
	2014	57	51	-
	2015	57	53	-
Decision-making power with higher education(%)	2013	82	71	-
Funding for culture, sports per capita (EUR)	2013	81	64	-
	2014	113	63	-
	2015	101	80	-
Number of NGO projects supported by the local governments	2013	7	129	-
	2014	63	149	-
	2015	71	142	-
Voters' activity(%)	2009	44,5	46.5	50.9
	2013	32,3	35.1	42.0
	2014	55,2	53.9	56.5

Source: authors' calculations, based on CSB, MEPRD, CEC

In both analysed municipality provinces (Table 3), the number of population with higher education is equal, but it is by 2 % lower than on average in Zemgale region and purports the insufficiency of the population's social capital and growth opportunities.

Comparing the level of education of the employees of local governments and the representatives of the decision-making bodies in both municipality provinces (Table 3), the authors conclude that in 2013 in Bauska municipality province it is higher by 8 % and 11 % respectively, which means that this municipality province has a higher SC potential. However, over three years, the level of higher education of the employees in Bauska municipality province has not increased, but in

Dobele municipality province it has grown by 4 %; thus, the indicators purport the growth of the SC potential of the latter.

Culture and sports events and activities enhance the population's sense of belongingness, interest and desire to spend time in their municipality province. In both municipality provinces (Table 3), funding for culture and sports per capita has increased in the analysed period, but in Bauska municipality province it is by 21 % larger than in Dobele municipality province, which indicates to enhancing the SC potential in the municipality province.

The number of NGO projects supported by the local governments indicates to significant differences between both municipality provinces – from 86-122 projects a year more in Dobele municipality province. As it was stated in the theory, financial support (funding allocated to NGO projects in local governments) fosters the development of civil society, allows the development of local community and overall participation of the inhabitants in social life, simultaneously organizing a better life environment in the municipality province. The number of supported NGO projects in Bauska municipality province indicates to insufficient quality of SC governance. The authors would recommend Bauska municipality province allocate larger resources to local government's supported NGO projects that would provide the opportunity for new NGOs to be established with the help of the projects.

The voters' activity approves the civic activity and the population's belief that participating in elections they can change something. In total, in Zemgale region the average population's electoral participation in 2009-2014 (Table 3) fluctuates from 42-56.5 %.

Based on the authors' observation, the decision-making power is not always able to implement the development strategy designed and approved by the local government because local governments lack resources. This is one of

the reasons why social activity and civic engagement are low.

### **Conclusions, proposals, recommendation**

1) The essence of **SC** is related to private and public benefits:

- at the individual level – better mutual contacts;
- at the public level – people's ability to work in a group and organizations to attain goals.

2) **SC** potential is the competences, knowledge and skills possessed by individuals and groups. High population's participation is directly correlated with SC, which depends on the level of education.

3) Core indicators and subordinate indicators are used to measure **SC**. Core indicators demonstrate the presence of SC, subordinate – the impact of SC.

4) The lack of **SC** influences the income of local governments and households, social differences and changes in the population number, weakens the governance of municipalities and fosters crime.

5) Comparing the core SC indicators of Bauska and Dobeles municipality provinces, it is stated that:

- the number of NGOs has increased, which purports about the development and the increase of the population's collaboration;
- activity in attracting the Funds purports about the presence of the population's **SC** and competences.

6) Comparing the SC potential – level of education, it is observed that it is similar for the population of both municipality provinces, but it is insufficient; there exists the growth opportunity. In Bauska municipality province, the **SC** potential is higher for the employees of the decision-making power and the local government than it is in Dobeles municipality province.

7) Comparing the SC subordinate indicators, it is concluded that:

8) in both municipality provinces and in Zemgale region, the number of population and the number of working-age population have decreased, which has reduced the total **SC** of the municipality provinces and the region and has reduced the number of choices for local leaders;

9) The social and economic situation is more unfavourable in Dobeles municipality province, where the unemployment rate is larger than the average in Zemgale region and that indicates to insufficient use of **SC**.

10) The revenue of the local government per capita indicates that in Dobeles municipality province **SC** is utilised more successfully than in Bauska municipality province.

11) The **SC** competences of the local government of Bauska municipality province to attract the financing of the Funds are larger.

- In Bauska municipality province, expenditures for culture and sports to foster the **SC** potential are by 21 % larger than in Dobeles municipality province.

- In both municipality provinces, the civic activity during the elections fluctuates from 42-56.5 %, which testifies of an average trust to the local power.

12) For **SC** to be utilised more successfully in Bauska municipality province, it is necessary to account civic engagement in order to analyse the activity of individuals and social groups, to search for new opportunities to foster **SC**.

13) It is recommended for Bauska municipality province to allocate more financial resources to NGO projects supported by the local government in order to provide opportunities for new NGOs to develop with the help of the projects.

14) Summarizing a range of statistical data about Bauska and Dobeles municipality provinces, it can be concluded that in certain analysed categories the indicators of the **SC**

potential have been insufficient for all the economic development of the territory existing **SC** potential to be utilised for the

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## CREATIVE LEARNING METHODS IN PRACTICE: EXPERIENCE OF LATVIAN EDUCATORS

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**Abstract.** Creativity is seen and described as crucial skill for young people as society and economics have gone through significant transitions recently. Creative thinking and action are considered as a tool to adapt to the labour market and rapid changes taking place in society. Educational system is that particular social institute that develops creativity through implementation of creative learning methods. However, as sociologists claim, the development of creativity is always rooted in social, economic, political, cultural system of the society that can force or block this process.

Authors of the theses were involved in the project "Looking@Learning"<sup>1</sup> (2015-2016) and conducted research during the implementation of creative learning methods both in formal and informal institutions of education. The aim of the thesis is to describe the experience of educators during implementation of creative learning methods highlighting contextual factors of the process. Qualitative analysis of educators' diaries was conducted. Results of the research show that the use of creative learning methods triggers positive functions both at individual and community level; good practices spread among formal and informal agents of education promoting collaboration. Social system is rather free to come in and develop new approaches to education; however the weakest point is almost absolute responsibility of individual teachers in the installation of creative learning methods. This process should receive some support for further institutionalisation process.

**Key words:** creativity, creative learning methods, social context.

**JEL code:** I21

### Introduction

Topicality and novelty of the theses are grounded on a set of deep changes and challenges both on global and local scale. Societies and economies have experienced a profound transformation from reliance on an industrial to a knowledge base. The major trends in societies and economies are increasingly focusing on the demanding kinds of learning that is called as "21<sup>st</sup> century competences". Young people should acquire deep understanding of complex concepts, gain media literacy, the ability to use advanced information technologies; also team work social and communication skills are crucial (The Nature of..., 2010). Europe faces a number of challenges that can only be met if it has innovative, well-educated, and entrepreneurial citizens who, whatever their walk of life, have the spirit and inquisitiveness to think in new ways, and the courage to meet and adapt to the challenges facing them (Entrepreneurship Education at..., 2012). Also employers argue that the current educational system "teaches yesterday's skills to tomorrow's graduates." Employers are concerned that many new job applicants lack "soft skills," such as interpersonal

communication and analytical thinking (Broek, van den, J., 2016).

During the 20<sup>th</sup> century, the concept of learning underwent important developments. Today, the dominant concept is socio-constructivist – in which learning is understood to be importantly shaped by the context in which it is situated and is actively constructed through social negotiation with others. On this understanding learning environments should be where: constructive, self – regulated learning is fostered; the learning is sensitive to context; it will often be collaborative (The Nature of..., 2010).

Therefore, educationalist Ken Robinson emphasizes that national educational systems are trying to determine how to educate children so that they can find their place in the economies of the 21<sup>st</sup> century and that one of the biggest challenges for national education systems is how to educate children that they have sense of cultural identity, they can pass on the cultural genes of our communities while being part of the globalization process (Robinson K., 2010).

Education as a social institute is viewed as a key element for driving above mentioned

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individual qualities. The way to respond to present challenges is creativity and implementing of creative learning methods. As theorists emphasize, there are three connected (and partially overlapping) areas of human activity related to any kind of development: creativity, problem solving and design. Creativity is the process of generating something new that has value. Problem solving is the process required when we seek some kind of a resolution, such as removal of a drawback or achievement of a specific enhancement or improvement. Problem solving usually includes creativity as a part of the process. Design activity is necessary when we are dealing with any kind of a project. The design process can include problem solving and, if necessary, creativity (Zusman, 1998). It also calls for willingness and adequate skills of teachers as teaching is a creative practice that requires the kind of open-minded, whole-hearted, flexible, improvisational (yet knowledgeable), and performative orientation. Fostering such a mindset amongst preservice teachers can be challenging, since they often see their future teaching-selves as altruistic yet authoritarian subject matter experts (O'Brien M., 2012).

Creativity is seen both from the individualist approaches (psychology, biology etc.) and from the contextualist approaches (sociology, history etc.) (Sawyer K.R., 2006). Sociological systems approach identifies multiple contextual factors – material, social, normative, economic and political – which play a role in driving, facilitating, and realizing creative initiatives, on the one hand; or, constraining or blocking creative processes and developments, on the other hand. The most obvious sociological instances of creativity are found in innovative groups and communities. But even "individual" innovators are located in culturally and socially established fields which provide symbols, concepts and models, established rules and norms, technologies and material resources as well as

creativity strategies and production functions (Burns T.R., Machado N., Coerte U., 2015).

Considering all above mentioned, authors turn to exploring the process of implementing creative learning methods in formal and informal institutions of education in Latvia.

Theoretically, the development of individual creativity is intended in political documents and formal goals of development of society in Latvia. Thus, Development Guidelines of Latvia 2014 – 2020 set that general education will promote creative thinking and problem solving; integrating the digital teaching/learning resources in the educational process; stimulating the individuality and the development of talents; implemented by young teachers who know well the teaching/learning methods of the 21<sup>st</sup> century (Izglitības attīstības pamatnostādnes..., 2013). Practically, interpretations and real practices of implementing creative learning methods vary significantly among educators and institutions of education in Latvia and face serious limitations based on traditional understanding of learning process (Bite D., Kronberga G., Kruzmetra Z., Janmere L., 2016).

The aim of the theses – describe the experience of educators during implementation of creative learning methods highlighting contextual factors of the process. Tasks are related to describing theoretical aspects of creativity and nowadays challenges in education and analysing of empirical information.

## **Research results and discussion**

### **1. Methodology of the research**

The theses include the part of the research that was carried out in the framework of the project "Looking@Learning". The first part of the research was called the *State of Art* research with the aim to understand perceptions of creative learning and creative learning environment among agents of formal and informal education (2015). The second part of the research was developed in order to monitor and assess the process of implementing different creative

learning methods both in formal and informal institutions of education in Latvia. One of the research methods that was chosen and is included in the theses is the analysis of documents of qualitative approach where educators' diaries were viewed as documents. Educators filled in diaries from September, 2015 until May, 2016 and they reflected on the experience and subjective characterisation and assessment of applied creative learning methods. The thesis uses the content of 45 diaries dealing with about 40 applied creative methods.

## 2. Document analysis

Educators' diaries reveal various methods that are used in both formal and non-formal learning environment; these methods were used with trainees of different ages starting with pre-schoolers and ending with Master's students.

Educators' diaries present different experiences of environment as a part of creative learning process. Not all creative activities require especially equipped space. It is enough if there are bare necessities: a computer and office supplies. Trainees are able to express themselves creatively with the minimal equipment. Educators suggest using all available facilities, for example, a library in order to undermine belief that teaching/learning can only take place in classrooms. Moreover, traditional rooms can be made cosier in order to facilitate the comprehension of a theme, for example, trainees and trainers can bring coffee and refreshment to encourage informal discussion and sharing of experience. Or trainees might listen to music during creative lessons. Educators' experience has also shown the importance of certain materials (e.g. *Fair trade* coffee, recycled materials) in organization of creative activities.

The study results also reveal opportunities to diversify the learning environment, such as placing games, magazines and so on in the hallways during the lesson breaks to encourage young people's interest and provide opportunity to spend their free time productively. As a

positive example, we can mention classes organized in K. Valdemara elementary school to help trainees make the choice in which of the Student Council commissions to participate. Being outdoors and observing silence can be viewed as a positive factor: "*Students really liked to be outdoors. Before making their choice some of them lay down on the benches looked into the sky and thought*". Educator pointed out that the change of environment motivates and causes interest.

Creative activities provide opportunity to see the same environment from a different point of view (in different seasons environmental objects can be used for various purposes without giving advance instructions on the use of new objects), thus encouraging cooperation ("*one realizes opportunities and shows them to others*"), trust, self-confidence, finding of "new combinations". At the same time the room where the activity takes place must fit the number and age of participants, content of the activity, for example, providing a chance to do something alone if that is intended in the lesson plan. According to research results, various forms of innovation and creative expression in Latvian formal and informal educational institutions are currently rather topical. Educators and educational administration go on experience visits, cooperate with representatives of non-formal education and learn a variety of ideas for improvement of space and creative workshops for the organization of creative activities. One of educators acknowledges that the attitude of the management of educational establishment is the crucial factor in encouraging both educators and learners.

It can be concluded on the basis of educators' diaries that creative, attractive learning environment is not always the main prerequisite for successful running of creative activities. Good results can be achieved with minor changes. At the same time, educational institutions pay more

attention to making the environment friendly and pleasant for trainees.

Trainees appreciate an opportunity to think, reflect, and speak of themselves, their goals, dreams and desires. This opportunity for trainees to generate and express ideas also motivates them to present and defend them. Educators point out that now and then some trainees astonish them with their ability to present their ideas and generally participate in the activities. The creative methods that are associated with opportunities for trainees to ponder about themselves, to acknowledge and formulate their feelings and ideas, are assessed as successful and expedient: *"During the learning process trainees need activities that create inner feelings, positive attitude towards something"*. Positively assessed are being those creative methods that allow trainees to know one another better (e.g. hobby game, praising one another), teach cooperation and mutual trust, respect towards one another's needs.

In order to discover which methods are the most useful and effective from the youth's perspective, a survey was organized in one of the schools where youth was asked to assess the methods used in different subjects. The results of this survey revealed that young people rather dislike classical teaching methods – lectures, presentations, summaries preferring freer methods that are closer linked to real life: discussions, museum visits, independent studies, abundance of examples in presentation of study materials, films etc. It is possible that students are looking for the easiest way for their learning, choosing not too sophisticated teaching methods; but it may also reflect inadequacy and ineffectiveness of the traditional teaching methods in the learning process.

It must be said that going outside the traditional framework of lessons is not easy and not always educators gain learners' approval. There are several possible reasons: laziness, some students admit, unwillingness to work hard

and the fear of going beyond normal boundaries: *"Everybody remained sitting at the desks the same way as before. It was obvious that students were afraid of doing something wrong"*. Similar experience is revealed by another educator who wrote that even trying to imagine their perfect learning environment learners' ideas were rather limited: *"Very few colours, rather traditional approach to fitting-out of the room"*. Thus, the creative methods initially encounter resistance, but gradually, with the support, encouragement, positive examples, learners may see their opportunities, choices and are able to look at things from a different point of view.

A thing that can contribute to creative thinking is a task where the result would be practically useful, for example, creating a bookmark or making a cuddly doll. As educators write, children and young people appreciate the methods, where the traditional teaching methods are interspersed with gaming elements making the study material easier to comprehend, as well as their links to the practical things of everyday life. Another motivating factor could be an opportunity to see the results of one's work in an exhibition or to incorporate initial ideas in school projects. For example, after a discussion about values, the youth in the town of Limbazi actively participated in the development of the plan for reducing specific problems in the school through the School Parliament: *"To present good example to the society and schoolmates, demonstrating that it is possible to live and behave differently, better"*. Educators also note as a positive factor the possibility of learners themselves to discuss an issue and come to their own conclusions.

Sometimes creative lessons give results that surpass the expected and give the so called synergy effect – mutual assistance, kindness, and understanding of one another. Youth easily breaks stereotypes (for example, boys do not want and are not able to sew) and unleash the better part of their personalities: *"Trainees sat in a circle around the worktable, shared their*



*impressions and childhood memories... there was an atmosphere of kindness, helpfulness and support".*

Educators and youth see limited time as one of the factors that hinder creative activities. Educators see unwillingness of youth to get involved in the proposed activities as challenging. They attempt to solve it by dividing trainees into groups so that every one of trainees would have some duties and no chance to avoid being a part. Lack of time is repeatedly mentioned in educators' diaries; furthermore, the possibility of fulfilling the plan slowly, talking about it, explaining the process, supporting young people, is considered as one of the success factors of creative lessons. Thus, several educators point out that it is better to organize a lesson where the emphasis is placed on living (experiencing) the process, instead of number of activities. It requires for the creative activity to be well prepared; trainers have to develop plan A and plan B (adjusting workshops to the age, gender of trainees, to premises and equipment, and especially to time framework), so that the situation could be adjusted if necessary. It is necessary in order to hold the student's interest and minimize the risk of them getting distracted, as well as give students time and opportunity to express their emotions. Perhaps, it would be good to respect those who do not want to participate and express themselves.

Particular emphasis should be placed on the combination of creative methods with traditional teaching methods and approaches. Educators' diary entries reveal positive experience with using creative learning methods in more difficult subjects, such as Latvian or English grammar. The experience of both educators and trainees tell of the effectiveness of the combined methods in learning of topics: *"Students liked the lesson; they often ask to repeat these types of lessons"*. However, diary analysis shows some signs that educators are trying to assess which expressions are creative and which are not. This is risky,

because this way creativity can be quite easily made into an ingredient of the traditional, authoritarian approach.

Educators' diaries also describe a situation when creative activities are less effective if youth and their educators are forced to participate in them. It means that creative activities cannot be implemented mechanically, subjecting to school administration instructions, without co-ordination with concerned educators and young people. The attitude of the colleagues is also important while implementing creative activities. If the colleagues do not support implementation of creative activities, to youth it gives an impression that this lesson is not important. And vice versa – the involvement of educators becomes an expression of respect to their colleagues and youth. Educators' diary entries confirm the idea that the implementation of creative methods is gradual, and first of all it requires a change in thinking and attitudes of educators. Consequently, the practice of sharing of the knowledge among colleagues, playing games together and allowing for creative expression is welcome.

It is important to explain the importance of non-formal education methods, their interfaces with everyday life, as well as to allow time for reflection on the things done and experienced during the lessons: *„change the belief that this style of training is aimed at self-development, rather than „silly game playing“"*.

One of the teachers' diaries reveals a successful experience, which can be viewed as a good practice in promoting creative learning environments. Namely, children and young people (ages 7-16) were entrusted with the responsibility to organize a Valentine's Day event at school on their own. The description of the process and results shows that youth people appreciate being entrusted with responsibility and are enthusiastic in carrying out their ideas. It also facilitates cooperation and mutual trust: *"An adult wants to control children fearing that children won't do things as well as an adult. But*

*when children are given freedom they surprise adults with interesting and sometimes extraordinary results".* The idea of entrusting youth with more responsibility is expressed in other research diaries as well, for example, assessing his/her own work and the work of others: *"Students believe that the teacher will do the assessing, instead of trying to evaluate their work, attitude, skill level themselves, making informed judgement"*.

A similar experience is also revealed by the representatives of Limbazi organized race "Forest trot", where the most appreciated aspect was the opportunity to participate for individuals of all ages, to be together with classmates and family: *"I liked everything! Delicious soup and great people!"*. Educators write that young people welcome those lessons that promote mutual cooperation, make it possible to get to know one another better, make friends with other children and young people, trainers and parents. Also creative activities are a good way for young people to talk about the common human values - honesty, fairness, equality etc. and a tool to build a community to some extent.

### **Conclusions, proposals, recommendations**

- 1) Creative methods applied by educators are diverse and cover both formal and non-formal educational spheres. It is valuable that there is cooperation between formal and informal education agents in organizing creative workshops and exchange of experience.
- 2) Educators' experience indicates that the environment in itself does not ensure the development of creativity. It is more motivated by adapting the environmental to a given lesson, by using particular instruments and without having to wait until all the rooms will be furnished 'creatively'; teacher's willingness and personal motivation act as a trigger and play central role in developing creative learning methods. In order to maintain this approach teachers have to

receive support from colleagues and administration.

- 3) The research results reveal the successes of the creative approach in mastering complex study material. However, the greatest recognition, even admiration from the viewpoint of young people is observed in cases where the classes contributed to their reflections about their feelings, thoughts, attitudes towards various issues, their worth, etc. They need time to think, to realize what is happening, to formulate their attitude towards various issues, discuss it with others. If you are given the chance, young people become attentive and involved, regardless of age; it means that young people value creative learning methods because they give opportunity to reflect of themselves and important things that obviously is not offered by traditional approach in education.
- 4) It is important to stress that creative activity cannot be forced. There are cases when young people engage in it formally as educators or educational management make to do so, it however leads to hostility and resentment. Creative activities cannot be implemented formally, mechanically and using one's authority. Responsibility must be balanced out among all involved parties. The experience of individual educators shows that increasing the responsibility of young people is essential in both formal and non-formal educational environment.
- 5) The research results reveal the classic clash between the traditional and creative approach to education, where everyone involved originally expects knowledge "from the above" instead of having to search for their own answers and solutions; this idea is changing gradually when young people and teachers realize their own responsibility about things.
- 6) Overall, the experience of educators implementing creative activities shows that it makes sense to introduce and develop them in

spite of some difficulties and problematic aspects. The results of the research confirm that creative learning approach is gradually developing in Latvia; it brings positive functions for an individual, community, system of education in Latvia and society as a whole.

7) On the one hand, educational and social system in Latvia seems to be quite open to

implementation of creative learning methods as there are no formal restrictions in it; it also receives support from young people and community; on the other hand, implementing of creative learning methods is based on one's initiative and as such it becomes a rather fragile social practice. It asks for more institutional support.

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## **DIMENSIONS OF YOUTH SELF-LEADERSHIP: MEASURING SKILLS, BEHAVIOURS AND COGNITIONS**

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**Abstract.** Fast changing environment indicates the increased need of flexibility, innovativeness and creativity. Managerial competence plays a critical role developing such organizational features. Self-leadership, as a concept of influencing yourself to achieve your objectives, is the first step to great leadership necessary for turning organization into successful. Self-leadership gets essential especially among young people, considering them as future leaders. Dimensions of youth self-leadership can be a contributing factor to successful management of future organizations. Though problem is stated as a question: what is self-leadership skills mastery level among young people. The aim of the paper is to measure dimensions of youth self-leadership identifying the most applied strategies. Analysis of scientific literature, questionnaire are used for research. Research revealed that young people (students) tend to use those strategies which don't require working with themselves and make more positive impact on them: visualizing successful performance, setting their goals and self-observation are more likely acceptable strategies than self-punishment, self-cueing, self-talk and evaluating their own beliefs and assumptions. Likewise, female students are more likely to use self-leadership strategies than male.

**Key words:** self-leadership, behaviour focused strategies, natural reward strategies, constructive thought strategies.

**JEL code:** J24, L29, M12

### **Introduction**

Fast changing environment indicates the increased need of flexibility, innovativeness and creativity. Not so long ago organizational flexibility, innovativeness and creativity were considered still as a competitive advantage, organizational aspiration; today, these organizational features move in the scale of understanding from the concept of competitive advantage to necessary requirement of leading organization. Managerial competence plays a critical role developing such organizational features. It is no longer enough to think just about knowledge, people development, leadership methods etc., self-development of each employee and especially of manager starts to play a key role. Self-leadership, as a concept of influencing yourself to achieve your objectives, is a first step to great leadership necessary for turning organization into successful.

Though self-leadership is the key importance object for manager of any organization, any sector, any location, there are some aspects for highlighting self-leadership importance in rural sector. Leaders' recruitment in challenging is small rural environments, often there is less choice of candidates for great managers, so developing self-leadership can be an effective

way to increase organization performance instead of changing manager. The work in rural organization (having in mind that small and medium organizations dominate) requires different skill set, manager has to do much more things himself, often he is the only person making decisions, so self-leadership becomes more important. Self-leadership is a part of leadership competence, so it can be stated that increasing level of self-leadership as a result increases general leadership competence (Houghton, Neck, Manz, 2003). In rural sector, general leadership competence gets even more important because of rural society characteristics as closer community. In developing self-leadership, managers and ever farmers have a potential to influence their environment, both immediate and the community (Brosnan, 2014).

Self-leadership has been an object of research for over more than 30 years. Several theories on the origin of self-leadership are proposed. According to S. E. Norris (2008), social learning theory (Bandura, 1977), indicating how people can influence their own cognition, motivation and behaviour (Yun, Coxs, Sims, 2006), is one of them. Another theory of the origin is social cognitive theory (Bandura, 1986) explaining that people and their environment interact continually

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(Satterfield, Davidson, 2002) and behavioural consequences serve as a sources of information and motivation (Bandura, 1986). Despite a few decades discussion about self-leadership, there is a growing body of literature that recognizes the importance of self-leadership (Manz, 1986; Houghton, Neck, 2002; Manz, Neck, 1992, 2004; Neck, Houghton, 2006; Neck, Manz, 2007, 2012; Houghton, Dawley, DiLiello, 2012; Noris, 2008; Ram, 2015). Self-leadership is still a growing concern, though it gets essential to develop self-leadership especially among young people, considering them as future leaders. Dimensions of youth self-leadership can be a contributing factor to successful management of future organizations. Though scientific problem is formulated as a question: what is the self-leadership skills mastery level among young people?

The object of the paper is youth self-leadership dimensions.

The aim of the paper is to measure dimensions of youth self-leadership identifying the most applied strategies.

The methods of research: analysis of scientific literature, the survey using the revised self-leadership questionnaire (RSLQ) (Houghton, Neck, 2002) was conducted. SPSS was used for data analysis.

### **Theoretical background**

Self-leadership concept evolved from self-management theory. There is no single definition of self-leadership, but most of them mention the same key attributes. Self-leadership can be understood as a self-evaluation and self-influence process through which individuals identify and replace ineffective behaviours and negative thought processes with more effective behaviours and positive through processes, thereby enhancing personal accountability and improving professional performance (Manz, 1986; Neck, Houghton, 2006; Neck, Manz, 2007). It is a process through which people achieve the self-

direction and self-motivation necessary to perform (Manz, 1986; Manz, Neck, 2004).

Self-leadership covers 3 categories of strategies: behaviour focused strategies, natural reward strategies, constructive thought strategies (Neck, Houghton, 2006).

Behaviour focused strategies are aimed at increasing self-awareness leading to management of behaviours (Ghosh, 2015), facilitate personal behavioural management (Norris, 2008), are helpful for managing necessary, but potentially unpleasant behaviours (Houghton, Dawley, DiLiello, 2012), are designed to encourage positive, desirable behaviours that lead to successful outcomes, while suppressing negative, undesirable behaviours (Neck, Houghton, 2006). Behaviour focused strategies encompass self-observation, self-goal setting, self-reward, self-punishment, self-cueing (Neck, Houghton, 2006). Self-observation can be understood as increase of awareness about when and why to act (Ram, 2015), provides information that assists in managing behaviour (Houghton, Neck, 2002). Based on self-assessment ones should set their goals, as well it would be useful to define, how these goals can be achieved. Personal goals may lead to improved performance through enhanced motivation (Manz, Neck, 2004). Self-reward and self-punishment is like evaluation of goal attainment, self-feedback, compensation or fining. Both self-reward and self-punishment serve for controlling behaviour by rewarding with what one's like or depriving themselves of favourite things (Neck, Manz, 2007). Self-reward is considered as more effective strategy, because self-punishment is more often counterproductive and should be avoided (Neck, Houghton, 2006). Meanwhile the scale of self-reward can be wide: starting with praising oneself ending with something tangible. Self-cueing can be understood as external signalling (Ram, 2015), using physical objects as screensavers, to do lists, notes, wall hangings etc. These physical objects work as reminders,

catch the attention (Neck, Manz, 2012), help to focus on the task.

Natural reward strategies are intended to focus on positive and enjoyable aspects of tasks (Houghton, Neck, 2002), help individuals shape perceptions, increase intrinsic motivation, self-determination, feeling of competence (Deci, Ryan, 1985; Neck, Houghton, 2006). Natural reward strategies recommend to concentrate attention on the aspects of a major task that are more interesting and less tedious (Houghton, Dawley, DiLiello, 2012). According to natural strategies, pleasant features in activity make the task itself pleasant and rewarding. Other part of natural reward strategies emphasizes shifting attention away from unpleasant features of a task, which leads to enhanced achievement motivation (Neck, Manz, 2012). These two strategies together enhance performance, help to keep task-related behaviour (Neck, Houghton, 2006).

Constructive thought strategies are aimed at reshaping certain key mental processes in order to facilitate more positive and optimistic thinking patterns and mental processes that can have a significant impact on individual performance (Neck, Houghton, 2006), positively impact outcome expectations (Boss, Simms, 2008), create positive habitual ways of thinking, replacing negative destructive self-talk by optimistic self-talk (Neck, Houghton, 2006, Seligman, 1991). Constructive thought strategies encompass three aspects: identifying and replacing dysfunctional beliefs, mental imagery and self-talk. Dysfunctional irrational beliefs should be replaced by more constructive thought processes (Manz, Neck, 2004), because dysfunctional irrational beliefs often lead to depression, unhappiness, personal ineffectiveness (Burns, 2000). The same logic is valid for self-talk: destructive self-talk should be replaced by more positive dialogue (Seligman, 1991), because positive self-dialogue help people complete the task better (Neck, Manz, 2012).

Mental imagery refers to the process of visualizing successful performance prior to actual performance (Neck, Manz, 1992). According to C. P. Neck and J. D. Houghton (2006), people who visualize successful performance before actually engaging in performance are much more likely to perform successfully when faced with the actual task.

All three categories' strategies (behaviour focused strategies, natural reward strategies and constructive thought strategies) increase personal effectiveness through facilitating behaviour management, helping individuals shape perceptions and build enjoyable aspects into activities and creating positive ways of thinking (Norris, 2008).

### **Methodological background**

*Sample.* Participants for the study were 79 students studying in various business bachelor and masters programmes at Vytautas Magnus university. The sample contained almost equal proportion of men (50.63 %) and women (49.37 %). Almost all were within the age range from 18 to 24 years, four of them were in age range from 25 to 30 and one was older than 35 years. Out of 79 students, 42 were working in parallel with their studies. They had work experience range from less than 1 year to more than 10 years. 12 participants had work experience less than 1 year, maximum frequency at 1 and 3 years of work experience i.e., 17 participants, 9 participants – from 3 to 5 years, 3 participants – from 5 to 7 years, just 1 participant had more than 10 years of work experience, while it is showing that most participants were new to job market.

*Instrumentation.* Students' self-leadership was measured using the revised self-leadership questionnaire (RSLQ) (Houghton, Neck, 2002). The RSLQ consists of 35 items in nine distinct sub-scales representing the three primary self-leadership dimensions. The behaviour-focused dimension is represented by five sub-scales labelled:

- (1) Self-goal setting (five items);
- (2) Self-reward (three items);
- (3) Self-punishment (four items);
- (4) Self-observation (four items); and
- (5) Self-cueing (two items).

A single sub-scale consisting of five items represents the natural rewards dimension. The

constructive thought dimension is represented by three sub-scales labelled:

- (1) Visualizing successful performance (five items);
- (2) Self-talk (three items); and
- (3) Evaluating belief and assumptions (four items) (Table 1).

Table 1

**Self-leadership dimensions and sub-scales**

Dimensions	Sub-scales	Scale items
Behaviour-focused strategies	Self-goal setting	2, 11, 20, 28, 34
	Self-reward	4, 13, 22
	Self-punishment	6, 15, 24, 30
	Self-observation	7, 16, 25, 31
	Self-cueing	9, 18
Natural reward strategies	Focusing thoughts on natural rewards	8, 17, 26, 32, 35
Constructive thought pattern strategies	Visualizing successful performance	1, 10, 19, 27, 33
	Self-talk	3, 12, 21
	Evaluating belief and assumptions	5, 14, 23, 29

Participants had to indicate their level of agreement with 35 evaluative statements about self-leadership on a 5-point Likert scale (ranging from strongly agree to strongly disagree).

The revised self-leadership questionnaire (RSLQ) (Houghton, Neck, 2002) was translated in to Lithuanian language. The reliability of a questionnaire was tested using Cronbach's alpha statistical method. Generally, a questionnaire with an  $\alpha$  of 0.8 is considered reliable (Field, 2009). Hence, this questionnaire certainly is reliable, since the  $\alpha$  is 0.87.

**Research results**

Results indicated the dimensions of youth self-leadership, i.e. how self-leadership strategies: behaviour-focused, natural rewards and constructive thought are used among the students. The results are reported in Figure 1. None of three self-leadership strategies is used at

the highest level among the students: behaviour-focused mean - 3.88, natural rewards mean - 4.08 and constructive thought mean - 3.92. Though all three self-leadership strategies are used at approximately same level, students tend most to focus on positive and enjoyable aspects of tasks using natural rewards strategies of self-leadership. It is obvious that students tend to use those strategies which don't require working with themselves and make more positive impact on them: visualizing successful performance, setting their goals and self-observation are more likely acceptable strategies than self-punishment, self-cueing, self-talk and evaluating their own beliefs and assumptions (latter all means are the lowest). Self-cueing mean is the lowest (3.68), students are not used to write notes or use reminders to help them focus on things that need to be accomplished.

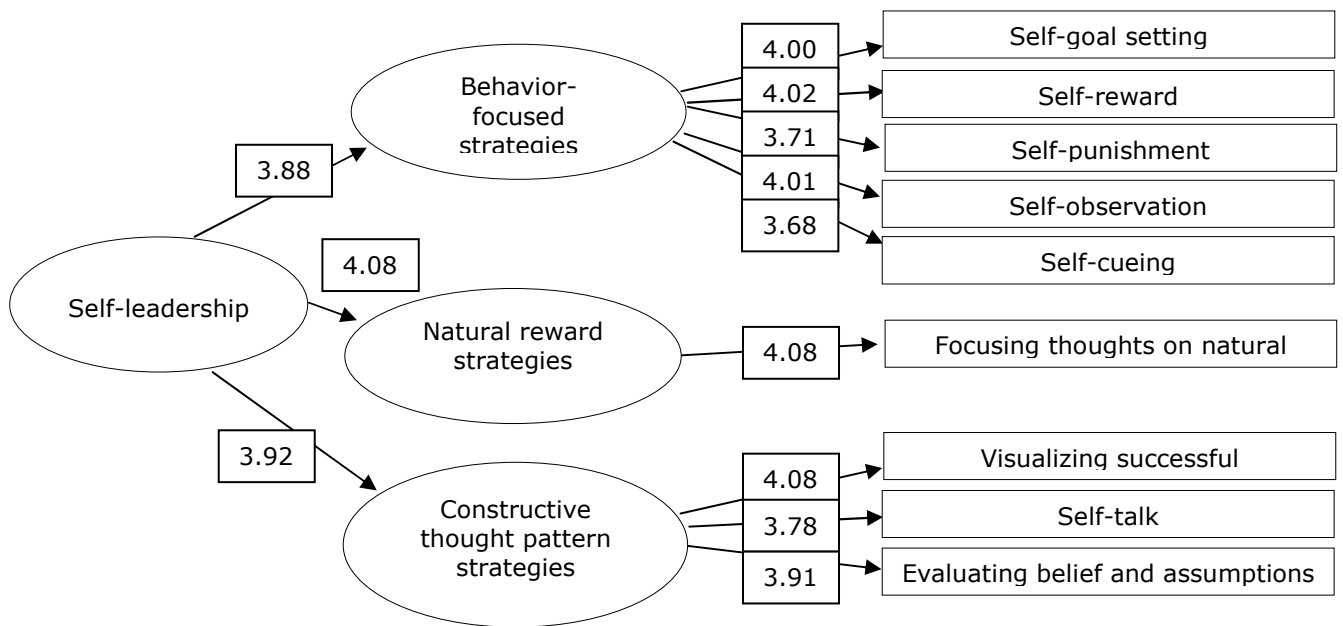


Fig. 1. Dimensions of youth self-leadership

Findings of the research revealed that female students are more likely to use self-leadership strategies than males (Table 2). Students (age from 25 to 30) showed higher level in applying strategies than younger students (age from 18 to 24). It may be related with job experience length and the position in organizational hierarchical structure, i.e. students who had more than 1 year work experience are more likely to use all three self-leadership strategies. There is obvious usage of strategies among those who work at the highest management level of organization, i.e. executives or owners of their own business. Noted that executives natural reward habits are

at the highest level (mean 5.00), thus it may be assumed that persons in high positions may prioritize and choose how and what activities they want to do, search their own favourite way to get things done, enjoying it rather than just trying to get it over, and surround themselves with the people who bring out their desirable behaviours. Other strategies: behaviour-focused and constructive thought showed high means (4.44 and 4.22), allowing suppose people in a high positions have strong self-leadership habits, which may be one of the main competencies which led them to success (Table 3).

Table 2

**Self-leadership strategies' means by gender and age range**

	Behaviour-focused strategies	Natural reward strategies	Constructive thought pattern strategies
<b>Gender</b>			
Male	3.73	3.98	3.77
Female	4.04	4.18	4.08
<b>Age range</b>			
From 18 to 24	3.86	4.07	3.89
From 25 to 30	4.23	4.10	4.44
More than 35	3.97	4.40	4.52



Table 3

**Self-leadership strategies' means by job position and work experience**

	Behaviour-focused strategies	Natural reward strategies	Constructive thought pattern strategies
<b>Job position</b>			
Highest level executive	4.44	5.00	4.22
Middle level manager	3.94	4.50	4.36
Manager	4.00	4.31	4.14
Technical employee	3.75	4.25	3.85
Business owner	3.89	4.15	3.98
Other	4.24	4.33	4.12
<b>Work experience</b>			
Less than 1 year	3.92	4.37	4.01
From 1 to 3 years	4.11	4.20	4.07
From 3 to 5 years	3.98	4.31	4.09
From 5 to 7 years	3.81	4.20	4.05
More than 10 years	3.97	4.40	4.52

Analysis of correlations between behaviour-focused, natural rewards and constructive thought strategies' variables showed that all three self-leadership strategies had positive, significant correlation (Table 4). It may be assumed that using and strengthening habits of one's self-leadership strategy may cause other strategies' skills development. Self-leadership skills could be developed progressively, i.e. fostering students use constructive thought strategies, hereby other habits of self-leadership may intensify naturally.

Summarizing the research leads to insight that developing students' self-leadership should be a priority, reasoning that there was obvious high usage of strategies among those who work at the highest management level of organization. By fostering and educating self-leadership in universities, students could already have mastered leadership competencies and be prepared for competitive labour market rather gaining them through years of work tenure.

Table 4

**Correlations of Self-leadership dimensions**

		Behaviour-focused strategies	Natural reward strategies	Constructive thought pattern strategies
Behaviour-focused strategies	Pearson Correlation	1	.423**	.601**
	Sig. (2-tailed)		.000	.000
	N	79	79	79
Natural reward strategies	Pearson Correlation	.423**	1	.507**
	Sig. (2-tailed)	.000		.000
	N	79	79	79
Constructive thought pattern strategies	Pearson Correlation	.601**	.507**	1
	Sig. (2-tailed)	.000	.000	
	N	79	79	79

**\*\*.** Correlation is significant at the 0.01 level (2-tailed).

**Conclusions, proposals, recommendations**

1) Self-leadership, as a concept of influencing yourself to achieve your objectives, is a first step to great leadership necessary for turning organization into successful. The findings of

this study imply that self-leadership is a primary tool for manager of any organization, any sector, any location.

2) Universities preparing new generation of employees should advert to self-leadership as

a key competence development. Youth – future managers and leaders should be highly aware of behaviour-focused, natural rewards and constructive thought strategies, which may be the key for their successful career path.

- 3) The results of the study showed all three self-leadership strategies used in approximately same level, but not in a highest level. Though students tend most to focus on positive and enjoyable aspects of tasks using natural rewards strategies of self-leadership. In contrast, female students are more likely to use self-leadership strategies than males, older respondents, as well as ones who had work experience showed higher level in applying strategies than younger students or with less work experience.
- 4) In this study, mastery level of dimensions of youth self-leadership was revealed, future research should continue to examine self-leadership phenomena more broadly among various university study programs, comparing data between different universities. Further

longitude research with random sampling is recommended.

- 5) Analysis of correlations between behaviour-focused, natural rewards and constructive thought strategies variables showed that all three self-leadership strategies had positive, significant correlation. It may be assumed that one of these factors influences other, but that kind of relation should be explored in an additional research.
- 6) Summarising the results of the research, authors recommend that structured self-leadership training or course should be conducted for students in universities. Such a course could be integrated in the study programmes to strengthen the habits of self-leadership. It could have the dual effect of increasing self-leading behaviours, which may affect students future work habitude and also present studying practices improving students' accomplishments and intrinsic motivation.

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## **STEP TOWARDS ALTERNATIVE CHILD CARE: ANALYSIS OF CHILD CARE DEINSTITUTIONALIZATION COMPONENTS (BASED ON THE RESEARCH IN VIDZEME REGION, LATVIA)**

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**Abstract.** A child is the smallest and the most vulnerable part of the society to whom only a family has the ability to provide the most sincere attitude and a personalized approach. However, many children for various reasons still have been left without parental care and are under the guardian of state institutions. An alternative to institutional care is childcare deinstitutionalization. Its objective is to provide a child care as similar as possible to that of a family. It means decreasing the number of children in institutions and increasing number of children in alternative care forms, developing basic services to ensure the necessary processes of child's daily development, child supervision and protection, and supporting parents.

The aim of this article is to examine what basic components of child DI are used in Vidzeme region child care institutions fully, partially or are not in use, using the simulation model in the simulation program STELLA created by Kristine Legzdina in her Master Thesis. To obtain the necessary data, were used methods such as- interviews with the heads of Vidzeme residential care, questionnaires were distributed to the employees of residential care and Vidzeme planning region municipalities having at least one residential care facility situated on their territory. After the simulation model verification, it was validated through an expert validation method.

**Key words:** Childcare DI; Planning model; Discrete event simulation

**JEL code.** I3 Welfare, Well-Being, and Poverty.

### **Introduction**

Institutional and out-of-family care became more relevant along with the application for the accession to the European Union. A part of the criteria was introduced in 2004. However, deinstitutionalisation (DI) of childcare cannot be regarded as regulated. The topicality of this issue is of cyclical nature determined by the alarming information on out-of-family care published in the media. In 2015, this issue was raised by the study published by the Ombudsman of the Republic of Latvia on the placement of institutionalised children in psychoneurological hospitals which from the local governments' point of view seemed to be a much more financially viable "type of care", because in such cases it is the state's duty to cover the costs related to these children. Although the physical size of institutions is being reduced, the total number of institutionalised children is still high. According to the data of the Ministry of Welfare, the number of institutionalised children under two years of age has decreased twice during the last two years. For comparison: in 2012, there were 196 institutionalised children of this age, in 2013 — 166, in 2014 — 115, in 2015 — 102, but

as of 1 November 2016 — 80 children. These data require additional studies to assess the overall situation, because the data of the Central Statistical Bureau regarding the terminated custody rights indicate a reduction in the number of cases. Overall, as of 1 January 2016, 7200 children under 18 years of age were in out-of-family care in Latvia. Out of those children, 1207 lived in foster care, 3757 were under guardianship and the other 2236 lived in social houses (Ministry of Welfare; Pāparde, 2016).

According to the practice of other countries, two directions of development are possible. One of them is placement of children in families. Implementation of this approach is attempted by several Latvian local governments, where it has proven to be rather successful as acknowledged by the Ombudsman. These local governments include Rucava, Priekule, Alsunga, Mersrags, Adazi, Malpils, Krimulda, Beverina, Naukseni, Cesvaine, Rugaji, Baltinava and Karsava (Zvirbulis, 2015). At the same time, some local governments do not include any families prepared to accept a child taken into state custody. Such cases require implementation of the other direction of development proposing to

form SOS children's villages based on family ties. There are only two of those in Latvia — in Valmiera and Islice (amalgamated municipality of Bauska).

Two major issues should be addressed — development of sustainable strategies at the level of decision-makers and change in the attitude of people working on everyday basis with children left without parental care. The first of these requirements arises due to the fact that when the policy changes more often than electoral cycles, it means that the policy is unstable — in such situation, not only residents find it hard to plan for the future, but also childcare institutions have difficulty implementing targeted measures and relying on their sustainability. Thus, the succession is broken.

To develop the Master's thesis, K. Legzdina (Legzdina, 2016) used interviews with heads of childcare institutions in Vidzeme Region as one of her research methods. As a result, these interviews revealed their lack of faith in the DI process of childcare. Certainly, it may be due to a number of reasons; however, the relevant workers need to have a clear vision suggesting that the move towards DI will be inevitable. Several heads of institutions seemed to believe that the DI process could be bypassed. The indecisiveness of decision-makers on childcare issues is implied also by the Deputy State Secretary of the Ministry of Welfare, Liga Abolina, who claimed at that time (November 2016) that the Saeima was reviewing amendments to the Social Services and Social Assistance Law to determine that children may be placed in institutions only in crisis situations and children under 4 years of age can be held in institutions no longer than six months. The same issue was reviewed in the same way back when the Ministry of Children and Family Affairs still existed (in 2008). The issue was reviewed then and is again being reviewed now which raises the question — what are the factors preventing decision-makers from making a decision? Also, as shown by the

practice in Latvia, the average stay of a child in out-of-family childcare institutions lasts 2 to 6 years, but 12 % of children stay in these institutions for more than 10 years (Ombudsman of the Republic of Latvia, 2015).

The second factor requiring immediate action is the change in the attitude of workers. The Master's thesis prepared by K. Legzdina revealed that almost a half of the workers surveyed in the institutions of Vidzeme Region believe that the children landed in institutional care are less able than the ones growing up in families (Legzdina, 2016). This is one of the factors tending to prevent families from accepting any form of custody over a child growing up in institutions, and information campaigns and support groups are used as an attempt to overcome this fear. Then why do we try to convince the society of how wrong this statement is if even the workers representing this sector do not believe in that? Furthermore, also orphan's courts have the same attitude problem. The Ombudsman of the Republic of Latvia arrived to a similar conclusion in the report of 11.11.2016. The analysis of extracts from the decisions of orphan's courts on taking a child into custody creates an impression that it is also necessary to raise awareness among orphan's courts on child's need for family care and educate these courts on objectives of the DI process and achievable results. The following is one of the many examples included in the report of the Ombudsman of the Republic of Latvia: *"A baby girl (2 months old) together with her brother (15 months old) was taken from their family. The grandmother expressed orally her wish to become a guardian of these children, but she never submitted the relevant documents. The orphan's court concluded that the most suitable way to provide out-of-family care is to place the children in an institution until the orphan's court would find a guardian or a foster family. Both of them were placed together in a state social care centre (VSAC). As soon as the brother reached 2 years of age, the children were separated*

*because the brother was placed in a municipal children's home."*

If the only people left to care for a child have a negative attitude, then we also cannot expect a positive change in the attitude of children themselves. The child will always be the one to be affected the most by this situation. All parties engaged in this sector must understand that a failure to make decisions and strive towards a life of dignity for everyone is irresponsible. If irresponsible parents are denied the right to their children, particular responsibility must be assumed by decision-making and executive institutions that have been entrusted by the society and state with the duty to care for those who cannot fend for themselves.

### **Concept of childcare DI**

DI concept in sociology is originally a movement that advocates the transfer of mentally disabled people from public or private institutions back to their families or into community-based homes. While concentrated primarily on mentally ill people, currently the concept may also describe similar transfers involving prisoners, orphans, or other individuals previously confined to institutions (Britannica).

There is no single internationally accepted definition of alternative childcare, however, it can be divided into formal and informal. The formal care refers to the care where the child is given the family environment- it can be both public and private sector institutions, such as group homes. The informal alternative care is a care which is not supported by the State, but by the relatives or other families (Roby, 2011). DI is often understood too simply - with closing of institutions (Europeran Expert Group, 2012). The United Nations Children's Fund (or UNICEF) highlights that simple closing of institutions does not mean DI. First of all, DI can be defined as the process of transformation planning, which, by closing or reducing the number of institutions, opens services which are focused on the outcome.

Those standards require that institutional care is one option among others and is used in the best interests of a child- meeting his/her needs and providing adequate living conditions (UNICEF, 2010). However, this definition does not cover everything. It is possible to understand the DE process only by understanding its basic components. To create a childcare DI simulation model, feasibility studies – literature studies- were carried out, as a result of which the childcare DI basic components have been identified.

Since the alternative childcare is a relatively new approach both in Latvia and world-wide, there are no ready-made simulation models, which can be picked up and used as an example. The fact whether the selected criteria can be considered as the childcare DI basic components was verified by the author by carrying out an interview with several experts.

The developed simulation model not only helps to determine the implementation level of the DI process, but also allows taking a look at the components that require or don't require further financial contributions.

### **Verification of simulation model**

Verification of the simulation model shall be carried out in order to avoid gaps in the model, which could affect the real system coverage. The simulation model shall be able to cover the system (Hillstone, 2003). Of course, a well-covered system is a very subjective point of view; therefore the model validation usually takes place after the model verification. During these studies, the simulation model verification was carried out in three rounds.

In all three rounds the model has slightly changed, because functional weaknesses of the model have been found during the verification. The main errors appeared in mathematical formulas of model converters.

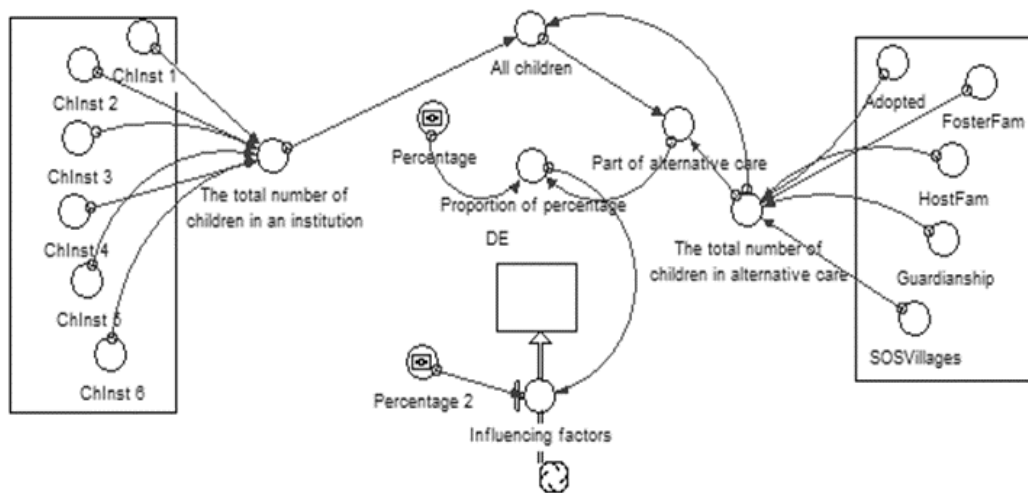


Fig.1 The upper part of the model

Since the model is formed in the range from 0 to 1, the data should generate in the same amplitude. At the original version the data was generating also in the minus amplitude. After formula function testing, the simulation model was divided into two smaller parts in order to understand whether they generate accurate data. The lower part of the simulation model worked accurately. In order to verify it, three different values were entered in the converter of each component. By entering "0.33 Value\_education", in the converted *education* should appear 0.33. By entering "0.20 Value\_education", in the converted *education* should appear 0.13, according to adopted IF / THEN / IF formula. By entering the value "0 Value\_education", in the converted *education* should appear 0. Further on the upper part of the model was tested. It could not be maintained in its original version, because it generated "1" in all cases without taking into account whether all of the children were placed in the institutions or only a half or less than a half of them. As the number of children was not in the range from 0 to 1, but was measurable in hundreds, it had to be modified so as to produce a number between 0 and 1.

In the flow "Institutions", "The total number of children in the institution" was divided by "All children", obtaining a part as a result. This approach turned out to be wrong because there will always be "1" in the reservoir, even if the

vast majority of children will be transferred to an institution, which is completely contrary to the DI. As a result, "weight" should be given to the right side- children who are placed in a family environment. Since the theory states that the placement of children in a family environment, such as moving them from an institution to the SOS village, does not mean the DI, but also all necessary services should be developed (the lower part of the model), then the author allocated a percentage breakdown to the upper and lower part. The following model was developed (Fig. 1).

As it can be seen from Fig. 1, two new converters "Percentage" and "Percentage\_2" have been developed, this is the "weight" that is given to the upper and lower part of the model. Since the literature does not provide for the proportion of the "weight" of one part against the other part, the author has set it at 30 % against 70 %. However, the simulation model interface allows changing the percentage breakdown.

At the last or third phase of verification, both parts of the imitation model are combined and as a result the model starts to work. With the help of tables, which show the variables of simulation model, it can be examined whether the model is generating appropriate data.

Simulation model was developed in STELLA program. It is static, determined, based on discrete events and divided into two sectors,

where each of the sectors represents its own childcare DI characterizing block.

### **Validation of simulation model**

In order to make sure that the developed simulation model reflects the main components of childcare DI and that the author's work is useful, the Senior Expert of the Ministry of Welfare Children and Family Policy Department was invited to an interview. Currently this expert is engaged in child care DI process development in Latvia. All in all, five questions were asked.

This interview approved the author's concerns and confirmed the facts found during the literature studies - there is a risk that the answers from the employees of childcare institutions might be not completely true, because of a fear that it might leave some consequences. Therefore, for further use of the developed simulation model the author suggests to use a variety of documents (information about accounting of staff training hours, reports on acquired knowledge, CVs, as well as reports of the Ombudsman of the Republic of Latvia and other institutions), and the further research shall be made by a person whose daily life is related to this specific area.

Since the developed simulation model is quite flexible, the expert's recommendations regarding percentage can be easily adjusted. Also this requires further studies and the establishment of clear criteria for correct percentage to reduce the opportunity to manipulate with the data.

Overall, the developed simulation model is recognized to be applicable for further studies. In addition, it can be used both by the local governments in order to control their subordinate institutions, and the Ministry of Welfare in order to track the changes.

### **Results**

The basic components of childcare DI- staff, services, support centers and monitoring

The component "Staff" includes three subcomponents, which are characterized by several criteria set out in the literature. Interface

is the program level where the parameters can be easily configured. In total eight sliders have been developed where the characterizing parameters vary between 0 to 0.11 or 0.165 (depending on the variable). The next childcare DI component is "Services". It is characterized by three subcomponents - "Shelter", "Education" and "Daily life". Each of the subcomponents has a number of characteristics- seven in total. Also the values characterizing the subcomponents can be easily configured with the help of sliders. Slider parameters are set from 0 to 0.11 or 0.165.

The third childcare DI component is "Support centers". This component is characterized by five characteristic variables. In the slider it is possible to change the parameters for each of the variables in the range from 0 to 0.2.

The last of the four childcare DI components is "Monitoring". This component offers three variables. It is possible to use a slider to change the parameters for each of them. The parameters can be changed in the range from 0 to 0,33. All sliders display to what extent they are fulfilled during the operation of current simulation model. Also the sliders can be used to change the parameters.

### *Control panel interface*

At the interface level of the childcare DI simulation model, there are two buttons for easy operation of the model and one display for results.

The button "Run" provides the opportunity to start the data processing of components after the input of variable data. This is also an easier and faster access to start the simulation model than the one provided within the development of the model. The button can also be used for model verification - after the input of variables it can be checked, whether the model does or does not work correctly. The button "Start" is made for user's convenience. Since, at the model-making level, the current childcare DI values are entered, then this button allows resetting original parameters after the changes are made. By



clicking the button "Start", previously made changes in the sliders will be extinguished and they will be reset to the original parameters. The display window shows the reservoir created at the model level. The reservoir shows the implementation of the childcare DI components, taking into account the totality of all components. The value of the parameter is from 0 (none of the childcare DI basic components is met) to 1 (all of the childcare DI basic components are met).

#### *Other interface components of the simulation model*

Without above-mentioned sliders and control panel, there are also 14 displays for results and two sliders. 14 displays for results show the value of each sub-component, which is not met. Such a display is set up to ease the data monitoring.

Since the components "Staff" and "Services" are characterized by several sub-indicators, then, in order not to waste time for the calculation of variables, they show the level at which each of the subcomponents is not met. After pressing the button "Run", the result will appear both on the DE display and on 14 displays of subcomponents, making it easy to monitor which of the components are met less and which are met more. The two proposed sliders "Percentage" and "Percentage 2" are the "weight" assigned by the author for the upper and lower part of the simulation model. In the sliders, it is possible to change this breakdown. Of course, it can be set as equal- 50/50 breakdown.

As the "weight" was added to the upper components of the simulation model, it was necessary to establish to which of the converters the given weight shall be added. Therefore several converters were created.

The converter "The total number of children in an institution" is the total number of all children placed in the institutions:  $ChInst_1 + ChInst_2 + ChInst_3 + ChInst_4 + ChInst_5 + ChInst_6$ .

Similarly, the converter "The total number of children in alternative care" is the total number of all children placed in the family environment

and alternative care: Adoptees+ Guardianship+ SOSVillages+ HostFam+ FosterFam.

Both converters are counted together and are displayed in the converter "All children". In order to determine the proportion of children which are placed in the alternative care, a converter "Part of alternative care" was created.

The flow "Influencing factors" contains the analysis of all incoming data and transmits them to the DI reservoir, which shows the proportion from zero DI 1, in which the childcare DI is met in Vidzeme region. The flow "Influencing factors" is working according to the following formula:  $((Support\_Centers + Monitoring + Services + Staff)/4) * Percentage\_2 + Proportion\_of\_percentage$ .

#### *Principles of operation of the simulation model*

As mentioned in the previous chapter, the simulation program STELLA offers a number of levels to the user. This chapter describes Model level (level where the simulation model is created). The model consists of many converters, containing both the data acquired during the research and the encrypted data and formulas for data processing.

Converters that contain dynamic variables of the model are used for the input of data acquired during the research.

The data necessary for data input were obtained from the out-of-family care institutions in Vidzeme region and the relevant local authorities that have at least one out-of-family care institution in their territory and in their public reports. The responses acquired from the interviews and questionnaires were encoded according to the model-building principles. The model is built in the range from 0 (none of the childcare DI basic components is met) to 1 (all of the childcare DI basic components are fully met); the resulting answers were encoded in the same range. Whereas such studies previously have been performed neither in Latvia, nor in other States, the author considers that each component of the lower part of the model

(see Fig. 2) is equal to 1. Respectively each of the subcomponents forms a proportion of all

components.

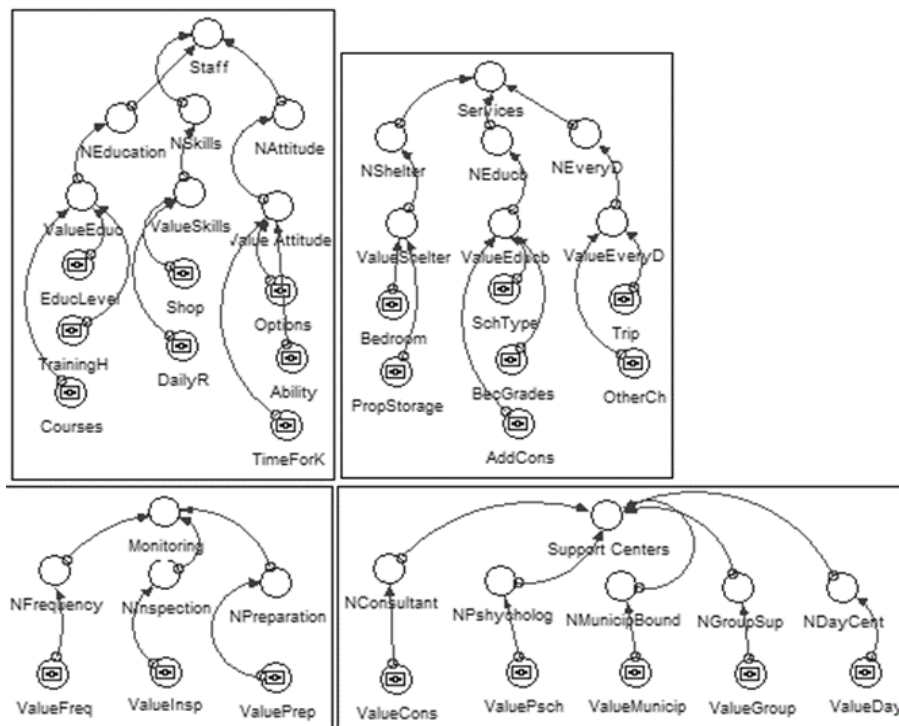


Fig. 2 Lower part of the model

The upper part of the childcare DI basic components consists of the number of children placed in the out-of-family care institutions in Vidzeme region (left side) – children who are placed in the institutional care. In the opposite side (right side) - children who are placed in a family environment (foster family, guardian, host family, adoption) and in alternative childcare-SOS villages. The number of children in the institutions was obtained from the interviews carried out with the heads of the out-of-family care institutions.

The number of children in a family environment was obtained both from the Orphan's courts of the relevant local governments and from the public reports of local governments.

### Findings

From the developed childcare DI basic components simulation model it can be concluded that none of the components is met in full. However, there are a couple of subcomponents that reached the assigned peak value. These are:

- All employees of the out-of-family care institutions believe that the children who are living in these institutions have the same opportunities as the children who live in families;
- In all institutions there are no more than 4 children per bedroom;
- Each child has the opportunity to manage his/her personal things- all of them are provided with an individual cupboard;
- All out-of-family care institutions take care that the children would have the opportunities to attend various events, concerts and go outside the institution;
- In none of the out-of-family care institutions low academic results have been the reason for the child's placement in a specialized school.

The highest level of childcare DI is shown by the component "Services"- obtained 0,84 (or 84 %).

The childcare DI component "Staff" is met in the amount of 0,69 (or 69 %), which means that it is fulfilled only partially. The component does not reach full implementation because:

- Only a half of surveyed employees has higher education, besides that not all of them have comparable education to the work specifics;
- In Vidzeme region the staff training hours during the last year are considered to be insufficient (the minimum amount of training hours for childcare DI should be 40- which corresponds only to 3 of 21 employees surveyed);
- Although the surveyed employees of the out-of-family care institutions in Vidzeme region recognize that the children in the institutions are provided with the same opportunities as in the children in families, the abilities of children living in various institutions are weaker than those of children living in families (only 8 of 21 the surveyed employees recognized that they don't have enough time necessary for each child);
- The component "Shopping" which teaches children to handle finances and to participate in the decision making is implemented only partly.

Only 1 of 6 out-of-family care institutions ensures tutor services in cases when a child experiences difficulties with learning at school.

Childcare DI component "Monitoring" is fulfilled also only partly - 0,61 (or 61 %). The component does not reach full implementation because:

- The frequency of monitoring after a child's placement in a new family should be carried out at least 3- 4 times during the first year (surveyed municipalities do that 2 or fewer times a year);
- Not all of the surveyed municipalities carry out inspections of the set out DI factors, such as the children adaptation to a new environment and relations with neighbours. Also there is a risk that the inspections will not be carried out at all- if the parents are not in the sight of a social service.

In 2 of 7 surveyed municipalities not all the children are prepared for a transfer to a new family, which may lead to a situation that a child will be not ready for changes.

All childcare DI basic components together form the value of 0,71 or 71 %.

### **Conclusion**

As a result of this research, a simulation model in the field of childcare DI was developed. Such approach for the determination of the implementation level of the childcare DI has not been used so far before. In the simulation model alternative childcare basic components and subcomponents are included. This model gives a possibility to look at the childcare situation in Vidzeme region.

The first of these requirements arises due to the fact that the policy changes often, it means that the policy is unstable — in such situation, not only residents find it hard to plan for the future, but also childcare institutions have difficulty implementing targeted measures and relying on their sustainability. From the developed childcare DI basic components simulation model it can be concluded that none of the components is met in full. The highest level of childcare DI is shown by the component "Services"- obtained 0,84 (or 84 %). The childcare DI component "Staff" is fulfilled only partially-0,69(or69 %); the same for "Monitoring" component 0,61 (or 61 %). Equally decision-makers need to observe the idea of the other direction of development proposing to form SOS children's villages based on family ties. Last but not least, childcare employees need more training of psychology to avoid thinking that the abilities of children living in various institutions are weaker than those of children living in families.

This simulation model can help both the ministries to review various development processes and local governments to understand the situation in its subordinate institutions. The usefulness of the developed model was also

recognized by the expert of the Ministry of the children and family policy.

Welfare of the Republic of Latvia responsible for

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## MODERN SOLUTIONS TO DECISION MAKING PROCESS FOR RESIDENTIAL HOUSING MANAGEMENT IN HIGH MIGRATION CONDITIONS

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**Abstract.** This research is concentrated on decision making procedure and its availability to residential housing owners in cases of high migration. During last couple of years, Latvia has lost big number of people who have left to other EU countries. This factor has remarkably influenced decision making processes and has also slowed down the maintenance of residential housing. The aim of the research was to research the best possible solutions to involve decisive persons abroad in the decision making processes in maintenance of residential housing. The interviews performed identified Diaspora's representative's readiness to take more active position in development of their abandoned properties. As a result of this research, a new model has been created for this type of decision making process.

**Key words:** decision making process, Diaspora, residential housing, migration, building management.

**JEL code:** J11, K11, D72

### Introduction

Besides rights to manage own property, receive benefits and to use it for reproduction of estate, apartment ownership also imposes duties, authority and responsibility. In residential housing case, the owner of the house is all apartment owners. No matter which of the management form is chosen by apartment owners, it is good to remember that self-management means – jointly to decide and control, how is used every apartment owner's deposited money for house management and the common property is saved, nursed and improved.

The process of decision making can be critical in various ways. It determines the path towards or away from sustainable development. (Bolis, I., Marioka, S. N, Sznelwar, L.I., 2017).

The main problem today is long absence of apartment owners, which makes almost impossible to keep up with building development management.

The aim of the research is to investigate possibilities to make decision for residential housing maintenance, assuming that part of the decisive persons is out of the residential country. In order to reach the aim, there are several tasks to be performed: 1) to clarify legal issues of decision making; 2) to find out forms of decision making; 3) to identify migration statistics for Latvia; 4) To offer a new format or model of decision making

Hypothesis is that environment for voting is the best solution for faster and effective decision making in residential housing management.

During *the monographic research*, concepts and types of methods for decision making have been reviewed and generalized. *Also semi structured interviews with emigrated Latvians and free form interviewing method with managers of residential housing* have been performed and analysed. Interviews included 12 questions, directly connected with participation in own property management, and were performed using Skype calls.

The results of this *pilot interviews* give new insight in possible solutions and suggestions for empowerment of decision making.

Further research in this field will clarify more and more opportunities for improvement of involvement in residential housing management.

### Research results and discussion

Maintenance management that is value based allows users to be proactively put at the centre of maintenance management during decision making processes and takes into consideration both the objective and subjective requirements of users. (Lateef, O.A., 2009)

It is declared in Law of Residential Properties, that each apartment owner has a duty to participate in the administration of the residential house. (Legislation of the Republic of Latvia, 2011). Duty of every apartment owner is to

manage his/her own property, is also applied by Law On Administration of Residential Houses: "The provision of the administration of a residential house (including taking of decisions, entering into transactions related to the administration of the residential house) shall be the duty of the owner of the residential house." (Legislation of the Republic of Latvia, 2010). This duty can be performed only if the apartment owners has own decision and administrative bodies.

The community of apartment owners is the administrative body of a residential house, which is partitioned into apartment properties and the composition of the community of apartment owners shall include all apartment owners of the residential house. (Legislation of the Republic of Latvia, 2011)

A community of apartment owners has the right to decide any matter, which relates to the existing joint property share. Apartment owners community is entitled to make decisions almost about every question and decisions are compulsory to the last owner, if they have votes of more than a half of number of all apartment owners (in some exclusive cases identified by Law on Residential Properties, for making decision is necessary to get 2/3 or even 100 % votes of ALL apartment owners).

According to by Law on Residential Properties, The community of apartment owners may take decisions on the matters within the competence thereof as follows:

- 1) At a general meeting of apartment owners (Section 19);
- 2) Without convening a general meeting of apartment owners – by means of a questionnaire (Section 20); or
- 3) Upon mutual agreement of another kind (Legislation of the Republic of Latvia, 2011)

When making decisions, basically two types are mostly used – **general meetings and making survey.**

All decisions of the community of apartment owners shall have equal legal force. And it does not matter in which entity it has been decided. But at the same time apartment owner's community can limit which questions can be decided only with general meeting of apartment owners. All decisions has to be made and fixed in document – in the written format.

When deciding about part of the joint property, specialists from the industry should be invited – professional managers, constructors or experts. And if there are two or more alternatives decisions has to be made.

### **1. Typical decision making types and methods**

Apartment owner becomes identity at the moment, when he/she involves in the owners – activists group, participates in property management life cycle and activities. Apartment owner involves in decision making and becomes a historically particular society or community member. Apartment owner participating in decision making process is a member of different big and small groups, which has different opinions, wishes, possibilities and solvency. Without decision making activities property life cycle support cannot exist. Apartment owners community also includes in bigger groups (state, nation, organization, apartment owners society) as its component, forms apartment owners life microenvironment.

Apartment owner's community has common interests. They are:

- 1) To satisfy need for communication, human contacts, for belonging;
- 2) To cooperate, for more effective and fruitful targets – maintenance of own property;
- 3) To find support for different life difficulties (state and municipality support programmes, unemployment benefit, etc.).

Nevertheless, during the decision process needs to be aware, that different stakeholders having various roles and perspectives, with distinct or even conflicting interests, and uneven

power in making requirements decisions. (Chen, F., Power, N., Collins J.J., 2016.)

Apartment owners community is dynamic closed group of people, which members are tied up for longer time, it has dynamic interaction process amongst its members and in every group emerge different interests, customs, traditions, behaviour stereotypes, which differs one group from another. It is particular group of people, who has joint activities and united aim, each owner has its own social role and status. There can occur written and non-written norms, when making decisions about property maintenance.

### **1.1. Organization of General meeting of apartment owners**

Apartment owner's general meeting is (by legally advised order) called together apartment owner meeting with aim to decide questions about residential house management and maintenance, including about residential house management rights possession and choice of management form. The procedures, by which general meetings of apartment owners shall be convened and how the decisions taken therein and minutes shall be drawn up, shall be determined by the community of apartment owners. (Legislation of the Republic of Latvia, 2011).

A general meeting of apartment owners shall be convened upon the initiative of one or more apartment owners or the administrator in accordance with the procedures specified by apartment owners. Every apartment owner shall be invited, in writing or according to other procedures specified by the community of apartment owners, to a general meeting of apartment owners not later than one week prior thereof. The invitation shall include the place, time and agenda of the general meeting.

Announcement should contain main information about meeting place, time, date and order of the questions, which will be discussed and decided during the meeting. General meeting organization procedure has to be followed

because community decisions will affect all apartment owners interests, therefore all apartment owners have to be given chance to participate in common decision making, inviting them officially to participate in general meeting.

To reach the decisions, which would be based on compromising amongst different apartment owners interests and many questions to be discussed is necessary to inform owners about them quite in advance. The aim of such general meeting could not be reached without giving time to prepare to the meeting participants. This also does not allow to the meeting organizers to surprise other's flat owners and use surprise moment in their very personal interests.

General meeting order starts with registration of participants. During the registration, apartment owners confirm their presence with signatures left in the list of meeting participants, also declaring identification card/ document.

Authorized person of physical and legal entities have to present authorization, which has to be approved by meeting and has to be registered in the list of participants.

General meeting list of participants and authorizations has to be included in to protocol of general meeting. At the beginning of the meeting has to be elected meeting manager and secretary.

In order to start community decision making process, there should be clarified is that particular meeting able to make decisions. The apartment owners' meeting is able to make decisions, if there has arrived more than half of apartment owners from all properties. Each apartment owner has so many votes as properties at the house for general meeting

According to the Law on Residential Properties, minimum votes needed for decision making has to be more than a half of all apartment owners (Legislation of the Republic of Latvia, 2011).

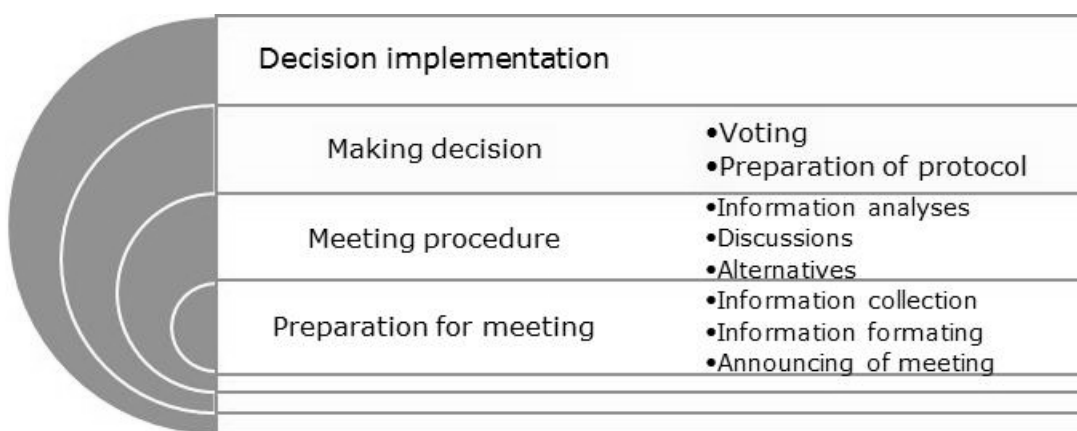
For example, residential house has 100 apartment properties, to the meeting has arrived

75 apartment owners. To make decisions then should vote at least 51 apartment owners for particular decision. If decision has been made, then it is compulsory to the other apartment owners, even they have not participated.

Each General meeting always has three main stages: **preparation process, procedure and decision making**, but as final stage usually comes **implementation of decision**. (See Fig. 1)

To run a perfect meeting, firstly there should be accurate preparation. Meeting has to have detailed plan.

Decision making analyses is based on available information or some activities, which has been performed earlier as preparatory works for next decisions. Each question on the meeting schedule has its own aim, which can be reached only when owners have received clear and complete information, also provided with different alternative solutions. Before decision making should be decided which problem is prior, and which gives solutions based on decisions.



Source: Based on authoresses performed research

Figure 1. **Decision process at the general meeting**

In order to involve all stakeholders and legal entities, there is need to make diligent calculations about future investments (Staube,T., etc., 2016)

### 1.2. Organization of survey of apartment owners

Second type of decision making for apartment owners community is not calling apartment owner general meeting, but performing survey of apartment owners (Legislation of the Republic of Latvia, 2011).

Similarly as general meeting, survey is organized by manager or house's authorized person because of one or several apartment owners demand. Survey allows to make almost all kind of decisions, if the particular apartment owners community has not stated different, that respective question has to be decided only on apartment owners general meeting. If a decision is taken, without convening a general meeting of

apartment owners, – by means of a questionnaire, the administrator or another person determined by the community of apartment owners shall, in writing, send each apartment owner the draft decision on the matter to be decided and the documents, which are relevant to taking of the decision, as well as indicate the term, during which an apartment owner may vote "for" or "against" in writing regarding taking of the decision. The term shall not be less than two weeks after sending of the draft decision. If the apartment owner has not replied in writing within the specified period of time, it shall be considered that he or she has voted against taking of the decision.(Legislation of the Republic of Latvia, 2011)

Surveys must be made and filled in right procedure and with all necessary credentials.

Apartment owner's decision in surveys obtains legal power only in case if voting has been



reinforced with name and surname, and approved with signature. If apartment owner in appropriate time limit has not submitted answer in written format, then it becomes a voting against particular decision.

This is especially important for temporarily absent apartment owners who do not receive and send information on time available.

The voting report shall indicate the following:

- 1) The date when the draft decision was sent and the term during which the apartment owners had to vote;
- 2) The decision taken and the voting results of the voting related thereto;
- 3) Upon the request of apartment owners – the content of differing opinions; and
- 4) Other significant information regarding the voting.

Authoress concludes that in survey questionnaires should be identified informative and easy to understand information about survey idea, survey time limit, apartment owner decision commenting possibilities, and also apartment owners rights to be introduced with results of survey decision, but in the protocol there should be **clearly formulated house community decision**.

## 2. The emigration of apartment owners – diasporas involvement in housing management

During last five years by Central of statistical bureau (CSB), Latvia has left around 106 000 citizens (CSB 2016). But Hazan. M in his research is mentioning that during 2000 – 2014 there has emigrated at least 260 000 citizens. These are individuals who has registered in country of origin, but till there is unclear total number of people who has emigrated recently (Hazans 2016).

Although during recent years Latvia, Lithuania and Estonia has lost the most people amongst European Union countries. The biggest number of emigrates come from Lithuania and Latvia, less from Estonia (OECD 2013). But Estonia has different story, because of the closeness and easy access to Finland employment (Lescevic, 2015). In many cases people just go for work to Finland during the day and come back home in the evening. So there is no need to form Diaspora in primary sense. As it can be seen in Table 1, the biggest numbers of emigrated people were in 2011, and it has been growing since year 2000.

Table 1.

### Long term migration data to and from Baltic countries

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Estonia</b>																
Migrants	1784	2175	2038	3073	2927	4610	5527	4384	4406	4658	5294	6214	x	x	x	x
Immigrants	35	241	575	967	1097	1436	2234	3741	3671	3884	2810	3709				
Migration balance	1749	-1934	-1463	-2106	-1830	-3174	-3293	-643	-735	-774	-2484	-2505	x	x	x	x
<b>Latvia</b>																
Migrants	7131	6602	3262	2210	2744	2450	5252	4183	6007	7388	10702	30380	25163	22561	19017	20119
Immigrants	1627	1443	1428	1364	1665	1886	2801	3541	3465	2688	2364	7253	13303	8299	10365	9479
Migration balance	5504	-5159	-1834	-846	-1079	-564	-2451	-642	-2542	-4700	-8338	-23127	-11860	-14262	-8652	-10640
<b>Lithuania</b>																
Migrants	2616	7253	7086	11032	15165	15571	12602	13853	17015	21970	83157	53863	x	x	x	x
Immigrants	1510	4694	5110	4728	5553	6789	7745	8609	9297	6487	5213	15685				
Migration balance	1106	-2559	-1976	-6304	-9612	-8782	-4857	-5244	-7718	-15483	-77944	-38178	x	x	x	x

Source: Eurostat, 2016

Many of these emigrants or Diaspora representatives have property, with or without relatives, who stay there. This research includes interviews with 15 migrants from Latvia particularly with apartment ownership. They were

selected by using snow ball method. The semi structured interviews have been performed and analysed with emigrated Latvians. Interviews included 12 questions, directly connected with

participation in own property management, and were performed using Skype calls.

98 % of respondents admitted that their apartments are pending without any living person or authorized persons for decision making. This means that apartment owners without being present in Latvia cannot wholesome participate in process of decision making about joint estate. 72 % of respondents answered that they are ready to participate in decision making for property management, but at the same time acknowledged that there may exist additional legal barriers, which must be further investigated. 58 % of respondents suggested to use more advanced information technologies, because that will speed up document exchange and feedback for decision making and process management.

### **3. Modern solutions to voting processes**

After interviewing 5 managers of residential housing in Latvia (using free form interviewing method), Authoress has concluded that decision making process should be based on compromising amongst different apartment owners interests and attitude to different questions to be decided recently. Apartment owners should be informed in advance and in very easy manner so, that there is no problem to vote during the survey or general meeting from a distance or to authorize voting to the particular physical or legal entity.

This would also exclude situations, which may bring during general meeting sudden surprises or promotion of opinion/ decision of particular apartment owner on owner groups.

In order to follow recent changes and to keep up stable and high level of apartment property value, owners should care about their apartment quality and most important – they have to perfectly manage their residential house. During interviews there were also identified that both conditions are almost equally important to the apartment owners. There should be introduced more advanced involvement methods and tools

for faster information exchange and decision making.

To support information accessibility and promote successful decision making process, managers of residential housing should using **e-environment**.

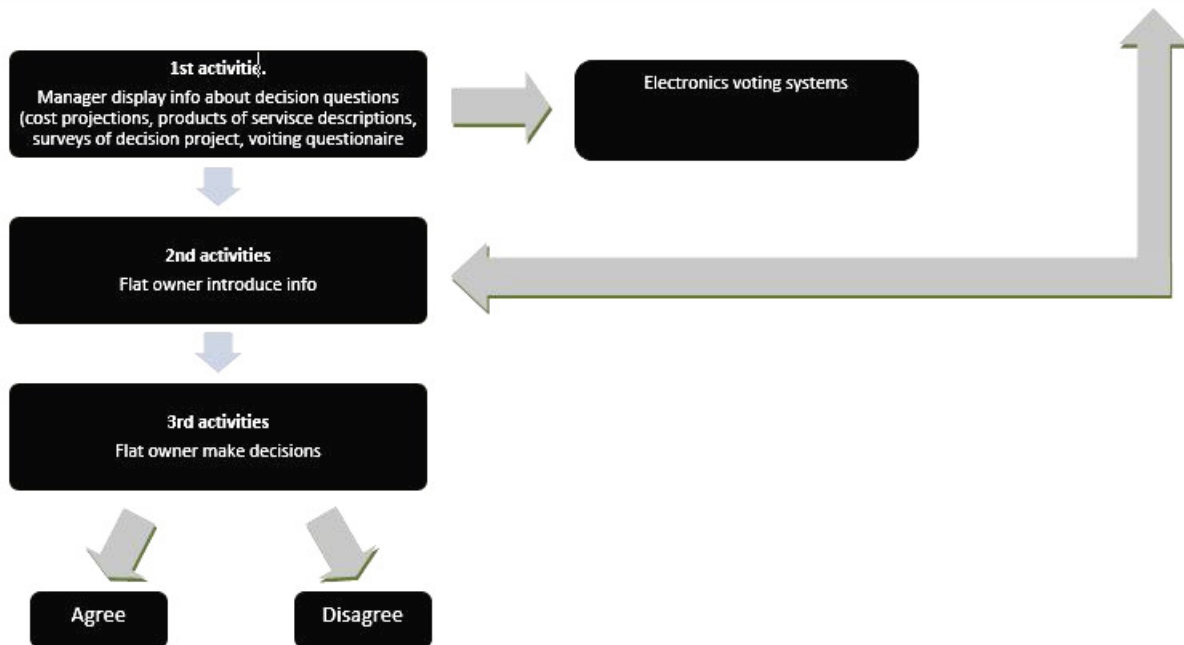
The aim of e-environment is without additional expenses, to supply owners with effective range of services by saving time and money of each owner. As it can be observed in Figure 2, process of decision making in e-environment gives possibility to place all kind of information about residential house, invoices, cost projections, management collective agreement, protocols of general meetings or surveys, counter indications, and other important information.

E-environment system allows to offer as well educational information to apartment owners about community decision making possibilities, about management cost calculations procedures and included positions, and other more informative and instructional information. Particular information about particular house will be visible only to the apartment owners of particular house apartment owners.

During the decision making process, e-environment is the best solution in situations, when presented part of the owners is not enough for the presence voting. This stops development and slows down decisions, which can be urgent by nature. This is especially important in cases of owners who have emigrated recently outside of Latvia.

According to the process in Figure 2, apartment owner in e –environment obtains necessary information and makes decision. That would easy and solve problem, when decisions stay out for house maintenance, because there is impossible to have voting quorum.

E-service					Entering with client data	
1 part Info about house	2.part counter indication	3.part Invoices for last 12 months	4.part Financial documentation: Suggestions & Reports	5.part Technical documentation about house (energoaudit, projects etc.)	6.part Legal requirements & documents (Agreements, Protocol af general meetings, survey decisionss )	7.part Decision making Surveys questionnaire + info about decision



Source: based on authoresses research

Figure 2. Model of e-environment for involvement of migrated apartment owners in decision making process

### Conclusions, proposals, recommendations

- 1) Main decision institution in residential house is apartment owners community, which can be identified as appropriate residential house management institution;
- 2) All apartment owners face decisions and process of decision making. There are professional decision to be made, which connected with technical improvements of all property, attraction of financial resources, taking credit, or simple everyday or particular property renovations decisions.
- 3) Duty to inform house joint proprietors about procedure which originates from requirements to be followed interests of others and according to them to call together general meeting or somehow in different way to provide access to information.

- 4) Apartment owners, being present outside of Latvia, cannot participate in joint estate decision making process in wholesome – so they cannot maintain their property in the best quality, what diminishes its value.
- 5) To provide information in available/easy access format, feedback from other apartment owners and promote decision making by involving also persons who live in Latvian Diasporas, during the management process should be introduced and actively used e-environment as innovative element. E-environment provides to house manager more effective and faster exchange of information with each of owners, and provides apartment owners with possibility to be involved in planning of property maintenance and development.

- 6) Next step would be to develop electronic voting system, which would allow possibility to all apartment owners to participate in making decisions independently from country of residence.

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## **CORPORATE SOCIAL RESPONSIBILITY – ONE OF PREREQUISITES FOR SUSTAINABLE DEVELOPMENT IN THE BANKING SECTOR**

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<sup>1</sup>Latvia University of Agriculture

**Abstract.** The sustainable development of entrepreneurship is influenced by an organisation's image, the loyalty of its clients and employees and its financial performance. To ensure it, nowadays an increasing number of organisations integrate the corporate social responsibility approach in their operation. The banking sector's performance was considerably influenced by the 2008 financial and economic crisis that caused a decrease in the trust of clients. Therefore, the banks were forced to integrate social responsibility principles in their operation, implementing sustainable and socially responsibility financial policies. The research aim is to examine Latvia's banking sector's experience in corporate social responsibility that is necessary for sustainable development. A case study conducted showed that the banks implemented their corporate social responsibility through four areas: the environment, their employees, the economy and the general public. The banks focused their corporate social responsibility activities on the environment and the public, as Latvia's legal documents stipulated strict requirements for enterprises in respect to environmental protection as well as the implementation of the activities by the banks allowed them to reduce their costs. However, their corporate social responsibility programmes oriented towards raising the public's wellbeing contributed to the loyalty of their clients and employees, which was an essential prerequisite for the sustainable development of the banks. As regards employees, Latvia's legal documents regulate the relationship between the employer and the employee, yet the banks assumed extra responsibilities, introducing a motivation system for their employees in order to attract highly qualified and motivated employees. The sustainable development of banks is directly associated with their profits. In recent years, Latvia's banking sector grew fast and reported stable financial performance; in 2015, the banking sector's profit reached EUR 416 million and it paid in taxes EUR 141.5 million, thereby economically contributing to the country's development.

**Key words:** corporate social responsibility, sustainability, banking sector, case study.

**JEL code:** M14, I31, L26, E58

### **Introduction**

The National Development Plan of Latvia for 2014–2020 declares that sustainable development could be achieved in Latvia only if every its citizen feels responsible for future generations. Enterprises have to operate in a responsible way towards the public and the environment, as only an excellent environment for entrepreneurship can stimulate the development of enterprises and contribute to their competitiveness (Birim B., 2016; Grigore G., 2009; Galbreath J., 2009; De Roeck K., Marique G. et al., 2014) and sustainability. Even though corporate social responsibility (CSR) is not obligatory and it is not strictly stipulated in legal documents, CSR is an important functional component of any successful business (Akdogan A.A., Arslan A. et al., 2016; Gras-Gil E., Manzano M.P. et al., 2016).

Nowadays, an increasing number of organisations, scientists and practitioners in the world get interested in CSR matters. The

importance of CSR has been recognised by the financial and banking sector, thereby implementing sustainable and socially responsible financial policies. However, even though CSR emerged already at the end of the 19<sup>th</sup> century, the term CSR has been known in Latvia since relatively recently and still is not defined in the legal documents. Nevertheless, in Latvia the basic principles of social responsibility result from the Constitution of the Republic of Latvia, international legal documents and strategic policy documents.

CSR is researched based on the findings made by H.R. Bowen (1953); K. Davis (1960); S.P. Sethi (1975); A.B. Carroll (1999); M. Castelo and L. Lima (2006); J. Galbreath (2009); C.W. Bauman and J.L. Skitka (2012); K. De Roeck et al. (2014); A.A. Akdogan et al. (2016) and other scientists who believe that enterprises are able to make more profit and long-term achievements if operating only within CSR practices. However, the scientific literature presents also opposite

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opinions on the introduction of CSR practices in entrepreneurship, pointing out that CSR is a useless waste of financial resources and it is not a function of private business. CSR only moves enterprises away from their key function, i.e. profit-making (Friedman M., 1970). One can conclude that there is scientific discussion on the role of CSR in promoting the sustainable development of enterprises (Jones K. & Bartlett J.L., 2009; McElhane K., 2009).

The research has put forward a **hypothesis** – corporate social responsibility is a prerequisite for sustainable development in the banking sector. The research **aim** is to examine Latvia's banking sector's experience in corporate social responsibility that is necessary for sustainable development.

To achieve the aim, the following specific research **tasks** were set:

- 1) to examine the theoretical aspects of corporate social responsibility;
- 2) to analyse the banking sector's experience in corporate social responsibility practice in Latvia.

A number of **research methods** were employed to achieve the aim and perform the tasks. The monographic and descriptive methods were used to theoretically discuss and interpret the research results based on scientific findings and theories on CSR; statistical analysis – descriptive statistics and time series analysis – were applied to analyse the banking sector's financial performance. A case study was used to analyse CSR in the banking sector in Latvia and to examine CSR activities in the aspect of four key CSR areas: the environment, employees, the public and the economy.

### **1. Theoretical aspects of corporate social responsibility**

The first definitions of the term corporate social responsibility (CSR) date back to the 1950s (Bowen H.R., 1953), even though the very first manifestations of CSR were known even earlier. Today, the term CSR becomes increasingly

urgent in entrepreneurship and research; however, if analysing the scientific literature, one can find that there is no single approach to defining the term (Gudkova T.V., 2014; Matten D. & Moon J., 2004).

The European Commission defines CSR as one of the factors influencing the image of any organisation. An enterprise integrates social and environmental problems in its business operations in cooperation with its shareholders based on the principle of voluntary participation (European Commission, 2001).

Based on the findings available in the scientific literature, one can conclude that in a narrow sense, CSR means timely paid wages to employees, all taxes paid, compliance with legal acts on environmental protection and work safety rules and health care programmes for the employees (Castelo M. & Lima L., 2006). However, in a broader sense, CSR involves a voluntarily contribution of an enterprise to social development in the social, economic (Davis K., 2008) and environmental spheres (Litovchenko S.E. & Korsakova M.I., 2003), which is often unrelated to the enterprise's primary economic activity and exceeds the minimum standards set by the legislation and the social norms accepted in society (Bessanova I.S. & Nikolajeva I.V., 2014). One can say that CSR means an enterprise both fulfils its social obligations set by the legislation and voluntarily assumes extra social costs, taking into account not only the provisions of the laws but also ethical and moral considerations.

One can conclude that in a broader sense, CSR involves four interrelated areas: the environment, the economy, the public and employees (Table 1).

CSR practices in relation to employees mainly involve work safety, training, qualification development seminars, growth opportunities at the enterprise and regularly paid and fair wages, which allows the enterprise to reduce its employee turnover, contribute to the loyalty of its

employees and attract the best specialists (Kim H.R., Lee M. et al., 2010; Panagopoulos N.G., Rapp A.A. et al., 2015; Mueller K., Spiess S.O. et al., 2012; Bauman C.W., Skitka L.J., 2012).

Table 1

**Distinctive features of a corporate socially responsible enterprise**

Area	Characteristics	Author
Employees	Observance of human rights, regularly paid wages, employer-paid health and social insurance.	Birim B., 2016; Kim H.R., Lee M. et al., 2010; Panagopoulos N.G., Rapp A.A. et al., 2015; Mueller K., Spiess S.O. et al., 2012; Bauman C.W., Skitka L.J., 2012
Economy	Fair payment of taxes, creation of jobs, contribution to employment	Carroll A.B., 1999
Society	Sponsoring activities, support for various projects, grant programmes	Davis K., 1960; Bowen H.R., 1953, McGuire M.C., 1963
Environment	Activities to reduce negative impacts on the environment	Van Marrewijk M., 2003

*Source: authors' construction based on Birim B., 2016; Kim H.R., Lee M. et al., 2010; Panagopoulos N.G., Rapp A.A. et al., 2015; Mueller K., Spiess S.O. et al., 2012; Bauman C.W. & Skitka L.J., 2012; Bowen H.R., 1953; Davis K., 1960; McGuire M.C., 1963; Friedman, 1970; Carroll A.B., 1999; Van Marrewijk M., 2003.*

In the economic aspect, the key CSR priorities involve reducing the probability of crises (by means of a risk management strategy), paying taxes and fees to the government, ensuring social and economic stability and eliminating the "grey economy". Observing these principles contributes to attracting investor capital (Holme C., 2010) as well as receiving tax relief.

Enterprises also donate to charity, sponsor activities and financially support social welfare, safety and stability programmes at regional and national levels. The mentioned activities are aimed at supporting social projects in such fields as culture, sports and education.

In entrepreneurship, environmental responsibility is also considered to be a voluntary initiative that exceeds the standards set by the

provisions of laws being in force in the field of environmental protection. A lot of enterprises start actively implementing technological activities aimed at saving energy, water and other resources (Global Corporate Sustainability..., 2013).

One can conclude that even though there are diverse definitions of CSR, the key purpose of CSR is to achieve sustainable social development, which is understood as meeting the needs of the current generation without harming the ability of future generations to meet their needs. In the result, CSR becomes a new business philosophy, according to which enterprises focus on the achievement of public goods and the maintenance of environmental stability in their activity. This means that the purpose of an enterprise is not only profit-making but also contribution to the society (Asaul A.N., 2009), which results in increase in productivity, client loyalty and reputation and in sustainable development (McElhaney K., 2009; Pivato S., Misani N. et al., 2008; Sakarya S., Bodur M. et al., 2012).

**2. Corporate social responsibility in the banking sector in Latvia**

The banking sector in Latvia started implementing CSR activities quite late. The financial crisis in the end of 2008 caused a decrease in the trust of consumers in the banking sector. For this reason, the banks were forced to integrate social responsibility principles in their operation, including developing socially responsible financial products and making socially responsible attitudes to their employees and the public.

An examination of CSR in the banking sector was based on a case study, for which four banks were selected: Swedbank, Rietumu Banka, SEB Banka and ABLV Bank, which, according to data of the Association of Latvian Commercial Banks were the most profitable banks in Latvia in 2015. The examination of CSR was also based on four

areas: employees, the environment, the economy and the public.

**Employees.** In relation to employees, Latvia's legal documents have set high standards for work safety, working conditions, and the ethics of businesses and individuals in entrepreneurship practices. In Latvia, the relationship between the employer and the employee is regulated by the Labour Law (in force since 1 June 2002) and the Labour Protection Law (in force since 1 January 2002).

All the banks selected for the case study observed labour rights as well as organised extra activities for the purpose of raising the wellbeing of their employees, including various corporative and training activities to enhance the quality of the employees. ABLV Bank and SEB Banka placed a special focus on employee motivation (ABLV Bank covers their employees' life insurance with savings and also covers 5 % of their health insurance, while SEB Banka pays bonuses and gives extra benefits to long-term employees etc.).

SEB Banka actively participates in social projects and shares its experience, thus gaining recognition among the public and in the banking sector. In 2015, Global Finance magazine recognised SEB Banka as the best bank in Latvia, and it was ranked eighth in the top 101 most valuable enterprises. Based on a study by CV Online Latvia, the bank was also awarded as the second best employer in the financial sector. In 2015, the Ministry of Welfare granted SEB Banka the status of family-friendly company. This status is granted to enterprises that implement family-friendly policies in relation to both their clients and employees, providing services and an appropriate work environment.

**Environment.** The banking sector's performance in the field of environmental protection is regulated by the legal acts that stipulate the standards for waste management, water resource protection, emissions harmful to the environment and overall environmental

protection (the Environmental Protection Law, in force since 29 November 2006; the law "On Pollution", in force since 1 July 2001; the Waste Management Law, effective since 8 November 2010 and other laws). However, the banks implement extra environmental activities in order to lower their operational costs.

ABLV Bank, for example, implements optimum electricity and thermal energy consumption practices at its office building ("Smart Building"), practically avoiding any losses of the resources; the building is equipped with water taps with sensors, which allows reducing water consumption as well as the bank has a virtual data storage system and exploits work stations that reduce the consumption of paper, the number of pieces of equipment and the amount of wire.

Rietumu Banka participates in the Earth Hour campaign, focusing on climate change in the world and efficient resource use – the bank uses energy-saving office equipment and various digital solutions instead of printed documents. However, when choosing suppliers and cooperation partners, the bank assesses their economic activity impacts on the environment.

SEB Banka too focuses on the environmental aspect through introducing an electronic bill processing system, paper recycling bins, environment-friendly heating systems at its branch offices; besides, 45 % of the bank's automobile fleet has been replaced with environment-friendlier automobiles.

Swedbank cooperates with its clients and other stakeholders in respect to environmental protection issues, seeks to reduce and avoid environmental pollution, reduces electricity consumption at its offices and exploits the most electricity-efficient office equipment.

**Economy.** According to the Association of Latvian Commercial Banks, in 2015 the banks operating in Latvia paid in taxes (except the immovable property tax) EUR 141.5 million. The tax revenue consists of two components: the



individual income tax paid by employees and state mandatory social insurance contributions paid by employers.

ABLV Bank, which employs 690 employees, annually pays labour taxes totalling almost EUR 20 thou. per employee. Rietumu Banka employs a larger number of employees, approximately 800. The bank annually pays taxes amounting to EUR 13 thou. per employee. However, Swedbank, which employs about 2000 individuals, annually pays taxes totalling almost EUR 9 thou. per employee. SEB Banka annually pays a similar amount of taxes per employee – slightly more than EUR 9 thou. SEB Banka's personnel totals 1050 employees.

The mentioned facts are supported by the banking sector's profit performance (Table 2).

Table 2

**Case study on the profit performance of selected banks in Latvia in 2013-2015, mln EUR**

Bank	2013	2014	2015	2015/ 2013, %
Swedbank	112.85	115.89	130.64	+15.7
SEB Banka	23.75	24.67	31.43	+32.3
Rietumu Banka	55.09	53.62	74.25	+34.8
ABLV Bank	44.42	66.22	69.04	+55.4

*Source: authors' calculations based on ABLV Bank, Rietumu Banka, SEB bank and Swedbank data*

In 2015, Swedbank made a profit of EUR 130.64 million, which was 15.7 % more than in 2013. It was followed by Rietumu Banka whose profit totalled EUR 74.25 million, which was 34.8 % more than two years ago, and ABLV Bank whose income was EUR 69.04 million, which was 55.4 % more than in 2013. Overall, Latvia's banking sector performed well in 2015, making a total profit of EUR 415.9 million.

The economic performance of the banks is demonstrated by the number of their clients, which varied in the period of analysis (Table 3).

**Case study on the number of clients of selected banks in Latvia in 2013-2015**

Bank	2013	2014	2015	2015/ 2013, %
Swedbank	944068	948044	954095	+1.1
SEB Banka	485513	485150	470842	-3.0
Rietumu Banka	27169	485150	28717	+5.7
ABLV Bank	26966	26341	25531	-5.3

*Source: authors' calculations based on ABLV Bank, Rietumu Banka, SEB Banka and Swedbank data*

The commercial banks still try to enter new markets and increase the number of their clients or retain the number of their current clients. This situation was influenced by the 2008 financial crisis, which is considered by many researchers to be one of the main causes that reduced the number of bank clients. For this reason, the banking sector more actively introduced a CSR strategy aimed at improving the banks' reputation. It was also influenced by stricter requirements set by the Bank of Latvia and stronger control over the banks by the Financial and Capital Market Commission due to the legalisation of funds acquired in a criminal way, which contributed to a decrease in the number of non-resident clients. Servicing non-residents is one of the key operations, for example, for ABLV Bank and Rietumu Banka.

Totally, the number of bank clients in Latvia reached 2.3 million at the end of 2015. Despite the overall negative trend, Swedbank and Rietumu Banka increased the numbers of their clients, compared with 2013. Swedbank had the largest number of clients, which accounted for more than 42 % of the total bank clients in this sector at the end of 2015. The number of clients plays an important role in the sustainable development of a bank, as it affects the bank's revenues and therefore profit.

**Public.** ABLV Bank supports various events that are important for the public (concerts, guest performances, exhibitions). In 2006, the bank established the ABLV Charitable Foundation, which focused on four areas: "Children and the

Family", "Contemporary Art", "Education" and "Urban Environment". Since its establishment, the Foundation has supported 270 projects, granting funds totalling more than EUR 2.5 million. For charity and socially important projects in 2015, the ABLV group's enterprises granted funds amounting to more than EUR one million. Along with such projects as help for children with hearing impairment and children from poor families, support for contemporary art and the formation of a modern urban environment in Riga, ABLV Bank donated funds to a number of embassies of the Republic of Latvia, thereby helping the government hold the 18<sup>th</sup> November Holiday and popularising the state beyond its borders.

Rietumu Banka too supports cultural events – festivals and exhibitions – as well as founded a charitable foundation in 2007.

Swedbank actively takes part in social projects and charitable foundations that are based on Swedbank's values and priorities in four key areas for support: financial education, education development, sports and society. The bank has introduced a grant programme "Atsperiens" (Take-off) (for the expansion of small and medium enterprises, as well as for motivating the residents who have left the country to return to Riga and start up their own business). The bank cooperates with Latvia's universities, assists them in enhancing their technological resources for studies as well as cooperates with the charitable portal [ziedot.lv](http://ziedot.lv).

SEB Banka actively supports projects oriented towards the growth of future generations. The support strategy and the investment mission of SEB Banka are "The Future is Formed Today". The bank prefers developing projects that lay strong and stable foundations for entrepreneurship growth, contributes to the living conditions of children and youth, promotes education and builds up bank clients' knowledge. By supporting various programmes and projects, SEB Banka assists entrepreneurs not only in

getting finances but also in acquiring knowledge, which could help contribute to the society's wellbeing in the future.

SEB Banka persistently supports social organisations that are engaged in tackling problems important for the public. The bank supports Mentor Latvija – an organisation that helps youth start an independent life and acquire the necessary practical knowledge for it. The Association SOS Children's Villages Latvia, which takes care about children so that they can spend their childhood in families, and the public association "Dzivesprieks" (Joy of Living), which helps youth who have a tough beginning of their life due to various reasons and provides an opportunity for the youth to become normal members of the society. The bank actively shares its knowledge, for example, through annually engaging its employees of all levels in the "Shadow Day". During the Financial Literacy Week, the bank's experts deliver lectures and hold seminars, educating youth and building up their money use skills. In cooperation with the Vitols Foundation, the University of Latvia Fund, the Latvian Academy of Arts, the Riga Stradins University Fund and the association "Dzivesprieks", annually 25 students are paid scholarships. To contribute to sustainable education, the bank cooperates with the Sustainability Centre of the Stockholm School of Economics in Riga in order to strengthen the sustainability of Latvia's business environment and to contribute to the understanding of entrepreneurs about the positive business effects of socially responsible actions. Strong and developed culture is the basis for a sustainable society. Already since 2007 the bank has been the largest sponsor for the chamber orchestra Sinfonietta Riga and the Latvian Contemporary Art Festival held in Cesis.

Since 2001, SEB Banka has been the key sponsor for the annual mountain bicycle marathon SEB MTB. Through supporting sports, including the Latvian Tennis Union, the key focus

is placed on popularising healthy lifestyles, especially among children and youth. In forming a sustainable environment, a large role is played by the involvement of the public; therefore SEB Banka regularly involves its bank clients and employees in social activities. In addition, SEB Banka held charitable dinners in the last three years; during the dinners funds were raised for some charitable organisation. The culture of donation and compassion is also promoted through associating the SEB MTB with the Association SOS Children's Villages Latvia – the participants have an opportunity to get familiarised with the SOS children's villages when registering for the bicycle marathon.

In 2015, taking part in the international campaign Client Day, SEB Banka encouraged its clients to use internet banking and payment cards for making daily payments; the bank donated four cents for charity from every transaction made during that day. For four years already, instead of ordinary presents for Christmas, SEB Banka has given charitable presents – symbolic keepsakes created in cooperation with some charitable organisation – to its clients, thus requesting the clients to support the organisation. For several years now, SEB Banka has donated funds to some organisation, which met the SEB group's support strategy guidelines, instead of giving its largest clients presents at important social events, thus encouraging the others to do the same.

Implementing CSR activities, one can identify a number of advantages for the sustainable development of banks.

First, a bank's profit and its growth pace increase (Gras-Gil E., Manzano M.P. et al., 2016). This is shown by Swedbank's performance – including financial performance, e.g. its capital adequacy and liquidity ratios exceeded many times the minimum ratios set by the legislation. As of 31 December 2015, its capital adequacy ratio was 39.28 % (the minimum ratio was set at 8 %), while its liquidity ratio stood at 54.24 %

(the minimum ratio was set at 30 %). The profits of the banks examined also tended to increase. Scientists emphasise that CSR actions are oriented towards long-term gains rather than fast profit-making (Choi B.B., Lee D. et.al., 2013; Gras-Gil E., Manzano M.P. et al., 2016).

Second, by introducing CSR, it is possible to reduce costs (Baron R.M. & Kenny D.A., 2001), including operational costs; for example, if the amount of waste is reduced or if the waste is recycled, the efficiency of consumption of electricity rises. Rietumu Banka uses various digital solutions instead of printing documents; consequently, the consumption of paper declines as well as its office costs are reduced. However, the managements of the banks face problems to calculate their potential gains or losses, as the results depend on the engagement of their employees and clients in this process, which is difficult to predict.

Third, the reputation of a bank (Grigore G., 2009; Orlitzky M., Schmidt F.L. et al., 2003) that helps develop and enter new markets and attract and retain employees improves, as individuals prefer working for enterprises whose values match their own ones (Ghadi M.Y., Ferdinando M. et al., 2015). The number of claims from the regulatory institutions, which are the Bank of Latvia and the Financial and Capital market Commission, decreases as well.

Fourth, sales might increase, as the loyalty of clients rises. Clients wish to know whether products or services are produced in a responsible way towards the environment and other social aspects. A few clients are even ready to pay more for "responsible" products. Therefore, the quality of products or services is enhanced through implementing CSR programmes, which has been proved by a study on corporate reputation in the banking sector in Latvia, which is annually conducted by the research company TNS in association with the Association of Latvian Commercial Banks (Korporatīvas reputācijas pētījums..., 2014).

Overall, by means of their economic activity, the banks develop Latvia's export potential and pay a significant amount of taxes to the government, thereby considerably contributing to the stability of Latvia's economy in future. Each of the selected banks believes it is the duty to support projects oriented towards the growth of future generations, thereby fostering the sustainable development of the bank.

### Conclusions, proposals, recommendations

- 1) Corporate social responsibility becomes increasingly popular in entrepreneurship and research; however, no single understanding and definition of this term exists yet. In a broad sense, the term corporate social responsibility relates to four key areas: employees, the economy, the public and the environment.
- 2) The case study revealed that the most extensive activities regarding corporate social responsibility were implemented in respect to the environment and the public. This may be explained by the fact that Latvia's legislation has set strict requirements for enterprises concerning environmental protection. However, the banks' corporate social responsibility programmes oriented towards raising the wellbeing of the public involve extra costs, which increases the loyalty of both their clients and employees to the banks.
- 3) Latvia's legislation strictly regulates the relationship between the employer and the

employee, yet the banks assume extra responsibilities in respect to their employees, holding corporate and training activities and introducing a motivation system that involves, for example, level 3 pension schemes or life insurance with savings. In such ways the banks try to attract highly qualified and motivated employees.

- 4) The sustainable development of banks is strongly associated with their profits. In recent years, the banking sector in Latvia grew fast and reported stable financial performance; in 2015, the banking sector's profit reached EUR 416 million. In 2015, the greatest profit was reported by Swedbank; its profit totalled EUR 130 million, which accounted for 29 % of the total profit of the sector. This means that the larger profit a bank makes, the greater opportunities for the bank to implement corporate social responsibility programmes.

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## IMPLEMENTATION OF EUROPEAN STANDARDS IN SHORT CYCLE HIGHER EDUCATION IN LATVIA

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**Abstract** Education plays an important role in the economy and everyday life since economic well-being largely depends on the knowledge, skills and proficiency of the labour force. Thanks to the Bologna reforms, students and graduates are able to move freely throughout the European Higher Education Area (EHEA) where qualifications are recognised as well as study stages and study programmes allow students to acquire knowledge, skills and competence. At the same time, it should be admitted that structural reforms are unevenly carried out within the EHEA, for example, provision of short-cycle education and practical implementation of standards and guidelines for higher education in Europe. Although the Bologna process is a voluntary one, it calls for urgent action to create a system of academic degrees in order to facilitate mobility of students, educators and researchers and ensure quality education and training, i.e. the degrees acquired at any higher education institution anywhere in the EHEA will be appropriately recognised elsewhere in this area both to continue studies and to participate in the labour market.

The topicality of the research is determined by an increasing labour demand for mid-level professionals over the past few years.

The goal of the research is to study the available information on short-cycle higher vocational education standards, their role in the higher education system and make a comparison with the European Higher Education Area.

Within the framework of the research, general scientific research methods have been used: analysis, synthesis and logical construction methods.

**Key words:** degree system, qualifications system, short-cycle qualifications, short-cycle.

**JEL code:**

### Introduction

Knowledge and skills are necessary to make one participate in the labour market. Employers recognise the importance of education and require that prospective employees are educated and competent in their speciality and, thus, specialists with higher education would likely enjoy an advantage. Rapid changes in the economy and globalisation processes mean that nowadays it is not enough to have basic knowledge and employees should constantly update their professional qualifications. Today it is no longer possible to acquire knowledge in 4–5 years that would be sufficient throughout one's professional lifetime because knowledge tends gradually to become out-of-date. This has led to the development and function of a national system of life-long learning so that those already employed would be given an opportunity to improve their competitiveness, raise their qualifications, and improve work efficiency, thus contributing to the gross national product and their well-being.

Short-Cycle Higher Education (SCHE) as the first level of higher education and the fifth level of the European Qualifications Framework (EQF) has become increasingly important over the past decade. A growing number of countries involved in the Bologna Process give the underlying programmes a formal position in their education system linked to a national qualifications framework.

SCHE is not a new issue. Already in the 1970s it was discussed as a way to diversify higher education systems in the face of booming participation. In 1973, the Organisation for Economic Cooperation and Development (OECD) defined short-cycle higher education as "[...] postsecondary education of shorter duration with strong vocational elements, generally under the non-university sector of higher education [...]". Today, the issue is still at the forefront of policy debates in many countries because of more international uniformity resulting from the Bologna agreements (Cheps, 2012).

The hypothesis of the research is as follows: rapid changes in the social environment create a

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situation, when one profession and one education do not suffice throughout one's lifetime. This creates the need to provide future occupations that are required today, give an opportunity to improve one's own knowledge and skills in the context of life-long learning in order to adapt to the changing labour market requirements.

The goal of the research is to study the available information on short-cycle higher vocational education standards, their role in the higher education system and make a comparison with the European Higher Education Area (EHEA).

Within the framework of the research, general scientific research methods have been used: analysis, synthesis and logical construction methods.

### **Short-Cycle Education in the EHEA**

The Bologna Process initiated by the Bologna Declaration and adopted in 1999 has resulted in fundamental changes in the European Higher Education Area.

The most important aspects of the Bologna Process are related to the goal of creating a system of academic degrees that is simple and allows for easy comparison, thus stimulating the mobility of students, educators and researchers, as well as ensuring quality higher education and training. At present, the Bologna Process covers 48 countries, together with the European Commission. It is important to note that the Bologna Process is voluntary; it occurs at an inter-governmental level and each signatory to the Declaration carries out reforms in its national system of education.

The most important aspects of education within the Bologna Process are life-long learning, employment issues, financial support, system of degrees conferred, degree of openness to the outside world, data collection and quality assurance [Bologna Process, 1999].

### **Quality Assurance**

In the Berlin Communiqué of 19 September 2003, the ministers of countries that are signatories to the Bologna Process called upon

the European Network for Quality Assurance in Higher Education (ENQA) to develop a compendium of agreed requirements, actions and recommendations for quality assurance and identify ways how to ensure a collegial oversight system for quality assurance.

When Latvia ratified the Lisbon Convention, it signed the Bologna Declaration, as the other signatories did, in order to implement an external quality assurance system, which would comply with standards and guidelines set out by the European Association for Quality Assurance in Higher Education as applicable throughout the European Higher Education Area. In order to fulfil this obligation to meet the standards and guidelines for quality assurance in the European Higher Education Area, the quality assurance functions in Latvia were entrusted to the Academic Information Centre (AIC) and the Quality Agency for Higher Education (AIKA), the latter being a member of INQAAHE (International Network for Quality Assurance Agencies in Higher Education) since 2015 (Accreditation and licensing, 2015)

The AIKA works principally to promote the development of higher education institutions, study programmes and internal quality assurance systems, thus enhancing the transparency and acceptance of higher education in Latvia. The document adopted to develop the external system of quality assurance of higher education in Latvia (Universities, college and study programme accreditation, 2015) states that during the 1990s Latvia was one of the leading member states of the Bologna Process to establish a national system for accreditation of higher education. Consequently, the task of the new Latvian national authority for quality assurance is to develop the external system for quality assurance that acts in compliance with the European standards and guidelines and, as a result, the Latvia's system of higher education can gain greater quality, transparency and international recognition. The national system

should be registered on the European Quality Assurance Register for Higher Education (EQAR) no later than by 2019 (Latvian higher education external quality assurance system, 2014).

As noted above, there are two organisations, namely, ENQA and EQAR that deal with quality assurance in higher education. These organisations are slightly different in their function. The ENQA is an association of agencies from 48 countries that deal with quality assurance and assessment of higher education. Twenty-six countries of the European Higher Education Area are the members of the ENQA. Whereas the EQAR unites agencies from all member states of the European Higher Education Area, which work according to the quality standards and guidelines for higher education in Europe.

A revised set of standards and guidelines for quality assurance in the European Higher Education Area was approved at the Yerevan Ministerial Conference in May 2015 ([Ministerial declarations and communiques, 2015).

With a view to implement the accepted standards and guidelines for higher education applicable in the European Higher Education Area, a new legal framework for the methodology of accrediting study directions at universities and other higher education institutions in Latvia (Universities, college and study programme accreditation, 2015) entered into force on 30 July 2015; the previous regulation (No. 668 as of 25 September 2012) was based on principles, including the presence of representatives of institutions accredited by the accreditation committee as well as the empowerment of these committees by ministry that clashed with the quality standards and guidelines for higher education as applicable to the European Higher Education Area. The latter requires that no member of the accreditation committee may represent any institution being accredited but should express their personal professional

opinion, as well as there can be no influence exerted by government bodies, higher education institutions or other interested parties; namely, the results should be based on the independent and objective assessment of quality.

### **Degree Systems**

The "Europe 2020" strategy as adopted by the EU sets forth the obligation of states to make their educational system open to others and raise their significance, develop national qualifications' systems and ensure that the criteria for success relate to the needs of the labour market (COM, 2010).

The Declaration adopted by ministers required that, as part of the Bologna Process, the creation of the European Higher Education Area should be completed by 2010. It was announced during the 2010 Ministerial Conference held in Vienna that a unified European Higher Education Area had been formed, noting at the same time that considerable effort still had to be made to achieve all of the following:

- 1) the European Higher Education Area should be transparent and mutually comprehensible;
- 2) the European Higher Education Area should be organised in three cycles: the first study cycle (Bachelor's degree), the second study cycle (Master's degree) and the third study cycle (Doctoral degree);
- 3) the degrees/diplomas obtained in any part of the European Higher Education Area should be recognised as their equivalent in other parts of this area – both for continuing education and labour market purposes;
- 4) the graduates should be accepted by the European labour market;
- 5) the students and academic staff should have the freedom and afford the opportunity for mobility within the ECHA.

The Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for life-long learning is a significant step taken in achieving the aims listed above.



The European Qualifications Framework consists of eight levels whose goal is to promote life-long learning and facilitate mobility of the residents of different countries. By establishing reference values attributable to qualifications obtained in different European countries, the EQF indicators allow for easier and more accurate comparison of these different qualifications. The EQF indicators describe the level at which an individual has acquired his/her knowledge, skills and competences.

Each of the 8 levels is defined by a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any system of qualifications.

The Framework for Qualifications of the European Higher Education Area provides descriptors for cycles. Each cycle descriptor offers a generic statement of typical expectations of achievements and abilities associated with qualifications that represent the end of that cycle.

- 1) The descriptor for the higher education short cycle (within or linked to the first cycle), developed by the Joint Quality Initiative as part of the Bologna process, corresponds to the learning outcomes for EQF level 5.
- 2) The descriptor for the first cycle in the Framework for Qualifications of the European Higher Education Area corresponds to the learning outcomes for EQF level 6.
- 3) The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area corresponds to the learning outcomes for EQF level 7.
- 4) The descriptor for the third cycle in the Framework for Qualifications of the European Higher Education Area corresponds to the learning outcomes for EQF level 8 (EQF, 2011).

The degree system for higher education that corresponds to the division of higher education into discrete cycles and the European Qualification Framework is:

- 1) Associate degree – Short cycle – EQF Level 5;
- 2) Bachelor's degree – First cycle – EQF Level 6;
- 3) Master's degree – Second cycle – EQF Level 7;
- 4) Doctoral degree – Third cycle – EQF Level 8 (Dublin descriptors, 2008).

Associate degree refers to the qualification awarded after successful completion of the so-called short cycle in the Qualifications Framework of the European Higher Education Area. The short cycle fits within or is linked to the first cycle (or Bachelor's level). The degree requires approximately 120 ECTS credits.

Bachelor's degree refers to the qualification awarded after successful completion of the first cycle in the Qualifications Framework of the European Higher Education Area. The degree usually requires a minimum of 180 and a maximum of 240 ECTS.

Master's degree is the second-level higher education award. It refers to the second cycle in the Qualifications Framework of the European Higher Education Area. The degree usually requires a minimum of 90 ECTS, of which at least 60 ECTS at Master's level.

Doctoral degree is the third-level higher education award. It refers to the third cycle in the Qualifications Framework of the European Higher Education Area. The degree usually requires three to four years of study, mostly as a period of research ([Dublin descriptors, 2008).

Undoubtedly, short-cycle education, in the light of the Dublin criteria (Dublin descriptors, 2008), as well as the EQF complies with EQF level 5 (EQF Level 5, 2008); thus, graduates acquire the relevant knowledge and skills at a level higher than that of general education and are qualified either to work or to pursue a profession or to continue studies in order to complete the first cycle of higher education. This means that short-cycle education will satisfy the demand of the labour market by educating and training mid-level specialists that are in demand. The challenge posed to short-cycle education is therefore to implement an intensive study

programme that results in knowledge, skills and competences imparted to students in a particular field, which will permit graduates to develop novel or improve existing systems, products and technologies as well as prepare the graduates for pedagogic work in their field. Short-cycle education should ensure that students reach a certain professional level of knowledge and are able to independently take decisions, defend their choice, identify all technical and organisational problems encountered in the respective professional area, react to rapidly changing situations in a timely manner.

Short-cycle education in Latvia does not have a long history behind it. It was introduced in 2000 through changes in the Law on Higher Education. However, elsewhere in the world this form of education has a longer pedigree, for instance, in America where this form of education has been available since 1901. The legal basis for short-cycle education in Latvia consists of the Law on Higher Education Establishments, the Law on Vocational Education and the Regulation of the Cabinet of Ministers "On the State Standard of First-Level Higher Vocational Education".

Short-cycle higher education is higher vocational education that lasts 2–3 years (120 ECTS – 180 ECTS).

The issue of non-university higher education, which is practice-oriented vocational training, has become topical since the beginning of the Bologna Process.

Non-university higher education began in Europe during the 1960s and 1970s when higher education ceased to be an elite pursuit and became a mass phenomenon. Consequently, the relative number of students in their age group increased from 8 %–10 %, and even approached 25 %–30 % in some countries. Once it became apparent that providing higher education required financial resources, it was found that studying at the university for a long period of time could not be financed to meet the demand for it. It also transpired that young people

themselves were willing to acquire professional skills and enter the labour market as quickly as possible. It was found that educating as many as 30 % of youth to the level of Master's degree was inefficient as graduates holding a Master's degree were ready to pursue research, had great ambitions to find a highly-paid job. However, in real life it turned out that such a large number of Master's degree holders would find work that would take advantage of only part of their abilities – principally professional knowledge and skills rather than academic knowledge.

These problems became apparent in Latvia during the 1990s, as expressed in rhetorical questions posed by Andrejs Rauhvargers, former Vice-President of the European Network of Information Centres (ENIC) and Director of the Academic Information Centre of Latvia, "Do we face the same problem as Master's degree holders do when after six years of study they often work at a job that requires all of their limited professional skills and only a fraction of the accumulated academic knowledge, don't we? Are we so wealthy that we can afford to educate a specialist over five or six years, given that in the real world three years would suffice? Is it not the case that employers often accuse graduates from higher education establishments that they lack practical knowledge and skills?" (Rauhvargers, 2002)

At present, the theme under consideration is topical since rapid changes in the economy as well as globalisation processes require employees to constantly develop their professional qualifications. As already mentioned, today it is no longer possible to acquire knowledge in 4–5 years that would be sufficient throughout one's professional lifetime because the acquired knowledge tends to become out-dated. Employers also require that prospective employees are educated and competent in their field.

In his Doctoral Thesis, Aleksandrs Tarvids has stated that "approximately one-fifth of all

employees are over-qualified for their daily tasks". The study of the mismatch between education and the needs of the labour market has identified two key phenomena: over-education and under-education. In several European countries, there are between 10 % and 30 % of overeducated employees, and about 20 % of undereducated employees. In certain countries, overeducated employees account for approximately one-half of all employees, for example, 45 % in Russia, 36 % in Ukraine, 26 % in Cyprus, 24 % in Lithuania, and 18 % in Latvia (2008) (Tarvids, 2016).

A. Tarvids illustrates the phenomenon of over-education by providing a simple example: an individual with a Bachelor's and even a Master's degree works as a cleaner; alternatively there is the phenomenon of excessive expectations and pre-conditions, for example, someone with experience in international project management has the post of assistant director at a small enterprise in the local market. These examples show that the labour market needs more mid-level specialists with a sound education and good professional skills and fewer specialists with the highest level of education (Tarvids, 2016).

Thus, short-cycle higher education plays a significant role within the system of higher education in most countries. At present, there are differences from country to country within the European Higher Education Area as how other higher education institutions recognise qualifications gained as EQF level 5. For example, short-cycle education corresponding to EQF level 5 has been introduced in Latvia, the Netherlands, Belgium, France, Denmark etc. At the same time, in the Czech Republic, Estonia, and Austria EQF level 5 is understood as further vocational education, in the United Kingdom (Scotland) – as a qualification gained through general education, and it is not practised at all in Lithuania. There are also differences in terms of the degrees conferred, for example, in the Netherlands this is an associate degree, in Latvia – a diploma of first

level higher vocational education; in Malta – an undergraduate diploma, in the United Kingdom – a foundation degree, and in Ireland – a higher certificate.

In view of the fact that the Bologna Declaration clearly sets out three distinct levels of higher education, including the degree conferred at each level, this should also be implemented for the system of short-cycle education, defining it to be part of the first cycle of higher education and proposing to confer an associate degree at completion of the study programme. The experience of the Netherlands can be seen as an example to emulate, i.e., an associate degree was given official standing in 2006 as the outcome of two years of study at a higher education programme. Prior to this date, the Netherlands had undertaken a trial period to understand what this new qualification would comprise. As of 1 September 2013 the associate degree is legally defined as a new qualification that is based on the Law on Higher Education and Science and with this step short-cycle education programmes are part of the framework of higher education qualifications fully conforming to the Dublin descriptors.

The demand for short-cycle education is increasing year by year as there is a steadily rising demand for mid-level specialists. In respect of the situation in Latvia, the number of students enrolled in short-cycle education programmes increased four-fold between 2003 and 2015. In academic year 2003/2004, only 5 % of all students in higher education were pursuing short-cycle studies; in academic year 2009/2010, this number was already 12 %, whereas in academic year 2014/2015 20 % of all students in higher education were enrolled in short-cycle study programmes in Latvia. The Netherlands adopted a goal of having 20 % of all university students in applied science disciplines to be enrolled in an associate degree programme.

According to the study on the demand for labour in the medium and long term carried out

by the Ministry of Economics of the Republic of Latvia, at present there is a strong demand for specialists and it will also persist in the future, in particular, the demand for mid-level specialists. Hence, the number of individuals enrolled in the SCHE programmes will rise by 17.3 % by 2030. The same study predicts that in 2030 job openings for individuals with higher education, including – SCHE, will comprise half of all openings. A similar trend is also expected in other EU member states (Ministry of Economics, 2013).

As mentioned above, demand is steadily rising throughout the world for SCHE due to the increasing demand for mid-level specialists in job markets. In its forecasts, the European Centre for the Development of Vocational Training (CEDEFOP) predicts that demand will grow steadily for specialists with vocational qualifications up to 2020 (CEDEFOP, 2011).

Daniels Pavluts, former Minister of Economics, has made the following observation, "If we wish to become rich and avoid mass immigration, we should return to basics and teach engineering and exact sciences. Our real problem is a relatively large number of young people who enter the job market without any qualification or skill. Additionally, there are a large number of individuals in the job market who have received only elementary education and in 2020 this number may reach 127 thousand. At the same time, the demand for this kind of workers will fall, reaching 75 thousand in 2020." (Pavluts, 2013)

The Latvian Investment and Development Agency has issued a forecast of in-demand future professions in Latvia in such fields as transport and logistics, woodworking, commerce and administration, electronics and mechanical engineering, information technology etc. According to the Ministry of Economics of the Republic of Latvia, there will be a demand for nearly 4500 IT specialists in Latvia by 2020. There is a lack of nurses, surveyors,

telemarketing specialists, and others in the labour market (Latvian Investment and Development Agency, 2014).

There is an increasing number of employers who when confronted with an insufficient number of local mid-level specialists are ready to employ workers from third countries.

It has already been noted that SCHE (first level higher vocational education) has been implemented in Latvia since 2000. In 2003, there were 13 colleges in Latvia (9 state and 4 privately owned); today their number has reached 25 (17 state and 8 privately owned ones). SCHE programmes are also offered by five higher education institutions in Latvia (Ministry of Education, 2015).

In Latvia, colleges offer 99 accredited vocational study programmes. The largest number of study programmes is in the field of health care, i.e., 18 study programmes. The next most numerous category is in the field of property management and administration comprising 13 study programmes. The smallest number of study programmes is offered in the fields of agriculture, forestry, fisheries, veterinary medicine and food safety – 1 study programme, chemistry, chemical technology and biotechnology – 1 study programme, environmental protection – 1 study programme, and information and communication science – 1 study programme. At present, there are no study programmes offered in the fields of mathematics and statistics and veterinary science (Ministry of Education, 2015).

This trend is largely driven by the fact that short-cycle education can easily adapt to the demands and requirements of the labour market, educate and train competent specialists in a short period of time, thus raising the employment rate of graduates and decreasing the unemployment rate.

The importance of short-cycle education has been emphasised in the Yerevan Declaration (Ministerial declarations and communiques,

2015), in which ministers responsible for higher education in the European Higher Education Area agreed to include provision for recognition of short-cycle education in the European Qualifications Framework (QF – EHEA), taking into account the Dublin descriptors and conforming to European standards and guidelines for quality assurance; they also agreed to adopt regulations that higher education institutions in their countries would recognise short-cycle education qualifications even in cases when short-cycle qualifications were not part of their national education system.

The "Europe 2020" strategy as adopted by the EU sets forth the obligation of states to make their education system open to others and raise their significance, develop national qualifications systems and ensure that the criteria for success relate to the needs of the labour market (COM, 2010).

### Conclusion

1) The Bologna Process was launched on 19 June 1999, when the ministers of education of 29 European states, including Latvia, signed the Bologna Declaration. Until then, Latvia had already implemented a number of reforms set in the Bologna Declaration, i.e., the Education Law of 1991 had already envisaged the introduction of Bachelor and Master study programmes. At present, higher education institutions of Latvia practically offer the three-cycle Bologna programmes, including short-cycle higher education as part of the first cycle, upon completion of which a

Bachelor's degree is awarded. Latvia was one of the fifteen European countries that already by 2012 had completed the process of alignment of its national qualifications to the European Qualifications Framework. However, in order to strengthen the short-cycle higher education in the framework of education, the laws and regulations of Latvia on education should envisage that upon completion of short-cycle education an associate degree is awarded and it is part of a professional Bachelor's level (2+2).

- 2) It is important to note that the short-cycle higher vocational education provides an opportunity to quickly obtain quality education and professional competences that allow immediately entering the labour market, gaining experience and building a career.
- 3) The importance of short-cycle education has been emphasised in the Yerevan Declaration, in which ministers responsible for higher education in the European Higher Education Area agreed to include provision for recognition of short-cycle education in the European Qualifications Framework, taking into account the Dublin descriptors and conforming to European standards and guidelines for quality assurance; they also agreed to adopt regulations that higher education institutions in their countries would recognise short-cycle education qualifications even in cases when short-cycle qualifications are not part of their national education system.

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### Author's short biography

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Intra Lūce is a docent at College of Law. Currently she is the Deputy Director at College of Law, Head of College of Law Board. She has experience in study programme development and evaluation. Intra Lūce is a board member of the EURASHE, PRME Chapter Central and East Europe and FIABCI – Baltic Multinational Chapter.

## MARRIAGE OF CONVENIENCE AS TYPE OF HUMAN TRAFFICKING IN LATVIA

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**Abstract.** Human trafficking can be traced back to ancient history – slavery. Over time, the forms and types of slavery have changed, but the essence of present-day human trafficking means the same as thousands of years ago – people selling people. Human trafficking is generally understood as prostitution and other forms of sexual exploitation, forced labour or services, slavery as well as organ harvesting. However, in today's society there is more and more discussion about the spreading of a new form of human trafficking - marriages of convenience, which are entered into for the purpose of tangible benefit to both partners. In addition, modern researchers have concluded that in a number of European Union countries, including Latvia, a new trend in human trafficking has recently been observed - exploitative marriages of convenience. When explaining the human trafficking and its influencing processes from sociological point of view, it is necessary to focus on the individual and collective levels of dimensions of analysis; and several scientists have focused on the integration of this kind of social analysis processes such as Anthony Giddens, Pierre Bourdieu and others. The social nature of fictitious marriages can be seen in the conditions related to behavioural causes of both victims and recruiters. They can be found in a society/community where a victim of human trafficking or recruiter lives.

**Key words:** human trafficking, marriage of convenience.

**JEL code:** K42, 138

### Introduction

Every year 700 000 to 4 million people are sold into slavery and held against their will all over the world (Trafficking in women..., 2001). The data provided by the International Organization of Migration show that each year about 2.000 residents of the Baltics become victims of human trafficking (Klave E., 2007). However, precise information about the true amount of people involved in human trafficking is not available, since the data about the people who work abroad illegally, against their will or in forced labour, is inaccurate. Human trafficking is generally understood as prostitution and other forms of sexual exploitation, forced labour or services, slavery as well as unlawful organ harvesting. However, in today's society there is more and more discussion about the spreading of a new form of human trafficking - marriages of convenience, which are entered into for the purpose of benefit to both partners.

Starting with 2013, the entering into marriage of convenience in Latvia or by Latvian citizens abroad is considered a felony. Fictitious marriage as a form of human trafficking is a cruel crime where a victim is deprived of his/her fundamental human rights. A victim of fictitious marriages

faces numerous problems such as various types of violence and fewer opportunities to move freely; and as a result of it, a person is forced to go through social rehabilitation in order to better integrate into social processes after returning to their homeland. On the basis of the information given by the society "Asylum - safehouse", which provides state funded social rehabilitation services for victims of human trafficking, in the period from December 2007 to June 2015, professional assistance was provided to 113 victims of human trafficking; 59 of them had suffered from getting involved in fictitious marriage. (Irija versas pret..., 2015) According to the information provided by the Ministry of Foreign Affairs, in 2009, 257 Latvian citizens in Ireland got married to Pakistanis, 80 - to Indians, 20 - to citizens of Bangladesh as well as Nigeria, Afghanistan, Egypt, Iraq, Syria and other. In 2010, 143 Latvian citizens in Ireland got married to citizens of Pakistan, 37 - of India, 17 - of Bangladesh, 11 - of Nigeria, but in 2011 from January to the end of August 199 residence permits in Ireland were requested on the basis of marriage to a Latvian (EU) citizen, of which 80 permits were for Pakistani citizens, 20 - Bangladeshi citizens, 16 - Indian nationals and

10 - Nigerian citizens (Diskusija par fiktivajam..., 2011).

In 2012, in Ireland alone 108 Latvian citizens entered into marriage with third-country nationals (Fiktivo laulibu..., 2013). The information provided by the Ministry of Foreign Affairs indicates that during recent years alarming trend has been observed of female Latvian citizens getting married to third-country nationals. Of course, it cannot be conclusively stated that all these marriages are fictitious; however, referring to the information published by the Ministry, the majority of marriages are fictitious and their purpose is to tangibly benefit from them. The given information substantiates the necessity to study marriage of convenience as a social phenomenon both theoretically and empirically as it is relevant not only for Latvia, but also for the EU as a whole. The purpose of the paper is to give theoretical explanation of marriage of convenience in the context of human trafficking, as well as to describe marriage of convenience as a social phenomenon in Latvia. Research objectives include the theoretical explanation of marriages of convenience, as well as analysis of statistical data, reflecting the prevalence of marriages of convenience. The used research methods are the analysis of scientific literature and statistical data as well as the analysis of previous research.

**Results and discussion**  
**Explanation of marriage of convenience in the context of sociological theories**

Marriage of convenience as a form of human trafficking is a multi-dimensional phenomenon which, on one hand, includes circumstances related to the choice of victims of fictitious marriage to get involved in it and, on the other hand, includes elements of social structure that make this deviant behaviour possible on the side of recruiters. It means that the phenomenon of fictitious marriage cannot be described in the context of a single theoretical perspective. Since this paper views marriage of convenience as a form of human trafficking, the choice of

theoretical perspectives includes that scientific information which is focused on the explanation of aspects linked to human trafficking.

When developing a theoretical framework for human trafficking, the greatest difficulty faced by researchers is the multi-dimensional nature of this phenomenon that obliges to not only include all affected areas in the definition of human trafficking, but to also explain this phenomenon in the context of both micro and macro level theories, since human trafficking affects not only the micro level (aspects linked to individual actions), but also macro level social processes that contain pre-conditional aspects of collective behaviour. The explanation of human trafficking and its influencing processes from the sociological viewpoint requires focusing on the individual and collective dimensions of levels of analysis, and the integration of analysis of this type of social processes has been a focus of interest to several scientists such as Anthony Giddens, Pierre Bourdieu, as well as Jürgen Habermas and others.

According to Anthony Giddens, individual social practices are implemented on a collective or social level and on individual level. Each level is characterized by its own kind of resources and regulations that are applied in order to carry out an action or implement a system. In accordance with Anthony Giddens' theory of structuration, human trafficking is a type of social reality that is made of particular social practices; these practices are formed by social subjects and are carried out within different systems. He argues that any periodical social relations create a social system. Thus, a friendship or marriage of two individuals is a social system (*Giddens, 1984*). So for fictitious marriages to be possible there need to be both favourable environment and socially accepted norms suitable to this process, as well as appropriate circumstances that encourage both recruiters to get engaged in this deviant behaviour and victims – to comply with it (*Giddens, 1984, 1-28*). Thus, a conclusion can be



made that fictitious marriage does not take place without public involvement: there need to be social norms that allow entering into marriage of convenience, as well as circumstances that encourage its potential victims to enter into it, for example, due to bad living conditions, inability to receive appropriate education or get a decent job. On the other hand, the countries of origin of recruiters, such as Pakistan, India, Iran and others, have created the circumstances in the area of personal welfare for their nationals that encourage them towards deviant behaviour.

Just like Anthony Giddens, a representative of Frankfurt School and adherent of critical sociology, Jurgen Habermas has developed a theoretical basis that is broad, complex and theoretically multi-dimensional. In accordance with Jurgen Habermas' theory, individuals create the life suitable for them by making decisions; they determine the course of their life while being influenced by such components as norms set by society, culture and individual identities resulting from the socialization processes (Habermas, 1998). He believes that human trafficking would be impossible without the network of agents and their cooperation; it speaks of the fact that human trafficking functions similarly to criminal groups. The author of this paper believes that in order to give a comprehensive explanation of the phenomenon of human trafficking, it is important to pay attention to the portrayal of both the environment and its effect on different areas of human life and the analysis of the factors influencing human capability introduced by theoretical conclusions of Pierre Bourdieu.

According to Pierre Bourdieu, individual habitus or capability depends on the social environment where an individual has socialized, the experience obtained throughout the life, things learned and gained during the process of socialization as well as his/her individual characteristics (Bourdieu et al., 1996). Based on the ideas above, it can be concluded that human trafficking is a multi-dimensional phenomenon

made of both the factors that influence the behaviour of individuals involved in it and the conditions created by society. Individual action is largely determined by the social standards, norms that regulate people's ability to meet their needs. If the chances to satisfy the needs are limited, individuals' behaviour is not predictable, because each individual's goal is to achieve adequate standard of living.

### **Theoretical explanation of fictitious marriage as a social phenomenon**

The origins of human trafficking are found in ancient history – in slavery. Over time, the forms and types of slavery have significantly varied, but in essence human trafficking means the same thing today as it meant thousands of years ago: people selling people. Human trafficking is a form of present-day slavery where individuals, usually women and girls are forced, intimidated, coerced or hoaxed to work, be sexually exploited and do other things to benefit someone else. Human trafficking is an international problem involving almost every country in the world either as a recipient of enslaved people or as a dispatcher. Its main purpose is exploitation of an individual for material gain. Exploitation means utilization of an individual for mostly unlawful purposes. (Global Report..., 2009).

Again and again society hears of the cases of human trafficking when victims were recruited by acquaintances, friends or even family members that break the trust between them. We hear about employment companies, online advertising and social networks being used for human trafficking and entrapment of people into exploitation. Well-paid job offers are the most used recruitment method. People are offered a chance to go abroad in a very short time and enter employment. Marriage is another recruitment method when a recruiter, usually through social networks seeks out another individual to prey on their social vulnerability. There is a belief that marriage of convenience is one of the most widespread forms of human

trafficking. Marriage of convenience is used in order for third-country nationals to gain EU residence permissions in a status of a family member; it gives them a chance to freely move throughout and reside in all of the ES Member States. As a result of fictitious marriage, individuals often are exploited to do the household work and are sexually abused (Cilveku tirdzniecibas..., 2004-2020).

According to the European Council on December 4, 1997, Resolution No. 97 / C 382/01, dated December 4, 1997 on measures to combat fictitious marriages, by the definition "marriage of convenience" means a marriage concluded between a European Union member state citizen or a third-country national who is a legal resident of a Member State and a third country national who is not a legal EU resident, and their single purpose is to circumvent the rules for third-country nationals on their entry and residence in EU and to obtain a residence permit or authority to reside in a Member State (Council Resolution, 1997).

At present, the largest number of fictitious marriages has been registered in Ireland and Great Britain. The popularity of fictitious marriages in these countries can be explained by several factors: a liberal approach to both registration of marriage and its inspection subsequently. These countries are the European Union (EU) Member States but not Schengen-zone Member States; they have relatively large ethnic communities of third-country origin that provide the support to fictitious marriages, for example, by doing the recruiting. These factors interact with the fact that these countries are the destination for many female citizens of Latvia that willingly agree or are hoaxed into marriages with third-country nationals, thus making it easier for third-country nationals enter the EU and the Schengen zone.

In 2015, a study was conducted as a part of the project "Preventing human trafficking and marriages of convenience: a multidisciplinary

solution". The study involved five countries - Latvia, Lithuania, Estonia, Ireland and Slovakia, and lasted 20 months. The study authors found that a number of European Union countries, including Latvia, recently encountered a new phenomenon in human trafficking - exploitative marriages of convenience. Those are the cases when a person originally agreed to enter into a marriage of convenience, but then was deceived and exploited.

The study reveals three main ways in which women are engaged in exploitative marriages of convenience. First, a person is forced to enter into a marriage of convenience. Second, there are cases of human trafficking where a person originally agreed to enter into a marriage of convenience, but then was cheated and subjected to violence and, consequently, to exploitation. The third type of exploitative marriages are marriages of convenience, where a person was initially given the impression that it was to be a real marriage, but after a while it turned out to be a fraud, that is, the husband saw the marriage as fictitious and only the wife hoped that it would be genuine (Viuhko M., Lietonen A..., 2016 ).

Referring to the abovementioned study, it can be concluded that in national legislation of all five countries, the act of human trafficking is recognized as a criminal offense and that the recruitment methods in the areas of exploitative marriages and general human trafficking are the same - the victims are lured by deceptive promises and bogus offers of jobs and opportunities. Analysing the Latvian situation, the researchers found that there have been cases where women entered into a marriage of convenience knowingly and willingly. In these cases, the conjuration was accomplished by using the fact that women experienced economic difficulties and were in need of money. In cases of exploitative marriages of convenience, these women tend to be cheated, the money - not paid, and women - subjected to various kinds of exploitation. As reflected in the study, recently

women voluntarily involved in marriages of convenience are not provided for or the payment is insignificant. A compensation for entering into a marriage of convenience does not come to those women who are fooled into thinking that it is a true love and it will be a real marriage with third-country nationals, since they are given that impression in the beginning of the supposed courtship.

Recruitment approach when one does not offer a marriage of convenience, but creates the illusion of genuine relationship, is especially beneficial to third-country nationals, because there is no need to pay for marriage of convenience. The interviewed social rehabilitation service providers assessed it as a common recruitment strategy. In these cases, it is very difficult to prove that a woman was used since she thinks that marriage was not a pretence, but was a real one. At the same time, a number of indications confirm that the marriage is real only on one side, because women are rushed to get married and have children, but most importantly - the relationships are subordinated to the visits of migration services needed to get a residence permit. In most cases, victims begin to realize what the real situation is, when they arrive at the country of destination. In order to control women, beneficiaries use threats and psychological control, sexual, economical and physical abuse, and financial control.

The social nature of fictitious marriages can be linked with the circumstances related to the reasons of actions of both victims and recruiters. They are found in society where victims of human trafficking and recruiters live. For example, the economic conditions associated with debt, unemployment, high housing rent; cultural conditions related to the understanding of the role of women and values of the community; psychological conditions associated with low self-esteem, dependency on men; family background, which includes experience of negative family patterns, domestic violence; social conditions

that include social exclusion, various addictions; personal circumstances relating to personal crisis, personal peculiarities (Viuhko M., Lietonen A....,2016 ).

### **Regulatory framework restricting marriages of convenience**

Given that in recent years the number of women from Latvia entering into marriages abroad has increased and taken into consideration that in several cases women ended up in exploitative conditions, which comply with the definition of human trafficking, Latvia has recognized that marriages of convenience present serious risk of human trafficking. On 1 April 2013, amendments to the Latvian Criminal Code came into force introducing legislation which criminalises the fraudulent provision of the opportunity to legally acquire the right to stay in the Republic of Latvia, another EU Member State, the European Economic Area or the Swiss Confederation. The State Police have since then initiated 12 criminal cases of recruitment of persons into fictitious marriages. Latvia's legal regulations are based on international laws and regulations, which are oriented towards the restriction of human trafficking. A significant regulatory document is the Palermo Protocol accepted in 2000, which now has become one of the main documents regulating the human trafficking and the steps the EU states need to make in this area. The Protocol entered into force on 25 December 2003. The document provides for preventive measures, measures to protect the victims, as well as opportunities for victims of human trafficking to remain in the country of destination. (Protocol..., 2004)

The European Charter of Fundamental Rights Article 5 provides for prohibition of human trafficking.

The second document, which focuses on fighting human trafficking at the international level, is the Council Framework Decision on human trafficking approved in 2002 that had to be implemented by Member States by 1 August

2004. The Council Framework Decision provides that all Member States must ensure that human trafficking is punishable by imprisonment for no less than 8 years; legal persons can be held responsible for the crimes of human trafficking; also it required for steps to be taken to establish national jurisdiction with regard to human trafficking, when the offense is wholly or partly within its territory or the offender is one of its nationals (Council framework..., 2002).

National-level regulations in the area of human trafficking can be divided into two categories - the criminal legislation and social regulations. The main legal act governing human trafficking-related offenses at the national level is the Criminal Law. Article 154.2 of the Criminal Law defines the concept of human trafficking; article 154.1 lays down penalties for human trafficking; article 165.1 lays down penalties for sending a person abroad for sexual exploitation; article 162 explains the phenomenon of "seducing into immorality", and Article 164 explains the aspects of "coercion into prostitution". Being acquainted with the Criminal Code definition of the phenomenon of human trafficking, it can be concluded that marriages of convenience as a form of human trafficking is not included in it. However, Article 152 of the Criminal Law determines another person's unlawful imprisonment as a criminal and thus punishable unlawful act, which provides that "for depriving a person of their freedom to determine his/her location (illegal deprivation of liberty), a person shall be punished by temporary imprisonment or community service, or a fine" (Kriminallikums,1999:152.p).

Social regulations mainly govern the rehabilitation of victims of human trafficking. The main act regulating social rehabilitation services for victims of human trafficking is 'the Social Services and Social Assistance Law'. Victims of human trafficking receive social rehabilitation services since 2006 and the allocation and use of this service is determined by Cabinet Regulations

No. 889 "Regulations on the procedure how victims of trafficking receive social rehabilitation services and the requirements to providers of social rehabilitation services." (Noteikumi par kartibu..., 2007). It must be noted that in order for victims of marriages of convenience to receive social rehabilitation, it is necessary to prove that marriages of convenience include offenses that comply with the concept of human trafficking and that marriage of convenience can be defined as a form of human trafficking. Amendments must be made so that the offenses against a victim of fictitious marriage would fit the definition of human trafficking included in Article 154.2 of the Criminal Law, as in the following:

(1) human trafficking with the purpose of exploitation includes the recruitment, transportation, transfer, harbouring or receipt of persons, by means of violence or threats or abduction, deception or abuse a person's dependency on the perpetrator or the state of helplessness or by giving or receiving of payments or benefits to achieve person's consent, upon which the victim is dependent;

(2) recruitment, transportation, transfer, harbouring or receipt of minors for exploitation purposes, is regarded as human trafficking even if it is not carried out by the means mentioned in the first paragraph;

(3) exploitation as it is understood in this article is involvement of individuals in prostitution or other forms of sexual exploitation, forced labour or services, slavery or similar forms (debt bondage, serfdom or other forms of forced dependency on another person), keeping in servitude, or unlawful harvesting of human tissue or organs (Kriminallikums, 154.2.p.). Marriages of convenience as a form of human trafficking are difficult to prove, and that also explains the small number of criminal cases in this area, because in the cases of fictitious marriages it is necessary to verify that the illegal acts conducted towards the victim meet the definition of human trafficking. Quite frequently, the victims are not aware of

offences committed against them; often they are afraid to reveal the truth or the guilt cannot be proven.

### **Services of social rehabilitation to the victims of human trafficking**

In Latvia, the social rehabilitation to victims of human trafficking is provided by two NGOs 'Asylum - safehouse' and 'Resource Society of Martha'. Social service course up to 180 hours is financed from state funds (Noteikumi par kartibu..., 2007). Thus, if a criminal offense as a result of human trafficking in form of marriage of convenience has been committed against a person and there has been harm done - moral injury or physical suffering, the state provides various services of social rehabilitation to these victims of human trafficking. Since 2007 the association 'Asylum - safehouse' provides services to victims of human trafficking. The society has put together a team of inter-professional experts that offer services of a social worker, lawyer, psychologist, social rehabilitator, a family doctor. Victims are offered safe home, an opportunity to receive material support to buy food, household and hygiene items, to cover medical expenses as well as purchase of clothing and footwear. Rehabilitation period, funded by the state, is 6 months. After 6 months of rehabilitation programmes, customers can still get five free sessions with chosen specialist. (Socialas rehabilitācijas..., 2014).

And since 2015 the social rehabilitation to this target group is provided also by 'Resource Society Martha'; they offer counselling services of a professional social worker, psychologist, lawyer, medical employee; ensure the repatriation of victims of human trafficking, their reception and delivery to safe abode; develop an individual rehabilitation and reintegration program; provide assistance in restoration of identification documents as well as provide

support during criminal proceedings. Since 2015, the association has identified 21 victims of human trafficking; 8 of them were victims of trafficking in a form of fictitious marriage.

### **Conclusions**

- 1) In recent years, there is an alarming trend for the female citizens of Latvia to enter into marriage with third-country nationals. Publicly available data shows that from 2009 until 2012 at least 872 have married third-country nationals, and in case of some of these marriages there is a risk of them being fictitious.
- 2) From 2007 until December 2015 the services of social rehabilitation were provided to 113 victims of human trafficking; 59 of these people were victims of fictitious marriage. True number of marriages of convenience is not known, because the information about them comes to the surface only in the cases when victims have sought help in the police or other institutions.
- 3) According to Pierre Bourdieu, human trafficking is a multi-dimensional phenomenon that is made of both the factors affecting human behaviour and the conditions created by society.
- 4) Recently a new type of human trafficking has been observed - exploitative marriage of convenience. These are fictitious marriages when the involved person originally agreed to enter into marriage of convenience, but later was deceived and submitted to various types of exploitation.
- 5) The writing and implementation of legally binding laws and regulations that restrict human trafficking began around 2002-2003 when legislators passed the Framework Law and Palermo Protocol. In Latvia, the aspects linked to human trafficking are governed by the Criminal Law.

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## CHANGES OF INSURANCE INTERMEDIARIES REGULATION IN THE EU COUNTRIES

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**Abstract.** This paper describes the changes, which were made in recent years to the regulation of insurance intermediaries in the EU countries. The Insurance Distribution Directive (IDD) came into force on 22 February 2016 and updates the 2002 Insurance Mediation Directive (IMD), applies to the wider regulation of insurance "distributors" in comparison with IMD. The IDD has a wide scope of application, applying to all sellers of insurance products, anyone who assists in the administration and performance of insurance contracts and ancillary insurance intermediaries. Member States have two years to transpose the IDD into national laws and regulations, which should provide for significant changes in practices of selling insurance products and guarantee enhanced level of consumer protection. The aim of article is reveal the problem areas of IDD implementation in order to escape infringements. To achieve the aim of article, there were used the following approaches: systematic and logical analysis, generalization, analysis of documents, qualitative content analysis, empirical data collection and systematisation. Conclusions of article are as following: agents and brokers are the main non-life distribution channels, and banc-assurance is one of the main life distribution channels, insurance intermediaries foster competition in the local and the EU insurance market, diversity of channels, which makes it possible for insurers to adjust to differing cultures, needs and preferences in different markets, is in the interest of consumers, effective implementation of new Insurance Distribution Directive will help to make changes in organisation, professional requirements, remuneration and forecasting the challenges.

**Key words:** insurance distribution, insurance mediation, sellers of insurance products, revision of IMD, insurance brokers, agents, ancillary insurance intermediaries.

**JEL code:** G18, G22, G24.

### Introduction

The macroeconomic environment for European insurers improved in 2015. The European economy continued to grow modestly, with the real gross domestic product (GDP) of the 28 EU Member States increasing by 2.2 % after 1.6 % growth in 2014 (European Insurance in Figures 2015). The European market continued to grow in 2015, with total premium income up 2 %. Within that total, non-life business lines grew 2.4 %, but in the life insurance growth was lower – 1.5 % (European Insurance in Figures 2015). Around 3 600 insurance companies were active in Europe in 2015, a decrease of 3.7 % in 2014. This total refers to the number of domestic companies and branches of non - EU/ EEA (European Economic Area) country companies. In addition, in 2014, 540 branches of EU/EEA companies were operating in the EU and around 7 400 licensed insurance operations were overseen by national supervisory authorities on the basis of freedom of services. Germany was the market with the highest number of insurance companies in 2015 (539), experienced decrease

of 1.6 % in 2014. The number of companies in the UK, the second largest market, decreased in 2015 to 496. In third and fourth markets – France and Sweden – also experienced a decrease in their number of companies, by 4 % and 7 % respectively (European Insurance in Figures 2015).

Insurance intermediaries foster competition in the local and EU insurance market. Insurance is sold either directly by insurers or through a number of different channels, the most common of which are brokers, agents and banc-assurance (Lace *et al.*, 2016). The popularity of each channel of insurance distribution varies depending on both the market and the insurance product (Domaradzka, 2012). This diversity of channels, which makes it possible for insurers to adjust to differing cultures, needs and preferences in different markets, is in the interest of consumers. Agents and brokers are the main non-life distribution channels, and banc-assurance is one of the main life distribution channels. The Insurance Mediation Directive (IMD) regulated the selling practices of all

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insurance products (Cummins *et al.*, 2016). It covers the regulation of general insurance products such as motor insurance as well as life insurance policies, including those which contain investment elements such as unit-linked life insurance products. The IMD approved principles that each Member State has implemented in substantially different ways. Certain parts of it are in need of modification or clarification, and some important matters proposed today do not fall within its current scope (Meron, Weill 2010; Okura 2010; Schiller 2009; Spitzer 2014). The Insurance Distribution Directive (IDD) came into force on 22 February 2016 and updates the Insurance Mediation Directive (IMD), applies to the wider regulation of insurance distributors in comparison with IMD. The IDD has a wide scope of application, applying to all sellers of insurance products, anyone who assists in the administration and performance of insurance contracts and ancillary insurance intermediaries (*European Commission's Impact Assessment*, 2015). Member States have two years to transpose the IDD into national laws and regulations, which should provide for significant changes in practices of selling insurance products and guarantee enhanced level of consumer protection. Implementation of IDD is important for each Member State.

*The aim of the article* is to disclose the problem areas related to implementation of IDD in order to avoid future infringements for Member States. In order to fulfil the defined aim, the following tasks have been raised: 1) to analyse non-life insurance and life assurance distribution channels; 2) to determine changes on regulation of insurance intermediaries; 3) to review and compare insurance statistical data of the EU countries.

*Methodology of the research:* systematic and logical analysis, generalization, analysis of documents, qualitative content analysis, collection of empirical data and systematisation.

## **Research results and discussion**

### **1. Non-life insurance and life assurance distribution channels**

Among the largest life insurance markets in 2015 of the EU countries, most products were sold via banc assurance in Italy (79 % of gross written premiums) and France (64 %), while in the UK and Germany most life products were sold by agents and brokers (83 % and 73 % respectively). The other European markets in which banc assurance was most dominant were Malta (82 %), Portugal (80 %), and Spain (63 %). The market in which agents and brokers were most dominant was Bulgaria (85 %). Agents alone were the main distribution channel in Slovenia (82 %) and Slovakia (63 %) (European Insurance in Figures 2015).

In both large and small markets, non-life insurance policies were mainly distributed in 2015 through agents and brokers. Agents predominate in Slovakia (80 %), Italy (79 %), Slovenia (62 %), Germany (58 %) and Portugal (56 %). Meanwhile, brokers account for 61 % of non-life premiums in Belgium and 50 % in Bulgaria. In contrast, Croatia had the largest proportion of nonlife products sold directly (70 %) (European Insurance in Figures 2015).

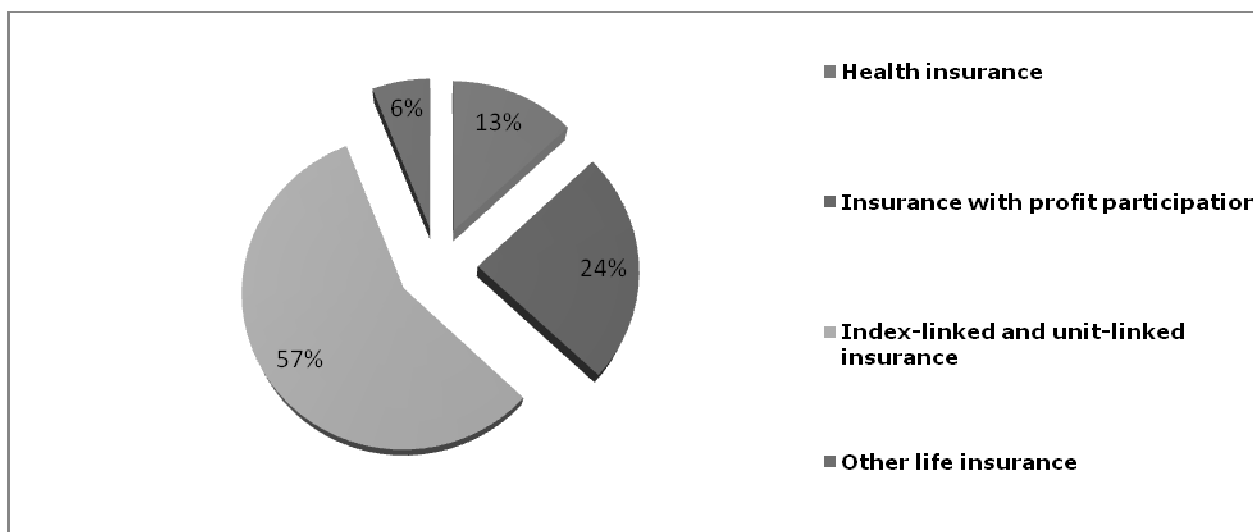
In Lithuania, the volume of single life assurance premiums in I half of 2016 shrank by more than 10 million EUR, thus determining a fall in the life assurance market volume. As a comparison of the data for the first halves of the past few years, 2016 year's situation is similar very much to that observed in 2012, when the life assurance market share contracted by more than 11 per cent due to a more than 60 per cent decline in the volume of single premiums (Bank of Lithuania).

The insurance premiums of four insurance undertakings in Lithuania distributing non-life assurance products and of nine branches registered in other EU countries and providing services in Lithuania amounted to EUR 230.1 million over the half-year 2016 and were the largest in the last five years (Bank of Lithuania).



Advances in distribution are driven by changes in the needs and preferences of insurance products' consumers as well as by regulatory and technological developments (Peleckiene, Peleckis, 2015). Accordingly, insurers are trying to develop

multi-channel strategies and invest in new technologies to create innovative ways of selling products that can improve their service to consumers and respond to their expectations.



Source: Bank of Lithuania

Fig.1. Distribution of life assurance premiums in Lithuania by type in 1<sup>st</sup> half of 2016

Fig.1 represents the distribution of life assurance premiums in Lithuania by type during the first half of 2016. It should be noted, that among premiums, collected by insurers of life assurance, prevailed index-linked and unit-linked insurance - 57 %, premiums of insurance with profit participation - 24 %, the least amount of premiums consisted of health insurance - 13 %.

The number of Lithuanian insurance brokerage firms in 2016 year amounted to 97. The amount of insurance brokerage firms is decreasing: on 31 December 2013, there operated 101 insurance brokerage firms in Lithuania's insurance market - two licences were issued and two licences were revoked according to Bank of Lithuania. In 2016, the number of insurance contracts concluded by insurance brokerage firms exceeded 1 million. In 2015, insurance brokerage firms intermediated in the conclusion of 1.24 million insurance contracts and pension accumulation agreements - an increase of 9.7 per cent from 2012. As usual, insurance brokerage firms operated most actively in the non-life insurance market. With their intermediation, 1.23 million insurance contracts were concluded - 23.8 per cent of the contracts

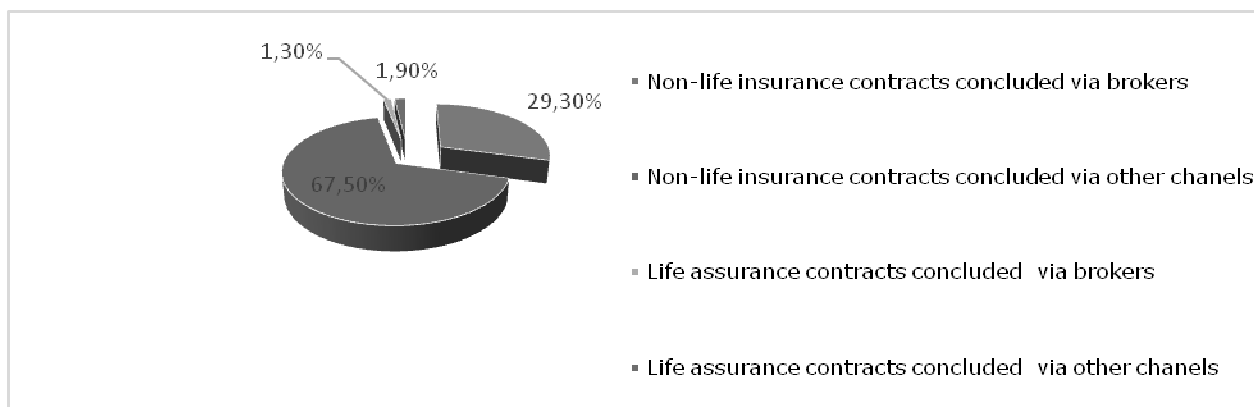
of this branch in the insurance market. As many as 99.8 per cent of the insurance contracts and pension accumulation agreements concluded via the intermediation of insurance brokerage firms were represented by non-life insurance contracts (Peleckis, Peleckiene *et al.*, 2016).

The data presented in Fig. 2 describe by what channels life and non-life insurance premiums were collected. In non-life insurance, 29.3 % contracts were concluded by brokers' undertakings and by other channels of sale - 67.5 %. In life insurance: only 1.3 % of contracts were concluded by brokers' undertakings, and 1.9 % - by other channels of sale (Bank of Lithuania).

The assets of insurance brokerage firms of Lithuania during first quarter of 2016 amounted to 24.2 million EUR, equity capital - 13.6 million EUR. On 31 March 2015, the minimum equity capital (capital cannot be less than EUR 18 760) requirements were not fulfilled by one insurance brokerage firm, which was warned and obliged up to 30 June, 2015 to ensure equity requirement. Two insurance brokerage firms also had to take the measures necessary to comply with the

minimum capital requirement. The company's shareholders contributed funds to cover the losses. The insurance brokerage firms' income from sales per year amounted to 9.7 million EUR. Although in 2015 one quarter of insurance

brokerage firms operated at a loss, however, the entire sector's overall performance during the reporting period amounted to a 10.8 million profit.



Source: Bank of Lithuania

Fig.2. Channels of Insurance contracts concluded in life and non-life insurance of Lithuania

This was mostly driven by the 8.3 per cent growth over the year in income from sales. The income from sales of the five largest insurance brokerage firms accounted for 45.2 per cent of the total income of all insurance brokerage firms. By income from sales, the market leader among the insurance brokerage firms continues to be Aon Baltic. Its assets accounted for 32.5 per cent of the total income from sales of all insurance brokerage firms. The aforementioned firm has retained its leadership positions by other indicators as well: its assets accounted for 35.2 per cent of the system's assets; income - 18.9 per cent from all profits of sector.

## 2. Changes to the regulation of insurance intermediaries

The Insurance Distribution Directive (IDD) is essential of the EU legislation in regulating insurance intermediaries, came into force on 22 February 2016. This Directive (EU) 2016/97 on Insurance Distribution (Recast) focuses on practices for selling insurance products and in particular seeks to establish a level playing field between participants in insurance sales in order to improve customer protection, strengthen competition and facilitate market integration. The IDD updates the 2002 Insurance Mediation Directive 2002/92/EC (the 2002 Directive), which

introduced a framework for regulating EU insurance brokers, agents and other intermediaries. The IDD has a wide scope of application, applying to all sellers of insurance products (including those that sell directly to customers and price aggregator comparison websites), anyone who assists in the administration and performance of insurance contracts (e.g. claims management activities, Lloyd's managing agents, service companies dealing with customers) and ancillary insurance intermediaries. It applies both to insurance and reinsurance distribution. The essential aim of the IDD is to ensure that insurance intermediaries would act professionally, honestly, fairly and in the best interests of their clients. The following specific provisions include:

- 1) **Professional development:** employees of insurance intermediaries must complete at least 15 hours of professional training or development per year.
- 2) **Disclosure:** before the conclusion of a contract, intermediaries must disclose to their customers the nature and basis of their remuneration (e.g. fee and commission).
- 3) **Remuneration:** intermediaries must not remunerate or assess the performance of employees in a way which conflicts with their

duty to act in the best interests of their clients.

4) **Provision of information:** intermediaries must provide certain information to their customers (e.g. product information document, which summarises the main features of the proposed contract).

The IDD is a "minimum harmonising" Directive and Member States will be able to implement it

by adding extra requirements. That said the IDD is intended to raise significantly the minimum standards of the IMD. In Table 1 are presented comparison of main requirements in IDD and IMD. The new IDD regime will simplify the procedure for cross-border entry to insurance markets across the EU in a number of ways.

Table 1

**Comparison of the scope of Insurance Mediation and Insurance Distribution Directives**

<b>Insurance Mediation Directive (IMD)</b>	<b>Insurance Distribution Directive (IDD)</b>
IMD applies to insurance intermediaries only. Covers about 48 % of the market.	IDD applies to all sellers of insurance products, including insurance undertakings that sell directly to customers. IDD covering about 98 % of the market.
IMD covers only those acting on behalf of the policyholder.	IDD applies to any person whose activities consist of assisting in the administration and performance of insurance contracts, including those acting on behalf of insurers – for example, claims management activities. However, the new directive extends its application more widely to others who assist in the administration and performance of insurance contracts – for example, in the event of a claim.
IMD contains a similar "connected contracts" exemption, although there are changes to the conditions that need to be met to rely on this test. Any person that does business on the basis of the exemption should confirm that they are still able to meet these conditions and do not need to be authorised.	IDD was extended to include ancillary insurance intermediaries, although a lighter touch regime will apply and member states are entitled to require that insurers and intermediaries take greater responsibility for ancillary intermediaries. Ancillary intermediaries must meet three conditions to avoid full regulation, including that the insurance products concerned must not cover life assurance or liability risks unless that cover complements the product or service which the intermediary provides as his principal professional activity.

**Source: prepared by authors based on IDD**

Member States will be expected to establish a "single information point" providing public access to their registers for insurance, reinsurance and ancillary intermediaries. IDD applying to any person may improve service provision for insurers as such firms will have better controls in place, but additional costs may be passed onto insurers. Firms will need to confirm that all such entities, that they do business with, are properly authorised and that their contractual arrangements reflect the change in regulation. Notably, the management of claims of an insurer/ /reinsurer on a professional basis, loss adjusting and expert appraisal of claims have been 'carved out' of the extended definition.

**3. Organisation, professional requirements and remuneration**

The new regime will require stricter and more specific professional requirements. The EU Member States will have to establish and publish

mechanisms to effectively control and assess the knowledge and competence of insurance and reinsurance intermediaries and employees of insurance and reinsurance undertakings and employees of insurance intermediaries. Commissions paid by insurance companies are still the major source of underwriting-related income for independent intermediaries. Most commission payments are related to the signing of the contract and are conditioned mostly on the insurance premium (Focht *et al.*, 2013). For example, in Lithuania there is still under discussions the question who should pay the broker (consumer or insurer). Home Member States may require that intermediaries would have training and their development requirements would be proven by obtaining a certificate. The IDD also sets a minimum professional indemnity insurance requirement for intermediaries of at least €1.25 million per claim

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or €1.85 million in aggregate, unless such insurance or comparable guarantee is already provided by an insurance or other undertaking on whose behalf the intermediary is acting. This is currently €1 million or €1.5 million under the IMD. Ancillary insurance intermediaries will also be required to hold professional indemnity insurance. Remuneration disclosure requirements for insurance intermediaries in the current version of the IDD include disclosure of the following.

- 1) The nature of remuneration received in relation to an insurance contract.
- 2) The basis of the remuneration – that is, whether it is in the form of a fee paid by the customer, a commission included in the insurance premium, an economic benefit of any kind offered or given in connection with the insurance contract, or a combination of these. Where the fee is payable directly by the customer, intermediaries must disclose the amount of the fee or, where this is not possible, the method for calculating it.
- 3) If any payments, other than ongoing premiums and scheduled payments, are made by the customer under the insurance contract after its conclusion, the insurance intermediary will also be obliged to make the disclosures after each of these payments.

Remuneration is defined in the Directive as meaning: "any commission, fee, charge or other payment, including an economic benefit of any kind or any other financial or non-financial advantage or incentive offered or given in respect of insurance distribution activities". The disclosure of remuneration requirements for insurers in the IDD include disclosure of the nature of the remuneration, received by their employees in relation to the insurance contract. In addition, if any payments other than ongoing premiums and scheduled payments are made by the customer under the insurance contract after its conclusion, the insurer will also be obliged to make the disclosures after each of these

payments. Remuneration disclosure requirements for ancillary insurance intermediaries in the IDD include only the nature of the remuneration received in relation to the insurance contract.

### **Conclusions, proposals, recommendations**

- 1) The application of Directive 2002/92/EC has shown that a number of provisions require further precision with a view to facilitating the exercise of insurance distribution and that the protection of consumers requires an extension of the scope of that Directive to all sales of insurance products.
- 2) Various types of persons or institutions, such as agents, brokers and banc assurance operators, insurance undertakings, travel agents and car rental companies can distribute insurance products. Equality of treatment between operators and customer protection requires that all those persons or institutions be covered.
- 3) Insurance intermediaries foster competition in the local and the EU insurance market. Insurance is sold either directly by insurers or through a number of different channels, the most common of which are brokers, agents and banc assurance. The popularity of each channel of insurance distribution varies depending on both the market and the insurance product. This diversity of channels, which makes it possible for insurers to adjust to differing cultures, needs and preferences in different markets, is in the interest of consumers.
- 4) The Insurance Distribution Directive (IDD), is essential of EU legislation in regulating insurance intermediaries, focuses on practices for selling insurance products and in particular seeks to establish a level playing field between participants in insurance sales in order to improve customer protection, strengthen competition and facilitate market integration.
- 5) Implementation of new Insurance Distribution Directive till 2018 is important for each

Member State, so it is very important for insurance intermediaries to prepare and make changes in organisation, professional requirements, remuneration and forecasting what challenges they will face in the future.

- 6) Insurance companies must ensure that insurance intermediaries would act professionally, honestly, fairly and in the best interests of their clients.
- 7) Before the conclusion of a contract, intermediaries must disclose to their customers the nature and basis of their remuneration (e.g. fee and commission).

- 8) It is recommended for insurance companies and insurance brokerage firms to focus attention to the remuneration of independent agents and brokers in order that commissions paid by insurance companies would be based on various performance criteria, such as profitability of the business placed or the volume of business with that specific insurer.
- 9) Intermediaries must provide certain information to their customers (e.g. product information document, which summarises the main features of the proposed contract).

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## HOUSING QUALITY AND DEPRIVATION IN POST-CRISIS PERIOD: CASE STUDY OF LATVIA

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**Abstract.** Provision of adequate housing and amenities is a major challenge for the development of today's society, and especially so among vulnerable social groups, such as people living on the fringes of society and close to the threshold of poverty. Provision of housing of adequate quality covers not only the objective indicators, but also ideological and social support. Housing quality is connected with the availability of other dimensions of life quality (family life, personality development, social capital). This study aims at analysing housing quality and deprivation in Latvia focusing attention on the period of economic recovery (2010-2015). The author has used quantitative approach (statistics, survey data) about housing quality and deprivation in the study. The basic housing functions consist of shelter availability and well-being indicators. Poor housing conditions, lack of basic facilities, overcrowding, subjection to noise, pollution and violence are likely to reinforce problems of health, educational attainment, labour prospects and integration. Where long-term difficulties in meeting mortgage and rental payments are evident, this can lead to greater demands on social housing, relocation and, in extreme cases, homelessness. Material deprivation, poverty, social exclusion as a social phenomena are essentially influenced by the processes going on in the society: the transitional reforms (privatization, denationalization); unsustainable growth (real estate boom 2003-2007); the period of global economic crisis (2008-2010) and the period of economic recovering (after 2010). The results show an increasing average level of quality indicators, but permanent features of deprivation in post-crisis period in Latvia.

**Key words:** Housing quality, housing deprivation, post-crisis period.

**JEL code:** P36

### Introduction

Housing is one of the basic needs for everyone. The housing functions are to provide shelter from climate threats, where it is possible to realize the physiological needs, personal relationship with the family, to bring up children and take care of the elderly family members. Housing influences the possibility to form a family, to develop family ties, to develop personality, hobbies and to do housework. At its most elementary level, housing serves as shelter, offering protection against weather and crime (Fahey, T., Norris, M., 2011). Housing could be a significant economic investment for households. Residents also tend to hold emotional attachment to the housing as home, a place of emotional relaxation. In addition, the governments have used housing as a tool to attain other policy objectives, such as social inclusion, integrating or segregating population groups. In view of the fact of its significance, housing plays an important role in the society. "First, housing must accommodate behavioural needs related to family life and neighbourly interactions. Second, housing reflects and reinforces social and economic structures. It means, for example,

social stratification and discrimination" (Michelson, W., Van Vliet, W., 2000, 314). Housing quality means not only technical, quantitative parameters, but is also closely linked with social security as well in objective and subjective sense. It is a sensitive problem for vulnerable groups who are meeting higher housing deprivation risk.

Housing quality could be explained as multi-dimensional phenomenon: use value (for individual and family); emotional value (feel-good factor, love of your own home); prestige value (self-expression, self-identification) and protection (privacy, physical conditions) (Curley, A., 2005.). It is multidimensional phenomena covering physical and social parameters.

Housing deprivation is a measure of poor amenities (households with leaking roofs, no bath/shower and no indoor toilet, or the dwelling considered too dark) (Eurostat, 2016). Housing deprivation reflects the lack of an ordinary living pattern common to the majority or the larger part of the population in the European Union and most of its Member States.

British researcher of poverty and social exclusion Peter Townsend (1979) defined deprivation as the lack of socially-perceived necessities (Townsend, 1979, 47).

Vulnerable groups are those which experience a higher risk of poverty and housing deprivation than the general population. Housing deprivation is linked with social isolation, residential segregation and discrimination focusing on urban poverty and "urban underclass" (Curley, 2005). The author is confident that housing deprivation takes place in rural areas, too, but with some specific features. The inhabitants in urban areas are more concerned about availability of housing and ability to pay for it, but rural inhabitants have difficulties to obtain and provide adequate housing quality.

The current study has focused attention on the analysis of housing quality dimensions paying attention to housing deprivation in sense of quality and availability of housing for vulnerable groups. The European Federation of Public, Cooperative and Social Housing presents a report that reflects the state of the housing sector in the continent, Latvia's country profile is described as "...a relatively high rate of housing deprivation and poor housing quality..." (Housing Europe, 2015).

The financial, economic and social crises in 2008-2010 have affected not only financial obligations and employment opportunities (Hass, J., 2014). It affected housing issues, too; for example, housing availability and provision in Latvia. The author is interested in the changes in housing quality and deprivation in the period after the global financial and socio-economic crisis in Latvia. The period from 2011 to 2015 is analysed as post-crisis recovery for housing quality and deprivation. Housing quality and deprivation in post-crisis period means changes that have taken place in housing system in the aftermath of the Global Financial Crisis (Elsinga, 2015, 15). The aim of the current study is to explore what tendencies are observable in post-

crisis period (2011-2015) in housing quality provision and deprivation risk for different groups in Latvia.

The main tasks are:

- 1) to find trends in housing quality in post-crisis period;
- 2) to find out if adequate quality housing is financially available for all the inhabitants of Latvia;
- 3) to illustrate data about housing deprivation in Latvia. The housing quality as multidimensional phenomenon includes size, accommodation, environment and financial availability.

*Research questions:*

How has the housing quality changed after the crisis in Latvia? How housing deprivation could be characterised in post-crisis period in Latvia?

### **Hypotheses**

- 1) Housing quality has improved in post-crisis period in Latvia, but it reveals differently in socio-demographic and territorial groups.
- 2) Housing deprivation is common for all regions in Latvia, but the parameters of deprivation differ in urban and rural areas.

The global financial crisis of 2008-09 cast a long and wide shadow over the world's economy and had a severe impact on Latvia's economy and housing problems (Kim, 2014). Those with mortgage loans and those who lost income due to unemployment were impacted especially hard. Post-crisis period is understood as the years of economic recovery in 2011-2015 in Latvia. The concept "housing trap" could be applied in order to characterise the housing situation for people in many EU countries:

- the rental sector is expensive;
- home ownership is not an option due to the even higher costs;
- the number of social homes is just not big enough with waiting lists growing in numerous countries (EU Housing, 2015). It is possible that some social groups could be in the

"housing trap" in Latvia, too. The author highlights the main features of vulnerability, which could be linked with family status and urban/rural area.

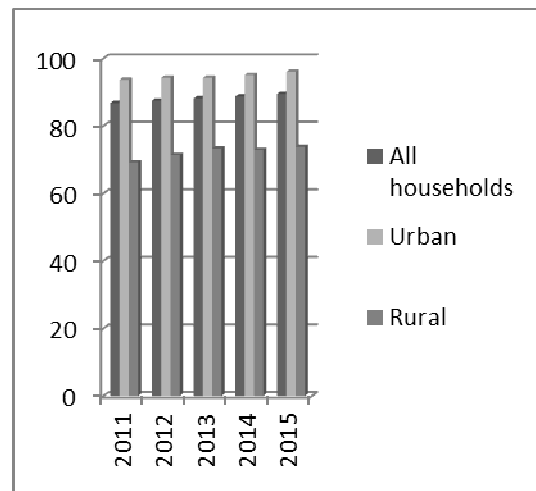
Housing quality is measured as dwelling supply with different amenities (Eurostat, 2016).

The focus of the EU housing policy falls on three vast areas: accessibility, affordability, quality (European Parliament: 12/1996). Since 2010, the outset of the Europe 2020 strategy, EU-SILC data, is being used to characterise the housing quality and deprivation monitoring, the poverty and social inclusion in the EU. One of the key dimensions in assessing the quality of housing is the availability of sufficient space in a dwelling. The overcrowding rate describes the proportion of people living in an overcrowded dwelling, as defined by the number of rooms available to the household, the household's size, as well as its members' ages and their family situation [EU statistics on income and living conditions (EU-SILC), 2014]. Homelessness is a social indicator for extreme poverty and housing deprivation. The social housing and night shelters are housing policy instruments for protection of the people who are in risk to loose dwelling. Questions of social housing, homelessness and housing segregation play an important role within the EU's social policy agenda. The Charter of fundamental rights stipulates in Article IV-34 that "in order to combat social exclusion and poverty, the Union recognises and respects the right to social and housing assistance so as to ensure a decent existence for all those who lack sufficient resources, in accordance with Community law and national laws and practices"( EU EC, 2000 ).

**Methods.** The author analyses the existing statistics (EU-SILC,2014; CSB, 2016) about housing quality and deprivation, as well as provides data from Latvia's inhabitants Survey about Poverty and social exclusion (n=2007)(2015) organized by the University of Latvia.

## Research results and discussion

The dwelling supply usually is measured by amenities and space available for inhabitants in their dwelling. The author chooses to focus attention on the presence of sewerage, hot water and adequate space. These are the parameters showing the differences between housing quality in Latvia and the EU average level (Eurostat, 2015). The housing quality parameters: sewerage, hot water and overcrowding were analysed.



Source: author's calculations based on CSB, 2016

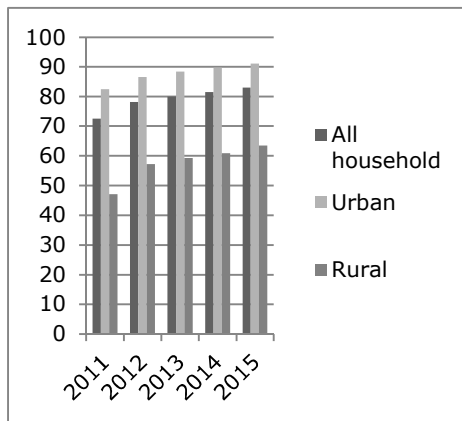
Fig. 1. Housing quality: dwelling supply with different amenities(%): sewerage

There are significant differences between urban and rural dwelling supply with different amenities (Figure 1). More than 96 % (2015) of urban inhabitants are supplied by in-door WC in Latvia, whereas in rural areas only 73.8 % (2015) (CSB, 2016).

Simultaneously, the general trend is that the proportion of households without sewerage is decreasing.

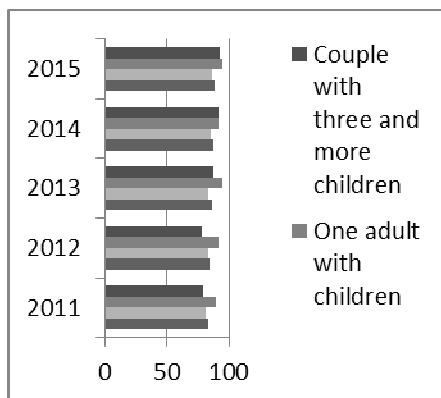
Hot water is equally necessary amenity in rural areas as in urban areas. There are 83.0 % percent of all households supplied with hot water in the country, but, compared to 91.1 % of urban households, there are only 63.5 % of households in rural areas (Figure 2).





Source: author's calculations based on CSB, 2016

Fig. 2. Housing quality: dwelling supply with different amenities(%): hot water



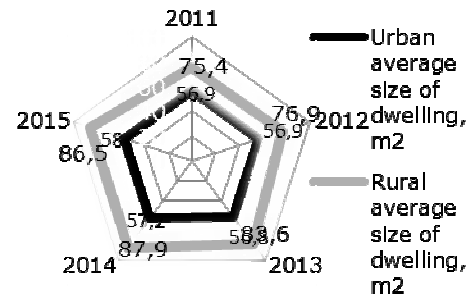
Source: author's calculations based on CSB, 2016

Fig. 3. Dwelling supply with different amenities: sewerage by type of households

The adequate space is necessary precondition for all households, but especially for families with children. Focusing attention on different household types, more vulnerable are single person households (15-64; 65+) and one adult with children as well as a couple with three or more children (Figure3). The housing conditions as adequate space in dwelling are gradually improving in the post-crisis period 2011-2015, from the overcrowding rate 55.7 % in 2011 to 39.8 in 2015, but still the overcrowding rate is higher than average in the EU and neighbouring countries.

The overcrowding rate is in Estonia 13.4 (2015) and in Lithuania 26.4 (2015) (Eurostat, EU-SILC, 2016).

Eurostat data show high overcrowding rate in Latvia in comparison with the EU average level and with other Baltic states (Eurostat, EU-SILC, 2016).

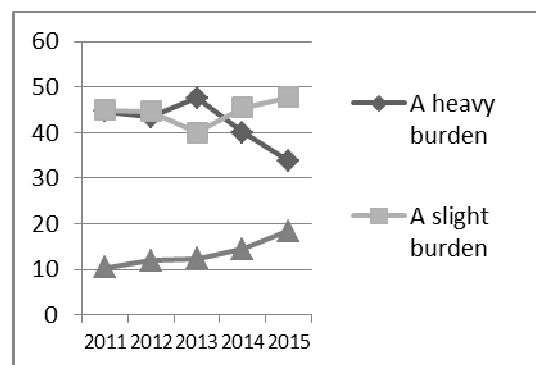


Source: author's calculations based on CSB, 2016

Fig. 4. Average size of dwelling in urban and rural areas (2011-2015)

The author sees general trends of gradual improvement of parameters (sewerage, hot water and available space) in housing quality from 2011 to 2015 in Latvia. The gradual improvement is characteristic also for other parameters (cold water, gas and other) (CSB, 2016).

Survey data show that 30.3 % of respondents report about being in debt in some financial institution and 8.8 % report about overcrowding in dwelling.



Source: author's calculations UL survey data 2015 (n=2007)

Fig. 5. Influence of housing maintenance expenditure on household financial situation in Latvia(%)

More than one third of all population reports the influence of housing maintenance expenditure on household finance situation as a heavy burden. However, the proportion of this category is decreasing (from 44.7 % in 2011 to 33.9 % in 2015).

Generalizing results of statistics and survey data, the author considers that the situation of some social groups could be characterized as

"housing trap", especially large families' housing quality in rural areas and ability to pay for necessary accommodations in urban areas.

It is a common practice, at least in Europe, for central or local governments to intervene and to provide housing functions for vulnerable groups. This public intervention can result in either benefits or disadvantages for various social and territorial groups. Among the benefits, there is the reduction of social inequality if the public housing assistance is provided in a suitable way. The provision of social housing in Latvia is the function of local governments. The intervention in housing market could result into benefits or disadvantage for different social and territorial groups.

Homelessness and housing deprivation are arguably the most extreme examples of poverty and social exclusion in European society.

Deprivation could be measured in indirect way: as recipients of benefits and services in municipalities.

Table 1

**Number of recipients of housing benefits and expenditures for apartment benefits in Latvian municipalities in 2011-2015**

	<b>Number of recipients (thou population)</b>	<b>Expenditures of benefits (thou euro) municipal apartment benefit</b>
2011	211.5	28,528.0
2012	185.1	26,743.5
2013	158.9	23,422.7
2014	133.9	20,472.7
2015	113.0	18,390.1

Source: author's calculations based on CSB, 2016

The number of recipients of housing benefits and accordingly expenditures in municipalities (2011-2015) is decreasing in Latvia (Table 1). In the same time, the social assistance floor is too low in many municipalities as national government has not changed that from 2003.

The local governments are responsible for housing policy implementation in municipalities in Latvia and provide social services to household.

Poor housing conditions, lack of basic facilities, overcrowding, subjection to noise, pollution and violence are likely to reinforce problems of health, educational attainment, labour prospects and integration.

Local government provides social services for homeless: night shelters social services (CSB, 2016). Latvia is among those EU member states where a significant part of the population is affected by the lack of housing and, hence, over the years Latvia has obtained remarkable social knowledge in the field. Especially relevant is Latvian experience during the socio-economic crisis that took Europe by storm in early 2008 and during which the social assistance floor was very low and many people were harshly affected.

Table 2

**Night shelter services in Latvia in 2011-2016**

	<b>Night shelters social services (recipients, thou)</b>	<b>Expenditures (thou euro)</b>
2011	5.1	2,361.6
2012	6.5	2,294.9
2013	6.6	2,411.3
2014	5.4	2,213.1
2015	5.5	2,344.2

Source: author's calculations based on CSB, 2016

The night shelter is a form of support for those in extreme deprivation. The number of services for homeless persons (roofless in Latvia) (Dobelniece, Rasnača, 2016) are rather stable (Table 2). Latvian experience illustrates an important example for the role of housing in fight against inequality. The provision of social housing assistance in Latvia is among the functions of local governments; however, this assistance covers only a minor part of population which is housing deprived. A mismatch exists between the extent to which housing assistance is provided and the situation on the ground, partly due to the fact that the competence lies solely with municipality level. This has some adverse consequences on the inequality.

Furthermore, social houses are municipally owned buildings with a special social status, where all apartments are social apartments. Social housing represents a minor part of the municipal stock, and only 0.4 % of the national housing stock and it is concentrated in the larger cities. Social housing in Latvia is provided exclusively by municipalities. However, some larger municipalities have created specific companies to carry out management and maintenance of the public stock. In Latvia, the access criteria to social housing are specified in local decrees passed by the local municipalities, and the target population is low-income households (Social Housing in Europe, 2015).

The local authorities are responsible for financing social housing through their local budgets. Since 2006, investment in new social housing is co-financed by the central government via special funds. The subsidy programme also encourages public-private partnerships for the construction and renovation of social housing, but so far, there has been almost no involvement of private stakeholders. Tenants pay a monthly rent, which is very low, up to one third of the

locally set municipal rent level. The municipality also often subsidizes utility costs for the low-income households.

### Conclusions

- 1) Analysis of housing statistics in post-crisis period shows gradual improvement, but there is a gap in housing quality in rural and urban areas.
- 2) The housing maintenance expenditure still is a heavy burden for every third of all households.
- 3) The housing deprivation is still a serious problem in municipalities and decreasing trend is questionable.
- 4) Housing quality has improved in post-crisis period in Latvia, but it reveals differently in socio-demographic and territorial groups. The most vulnerable groups influenced by overcrowding are large families.
- 5) The current study shows risks of "housing trap" situation for single persons as well for one parent families and large families in rural areas (quality parameters) and financial risks of housing maintenance and debts in urban areas.

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## PATH-DEPENDENCY OF REFORMS IN LATVIA: A WAY TOWARDS NEW PUBLIC GOVERNANCE

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**Abstract:** Latvia has been one of the countries in Europe in strong favour of NPM (New Public Management) since the mid-1990s. The aim of the article is to analyse the Latvian public administration as a case study to find out whether there exists a link between the volume of an experienced NPM and NPG (New Public Governance) applied afterwards. In order to explain the links between these two phenomena, a path-dependence approach will be applied. It was concluded that the path-dependence and organisational lock in is so strong that Latvia continues to modernise administration in shoes of NPM with certain impact of other models or paradigms.

**Key words:** New Public Governance, NPM, path-dependence, Latvia, administrative reform.

**JEL code:** H7

### Introduction

Latvia has been one of the countries in Europe in strong favour of NPM (New Public Management) since the mid-1990s. Implementation of NPM has turned out to be a new administrative reality with long-lasting improvement efforts to combine elements of different administrative ideologies. Long reform process has been awarded with EU membership in 2004.

However, the economic downturn of 2008 had completely changed the reform agenda in Latvia. Previous modernisation issues of public administration were shifted to budgetary and public service cuts as almost unique instruments to balance expenditures. Latvia was severely hit by the economic crisis, thus an austerity regime was tailored afterwards to ensure fiscal stability by technically simple policy decisions instead of following the certain reform model or the pattern.

The aim of the article is to analyse the Latvian public administration as a case study to find out its whether Latvia reflects more tendency towards experienced NPM or NPG (New Public Governance) as a continuation and alternative of NPM. There is a lack of empirical research related to incorporation of NPG into a governmental agenda and bureaucratic practice in Central and Eastern Europe.

The main assumption in the article is that path-dependence of decisions related to public administration was the main determining factor stating why the government continued a certain policy despite warnings and administrative

failures. The research tasks are as follows: to identify path-dependence tendencies in the governmental documents related to public administration and to analyse governmental documents to determine their tendencies towards reform ideologies.

The article has explored policy documents characterising the public administration reform and modernisation in Latvia since 1995 as these papers are serving as an indicator in favour of one or another reform model approved and later implemented.

### 1. Path-dependence

Path-dependence has been one of the key concepts explaining some sequencing in politics, economy and even organisational decision making. In economy, path-dependence has been perceived as some trajectory of the past to be applied to present where the past plays a role of the point as rationality of decisions (Dutil, 2014:425). Pierson (2000:251) argued that path-dependence can be labelled as "*positive feedback*" as well as "*self-reinforcing process*" and so well-known for economists "*increasing returns*". For Pierson (2000), the process of path-dependence means movement with a high probability that any further step will be in the same path as the previous one because the benefits of activity would be higher than choosing any substitute steps. As Dutil (2014) points out, if the organisations and civil servants are to be rewarded for good policy implementation, they would stick more to the previous policy instead of

investing energy for any innovations. This explains why countries in any reform process stick to recommendations and positive evaluation of the international donors and external evaluators.

Pierson (2000:252) distinguished the narrow and broader definition of path-dependence. In the narrow definition, path-dependence means certain directions with high costs of turnaround, while the broader definitions incline causal impact of the previous steps in generating current or future outcomes (Pierson, 2000). The broader understanding of path-dependence allows to extract several stages in process and analyse the critical factors influencing the actions. Sudow (et al, 2009) differentiates three stages of path-dependence. According to Sudow (et al, 2009), path dependence starts with some historical events. These events turn in a self-reinforcing process, and finally, these events become part of organisational activities and memory. The organisation responsible for an action may accept an action, model or pattern of behaviour as a part of formalised strategy and following bureaucratic logic to apply it to relations with other bureaucratic agents. Later Schreyogg et al (2011) concluded that historical events are not separated, but they are connected in a sequence. This sequence of historical events is also a part of bureaucratic behaviour since it allows to stay on the same track and to develop standard operating procedures safeguarding actions.

According to Pierson (2000:253), path-dependence has some basic rules, for example, as following.

- 1) Historical events may have more outcomes as it was assumed at the beginning of the process.
- 2) There is some kind of "a point of no return". This means the farther policy makers have gone with one certain solution, the higher is the probability that they will not change the policy for various reasons.

- 3) Organisations are tended to lock in with current alternatives since they already invested efforts to make this particular alternative alive and legitimate.

According to Dutil (2014), the usefulness of current path of development is a key factor why organisations are not radically changing their policies, but only adjusting to the updates requested by stakeholders. Therefore, the effects of path-dependence are critical to understand the whole process.

## **2. From NPM to NPG**

Since the 1970s, public administration is facing inevitable changes. Researchers (e.g. Frederickson 1999; Naschold et al 1996; Coombes 1998, Peters 1993) labelled NPM inspired reforms as an era of changes. Lane (2000:3) argued there was some kind of "*the scientific revolution concerning the proper governance mechanisms in the public sector*". Changes were so massive that they were not just a reaction bureaucracy described by Max Weber (1864-1920) regarding claims that it is too impersonal and inefficient. These changes created a completely new approach to any kind of administrative reforms.

NPM is well-know with its idea to apply methods of private sector to public sector. In general, the main features of NPM are (Metcalf et al 1987; Peters 1993; Lane 2000; Foster et al 1996; Kettl 2000; Osborne 2006):

- 1) methods and good practice transferred from the private sector;
- 2) an emphasis on organisational management and leadership or "let the managers manage" approach where flexibility and devolving authority plays a vital role;
- 3) outputs, outcomes and performance management as key instruments for measuring efficiency, effectiveness and accountability;
- 4) clients, competition and contractual relations as most popular tools for service delivery;

5) management of human resources, technologies and quality as tools to provide value for money and public expenditures.

At the same time, Osborn (2006, 2010) suggests to look on NPG as an alternative to NPM. While, Torfing (et al 2014) pointed out that NPG is a more empirical phenomenon rather a well-defined theoretical paradigm. Similarly, the departure points of NPM were also a public administration practice labelled only in the 1990s. In addition, NPM as well as NPG both are based on the set of principles rather than detailed theoretical framework (Torfing et al, 2014:12). However, there are lack of empirical researches regarding NPG.

The main characteristics of NPG are as follows (Osborne 2006; Torfing et al 2014 ):

- 1) organisational networks as the main focus;
- 2) outcomes as key indicators for effectiveness of public sector;
- 3) competition in the market is replaced with inter-dependent suppliers;
- 4) cooperation, negotiations and participation of stakeholders are tools to improve public service delivery;
- 5) empowerment as a main tool to engage stakeholders in service delivery.

Osborne (2006) argued that NPG offers to link together policy design and public service delivery – two components that have been separated by NPM. The same could be said about the public and private sectors. They both are more interrelated and interdependent than it was assumed by NPM thus networking have now been recognised as an important policy skill (Peters et al, 2012). Torfing (et al 2014) emphasised that NPG believes in active cooperation between the public and private sectors and communities despite the fact that such a cooperation might be hindered by standard operating procedures in bureaucracy, profit making drivers in business and multi-identity of community members.

### **3. History of public administration reforms in Latvia**

The NPM inspired reforms reached Latvia by mid-1990s when public administration had already faced failure of a traditional bureaucratic model. For Latvia, NPM was attractive because it provided a discretion for public servants, allowed to treat citizens like clients and gave a chance to try private sector methods in public agencies. However, already back in 1998 Schick warned countries of CEEC to be careful regarding implementation of NPM pointing out that NPM offers such managerial reforms and contractual relations which might be dangerous for transition countries with weak traditions of rule of law and poorly functioning public administration (Schick, 1998).

In order to keep high speed of reforms and ensure constitutional sustainability, the government transferred main legal pieces from the pre-WWII Latvia. Such an approach kept the spirit of pre-WWII Latvia and was very helpful regarding main political and administrative settings. However, this approach did not work for economy where a sharp shift to market economy came along with high inflation rate, unemployment and social problems not seen before.

The whole administrative reform can be characterised as a process of balancing internal needs with external pressure. Based on the internal needs and constitutional sustainability, the Civil service law of 1994 was a mix of Weberian administration, German civil service law and pre-war civil service law. However, rigidity and lack of flexibility of the traditional bureaucratic model inherited in the Civil service law of 1994 was already visible after a few years. The Association Agreement with the EU was signed on 1995 thus opening a way for multiple cooperation channels to ensure integration into the EU. The purely foreign policy goal was transferred to a goal of the administrative reform – to establish administration capable to cope with membership obligations. The Regular Reports

from the European Commission pointed out as progress achieved and recent development as well as highlighted immediate tasks serving as an external evaluator for reforms. In fact, public servants in Latvia, during pre-accession period, did not had too much time and resources for administrative experiments, since they were looking for good practice models from elsewhere; therefore, any step or a policy tool getting positive feedback from a government or international donors was especially analysed and applied for as much policies as possible.

### **Methodology and results of analysis**

In order to identify the path-dependence of the reforms, the following factors play a vital role. First of all, the historical events effecting the public administration reform path will be identified. Secondly, it is relevant to analyse the sequences created by the historical events, thus allowing to make a conclusion on sequence between historical events and activities performed afterwards. Finally, the organisational issue will be taken into account to identify an organisational lock-in process related to reform ideas.

Based on comparison between NPM and NPG, the following criteria will be applied during analysis of the reform's documents in Latvia:

- 1) tendency towards organisational management (NPM) or organisational networks (NPG);
- 2) tendency towards competitive market (NPM) or interdependent suppliers (NPG);
- 3) tendency towards performance management (NPM) or trust (NPG);
- 4) tendency towards user satisfaction (NPM) or empowerment (NPG).

The first relevant policy document affecting the public administration was "The Public Administration Reform Paper" (further on Reform paper of 1995) on 28 March 1995. The reform paper was approved several months before the Association Agreement with the EU, thus it is not possible to simply state that the Association agreement here serves as a historical event. The

Reform paper of 1995 was based on internal needs to provide reform guidelines and a vision regarding the role of public administration in the context of changing political regimes from totalitarian to democracy (Reinholde, 2005). Substantially, the Reform paper of 1995 expressed five potential directions of reforms. These directions were: reforms in relation between society and the government, structural and functional reform of public administration, reforms of basic administrative principles and tools. Taking into account the context of changing regimes, the Reform paper of 1995 was more of a strategic document expressing a common will for fundamental reforms rather than a particular ideology.

The next policy document was already approved in March 1998, just two years after the Reform paper of 1995. Such a short period of time shows high dynamics and complexity of the whole reform process. The Reform paper of 1998 was approved by the government as a document reacting to problems of the on-going public administration reform process and expressing the desirable path to cope with the integration process into the EU. In fact, the signature of the Association agreement with the EU served as a historical event and a starting point for many actions and documents by 2004. The Reform paper of 1998 put emphasis on "*small by size and professional administration based on professional civil service*", which is more in line with ideas of the traditional model of public administration and reacts to critics exposed in the Regular Report from the Commission in 1998 (Regular report, 1998).

At the same time, the Reform paper of 1998 also included an implementation plan, consisting of a set of actions to be implemented not later than by the year 2000. It is worth to remind the reform paper was part of a conditionality set out in the Structural Adjustment Loan with the World Bank. Therefore, the "Reform paper of 1998" and its implementation plan emphasised the



application of an internal audit system and performance indicators (NPM), to develop service user standards (NPM), as well as to develop the legal base for contracting out of some tasks previously performed by the public service (NPM) and to design the law on public agencies (NPM). In fact, the "Reform paper of 1998" reflected all the basic credentials of NPM – contracts, user satisfaction, outputs and competitive markets where public agencies were supposed to be in competition with private sector services. However, in Regular report of 1999, Latvia received a nudge to improve internal audit systems in the ministries (Regular report, 1999).

Since the Latvian government was willing to cope with all pre-accession requirements by 2000, the next new policy papers were developed to sketch out a reform vision. The Reform Strategy 2001-2006 was developed by State Chancellery after the political decision to concentrate the public administration issues at the centre of government. The functions and staff of the previous Bureau of Public Administration were incorporated in the Secretariat to Minister of Special Tasks on the Public Administration reform in 2000, and a year later it was transferred to State Chancellery. Since 2001 up to now (i.e. 2016), State Chancellery has been responsible for public administration as a policy.

The Reform Strategy 2001-2006 was developed and followed by the recommendation of the international donors as well as reacting to "Agenda 2000" released by the European Commission in 1997. As a first comprehensive document in the sphere of public administration, the Reform Strategy 2001-2006 was designed to cover medium term tasks with explicit institutional responsibilities. First of all, the Reform Strategy 2001-2006 emphasised the main principles of administration – quality, trust, participation, accessibility and efficiency - all in line with NPM. Secondly, this strategy discussed issues of good governance in the light of accession into the EU. Thirdly, effectiveness of

public administration is discussed in this strategy as a one of the core values.

The Reform Strategy 2001-2006 strongly emphasised performance indicators as outputs to be measured in the budgetary process. Outputs were perceived as a tool to optimise public expenditures and cut operational cost of public agencies. In addition, strategic management was promoted as a tool to organisational development. According to the Reform Strategy 2001-2006, more detailed organisational management and outputs should provide higher accountability and public participation in the decision making processes. User satisfaction is perceived as a key for improvement of public service delivery. If outputs and organisational management issues are in line with NPM, then there are first signs of NPG as well. The Reform Strategy 2001-2006 was the first document mentioning trust as a new type of governance approach. According to the Reform Strategy, coordination and cooperation of public agencies should be improved for better implementation of policies. However, such a will to improve coordination could not be classified as networking in the light of NPG, since one of problems was to push the agencies to cooperate in the framework of policy implementation process and joint interdependence. As Sir Robin Mountfield (2000) indicated in his report to Latvia government, the vertical links are very strong in the particular sector, while strategic coordination is weak.

Summing up, the Reform Strategy 2001-2006 concentrated upon five strategic objectives: future oriented public administration, efficient public expenditure management, trust to public administration and public participation in public administration, quality in public service delivery and qualified staff. Along with the Reform Strategy 2001-2006, it should be noted that relations among public agencies might be regulated by different types of relational contracts described in the Law on Public Administration Structure adopted also in 2001.

The Law on Public Administration Structure foresaw co-operation contracts, administrative contracts, delegation contracts and participation contracts. All these contracts produce a new type of administrative practice where classical subordination of public agencies are substituted by contracting relations.

Following bureaucratic logic, the government approved the next policy document in June 2008 for the period of 2008-2013. The White paper 2008-2013 labelled "Better governance: quality and effectiveness" was supposed to provide a jump to a new type of administration in the EU. Substantially, the White paper 2008-2013 continued the same ideas as were expressed in the Reform Strategy 2001-2006. Thus, the White paper 2008-2013 stacked to the five objectives: strategic planning, public service delivery, rule of law, professional staff and public participation. In fact, the White paper 2008-2013 continues to promote ideas of NPM like performance management, output, user satisfaction and transparent organisational management. The White paper 2008-2013 included a set of actions to develop the institutional system and to legitimize the actions of public administration, meaning that there is some nostalgia towards classical public administration not NPG.

The economic meltdown of 2008 rapidly changed all approaches of the reform and put the government under austerity regimes. By 2009, Latvia had the second highest unemployment rate (19.7 %) and GDP fell by 18 % (Economika, 2009; BBC, 2009). In order to react to global challenges and to balance public expenditures, the Latvian government adopted the so-called "Optimisation Plan", the prepared part of conditionality foreseen in the agreement. The Optimisation Plan as a document was prepared in a very short period of time to define guidelines for budgetary cuts and structural reforms in administration to balance public expenditures. The actions included in the plan contained both elements: strategic vision and short term

activities mixed together. For example, the government wanted to have a smaller administrative apparatus which has been a strategic goal since the 1990's. However, at the operational level, the optimisation plan proposed to amend a huge number of laws and design the new ones. Anyway, the Optimisation plan continued to follow the discourse established for small, professional, client-oriented public administration, which had already been expressed in the previous policy papers in line with NPM.

The final document included in the analysis is the White paper 2014-2020 approved in December 2014. By structure and ideas, there are many similarities between the White paper 2008-2013 since the latest plan continues the previous one with an update in the light of the economic meltdown of 2008. In fact, the economic crisis affected the planned reforms and forced the government to cut budgetary expenditures and public services, thus many of the ideas expressed in the White paper 2008-2013 were left unimplemented. The new White paper 2014-2020 was intended to improve an implementation gap created by the economic crisis. Therefore, the White paper 2014-2020 follows the ideas of Wallace et al (2013) who offered to divide all reforms in four stages - rethinking, reforming, restructuring and retrenching. Thus, the direction of reforms is as follows: public service delivery and institutional development, human resource development, financial management, public participation and local governance. At the same time, this White paper 2014-2020 provided a detailed description and planning of outputs and outcomes of reform activities serving as a best practice for all other policy sectors and would also provide an investment for the performance management system. However, the White paper ignores the organisational networks instead of offering to simplify organisational structures for those public agencies having their branches in the regions. In

addition, an issue of a competitive market or inter-dependent supplier are not in the agenda, since many of public-private partnership projects just started before crises have been stopped under austerity. Thus, the first signs of network governance disappeared together with budgetary cuts in 2009 and 2010. In general, this White paper even stated its movement to smaller, faster and cheaper administration, but failed to provide tangible tools for achieving these goals, reducing all actions to the fact that they should be implemented within frames of the existing budget. National Audit Office (2015) in its report on public expenditures in 2014 tailored to analyse performance of public programmes admitted that goals and outcomes designed by ministries during the annual budgeting process are different from the ones stated in policy documents and strategies. Thus, bureaucratic practice is different from the policy papers.

However, the formal policy documents reflect only political and bureaucratic commitment, while there are good practice examples indicating some trend towards NPG. During economic downturn of 2008, individuals and social groups were so shocked by cuts of public expenditures and public services, that appeals for transparent decision-making process were expressive as never before. As a result, Latvia has achieved the state-of-art where every individual can follow the legal drafting process in the ministries and the government. Civic participation and empowerment have been institutionalised in Latvia by signing a cooperation memorandum between the government and NGOs already back in 2005. By 2016, the number of NGOs which joined the memorandum has reached 404 organisations (Valsts kanceleja, 2016). Consequently, NGOs were officially recognised as a partner for the government and this is a relevant step towards empowerment (NPG).

### Conclusions

1) In the 21<sup>st</sup> century, Latvia has achieved its two main foreign policy goals – to be a full

member of the EU and the NATO. In 2016, Latvia was invited to be a part of the OECD as well. On its way to participation in these organisations, Latvia has gone through massive reforms requesting bureaucratic efforts and political commitment.

- 2) The analysis of policy documents shows a quite clear tendency - NPG is not recognized *per se* in the documents as a trend or reform paradigm.
- 3) The path dependency plays a major role. The historical events – the signature of the Association agreement with the EU followed with the Regular report from the Commission and accession into the EU - not only expressed Latvia`s commitment to be in the EU, but also had impact on path of public administration reform. Sequencing of the reform ideas included in the different policy papers reflects positive evaluations and critics of the regular progress report from the Commission before 2004.
- 4) After 2004 the policy papers still continued the same track of ideas as before, since the key organisations were tended to lock in. Therefore, some of the offers included in the reform documents at the first half of the decade are still in proving their relevance in the current reform agenda.
- 5) Many of the NPG ideas have not been assumed good enough to be part of the reform agenda partly because standard operating procedures and organisational behaviour pushed the policy makers keep on the same pattern and partly because the border between NPM and NPG is vague in practice.
- 6) The reform path in Latvia shows the more policy makers adopt to the certain reform strategy, the more they believe that the strategy and ideas in it will be accepted as a common.
- 7) Regarding NPG, Latvia has been very modest and moderate, even reluctant. The main

reasons for this are both incremental modernisation process and path-dependence.

strongly affected by potential historical events in the future.

However, the development trend will be

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## SOCIAL ENTREPRENEURSHIP DEVELOPMENT FACTORS IN EUROPE

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**Abstract.** Social entrepreneurship (SE) could be a response to societal needs and challenges faced by population during last two decades. Despite the wide range of supporting programmes launched by the European Commission, various barriers to development of social enterprises exist. The present research is a part of a comprehensive study, which was aimed to determine the impact of various tools on the social entrepreneurship level in the EU. The authors in the current paper focused on legal aspects regarding social entrepreneurship and educational and financial support factors. To achieve the established goal, multifactor regression analysis was performed. SE development level and popularity were selected as dependent variables. Research sample included data of 27 European countries. Data processing was performed in SPSS environment. Research results revealed statistically significant relationship between social entrepreneurship volume and SE-related legal framework existence at the national level, as well as training and coaching schemes targeting social enterprises. SE popularity, in turn, is influenced by SE educational activities, grants and business support for established enterprises, as well as collaboration network and free access to market.

**Key words:** social entrepreneurship, European Union, regression analysis.

**JEL code: available on:** L31, 052

### Introduction

Social entrepreneurship and the related topics are frequently discussed by academicians, business professionals and authorities (Mair, Marti, 2006; Alvord et al. 2004; Defourny, Nyssens, 2010; Sekliuckiene, Kisielius, 2015; European Commission, 2013).

Considering the critical importance of social entrepreneurship development, European Commission implemented a range of supporting programmes to encourage creation and sustainability of social enterprises.

In the current study, data collected during the comprehensive research "Opportunities for municipalities' social entrepreneurship and usage of private social entrepreneurship for municipalities' goals" (in Latvian: Pasvaldibas socialas uzņemejdarbibas iespejas un privatas socialas uzņemejdarbibas izmantosanas iespejas pasvaldibas merkiem) was used. The goal was to determine the impact of various tools on the social entrepreneurship level in the EU.

In the previous large-scale research, four groups of factors were analysed: (1) legal factors, (2) efficiency of educational support, (3) efficiency of financial support, and (4) participants of an eco-system. Besides, country-specific economic and social measures were analysed: GINI index, GDP per capita, lifelong learning activity measures, number of students

and others. In the current paper the authors focused only on first three groups of factors.

The goal of the given study was to get an insight into social entrepreneurship environment in the European countries, as well as to analyse the impact of various factors on variables selected as proxies for SE development.

The research tasks were determined, as follows:

- 1) To determine the level of the volume of social entrepreneurship and SE popularity (SE development proxies) in the analysed countries;
- 2) To investigate of the impact of legal factors on SE development;
- 3) To investigate the impact of educational support on SE development;
- 4) To investigate the impact of financial support on SE development.

To achieve the established goal and complete the tasks, a multifactor regression analysis was performed. Volume of social entrepreneurship in a country (expressed as a relative index of social enterprises) and social entrepreneurship popularity were selected as dependent variables. Research sample included data of 27 European countries. Data processing was performed in SPSS environment.

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The paper contributes to the field of social entrepreneurship, by providing analysis of SE-related activities in the European Union countries.

### **Social entrepreneurship in Europe**

During last two decades, global society has faced with new societal challenges, which require new responses and solutions. This, in turn, fostered rapid development of social innovation. Social innovation is used to describe *social entrepreneurship*, social enterprises and the work of social or civic entrepreneurs (Dees, Anderson, 2006).

Social entrepreneurship is a "set of behaviours and attitudes of individuals involved in creating new social ventures, such as a willingness to take risks and finding creative ways of using underused assets" (The Young Foundation, 2012). In turn, social enterprise is defined by the European Commission as "an operator in the social economy whose main objective is to have a social impact rather than make a profit for their owners or shareholders" (European Commission, 2011).

Development of social enterprises is on the agenda both at the national and EU level, since "social economy employs over 11 million people in the EU, accounting for 6 % of total employment" (EC, 2017). Based on the results of the European Project (SELUSI, 2013), the main fields of activity for social enterprises (75 % of the whole sample) are social services (16.7 %), employment and training (14.88 %), environment (14.52 %), education (14.52 %) and economic, social and community development (14.34 %).

However, there are some significant barriers to sustainability of social enterprises, which are: (1) lack of awareness and recognition of the social value, (2) lack of specialised training and education, (3) difficulties accessing the same type of financing options available to conventional enterprises, (4) lack of uniform regulation across countries (European Commission, 2013).

The factors influencing social entrepreneurship development, sustainability of social enterprises and related topics are frequently discussed by researchers (Ferri, Urbano, 2010; Wronka, 2013; Hoogendoorn et al., 2011; Griffiths et al., 2013; Thornton et al., 2011; IrengUn, Arikboga, 2015; Dobele, Pietere, 2015).

The present paper reflects the attempt of the authors to contribute to the research field with comprehensive data analysis across the Europe.

### **Research methodology**

To achieve the research objectives, data warehouse was created by the participants of the large-scale research. Data was collected, using Eurostat, World Bank statistics and National Statistical bureaus of the analyzed countries.

To determine the impact of various factors on social entrepreneurship development, the authors run a multiple regression analysis. SE development was proxied by the relative index of social enterprises in each analysed country (SE volume) - DepVar1, and SE popularity in a country - DepVar2.

To estimate the dependent variables formula 1 and formula 2 were applied.

$$DepVar1 = \frac{NoSE}{NoEnt} \quad (1)$$

Where:

*NoSE* – number of social enterprises;

*NoEnt* – total number of registered enterprises in a country.

$$DepVar2 = \frac{GoogleSearch}{Population \times EngSpeaking \times Internet} \quad (2)$$

Where:

*Google search* – number of google search times – SE-related key words;

*Population* – total number of citizens;

*EngSpeaking* – English speaking citizens' ratio;

*Internet* – internet users' ratio.

Explanatory factors and their labels are summarized in the Table 1.

Table 1

**Explanatory factors**

Factors' group	Factors	Label
Legal factors	Official SE definition in state legal documents	JUR1
	SE official legal regulation	JUR2
	Official accreditation for social enterprises	JUR3
Educational support factors	Pre-start/ Start-up support	ATB1
	Awareness raising	ATB2
	SE education	ATB3
	Training and coaching schemes	ATB5
	Networking, knowledge sharing, mutual learning initiatives	ATB10
Financial support factors	Grants / business support for established enterprises	ATB4
	Investment readiness support	ATB6
	Dedicated financial instruments	ATB7
	Physical infrastructure	ATB8
	Collaboration and access to market	ATB9

The analysed relationship between dependent variables and legal factors had the following functional form (formulas 3, 4):

$$DepVar1 = f(JUR1, JUR2, JUR3) \quad (3)$$

$$DepVar2 = f(JUR1, JUR2, JUR3) \quad (4)$$

Where:

*JUR1, JUR2, JUR3* – dummy variables (1 – Yes; 0 – No);

*JUR1* – the response on the question: does an official SE definition in a country exist?

*JUR2* – the response on the question: does a SE-focused legal framework in a country exist?

*JUR3* – the response on the question: is it possible for social enterprises to get a special status in a country?

The analysed relationship between dependent variables and educational support factors had the following functional form (formulas 5, 6):

$$DepVar1 = f(ATB1, ATB2, ATB3, ATB5, ATB10) \quad (5)$$

$$DepVar2 = f(ATB1, ATB2, ATB3, ATB5, ATB10) \quad (6)$$

Where:

*ATB(n)*– dummy variables, publicly funded schemes specifically designed for or targeting social enterprises (1 –exist; 0 – doesn't exist).

The analysed relationship between dependent variables and financial support factors had the following functional form (formulas 7, 8):

$$DepVar1 = f(ATB4, ATB6, ATB7, ATB8, ATB9) \quad (7)$$

$$DepVar2 = f(ATB4, ATB6, ATB7, ATB8, ATB9) \quad (8)$$

Where:

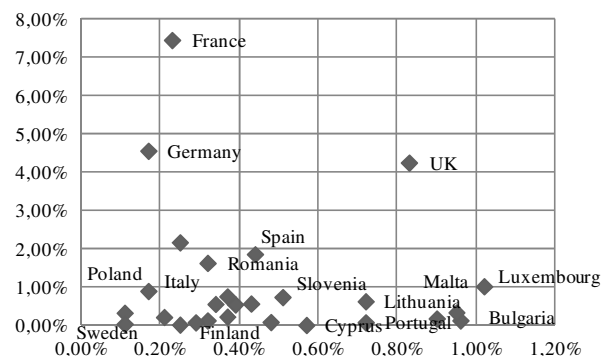
*ATB(n)*– dummy variables, publicly funded schemes specifically designed for or targeting social enterprises (1 –exist; 0 –doesn't exist).

Multifactor regression analysis was conducted separately for three groups of explanatory variables: legal factors, education support, and financial support. Data analysis was performed in SPSS environment.

**Research results and discussion**

In the initial stage of the study, dependent variables were estimated. The results are reflected in the Table 2. The countries were ranked according to the volume of social entrepreneurship (see formula 1).

It is interesting to analyse SE environment from two different perspectives simultaneously (Fig. 1). Fig. 1 demonstrates the achievements of EU countries: SE development (DepVar1 – Y axis) and SE popularity (DepVar2 - X axis).



Source: authors' calculations and visualization

Fig. 1. Social entrepreneurship in the EU

The highest level of social entrepreneurship development demonstrated EU-15 countries with France in the first place. In turn, the highest level



of SE popularity is in Luxembourg, Bulgaria, Malta and Ireland. The most balanced relationship between these two ratios demonstrated the UK.

Table 2

SE volume and popularity in the EU		
Country	Volume	Popularity
France	7.46 %	0.23 %
Germany	4.57 %	0.17 %
UK	4.26 %	0.83 %
Finland	2,18 %	0.25 %
Spain	1,87 %	0.44 %
Romania	1.64 %	0.32 %
Luxembourg	1.03 %	1.02 %
Italy	0.91 %	0.17 %
Estonia	0.77 %	0.37 %
Slovenia	0.75 %	0.51 %
Portugal	0.64 %	0.72 %
Netherlands	0.58 %	0.43 %
Hungary	0.57 %	0.34 %
Belgium	0.56 %	0.39 %
Ireland	0.35 %	0.95 %
Poland	0.34 %	0.11 %
Austria	0.24 %	0.37 %
Slovakia	0.23 %	0.21 %
Malta	0.19 %	0.90 %
Bulgaria	0.14 %	0.96 %
Denmark	0.14 %	0.32 %
Croatia	0.10 %	0.48 %
Greece	0.09 %	0.29 %
Lithuania	0.09 %	0.72 %
Sweden	0.05 %	0.11 %
Czech Republic	0.03 %	0.25 %
Cyprus	0.02 %	0.57 %

The next stage of the research was devoted to an investigation of the impact of legal factors (JUR1, JUR2 and JUR3) on SE volume and popularity in a country.

Four regression models were constructed.

- 1) DepVar1; Predictors: Const, JUR1, JUR2, JUR3
- 2) DepVar1; Predictors: JUR1, JUR2, JUR3
- 3) DepVar2; Predictors: Const, JUR1, JUR2, JUR3
- 4) DepVar2; Predictors: JUR1, JUR2, JUR3

The results of the regression analysis are presented in the Table 3 and Table 4.

Table 3

**Results of the regression analysis I: models' summary**

Model	R <sup>2</sup>	Adj. R <sup>2</sup>	Sig.	DW
1	0.092	-0.020	0.490	1.546
2	0.258	0.165	0.063	1.764
3	0.163	0.054	0.242	2.143
4	0,389	0.313	0.007	2.409

Source: authors' calculations

Table 4

**Coefficients' statistics (Sig.)**

Predictor	Model 1	Model 2	Model 3	Model 4
Constant	0.053	-	0.152	-
JUR1	0.334	0.031	0.441	1.000
JUR2	0.135	0.140	0.067	0.080
JUR3	0.996	0.596	0.695	1.000

Source: authors' calculations

The only fourth model is statistically significant (F Sig.=0.007 < 0.01). The second model is statistically significant at 90 % (Sig. F=0.063 < 0.1).

Regarding the coefficients for regressors, JUR1 is statistically significant at 0.05 level for Model 2; JUR2 is statistically significant at 0.08 level for Model 4.

Durbin-Watson statistics (DW) for the selected model was also analysed. Critical DW values were determined for p=3 and the number of observations (n=27): DW<sub>L</sub>=1.23991; DW<sub>U</sub>=1.55620. The results of the analysis are provided in the Table 5. Analysis of DW statistics revealed no autocorrelation in residuals.

Table 5

**Analysis of DW statistics**

Model	Test for positive autocorrelation	Test for negative autocorrelation
2	DW=1.764 > D <sub>U</sub>	4-DW > D <sub>U</sub>
4	DW=2.409 > D <sub>U</sub>	4-DW > D <sub>U</sub>

Source: authors' calculations

To increase the validity of the results, the authors performed additional regression analysis, having doubt on quality of the models with

predictors expressed by only dummy variables. To avoid the possible negative effect, DepVar1 was replaced with the number of social enterprises in a country. In turn, the set of explanatory variables was complemented with the total number of enterprises in a country. It is obvious that these two measures are directly related, but it was the only opportunity to change the models' structure without changing the content.

Two regression models were constructed: model 1 – with, and model 3 – without a constant variable. The results of the analysis are presented in the Table 6 and 7.

Both models are statistically significant at 0.01 level. Besides, R-squared value is sufficiently high, comparing with the previous set of models.

Table 6

**Results of the regression analysis II: models' summary**

Model	R <sup>2</sup>	Adj. R <sup>2</sup>	Sig.	DW
1	0.535	0.451	0.002	2.03
2	0.601	0.532	0.000	2.019

Source: authors' calculations

Critical values for Durbin-Watson coefficient were determined for number of predictors (p=4): DW<sub>L</sub>=1.16239; DW<sub>U</sub>=1.65101. There was no autocorrelation in residuals.

Table 7

**Coefficients' statistics (Sig.)**

Predictor	Model 1	Model 2
Constant	0.761	-
JUR1	0.299	0.306
JUR2	0.099	0.093
JUR3	0.892	0.810
No_ent	0.000	0.000

Source: authors' calculations

Analysis of regression coefficients showed statistical significance of beta for JUR2 at 0.1 level. Coefficients for predictor No\_ent is 100 % statistically significant, as it was predicted.

The next stage of the research was devoted to investigation of the impact of educational and

financial support factors on SE volume and popularity in a country.

Eight regression models were constructed (4 modes – with a constant variable and 4 models – without).

- 1) DepVar1; Predictors: Const, ATB1, ATB2, ATB3, ATB5, ATB10.
- 2) DepVar1; Predictors: ATB1, ATB2, ATB3, ATB5, ATB10.
- 3) DepVar2; Predictors: Const, ATB1, ATB2, ATB3, ATB5, ATB10.
- 4) DepVar2; Predictors: ATB1, ATB2, ATB3, ATB5, ATB10.
- 5) DepVar1; Predictors: Const, ATB4, ATB6, ATB7, ATB8, ATB9.
- 6) DepVar1; Predictors: ATB4, ATB6, ATB7, ATB8, ATB9.
- 7) DepVar2; Predictors: Const, ATB4, ATB6, ATB7, ATB8, ATB9.
- 8) DepVar2; Predictors: ATB4, ATB6, ATB7, ATB8, ATB9.

The results of the regression analysis are presented in the Table 8.

Table 8

**Results of the regression analysis III: models' summary**

Model	R <sup>2</sup>	Adj. R <sup>2</sup>	Sig.	DW
1	0.363	0.211	0.073	1.458
2	0.543	0.439	0.003	1.372
3	0.303	0.137	0.151	2.314
4	0.614	0.527	0.000	1.952
5	0.342	0.185	0.095	1.183
6	0.520	0.411	0.004	1.163
7	0.196	0.004	0.430	1.799
8	0.651	0.571	0.000	1.957

Source: authors' calculations

The results of the analysis revealed four statistically significant models (models with no constant variable included). Test for negative autocorrelation in error terms, based on the analysis of Durbin-Watson statistics for these models (p=5; n=27: D<sub>L</sub>=1.08364; D<sub>U</sub>=1.75274) revealed no autocorrelation in the error terms.

Test for positive autocorrelation was inconclusive for Model2 and Model6; for Model4 and Model8 – no positive autocorrelation in residuals.

Regression coefficients for the models are summarized in the Table 9. Regression analysis revealed statistically significant *positive* relationship between SE volume and training and coaching schemes (ATB5), as well as between SE popularity and (1) SE education (ATB3); (2) grants / business support for established enterprises (ATB4); (3) collaboration and access to market (ATB9). Regression coefficient for physical infrastructure (ATB8) was statistically significant, but negative that, in turn, was not assumed.

Table 9

**Coefficients' statistics (Sig.)**

Predictor	Model 2	Model 4	Model 6	Model 8
ATB1	0.896	0.862	-	-
ATB2	0.336	0.302	-	-
ATB3	0.697	0.036	-	-
ATB4	-	-	0.678	0.019
ATB5	0.015	0.990		-
ATB6	-	-	0.225	0.214
ATB7	-	-	0.984	0.123
ATB8	-	-	0.443	0.022
ATB9	-	-	0.929	0.012
ATB10	0.855	0.102	-	-

**Source: authors' calculations**

The attempt to validate the received results by involving into the list of explanatory variables a total number of enterprises and replacing DepVar1 with the number of social enterprises failed. Created regression models were statistically significant, but the regression coefficients were statistically significant only for a predictor "number of enterprises".

Thus, the current research revealed no statistically significant empirical evidence about legal factors' impact on the development of social enterprises. The only relationship between SE-oriented legal framework and SE popularity was confirmed within the study. For sure, with the development of specific legal documents and

requirements the awareness about SE can be increased due to the increasing volume of official announcements, media information, public discussions and etc.

In turn, there is no empirical confirmation regarding the impact of educational and financial support tools on the number of social enterprises. The only one factor – existence of training and coaching schemes – demonstrated the statistically significant positive link with the relative index of social enterprises.

As for SE popularity, the impact of three factors was revealed. However, it should be pointed that the ratio was based on the number of internet search cases in English, ignoring the number of search cases in national language. Besides, Google was used as only information channel. This, in turn, decreases the accuracy of measuring "SE popularity".

Discussing the results, it is important that, in general, almost all European countries demonstrated a low level of social entrepreneurship development. Based on the data of Global Entrepreneurship Monitor (GEM) (Bosma et al., 2015), the highest rates of social entrepreneurial activity were demonstrated by US and Australia, as well as by Western Europe countries. Besides, these regions "have the highest ratios between social entrepreneurship in the operational phase and social entrepreneurship in the start-up phase". It means that in Easter Europe countries (for instance, in Latvia) with low ratios, a range of support mechanisms are not utilized since they were developed for enterprises in the operational stage.

In any case, the awareness of the society about social entrepreneurship and its importance should be increased. "Recognition, strengthening and promotion of social enterprises" was one of the main recommendations for policy makers prepared by Latvian team involved in the "Pilot Project for Identification of Social Enterprises and Assessment of their Economic Impact in Latvia"

granted by the European Commission" (EC, 2014).

The current study is aimed, additionally, to contribute to the raising of awareness about social entrepreneurship and social enterprises in the academic environment.

### Conclusions, proposals, recommendations

- 1) The study was aimed to determine the relationship between social entrepreneurship development level in European countries and a range of legal, education support and financial support factors.
- 2) The largest relative index of social enterprises (SE volume) was demonstrated by France, Germany and UK. In turn, popularity of social entrepreneurship was at the highest level in Luxembourg, Ireland, Malta and Bulgaria.
- 3) Regression analysis revealed a statistically significant positive relationship between social

entrepreneurship volume and SE-related legal framework existence at the national level, as well as training and coaching schemes targeting social enterprises.

- 4) SE popularity, in turn, was influenced by SE educational activities, grants and business support for established enterprises, as well as collaboration network and free access to market.
- 5) The paper contributes to the body of knowledge and data set on social entrepreneurship in the European Union. Considering that the main source of information regarding social entrepreneurship is national reports (for limited number of countries), the study could attract the interest among academicians and policy makers.
- 6) The study provides a basis for further investigation of SE influenced factors at the national level.

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## DETERMINANTS OF THE CHOICE OF STUDIES IN THE FIELD OF COMMODITY SCIENCES

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**Abstract.** Since the natural environment is being increasingly overexploited by man, it requires a change in the approach towards the use of its resources. The question arises whether or not the problems of sustainable economy, taking into account the environment, are present in the consciousness of the modern society to a sufficient level, so that young people, while choosing a future career, are well aware of the enormity of the areas of scientific and practical research, which create demand for specialists in the field of commodity sciences. The article reviews the actions taken in recent decades concerning sustainable development with particular emphasis on sustainable food production and consumption. Next, the review of the results of different studies regarding motivation for undertaking studies by young people is made.

The aim of the research conducted among students of the Faculty of Entrepreneurship and Quality Science at Gdynia Maritime University was to show that young people, while taking decisions concerning the type of studies, do not rely on knowledge of the issues that today's economy is facing. The research was based on the results of surveys conducted out on the general sample of the general students of Commodity Sciences (field of studies) at Gdynia Maritime University in 2016. At first, the Pearson correlation coefficient was calculated. Then, the correlation matrix was built and stimulants and destimulants as well as neutral factors affecting the decision making related to education in this field of study were identified.

The results were somewhat surprising – on the one hand, students, like other authors' sources, most appreciated the opportunity to gain a stable job after graduation. On the other hand, they felt that the effort that had to be put in their chosen studies was too high and demotivating.

**Key words:** sustainable development, sustainable consumption, study choice, commodity science.

**JEL code:** D62, F64, Q01

### Introduction

Environment is increasingly overexploited by human beings and a change is required in the approach to the use of its resources. Due to generation of high external costs, food production, its structure, the quality of food, its storage, disposal are important problems, with which the mankind must deal not only in the local community, but also on a global scale. We need specialists who will be able to solve problems that are reflected in the above mentioned areas and those that are currently not observed, but which can become an obstacle to sustainable development soon. The question arises whether or not the problems of the economy connected with the environment are present in the consciousness of the modern society, so that young people while choosing a future career are well aware of the enormity of the areas of scientific and practical of research, which create demand for specialists in the field of commodity sciences. The authors have adopted the hypothesis that prospective students choose

studies taking advantage of other opportunities than potential career opportunities (both in practical and scientific sense). In order to verify the adopted hypothesis, the research was conducted on the basis of a questionnaire.

Based on the results of surveys conducted on a general sample of the students of Commodity Sciences at Gdynia Maritime University in 2016, the Pearson correlation coefficient was calculated. Then, the correlation matrix was built and stimulants and destimulants and neutral factors affecting the decision making related to education in this field of study were identified.

The research was carried out among students of Commodity Sciences at Gdynia Maritime University and confirmed the authors' hypothesis that, while choosing studies and careers, the issues related to the growing significance of sustainable development, sustainable production and consumption have no importance for potential Commodity Sciences students.

## 1. Sustainable development

Sustainable development is based on the principles of "respect for the environment, recognition of the special role of plants as the only creatures that bind energy, entropy and pollutants that create order, respect to man and human values, use of regenerated resources, understanding that man and nature are bound and interrelated, respect to our roots (heredity), tradition and culture (civilization), social control of production, distribution and management resources" (Lazarides, 2011).

Sustainable development "(...) meets the needs of the present without compromising the ability of future generations to meet their own needs" – this is the most popular definition of sustainable development, which was included in the document entitled "Our Common Future" (1987). The concept of sustainable development was the basis of so-called Earth Summit (1992), which is the United Nations Conference on Environment and Development (UNCED) and its results - Agenda 21.

In Agenda 21 (UNCED, 1992), an action plan at global and local levels in all areas, in which human activity affects the environment, was presented.

In 2000, the UN General Assembly adopted eight Millennium Development Goals that relate to the major problems of mankind - war and peace, health, poverty and improving living conditions, especially in developing countries. Continuation of the Millennium Goals were objectives of Sustainable Development defined at the United Nations Conference in Rio de Janeiro in 2012. In the book "Transforming our world: Agenda for Sustainable Development - 2030", there is a list with 17 Goals for Sustainable Development, which take into account economic, social and environmental sustainable development. There are up to 5 goals related directly to food production and consumption.

- Goal 2. Eliminate hunger, achieve food security and better nutrition and promote sustainable agriculture.
- Goal 12. Ensure sustainable patterns of consumption and production.
- Goal 13. Take urgent action to combat climate change and its effects.
- Goal 14. Protect the oceans, seas and marine resources and use them in a sustainable way.
- Goal 15. Protect, restore and promote the sustainable use of terrestrial ecosystems, sustainable management of forests, combating desertification, prevent, or reverse the process of degradation and halt the loss of biodiversity (Agenda Zrownowazonego Rozwoju, 2017).

Such big emphasis on food production and its consumption is caused by the fact that the impact mark on the global economy has the following sectors: food, transportation and construction (Sustainable consumption, 2017). For production of food, the most severe effects of the large-scale production are: greenhouse gas emissions, loss of soil fertility, loss of biodiversity, water scarcity, the changes in ecosystem quality by nutrients (McMichael et al., 2007).

Therefore, the objectives of sustainable development require changes in the approach towards production and consumption of goods.

## 2. Sustainable consumption in the light of the theory of sustainable development

The process of food production is one of the most basic and most important processes associated with a man and his/her evolution (Diamond, 2002). Due to the increasing number of consumers, demand for food is growing too, which in the absence of changes in the patterns of production and consumption will help to increase production by more than 60 % over the next 30 years (FAO, 2015). Increasing the volume of food production significantly affects the growth of external costs of agriculture (Notarnicola et al., 2017).

To prevent accumulation of negative phenomena associated with food production changes should take place both:

1) in food production:

- sustainable intensification of European agriculture;
- optimization of agriculture by setting the boundary conditions related to: greenhouse gases, energy, biodiversity, contaminates;
- improvement the ability to adjust to changing climatic conditions for agriculture and food systems;

2) and in its consumption:

- higher and higher demands towards the sector - requirements of healthy, high-quality, safe food;
- identification of determinants of a healthy diet accompanying physical activity;
- prevention of diseases associated with the diet (Soussana, 2014).

In Europe, the consumption model is slightly different due to slow population growth, which results in slow growth in consumption. In addition, an increase in income leads to changes in the population structure and lifestyle. Europeans are beginning to pay more attention to using healthy and ethical food sourcing (e.g. breeding and slaughter of animals). The worldwide phenomenon, including globalization and removal of barriers to trade, opens new markets, but at the same time increases competition between products offered in Europe. The development of technology (especially IT and biotechnology) has a positive effect on efficiency of the use of natural resources and innovations, so as a result there is high differentiation of products and services as well as a variety of supply chains of these goods (Wijnands, Van der Meulen and Poppe, 2007).

Sustainable consumption is seen by many researchers as a process, in which consumers satisfy their individual needs while not reducing a possibility of meeting the needs of future

generations (Mont and Bleischwitz, 2007). This means that "each person consumes their only 'earthshare' equivalent to 2.1 gha" (Peattie and Collins, 2009, p.108). This means that consumers satisfy their needs with products and services that improve their quality of life, while striving to minimize consumption of natural resources or toxic materials and low emission of waste and pollutants over the life cycle, so as not to pose risks to the needs of next generations (Hornibrook et al., 2015). Lorek and Fuchs (2013) expanded the definition of organizations and institutions "sustainable resource consumption involves the consumption patterns of industries, Governments, households and individuals". A slightly wider group of beneficiaries of sustainable consumption is shown by Lee (2014): it includes a group of consumers, in addition to people, and also organizations and institutions as well as animals.

The need to educate the public on the issue of sustainable consumption was pointed out by Alvarez-Suarez et al. (2011). According to the definition, "sustainable consumption within the framework of education can be defined as the way the consumers behave, thus redefining the model of society as one that contributes to sustainability by reducing consumption, in which education has a major role to play in this regard".

Therefore, there is a need for professionals who have technical and economic knowledge and will be able to construct/ develop and optimize processes related to production of consumer goods and supervise and control their quality.

### **3. Rationale for selection of studies**

The issues related to university education, career choice, the essence of the process of lifelong learning are the subject of many studies. As Vaideanu (1988) stated: "There is no development without education. Actions of economic and social development cannot be launched, before reaching educational levels and skills training that are required by the desired and pursued progress".



The choice of studies can be, in some sense identified with the choice of a career - as recognized by UNESCO (2012). This is a process of covering and proper use of their abilities, skills, interests, in accordance with their own aspirations and values.

Determinants of choice of studies generally can be attributed to internal factors, external factors and interpersonal factors (the others' expectations) (Korkmaz, 2015; Mishkin et al., 2016) claimed that among the most frequently cited determinants of students' choice are: prior experience, interest and enjoyment, influence of others, prestige, family and financial considerations, limitations (failure in the application/ studying at another university). Pekkaya and Colak (2013) listed additional family factors - parents' jobs, family traditions (Pekkaya, 2015). The uniformed schools preparing for work, where the uniform is an inherent attribute of the institution, constitute a sufficient reason for their choice of studies (Skrzeszewska, Milic Beran, 2016).

In view of the growing interest in the issues of sustainable development, including sustainable consumption commodity science, there is an area of studies with great career prospects for graduates of that field of studies. In Poland, only three public universities (among 134) have departments of commodity science: Cracow University of Economics, Gdynia Maritime University, Poznan University of Economics and Business. The research carried out among students of the Faculty of Entrepreneurship and Quality Science at Gdynia Maritime University demonstrated what decisions students made when they chose studies in this field. Particularly important was to find out whether some of the most crucial issues for the mankind, such as: sustainable development, sustainable consumption and areas related to them, are known to students.

The results of the research on the motivation choice of studies or careers, pointed out to three main paths:

- 1) in accordance with the beliefs and professed values (Dumitru, 1988);
- 2) according to education (Crisana, 2015; Grobelna and Marciszewska, 2016);
- 3) giving a sense of stability (Martinez and Danalache 2008; Pavelea, 2013).

It follows that the most important thing is to match students' capabilities and skills with the job. Yet, not always young people are exploring possibilities to use their strengths. They check the social media and do not look into professional networking portals. Moreover, they do not look for the most promising areas of studies. Their choice of a future career is based on common and widespread opinions (Crisana et al., 2015).

#### **4. Research results and discussion**

In May 2016, the survey was carried out among full-time students of Commodity Sciences of the second cycle at Gdynia Maritime University regarding their preferences related to the choice of studies.

The survey examined the general population of these students. In total, the survey sheet was completed by 105 students. They answered six questions, five of which were multiple choice questions.

The first question concerned the students' knowledge of the field of studies of commodity sciences offered by Gdynia Maritime University. In total, students had a choice of six answers. In total, 112 responses were obtained. They are presented in Table 1.

Then the respondents were asked to answer the question related to the decision concerning the type of studies at the university. In total, 258 responses were obtained. The detailed distribution of responses is shown in Table 2.

Table 1

**The decision related to the selection of the field of Commodity Sciences**

No	Feature	number
Q1	Looking for information about different universities on their own	54
Q2	Education fairs	3
Q3	Presentation of the university and its educational offer in high schools	2
Q4	Friends studying at Gdynia Maritime University	32
Q5	Family	17
Q6	Internet forums	4

Source: author's research

Table 2

**The decision to study**

No	Feature	number
Q7	The conviction of a secure job after graduating from Gdynia Maritime University	43
Q8	The conviction of high earnings after graduating from Gdynia Maritime University	27
Q9	Prestige of the university	54
Q10	The unique character (one of the two maritime universities in the country)	53
Q11	The proximity of the place of residence	57
Q12	The large distance from the place of residence	15
Q13	The opportunity to live in a dorm in the college campus	9

Source: author's research

Students could also include their comments in the response. In this case, the answer was usually appended to the field of studies, which is commodity services and to related specializations (20 respondents). Students also emphasized the importance of the university in the state education system in Poland. They put emphasis in their response on the free-of-charge character of education (3 respondents). Also in the case of two students, the decision related to education

resulted of the factor that the family lived nearby.

Students were also asked to provide information on who had the greatest influence on their decisions. Noteworthy is the awareness of students of the significance of their decision and the effects it can have on their professional life. Among the 105 respondents, up to 62 people highlighted the fact they took independent decisions. In the case of 22 students, the decision was taken as a result of family influence. The decision of 11 people was influenced by friends. In individual cases, the decision was influenced by the teacher (2 replies), the job undertaken (1 student), the field of studies (1 person), the information posted on the Internet (1 reply), the person met while traveling (1 student). The other students did not respond.

Another question concerned the labour market and the consciousness of studies related to employment opportunities in the future in accordance with the field of the completed studies. In this case, students had an opportunity to select their answers (243 responses were given), as detailed in Table 3.

Then, the respondents were asked to give the type of school they graduated from before studies. There were two answers: high comprehensive school (89 respondents) and technical schools (16 respondents). Students were also asked to enter the region they come from. The largest group of students live in the Pomorskie Region (71 people), where Gdynia Maritime University is based and which is adjacent from the east to the Warmia-Mazuria Region (18 people). The other regions are: the Podlaskie - 4 people, the Masovia Voivodship and the Kujawia-Pomerania Voivodship - 3 people, 2 persons from the West Pomerania, from Lublin and Silesia.

The majority of students (60 persons) were born in 1993, and the others respectively in 1992 - 26 people; in 1991 - 9 persons; in 1990 - 3 persons and one person in 1989 and in 1987.

In the case of 5 students, the year of birth was not stated.

Table 3

**The possibility of future employment**

No	Feature	Number
Q14	I relied on the advice of family and friends who studied here	39
Q15	I relied on the advice of family and friends, even though no one is a graduated of Gdynia Maritime University	27
Q16	I relied on the information provided during the presentation of the university	23
Q17	I consulted a person familiar with the realities of the labour market	32
Q18	I checked university rankings / fields/ specializations most desired by employers	21
Q19	I read reports devoted to university graduates in the labour market	28
Q20	I was not interested in it	13
Q21	I did not pay attention to it, because the labour market can be quite different when I graduate.	41
Q22	It did not occur to me to check what is employability of graduates of Gdynia Maritime University	19

Source: author's research

The results obtained in the survey sheets were then analysed using the correlation coefficient of Pearson correlation (Aczel, 1989).

In the first stage of the analysis, the values of the arithmetic average of responses were calculated with the corresponding to them standard deviations. In the second stage, the coefficients of variation for the analysed characteristics were calculated. The value of the critical value of the coefficient of variation was adapted to be 20 %, as the small, non-significant magnitude.

On this basis, a further analysis of three variables was eliminated: Q1, Q2 and Q6. This was followed by calculation of the Pearson correlation. Then the matrix of correlation between variables was built. As a result of the analysis of the matrix, it was found out that the

choice of studies in the field of commodity sciences among the analysed groups of respondents was mostly influenced by factors shown in Table 4.

Table 4

**Relationships between variables**

No	Relationships
Q7 Q8	+0.706
Q8 Q9	+0.528
Q7 Q16	+0.449
Q1 Q4	-0.474
Q11 Q12	-0.336
Q14 Q21	-0.300
Q17 Q22	-0.257

Source: author's research

**Conclusions**

On the basis of the research, stimulants in the choice of studies on the field of commodity sciences were identified. They included:

- conviction of a secure job after graduation;
- belief in high income after graduation;
- prestige of the university;
- good information about the field of studies;
- unique character.

The largest destimulants related to the analysed field of studies were:

- information on commodity sciences usually has to be looked for on your own;
- students of this field will find it difficult, requiring great commitment on the side of students.

The analysis also allowed determining the factors that are inert (do not matter) for people deciding to undertake this field of studies. These include:

- families' help when deciding about studying commodity sciences, despite the fact that with open question, students emphasized great influence of the family;
- distance from their residence as several students stressed the importance of the distance for their decision;

- changes that may occur in the labour market after graduation.

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## QUALITY MANAGEMENT IN HIGHER EDUCATION INSTITUTIONS IN LATVIA

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**Abstract.** The paper is part of the doctoral thesis „Implementation of Management by Objectives Approaches at the Higher Education Institutions in Latvia” in Management Science, subfield of Educational management, University of Latvia. Economic crisis, decrease of public resources, negative tendencies in demography as well as rapid globalization and increased competitiveness are the main factors which have created new challenges in higher education management. External environment changes have determined necessity to introduce management by objectives approaches in higher education institutions’ (HEI) management. HEIs’ goals, objectives and results of studies and research under new conditions can’t be reached by traditional bureaucratic management methods. The aim is to research what are the contributing factors and what are the obstacles of implementation of quality management in HEIs. Awareness of problems in quality management would lead to possible changes and institutional management improvement. Research object is quality management at the public higher education institutions in Latvia. Scientific knowledge of public management and educational management authors, reports and research by international and local higher education organizations (European University Association, higher education consulting organization “Dynamic University”, etc.) are used as theoretical basis of the paper. Results from quantitative approach (inquiry of different level university heads) are used as empirical basis. Main results of the paper: HEIs institutional management problems refer to application and implementation of all operational components of life-cycle, especially assessment and analysis of outputs and performance results and using it as a feedback in decision making. Conclusion: quality management (using EFQM Excellence model) is an efficient management by objectives approach in HEIs institutional management in case of application of all steps (operational components) of Deming’s life-cycle.

**Key words:** higher education institutions (HEIs), quality management, life-cycle

**JEL code:** I-123

### Introduction

There are 16 public higher education institutions in Latvia which include six universities, seven academies and three university colleges. HEIs are located in the capital city of Latvia – Riga (11 HEIs) and in other cities of Latvia (5 HEIs).

Research results of higher education consulting organization „Dynamic University” (organization provides strategic consultations in providing excellence, management of change in Latvia and other European countries) indicate that „...total 20 % of all HEIs in Latvia have reported that quality management and internal quality assurances systems have been introduced and implemented because it has been required by the normative regulations ....This statement doesn’t ensure that HEIs have clear understanding of usefulness and meaning of quality management in raising institutional effectiveness” (Quality Assurance at HEIs, Dynamic University, 2013:16).

Necessity of quality management in HEIs has been strongly recommended by EUA (European University Association). Quality management policy, appropriate processes and structures have been emphasized in order to ensure a cycle for continuous improvement. Institutions should have a policy for quality assurance that is made public and forms part of their strategic management. Internal stakeholders should develop and implement this policy through appropriate structures and processes, while involving external stakeholders. Policies and processes are the main pillars of a coherent institutional quality management system that forms a cycle for continuous improvement and contributes to the accountability of HEI. It supports the development of quality culture in which all internal stakeholders assume responsibility for quality and engage in quality assurance at all levels of the institution (EUA Annual Report, 2015).

The **problem** to be researched is the following: how effective are the new management approaches, e.g., quality management at HEIs institutional level? Is the quality management used in accordance to its essential meaning and goals? Do HEIs purposefully use quality management in order to improve institutional management and decision making process, or is it used more for formal than practical purposes? The **aim** of the research is to determine the contributing factors and obstacles of implementation of quality management in HEIs. That would lead to possible changes to be suggested at the HEIs institutional level in order to ensure result oriented processes and effectiveness of attained goals, objectives and results. The following **research tasks** are set forth to achieve the aim: (1) To analyze theoretical concepts of quality management as management by objectives approach; (2) Assess and analyze problems of implementation of quality management in HEIs in Latvia based on results of universities' inquiry.

The following **research methods** were used: analysis of scientific literature and normative regulations, monographic method, inquiry with sampling, factor analysis. The main information sources are: scientific knowledge of management science authors (Deming E., 1994, Spasos S., et al, 2008, Arjomandi M., et al., 2009) and international higher education organizations' reports („Dynamic University, Ltd., European University Association), Total Quality Management (TQM), European Foundation for Quality Management (EFQM) Excellence model.

### **Research results and discussion:**

#### **1. Theoretical description: applying life – cycle and feedback to quality management.**

Quality management is characterized as management approach based in processes in order for the organization to be result oriented and able to measure its functional effectiveness (to which extent objectives are implemented and results achieved). The quality management theory has been developed starting from 19

century 20ies by Shewhart, Feigenbaum, Ishikawa, Deming and Juran. Systematic quality management research called Total Quality Management (TQM) was introduced by US professor, expert of statistical quality management methods E. Deming (Organization Theory, 2010; Saarti J.et al., 2011).

Role of quality management increases by every year in HEIs institutional management. That has been emphasized by EUA recommendations (Quality Assurance, 2014; Standards and Guidelines for QA, 2015; Trends in quality management research in HEI, 2016) and by higher education normative regulations: HEIs implement their own inner quality assurance systems by establishing policy and procedures for higher education quality (Law on Higher Education Institutions, 1995, article 5, part 2). Regular quality management and quality assurance forums have been organized by EUA (EQAF – European Quality Assurance Forums) and HEIs' international evaluation programmes (IEP – Institutional Evaluation Programmes).

It has to be explained that there is a difference between quality assurance and quality management concepts which are used in literature. Quality assurance is a broader term which ensures effectiveness of HEIs' study and research goals, but quality management refers to implementing a quality management system, e.g., according to ISO (International Organization for Standardization) or EFQM Excellence model (Investors in Excellence) standards at the institutional management level (Standards and Guidelines for QA, 2015). The main responsibility of implementing a quality management system lies on HEIs administration. Quality management is integrated into the inner quality assurance system and it defines concrete principles/criteria and operational components which have to be implemented by attaining goals, objectives and results at all HEIs structural levels. Thus both of these concepts (quality assurance and quality management) are closely connected theoretically

and practically – the quality of studies and research is assessed by implementing a quality management system.

EFQM Excellence model is the most popular quality management model in HEIs in Latvia and other EU countries - most European universities have implemented EFQM as the basis for the measurement of their activities (Spasos S., et al., 2008, Arjomandi M., et al., 2009). Principles of EFQM Excellence model are integrated by various public sector and educational management authors in Latvia and abroad, applying the model to higher education and HEIs management (Applying self-assessment against EFQM Excellence model in Higher Education, 2003; EFQM Excellence Model, Higher Education version, 2013; EFQM Excellence model for higher education, 2009; Rauhvargers A., 2009). The model is characterized as self-assessment, planning and measurement tool where the key management approaches are divided into the following groups, or according to EFQM Excellence model – principles or criteria: leadership (leaders' involvement with personnel), strategic management (establishing needs and expectations of target groups), personnel management (identifying, developing and sustaining people skills, rewarding and recognizing), resources management (providing access to all types of resources, including information and knowledge) and management of internal processes (dynamic and efficient implementation of all internal processes, supporting personnel with process change). The model illustrates that the leadership of executive representatives is considered one of the main principles of implementing quality management and creating continuous progress of HEI policy, strategy, management of personnel and resources (EFQM Excellence Model Higher Education Version, 2013). Leadership in HEIs quality management refers to explaining goals, objectives and results to personnel and motivating it to reach outcomes (results at

department level) and performance results (results at institutional level) by using quality management at all structural levels of HEI.

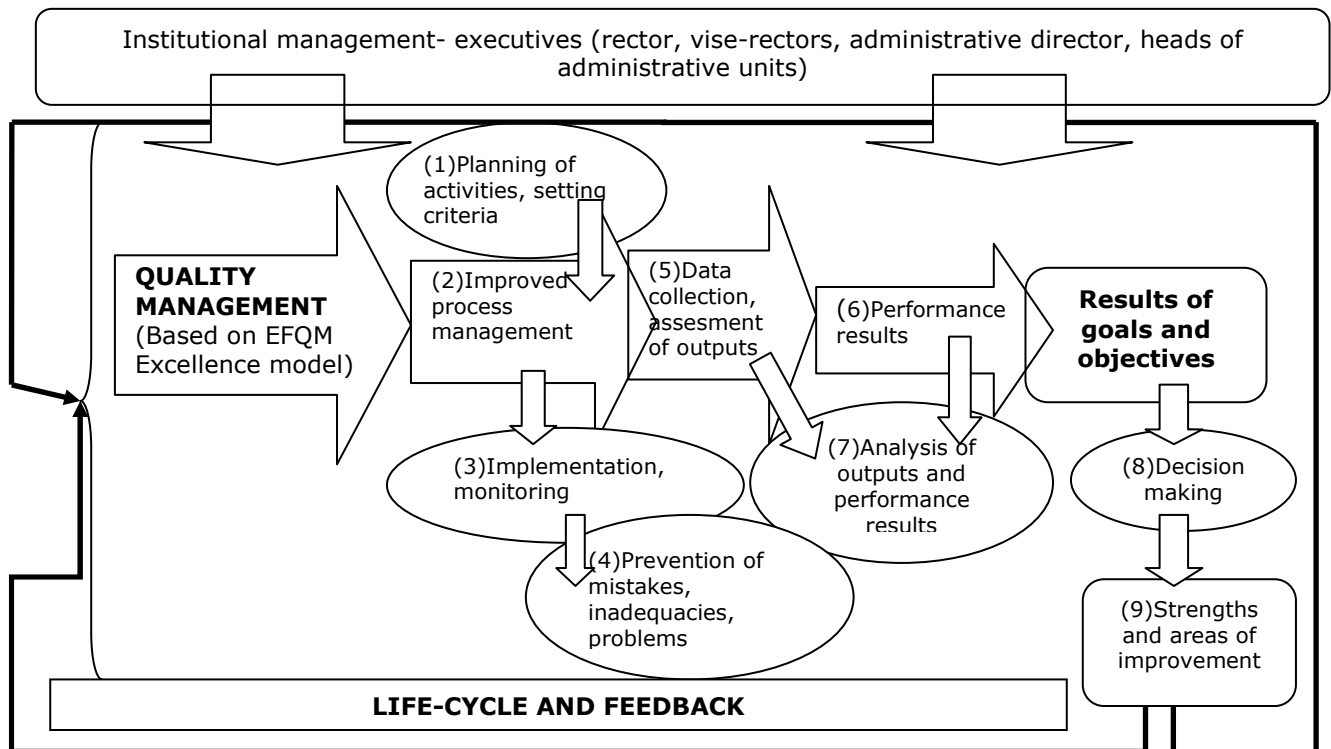
HEIs plan and implement activities which characterize accomplishments of all principles/criteria defined by the EFQM Excellence model. By using EFQM Excellence model it is convenient that HEIs can decide by themselves - what are the activities in each of the represented groups (leadership, strategy, personnel, resources, internal processes), and in which way activities are implemented in order to reach the results.

As mentioned before, there are certain operational components required by quality management and to be applied to all of the EFQM Excellence principles/criteria (Figure 1). These operational components are associated with Deming's life – cycle (Deming E., 1994, EFQM Excellence Model Higher Education Version, 2013) which is planning of actions and criteria (1), implementation of processes (2), processes are monitored (3), and inadequacies and problems are solved during the implementation (4), assessment of results: outputs (5) and performance results (6), analysis of outputs and performance results (7), decision making (8), based on analysis of results and considering strengths and areas of improvement (9).

It has to be emphasized that application of the life-cycle and feedback is mainly the responsibility of HEI's institutional level management (executives) which consists of rector, vice-rectors, administrative director, heads of the main administrative units (Figure 1). Based on the life-cycle management, HEI continuously review and refine their objectives and tasks to improve processes, outcomes and performance results. Quality management is implemented by planning and implementing processes, attaining goals, objectives and results, and by developing new improvement activities at each of the groups of leadership, strategy, personnel, resources and internal processes. That

is shown by Figure 1 where decision making on new activities to promote strengths and improve areas of weaknesses goes back to quality

management planning, and the life-cycle starts its management way again.



Source: developed by authors based on Deming E., *EFQM Excellence Model Higher Education Version, 2013, TQM and Operational Excellence, 2014.*

Figure 1. **Quality management with life – cycle, feedback and operational components.**

Continuous improvement is the main purpose of applying life - cycle under condition that none of the operational components are missing. That means that there is a close and integrated connection among planning, implementation, monitoring, assessment, analysis and decision making.

Public organizations, including HEIs have problems of applying assessment and analysis component in quality management (Organization Theory and Public Management, 2005). That leads to a situation that there isn't sufficient identification and analysis of mistakes and inadequacies, and decision making based on problem identification is not following. In data collection, analysis and assessment of outputs and performance results, it is important to be oriented by realistic, proven and documented facts what help to avoid from decision making based on subjective assumptions.

EFQM Excellence model characterizes management enablers on the part of the heads of

HEIs, and attained goals, objectives and results at the level of personnel (internal level) and target groups (internal and external level - e.g., students, employers, businesses, etc.). Quality management is effective if goals, objectives and results are obtained by all structural levels of HEI, and the life-cycle operational components are used as integrated approach.

**2. Empirical description: evaluation of quality management components by universities' personnel (heads of higher, middle and lower level).**

In order to optimize processes and accomplish results both at department level (outputs) and institutional level (performance results), HEIs introduce and implement new methodological management approaches. EU research reports show that, for example, quality management and internal quality assurance has been implemented by 63 % of European HEIs (*EUA Trends 2015*). Strategy, quality, performance management are those management by objectives approaches which have been gradually introduced also by



HEIs in Latvia. More than half of all HEIs (54 %) implement quality management and quality assurance systems for more than five years (33 private and public HEIs were surveyed in Latvia) (Quality Assurance at HEIs, Dynamic University, 2013).

Authors have organized a quantitative inquiry at six university level HEIs in Latvia. The aim of the inquiry was to explore university higher, middle and lower level heads' opinion on introduction and implementation of management by objectives approaches (quality management, implementation of various quality management components) at HEIs.

Respondents gave assessment in a scale 1 to 10, and the data was summarized and analyzed in three groups: 1. responses in a scale 1-4 (opinion of „completely disagree“, „disagree“, „rather disagree“), 2. responses in scale 5-6 („don't have an opinion“, „no information“), 3. responses in a scale 7-10 („completely agree“, „agree“, „rather agree“).

The majority of respondents (58 %) were of opinion that quality management system within the last three years have been successfully introduced and implemented at HEIs. At the same time quite large number of respondents

(almost ¼ -24 %) were of opinion that quality management system hasn't been introduced or isn't efficient. The main drawbacks are identified as formal approach (quality management is documented but lacks adequate practical application) and lack of applying all operational components of life-cycle in practice.

23 % of respondents didn't have opinion or were missing information on quality management issue, and 21 % of respondents were of opinion that quality management hasn't been implemented according to its essential meaning and goals. These results indicate that almost 1/4 of respondents are not satisfied with application of quality management system at the university institutional management, and university personnel (higher, middle and lower level heads) are missing information about implementation of quality management system at their universities. These facts may lead to an assumption that there isn't a sufficient information flow regarding new management approaches from the university executive management to middle and lower level management. Because of missing information, middle and lower level heads may not be aware of essential meaning and goals of quality management.

Table 1

**Respondents' opinion(%) on components in quality management at HEIs**  
(scale 1-10; 1- „definitely no“, 10- „definitely yes“), n=209

No	Operational components	Responses (%) scale 1-4	Responses (%) scale 5-6	Responses (%) scale 7-10	Scale (Factor analysis)
1	Planning of processes and criteria	26.1	19.3	54.5	0.806
2	Implementation of processes	28.4	21.7	50.0	0.837
3	Monitoring and evaluation	23.2	15.5	61.4	0.823
4	Analysis and assessment of outputs and performance results	22.0	21.9	56.1	0.732
5	Decision making	31.1	20.1	48.9	0.873
6	Prevention of mistakes, inadequacies, problems	30.1	21.4	48.6	0.893

Source: authors' research at universities, Latvia, 2012/2013

Respondents' opinion in regard to operational components applied to life-cycle and feedback in quality management show that majority (43 %-73 %) agree that the components are

implemented (Table 1). At the same time more than 30 % of respondents were of opinion that decision making, prevention of mistakes, inadequacies and problems are not efficient. More

than 20 % of respondents were of opinion that planning, implementation of processes, monitoring and evaluation, assessment of outputs and performance results are not sufficient. The fact that 20 %-30 % of respondents are critical about implementation of various operational components may lead to assumption that the life –cycle and feedback in decision making aren't sufficiently implemented. The life –cycle and feedback application in quality management may be considered as management area which requires improvement.

Factor analysis method was used to describe what variables (operational components) are the most important (correlated) with the factor „Quality management“. The method (using rotated component matrix) indicates which variables have the closest correlation with the factor. Components which indicate interaction on the factor „Quality management“ in prioritized order: (1) „prevention of mistakes, inadequacies, problems (0.893)“, (2) „decision making“ (0.873)“, (3) „implementation of processes (0.837)“, (4) „monitoring and evaluation (0.823)“, (5) „planning of processes and criteria (0.806)“, (6) „analysis and assessment of outputs and performance results (0.732)“ (Table 1). Respondents evaluate highly all of the components described (scale from 0.732 to 0.893). According to Factor analysis, component of “analysis and assessment of outputs and performance results (0.732)” is considered to be of a more problematic implementation than other components. These results coincide with the authors' previously mentioned statement: outputs and performance results aren't assessed and analyzed in a sufficient manner and it leads to situation when appropriate feedback is missing in decision making.

### **Conclusions.**

#### General:

1) Application of life – cycle and feedback in decision making is one of the main characteristics of efficient and functional

quality management system in HEIs. There is a close and integrated connection among planning, implementation, monitoring, assessment, analysis and decision making.

2) Leadership in HEIs quality management is defined as executives' involvement with personnel by explaining goals, objectives and results and motivating to reach outcomes (results at department level) and performance results (results at institutional level) by using quality management system at all structural levels. Leadership helps to raise awareness of personnel in regard to essential meaning and purpose of quality management.

#### Preventing factors:

- 3) Necessity of quality management and inner quality assurance in HEIs have been strongly recommended by European higher education organizations and required by higher education normative regulations in Latvia.
- 4) HEIs as autonomous entities may decide on introduction and implementation of quality management by defining quality policy, appropriate processes and structures in order to ensure a cycle for continuous improvement.
- 5) In order to optimize processes and accomplish results HEIs introduce and implement new methodological management approaches. Quality management and internal quality assurance have been implemented by 63 % of European HEIs. The fact that more than half (54 %) of all HEIs (public and private) in Latvia implement quality management and quality assurance systems for more than five years is considered as a serious practical experience.

#### Obstacles (problems of efficient implementation of quality management):

- 6) Formal approach (quality management is documented but lacks adequate practical application, quality management is introduced because of normative requirements, etc.) may be a problematic issue at HEIs institutional management.

- 7) HEIs institutional management problems refer especially assessment and analysis of outputs to application and implementation of all and performance results and using feedback operational components of the life-cycle, in decision making.

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## HEALTH INEQUALITIES IN LATVIA

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**Abstract.** This article presents analysis and basic tendencies of health inequality in Latvia in the context of health self-assessment. *The aim is to understand and analyse - first, what kind of health inequality exists in Latvia and second, what factors have the greatest impact.* On the basis of the health influencing factors model and four health inequality explanatory approaches, is the author developed model for the research. The model is used for the identification of health inequality and key influencing socio-economic factors. In the paper, the author used quantitative research methods through survey and its analysis. The results show that the major proportion of health inequalities exist between age groups, the most significant factors in relation to health self-assessment are the consumption of medicines, unemployment or employment type, access and quality of health services, living and working conditions.

**Key words:** health inequality, health self-assessment, health-influencing factors, health inequality explanatory summative model.

**JEL code:** I0

### Introduction

Nowadays, people live longer and their health has improved. At the same time, there are several problem aspects, for example, demographic aging and health inequalities. Health and health inequalities are multidimensional, because they affect many aspects and are influenced by many aspects. They can affect the social, the economic processes, and various social and economic factors can be as preconditions for health and health inequalities.

Health inequality can be viewed as a subject of social science because in different social and economic structures, health is different (Myer et al, 2010), and it is proved that medicine is not a key factor, which nowadays determine health (Martini C. J., 1977). Health problems are linked with the individual's subjective experience of living conditions (The World Health Organization, 2002) therefore health can be also evaluated in the context of health self-assessment. Health self-assessment includes all aspects characterizing health, ill health symptoms and risk factors, the evaluation of current situation and future perspective, influencing factors (contrary to the objective data, for example, mortality rates) (Wahl H. W., 2006). As well the subjective feeling affects health (Diener et al, 2009) and it is proved that it is a mortality prediction variable (Ginzel E. M., 2010), in several studies classified as "strong" evidence

(Fayers P. M., Hays R. D., 2005; Shadbolt et al, 2002).

Studies on the socio-economic welfare impact on health are important for the policy implementers in the countries where there are demographic conditions that negatively affect economic development in various fields, limited resources and critical situation in providing health-related benefits with existing health care resources (Fotso J. C., Kuate-Defo B., 2005). Health socioeconomic inequalities exist in most regions of the world, despite the improvement in the market in terms of health and life standards (OECD, 2008).

The topicality of the issue in the context of Latvia approve binding statistics, where the health care system of Latvia has one of the worst assessments in Europe, the average life expectancy is 72.2 years, which is the second lowest in the EU. In Latvia, there are serious public health problems such as high morbidity with HIV, alcohol consumption and one of the highest suicide rates in the world (EuroHealthNet, n.d.), one of the highest mortality rates in Europe, male life expectancy is over the last six and women over the past three years lower than the EU average. More than 10 % of people rate their health as bad or very bad, one of the largest infant mortality proportions to the number of births, one of the highest youth smoking rates in the EU (The European Commission, 2013). However, statistics also

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point to the question's multidimensionality because by controlling other variables, it can be identified that there are differences between the socio-economic groups and statistics characterizing health (Monden C. W. S., 2004; The European Commission, 2013).

Taking into account the topicality and multidimensionality of the question the aim of this paper is to understand and analyze - first, what kind of health inequality exists in Latvia and second, what factors have the greatest impact. There are formulated number of tasks for the achievement of the aim: to determine the distinction between health and health inequality concept; to explore multidimensionality of health and impact on health; to identify health-influencing factors through research of multidimensionality; to construct health inequality explanatory summative model including all identified health-influencing factors; to analyze survey results, health self-assessment for identification of basic health inequality tendencies and the most significant health influencing factors in Latvia.

### **Health, health inequality and health-influencing factors**

Health includes physical, mental and social functioning of an individual and well-being (Stewart A. L., Ware J. E., 1998). Health is affected by different risk factors, which also determines negative impact on health and emergence preconditions of health inequalities (The World Health Organization, 2002). The World Health Organization with health understands disease and infirmity absence as well as a complete mental and physical well-being (The World Health Organization, 1946). Health is a broad concept; it creates difficulties in operationalization of the concept and in defining good or bad health dividing line. In this way, it is easier in the mutual comparison process to identify health inequalities.

Health inequalities are systematic differences in health related to people's unequal position in

society (Graham H., 2009). Consequently, it provides systematic comparison opportunities. As inequality includes the economic and social disparities, with which health disparities are linked, it is required to make systematic comparisons and to evaluate the influencing factors.

Health influencing factors are different and wide, for example, individual lifestyle factors, social and community networking factors, living standard variables, factors of overall socio-economic, cultural and environmental conditions. All of main determinants of health are included in Dahlgren and Whitehead model (Dahlgren G., Whitehead M., 1991). In addition, there are four health inequality explanatory approaches: behavioral / cultural, materialist, psycho-social and life course (Bartley M., 2004). Each approach offers its causal explanation of the existence of health inequalities. Behavioral / cultural approach assumes that health inequalities are promoted by the differences in social class behaviour. Materialist approach assumes that health inequalities are promoted by the poverty, people's financial situation and their differences. Psycho-social approach assumes that social inequality can affect how people feel psychologically, which can and also affect the physical body processes. Life course approach assumes that all social, psychosocial, biological advantages or limitations affect health inequality in the context of individual life experience (Bartley M., 2004).

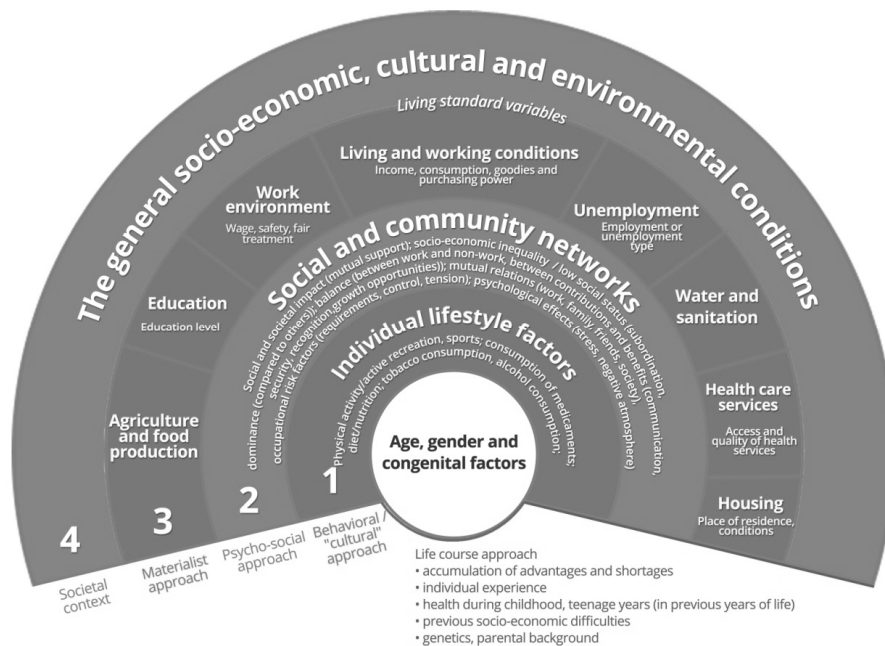
The existence of health inequalities indicates that health services do not protect people from the health consequences, which are associated with different socio-economic factors (Bakker M., Mackenbach J., 2004). Reduction of health inequalities in policies is a difficult goal because inequalities are often closely linked to factors such as welfare, education, income, environment and others, which cannot be directed in the simple way, through the implementation of policies within the health care system (Killoran

A., Kelly M. P., 2010). However, policies can play a crucial role in prevention or elimination of the inequalities generated, potential or devastating results or causes (Eurostat, 2015). Public policies should be formulated in such a way that they can affect individuals' living reality; and one of the essential aspects of individual's life reality is self-assessment. This indicates that health inequality is a cross-sectoral policy issue because health inequalities can be influenced by the "synchronization" of different levels, different areas and different aspects of the policies.

### Health inequality explanatory summative model and methodology

Previous studies have mostly analysed one of health influencing factors or one of the health

inequality explanatory approaches. In this study, for the basis of the methodology design and for the identification of indicators included in the research, the author used G.Dahlgren and M.Whitehead model with health influencing factors (Dahlgren G., Whitehead M., 1991) and four health inequality explanatory approaches: behavioral/ cultural, materialist, psycho-social un life course (Bartley M., 2004). From the model and health inequality explanatory approaches the author constructed a summative explanatory model of health inequality, which reflects the indicator summary included in the research.



Source: author's designed based on G.Dahlgren and M.Whitehead model with health influencing factors (Dahlgren, Whitehead, 1991) and four health inequality explanatory approaches (Bartley, 2004)

Fig. 1. Health inequality explanatory summative model with indicators included in the research

The research method was direct surveys at respondent homes. The general set, in accordance with the planned survey, was the population of the Latvia; the sample was 1007 respondents, and the number of respondents was proportional to the population of the statistical regions, cities and counties. Sample was selected according to the random sampling and route method.

Quantitative data analysis was performed by using the results of the surveys data and the analysis in SPSS program. Taking into account the amount of quantitative data and restrictions of the analysis, initially the author made a comprehensive analysis of the frequency distribution of answers. The author calculated Pearson coefficient between each of the health self-assessment questions and demographic

questions to determine inequality proportion and mutual comparisons between included demographic variables. Inequality proportions' amount determination was based on each included demographic coefficient average values of the modules. For the identification of the socio-economic factors with the greatest impact on health self-assessment the author used methods that were similar, just the volume and variables differed. The results show general description of trends between health self-assessment questions and socio-economic factor questions. All the results indicate a number of significant trends in Latvia with regard to the health self-assessment, factors affecting health and with regard to the relationship between the influencing factors and health self-assessment.

### Results and conclusions

People their current health evaluated as average or good (average 40,5 %; good 30,2 %) and pointed out that they feel physically well enough (50,9 %), but at the same time, people are suffering from stress (mainly 13,6 %; sometimes 49,9 %; partially 19,3 %), faced with health problems (mainly 18 %; sometimes 39,9 %; partially 22,3 %) and they at least partially limit daily activities (mainly 10,3 %; sometimes 25,6 %; partially 28,1 %).

For the people it is important to improve and implement health positively influencing behavior, but actually implemented tends to be contrary. Relatively often is used unhealthy food (every day 12,6 %; at least once a week 27,3 %; rarely used 43,2 %), alcohol consumption in the large part of the cases is regular (every day 1,9 %; at least once a week 17,5 %; rarely used 62,1 %), people regularly use medicaments (every day 25,5 %; at least once a week 15,4 %; rarely used 50,9 %), less frequently are used homeopathic medicines (never 46,9 %). Comparatively rarely are implemented physical activities (have never 6,1 %; no more 17,7 %; rarely 38,9 %), active recreation and sports,

most often as the leisure activities choosing different types of seated exercises (45,4 %).

There are differences between the three areas: family and friends, colleagues and society. People mostly receive mutual support from family (mostly 73,9 %; sometimes 15,5 %), less often from colleagues (mostly 24,9 %; sometimes 23,5 %; partly 16,8 %) and least from the society (mostly 4,6 %; sometimes 22,1 %; partly 48,3 %; almost never 18,6 %; never 6,4 %). As most important is perceived support from family and friends (very important 73,7 %), less important is support from colleagues (very important 34,5 %) and the least important is support from society (very important 22,5 %). Socio-economic inequality between family members, friends (mostly 12,7 %) and colleagues (mostly 19 %) exists sometimes, but most often it exists among the general society (mostly 61,6 %). Commonly, people face stress and unfavourable climate at work (each day 11,8 %; at least once a week 21,3 %), less frequently at home (each day 7,6 %; at least once a week 19,6 %) and in society (each day 8,1 %; at least once a week 16,6 %). But the most significant impact on health is from the stress and unfavourable atmosphere, which people are facing at home (has impact 28,5 %; partly 37,8 %), less frequently at work (has impact 22,2 %; partly 36,1 %) and least in society (has impact 17,7 %; partly 49,6 %). People at the workplace are interfacing with the requirements (interfacing 58,2 %), control (interfacing 49,1 %) and tension (interfacing 39,3 %; partly interfacing 20,3 %). At workplace may be taken independent decisions (yes 53,3 %; partly 22,8 %; no 23,9 %), usually it is not enough of time to accomplish the work (enough 26,7 %; partly 28,8 %; not enough 44,5 %) and it requires a fast pace (yes 55,6 %; partly 28 %; no 16,4 %), managers (yes 59,1 %) and colleagues (yes 57,6 %) provides support.

In most cases, respondents have higher (50,6 %) or secondary (36,1 %) education. Respondents is exposed to different types of work environment risk factors, with a loud noise (each day 8,2 %; often 12,2 %; sometimes 28,1 %; rarely 33 %; never 18,5 %), repetitive, monotonous work (each day 18,9 %; often 16,8 %; sometimes 22,4 %; rarely 14,4 %; never 27,5 %), less frequently with a heavy object lifting (each day 6,2 %; often 7,8 %; sometimes 13,9 %; rarely 20,5 %; never 51,6 %) and there is no contact with different types of chemicals (each day 4,1 %; often 7,2 %; sometimes 11,6 %; rarely 18,9 %; never 58,2 %). Average monthly income do not exceeds 500 euro per month (77,9 %), wage during the last year has not changed (62,6 %) and the income is not enough (67,7 %). The most common criterion for selection of everyday goods and services is proportionality of quality and price (61,6 %), but at the same time, large proportion of people indicates the price (35,6 %). People are able to meet their basic needs and wishes (68,3 %) but there is a large proportion of people who are unable (31,7 %). Healthcare services are used relatively rarely, no more than a few times per year (73,7 %), and availability and quality of services were assessed as low (low availability 76,9 %; low quality 75,8 %). Generally, there is a positive assessment of the place of residence and conditions (in all aspects positive assessment more than 50 %, with the exception of health care services aspect accessibility and quality). Basically respondents live in urban areas outside of the centre (54 %), apartment in an apartment house (63 %) that belongs to them or to any member of the household (81 %). Absolute majority of respondents indicated that they had faced with the bill payment difficulties (66,7 %).

General socio-economic conditions of society were considered as bad (bad 70,8 %; average 26 %; good 3,2 %), general cultural conditions as good (bad 11,3 %; average 40,1 %; good

48,6 %) and general environmental conditions as average (bad 15,3 %; average 43,6 %; good 41,1 %).

Life-course factors show that large part of the life aspects has not changed or has deteriorated. Unchanged remained such aspects as diet and nutrition (improved 31,1 %; has not changed 45,6 %; deteriorated 23,3 %), tobacco consumption (decreased 17,5 %; has not changed 67,6 %; increased 14,9 %), alcohol consumption (decreased 29,5 %; has not changed 55,6 %; increased 14,9 %), medicament consumption (decreased 17,7 %; has not changed 43,4 %; increased 38,9 %), support at home, at work and in society (decreased 21,5 %; has not changed 47,6 %; increased 30,9 %), stress and negative atmosphere at home, at work and in society (decreased 21,5 %; has not changed 44,1 %; increased 34,4 %), the balance between work and free time, between investments and benefits (improved 21,5 %; has not changed 52,4 %; deteriorated 26,1 %), mutual relations (improved 27,4 %; has not changed 61,1 %; deteriorated 11,5 %), requirements, control and tension at work (decreased 15,1 %; has not changed 55,6 %; increased 29,3 %), place of residence and its living conditions relations (improved 24,3 %; has not changed 54,5 %; deteriorated 21,2 %). The aspects that had deteriorated are: less dealing with the physical activity, leisure and sport activities (more 23,1 %; has not changed 28,9 %; less 48 %) , feeling of socio-economically inequality and social status deterioration (improved 24,5 %; has not changed 33,5 %; deteriorated 42 %), income, consumption, benefits and purchasing power (improved 25,1 %; has not changed 27,4 %; deteriorated 47,5 %), the access and quality of health services (improved 13,6 %; has not changed 37,7 %; deteriorated 48,7 %), the general socio-economic, cultural and environmental conditions of society (improved 18 %; has not changed 37,7 %; deteriorated



44,3 %). Accordingly, most of the life aspects have not changed or have worsened.

The current research was an attempt to find out what kind of health inequality exists between citizens of Latvia by the observation of research trends between health self-assessment and demographic variables. Analysis included the following demographic variables: language (language by which questionnaires were completed), residence (distribution in the planning regions), age, gender, number of persons living in the household, marital status, completed highest education, the average monthly income, main occupation, the location of the main place of residence. It was calculated Pearson coefficient between each of the health self-assessment questions and demographic questions to determine inequality proportion. According to each of variables, the following trends were identified (there are no statistically significant trends, but these trends could be important for interpretation in social context; Pearson coefficients included in brackets behind each trend):

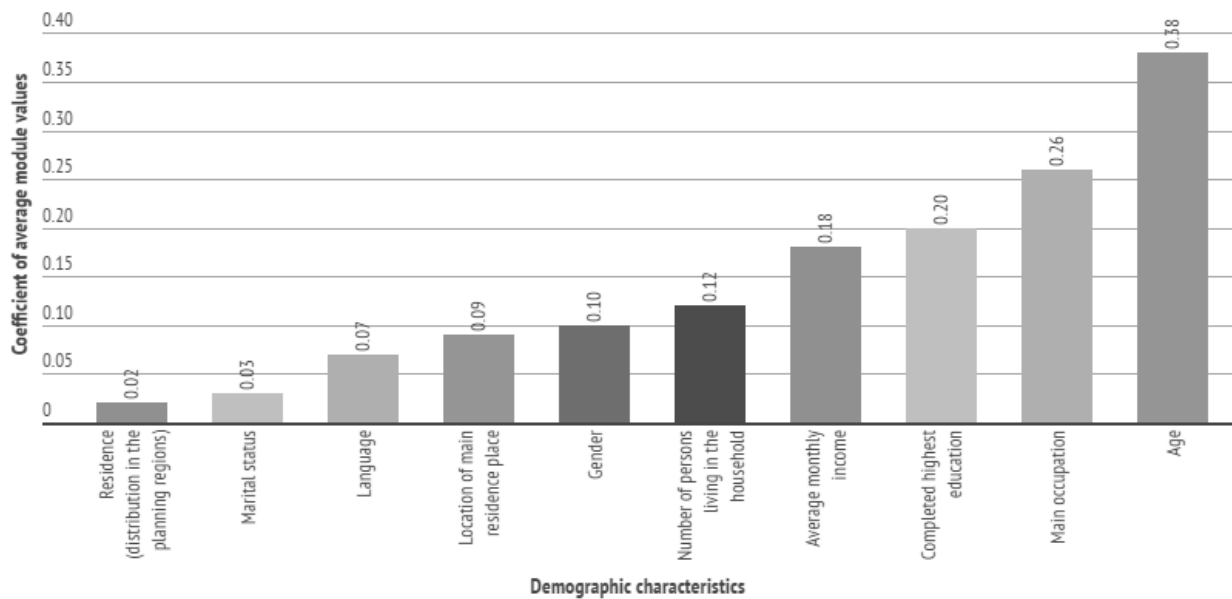
- In some cases, the Russian speaking respondents' health is slightly worse (0,1), but they less frequently suffer from the stress in everyday life (0,13).
- The place of residence (in planning regions) has no relation with health self-assessment (0,02).
- The age affects health self-assessment, mainly - the older is person, the worse is his/her health self-assessment (0,59; statistically significant).
- In some cases, women assessed their physical feeling worse than men (0,1), women slightly more often indicated that they were suffering from stress (0,19) and more often related with health problems that limited their daily activities (0,11).
- In some cases, people with a higher number of people living in the household evaluated

their current health as better (0,18); and less faced with health problems (0,18).

- Marital status has no relation with health self-assessment (0,03).
- In part of cases, the lower the person's level of education, the worse he/she evaluated current health (0,35).
- In part of cases, the lower the person's income, the worse he/she evaluated current health (0,28).
- People whose main occupation is one of unemployment types had worse assessments of their current health (0,45), more often indicated that they had health problems (0,33) and more often that they limited their daily activities (0,3).
- In some cases, people who lived farther from the city had slightly worse assessments of current health (0,14) and more often referred to health problems (0,12).

In addition, the author provided sequencing of variables' importance (it should be interpreted like Pearson coefficient, but it should be taken in to account that average module includes 4 coefficients average number as it includes 4 health self-assessment questions; there is no statistically significant trends, but average modules shows some trends that could be interpreted as it could be socially important). The order of importance indicates which of the demographic variables significantly or less significantly affect health self-assessment (see Fig. 2).

The order of importance of included demographic characteristics (from the most important to the less important) by coefficient average module values are as follows: 1. age; 2. main occupation; 3. completed higher education; 4. the average monthly income; 5. number of persons living in the household; 6. gender; 7. the location of main residence place; 8. language; 9. marital status; 10. residence (distribution in the planning regions).



Source: author's designed based on survey analysis results

Fig. 2. Demographic variables importance regarding health self-assessment

In addition, the research was an attempt to find - what is the most important socio-economic factor of health inequality in Latvian by the observation of research trends between health self-assessment and health affecting socio-economic factors. The socio-economic factors included in the research were chosen in accordance with explanatory summative model of health inequality.

The order of importance indicates which of the socio-economic factors significantly or less significantly affect health self-assessment. (see Fig. 3).

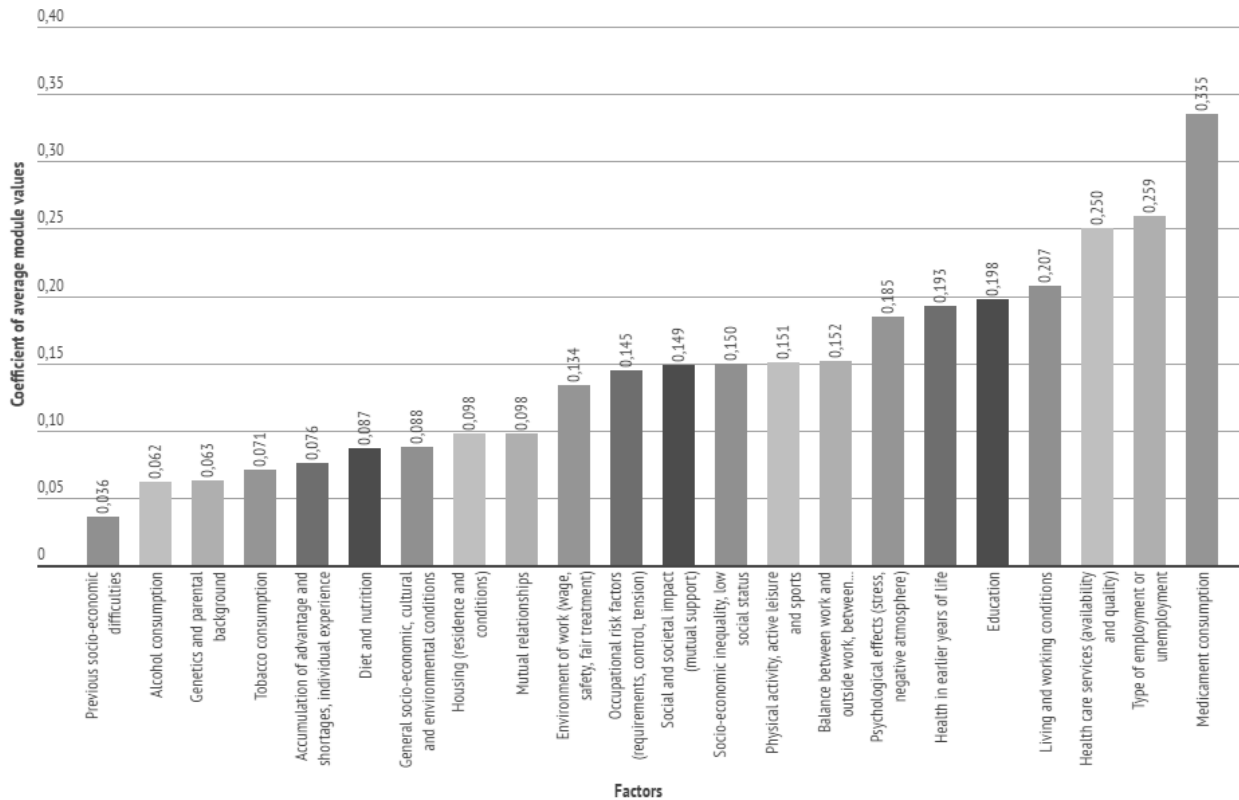
The order of importance (from the most important to the less important) by coefficient average module values is as follows: 1. medicament consumption; 2. unemployment (type of employment or unemployment); 3. health care services (availability and quality); 4. living and working conditions (income, consumption, benefits and purchasing power);, 5. education; 6. health in earlier years of life; 7. psychological effects (stress, negative atmosphere); 8. balance between work and free time; between contributions and benefits (communication, security, recognition, growth opportunities); 9. physical activity, active leisure and sports; 10. socio-economic inequality, low

social status (subordination, dominance compared with others); 11. social and societal impact (mutual support); 12. occupational risk factors (requirements, control, tension); 13. environment of work (wage, safety, fair treatment); 14. mutual relationships (work, family, friends, society); 15. housing (residence and conditions); 16. general socio-economic, cultural and environmental conditions; 17. diet and nutrition; 18. advantages and shortages, individual experience; 19. tobacco consumption, 20. genetics and parental background; 21. alcohol consumption; 22. previous socio-economic difficulties.

The results cannot be separated from the multidimensional nature of the health. Multidimensional nature of health provides that health affects many factors and many factors affect health, and difficulties are with the determination of impact direction – which affects whom. For example, medicament consumption has the greatest relationship between factors with health self-assessment. It is not identified whether greater consumption of medicaments provides a poorer health self-assessment, or whether poorer health self-assessment provides greater consumption of medicaments. The

relevance of factors and multiple dimension of

the impact as well should be taken into account.



Source: author's designed based on survey analysis results

Fig. 3. Social-economic variables importance regarding health self-assessment

As health has a multidimensional nature also constructing research about health are faced with the question multilateralism. This article descriptively reflects the most important health inequality trends in Latvia and it was included as much as possible perspectives of health inequality. Constructed model in very transparent and comprehensive way reflects the multidimensionality of health and include as many factors affecting health. However, as health influencing policies requires very complex

strategic planning and policies synchronization, the data and analysis on this model also can be carried out more detailed analysing each of the identified trends alone.

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## THE ROLE OF STATE IN SOCIAL INNOVATION: THE CASE OF LATVIA

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**Abstract.** Social innovation is gaining increased attention from society in general, policy makers and researchers in various academic fields. The academic literature on social innovation discusses, whether the role of the state in promoting social innovation ends with providing a friendly environment for innovations or should the role of the state be more proactive and include stimulating mechanisms and funding. These discussions are relevant for both highly developed and developing countries. Research presented in this paper aims to characterize the role of state in social innovation. The research question is: what role has the government institutions played in development and sustaining of social innovation cases in Latvia? Results of the research indicate that although there is no targeted government support for social innovation, initiatives that can demonstrate good results are able to ensure support in the form of funding and other assistance.

**Key words:** social innovation, innovation systems, case study.

**JEL code:** H76

### Introduction

Simply defined, social innovation provides new solutions to the public problems that are common for the society or particular groups of the society without the aim to gain profit from it. Social innovation can be an important tool to address pressing problems faced by modern society (Pol and Ville, 2009). It implies that society itself (instead of government) can come up with ideas on how to better cope with various societal issues and implement these ideas in practice. Examples of social innovation range from addressing various inequality problems to access to services, aging society issues, youth unemployment, and inclusion of persons with disabilities and environmental concerns both in cities and rural context to mention just few. Without a doubt governments around the world are in need for solutions to these problems and therefore should be interested in potential of social innovation. However, how far should the hand of the government reach to support social innovation and how is this addressed in practice?

There is a wide literature on social innovation originating from different fields and sub-fields of scientific disciplines and providing various understandings of the term social innovation. Some studies provide comprehensive overviews and critical summaries of this literature and thinking about social innovation (e.g. Benneworth

et al., 2015; Howaldt et al., 2014). Because of the conceptual uncertainty, empirical research on social innovation is not that popular. There are some finalized or on-going studies that analyse also the role of government or policy for social innovation (e.g. Amanatidou et al., 2016; Berzin et al., 2014 or work performed in the scope of "SI Drive" project supported by EU Seventh Framework Program), which is also the focus of this research. However, in these studies the role of government is just one of the aspects analysed and is not the main focus, therefore the understanding about interaction of social innovations and government is limited.

This research aims to characterize the role of state in particular social innovation cases in Latvia. Latvia is a small market based economy and governmental recognition of social innovation is recent. The paper briefly characterizes the overall system for social innovation; however, its main focus is on empirical cases and what those reveal regarding development and sustaining of social innovation in Latvia from the point of view of interaction with government institutions.

### Research results and discussion The role of state in social innovation *Defining social innovation*

Before discussing the role of state in social innovation, a brief introduction to this concept is necessary. There is an agreement in scholarly debate that we lack a clear common definition of

social innovation. This can be seen as a problem for further conceptualization of the term and for performing empirical research on the topic, however, there is also a view that maybe there is no need for unified definition and empirical research has to be aware of different understandings used in different sub-fields and the scope of each study has to be defined (Schartingen and Weber, 2016). The latter approach is utilized also in this study and an understanding of social innovation used here is described below. A detailed overview of different understandings of social innovation is developed in the scope of SI drive project (Howaldt et al., 2014) and also in report prepared by innovation studies scholars (Bennewort et al., 2015). These reports discuss ideas mentioned above and later in this section.

An understanding of social innovation for this particular research is based on several ideas and conceptual assumptions. First, social innovation is understood as having social aim or it wants to achieve social change by social means. As Ruiz Vinals (2013) puts it: "It encompasses innovations that are directly related to the search for solutions to society's problems and challenges". This distinguishes it from innovations with primary aim to profit from it. Difference in motives that drive social innovation is emphasized also by Pyka and Hanusch (2013): "...the motives of action between social and business entrepreneurs differ strongly. Motives in social innovation stem from philanthropic, humanistic, social and environmental reasons. Profit motives per se are not decisive and finally the public good features prevail." In the policy context, promises of social innovation are often associated with grand challenges that modern society has to face (Benneworth et al., 2015). Therefore, social innovation can also be understood in terms of how it corresponds to the grand challenges. However, this focus should not narrow understanding of social innovation.

Second, although there are definitions of social innovation that include government institutions and profit seeking enterprises as possible authors of social innovations (Amanatidou et al., 2016), this research focuses on non-governmental players such as individuals, non-profit organizations, social enterprises, charities and similar. There are studies that analyse innovation in public sector, which has its specific system of functioning ( e.g. Windrum and Koch, 2008). Therefore, it's necessary to analyse social innovations developed by non-governmental and non-profit organizations in their own context separately.

Third, as with traditional or technological innovation, it is important to distinguish idea or invention from innovation, which is an idea that is brought to life and has proved its functioning and success (Howaldt et al., 2014). This applies also to social innovation.

As with technological innovation, probably even more relevant for social innovation should be understanding that not all innovation is good and socially desirable, because it might have unintended and undesirable consequences (Kuusisto et al., 2013; Segercrantz and Seck, 2013). It is especially relevant for social innovation as it aims to address social problems and interact with people. This is something that has to be considered when the role of state in social innovation is discussed. There should be two directions for government policy – one dealing with promoting/accelerating social innovation, because of the potential benefits it can provide to society and the second dealing with ensuring that social innovation does not cause more harm than it actually provides solution to the problem at hand. Second can be done with the help of regulation (Grimm et al., 2013) and monitoring. However, the regulation has to be well thought through not to hamper social innovation.

For the purposes of organizing empirical research, it's important to mention that as the processes of technological innovation, also social innovation can be distinguished in several stages. This is important in the context of the role of state in social innovation, because according to the stages of social innovation government support can also be distinguished. However, the literature that discusses stages of social innovation is not very broad and explicit (Howaldt et al., 2014). According to the literature review (Howaldt et al., 2014), some distinguish three stages – identification of problem, proposing innovative solution and implementing it (Bates, 2012). Others propose more detailed models of stages including such stages as prototyping, scaling and sustaining (Murray et al., 2010).

It is emphasized that although division of social innovation processes in stages might be useful in practice, there are conceptual limitations to this endeavour, for example, the stages models can be criticized about not demonstrating the real life situation, because innovation processes not always are linear and follow certain path (Howaldt et al., 2014). Despite this critique about the distinguishing the process of social innovation in stages, to some extent this approach will be utilized in this paper to better understand and classify policy mechanisms in support of social innovation. For these purposes, in this paper social innovation process is distinguished in four stages:

- identification of social problem which will be addressed by the proposed social innovation;
- formulating a proposal of a new or improved solution to the identified problem which includes collecting necessary resources, testing of the idea;
- implementation of the social innovation in practice by providing new or improved services or products to the target group;

- scaling and widening of the social innovation to new territories, target groups or involving of wider society.

Policy for social innovation support can be varied. It can address just one or few of the above mentioned stages of social innovation or even all of them if the policy is focused on providing a friendly environment or ecosystem for social innovation. The role of state in social innovation is discussed in more detail in the following section.

#### *The role of state in social innovation*

The role of state in social innovation is usually described in different possible intensities of this role. It can be claimed that the role of government ends with providing a friendly environment or ecosystem for these innovations to happen, but there is also a view that more proactive support mechanisms with the aim to accelerate social innovations are necessary (Grimm et al., 2013).

The concept of market failure is also used in the context of social innovation to justify action from government (Pol and Ville, 2009). The idea behind this concept is simple. There might be under investments in social innovation, because there is a lack of material motivation (market failure) (Pol and Ville, 2009). However, from the perspective of government, social innovations are desirable as they can bring social benefits. Therefore, the action of government in support for social innovation is justified by potential benefits social innovation can bring to society. This concept has been criticized for being too simple and unable to fully grasp the complexity of the processes of social innovation and possible role of state in these processes (Havas, 2016).

Although, some use such terms as social innovation system (Phillips et al., 2015), social innovation can be seen as part of wider innovation system if understanding of innovation is broadened. If social innovation is perceived as a part of broader national (or regional)

innovation system, then it is possible to use innovation systems perspective, which emphasizes the role of system in which innovation occurs. Therefore, action from government can be justified as fixing system failures that hamper social innovation.

There have been various attempts to list different policy instruments that can be used to support social innovation. For example, the World Economic Forum has listed six action lines: support for social innovation networks; increasing the government capacity to support social innovation; development of necessary infrastructure; support for the growth of social entrepreneurs; supplementing of private capital; policy evaluation in the field of social innovation (World Economic Forum, 2013). Another paper, which describes results of mapping of various social innovation support mechanisms in the USA states, identifies 28 different policy instruments besides such popular instrument as registration of social enterprise (Berzin et al., 2014).

There are also several policy activities in the domain of social innovation at the European Union level, for example, the "Social Innovation Europe" initiative which aims to build social innovation field in Europe, Horizon 2020 programme, which is built around the idea of grand challenges discussed in the section above. Also the EU Cohesion policy has a built in mechanism to develop social innovation. As a result in one of the analysed countries, Latvia, a new program to support social entrepreneurship is designed and will start to operate with the funding from the European Social fund.

One of the challenges related to policy for social innovation is its attraction to a particular policy field, which is uncertain. If a systems perspective is applied, it might be tempting to relate possible policy action to field of innovation policy, which is often related to broader economic policy and managed by public sector institutions responsible for that. It is important for innovation

policy to recognize that many sectors and government agencies may impact the processes of innovation and even more so for policy responses to social innovation. On the other hand, based on the reasoning that social innovation addresses societal problems, it might as well be a responsibility of public organizations dealing with welfare or social policy. Taking into account these considerations, various models might be applied, but in any case, it has to be acknowledged that various branches of government and local government will always be involved for social innovation eco-system to function well.

There is also a critique or precautionary view towards the role of state in social innovation, which warns about possible overreliance of government to social innovation in providing solutions to social problems. There is a risk that too much of sensitive issues could be handled over to non-governmental organizations and government might lose interest and control over these problems (Bonifacion, 2014). Therefore, there always has to be some oversight from the government of social issues that are addressed by new and innovative solutions.

### **Categories for empirical analysis**

Based on understanding of social innovation and discussions about the role of the state in promoting social innovation, several categories for the analysis of qualitative data gathered in the scope of case studies where developed and are elaborated below. The main categories for analysis are labelled as follows:

- 1) interaction with government institutions and compliance with existing government and other institutions;
- 2) expectations towards government;
- 3) international collaboration of social innovators and the role of networks;
- 4) long-term impact.

If social innovation and the role of government is discussed in the scope of systemic



approach and innovation systems, then it is important to consider interactions innovators have with government institutions as part of the national or social innovation system. This is important also in cases where there are no specific government measures to support social innovation. It is assumed that government should not hamper social innovation. Therefore one of the categories for analysis focuses on any kind of interactions social innovators have had with government institutions, how successful those were and whether this interaction has contributed or delayed development of particular social innovation.

Next category for analysis is expectations of social innovators towards government. It's applied to understand what the needs of social innovators are and whether they see that government has any role in responding to these needs. This category also helps to understand whether social innovators are happy with the support they have received so far.

As other studies have concluded that networks of social innovators play an important role in development of these innovations, it was decided to analyse this aspect also in this research to better understand if government might play any role in facilitating this. Phillips et al. (2015) conclude that: "In terms of policy, there are clear implications: Networks have a significant role to play in supporting social innovation, yet there is insufficient evidence available to inform government on how they can influence, support, and facilitate appropriate networks; therefore research into social innovation networks area requires immediate attention" (Phillips et al., 2015). Therefore, one of the categories for analysis in this study is international collaboration of social innovators and the role of networks.

The final category that is used to analyse the qualitative data is labelled as long-term impact. It focuses on if and how social innovators monitor the impact of their activities and whether change

in social problem can be recognized. This category is used because it's important in the context of government support for social innovation. As discussed before, if public funding is invested in social innovation, it has to deliver change. However, it is not clear whether social innovators have capacity to monitor this change.

As it is common with case study research, empirical data provide also insights that were not discussed before, therefore not all of the findings can be listed under some of the pre-defined categories.

## **Overview of the analysed cases and results**

### *Overview of the analysed cases*

The empirical study focuses on several social innovation cases in Latvia. Case studies were performed in the first half of 2016 by performing in-depth interviews<sup>1</sup> with representatives of particular cases, analysing publicly available information and in some cases also by participating in events organized by the social innovation case.

Selection of cases was based on conformity with the definition of social innovation and representation of different fields or sectors social innovation represents. In depth interviews with the promoters of these social innovations have been performed and the data is complemented with documentary analysis of policy planning documents in the field of social innovation. Case studies focus on the role local and national level government institutions have played in the generation, development and sustaining of the social innovation examples in Latvia.

Environment initiative "Liela talka" (The Big Clean-up) was one of the analysed social innovation cases. The initiative, which initial roots can be traced back to 2000, takes place once a year in spring when voluntary cleaning of

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<sup>1</sup> Following interviews were performed:

- Interview with Evija Grinmane from social innovation "Liela talka" on 18 January 2016 in Riga;
- Interview with Lilita Sparane from social innovation "Demola Latvia" on 25 January 2016 in Riga and participation in "Denola Latvia" graduation pitch event on 25 January 2016 in Riga;
- Interview with Martinš Kalis from social innovation "Iespējama misija" on 23 February 2016 in Riga.

environment is organized all over Latvia with the aim to improve the environment and promote everyday conscious living. In its present form, the initiative is 6 years old and lately the initiative is also devoting attention to environment education and similar activities.

In the field of education and innovation, social innovation project "Demola Latvia" was analysed. The project organizes formation of multidisciplinary teams of students that aim to solve problems defined by private companies or public institutions. Each session of work is organized in spring and fall semesters. The project is part of a global "Demola" network, which originated in Finland therefore making it an interesting case for analysis.

The final case, which was analysed in Latvia, was education initiative "*Iespejama misija*" (Mission Possible). The aim of the social innovation is to involve young professionals/university graduates from different fields in the school teaching and therefore strengthen education in Latvia. Before these young professionals enter schools, they are prepared and trained in leadership and other skills. Young teachers work at schools all over Latvia. In addition to initial activities, this social innovation has expanded and organizes other activities, for example the club of school directors which organizes courses for school directors. This social innovation has proved to be very successful and the long-term manager of this social innovation even became the minister for education and science later.

### **Results of case analysis**

Several common patterns over the analysed cases were identified as a result of analysis and will be described here under each category for analysis. The first category for analysis was Interaction with government institutions and compliance with existing government and other institutions. All of the analysed cases share the fact that they started as an initiative of

individuals or small groups of people with a new idea. The analysed social innovations were not responses to demand of government institutions, because in Latvia there are no specific government organized prizes, competitions or grants for social innovation ideas. Moreover, the support at early stages of social innovation is missing. More government activity and support can be identified at the latter stages of social innovation such as scaling and expanding. Therefore, there is a room for increased role of government in other stages of social innovation such as accelerating social innovation, assisting with competencies and impact assessment.

However, several of the analysed cases were able to attract government funding from policy instruments not designed particularly for social innovation. For example, education initiative "Mission possible" has utilized funding from "Erasmus +" program. Despite the lack of specific government funding instruments for social innovation, all of the interviewed social innovation cases' representatives admitted that overall environment for social innovation is friendly and they haven't faced any relevant inconvenience while interacting with government institutions. Social innovation from Latvia "Big clean-up" cooperates closely with local municipalities who are the local coordinators of the annual events.

What regards Social innovators' expectations towards government (second category of analysis), results indicate interesting tendencies. First, when asked about the possible support from government, all social innovators indicated that it's necessary to support social innovations that have proved their efficiency. In that case support for expansion and continuation of the project is very important. That has been the case for most of the analysed social innovations. For example, social innovation "The Big Clean-up" has received special funding to organize and expand its activities from the budget of Latvia

government after several years of successful operation on a smaller scale. It's important to note that all the analysed social innovations have already scaled their activities to new domains or territories and are willing to do that also in the future. Therefore, assistance from government for scaling of social innovations would be very much demanded. However, government action in this stage of social innovation has to be carefully considered since not all social innovations can work in other contexts or domains in the same way as they have proven to work initially (Benneworth et al., 2015).

Second, it's interesting that most of the interviewed representatives of social innovations claimed that they would like to preserve their independence from funders, including government. That helps to operate more easily. To some extent this finding indicates that social innovators don't see government institutions as helping, but rather as constraining.

Third, as regards expectations towards government, social innovators don't name direct funding as the most necessary assistance. More often specific competencies such as accounting, public relations or others were mentioned as necessary. Therefore, assistance from government would be appreciated to attract people with such expertise.

Next category for analysis was International collaboration of social innovators and the role of networks. As previous studies have shown, also in cases analysed for this study, international collaboration in social innovation networks has helped improve the operation of particular social innovations. In some cases, this is especially relevant. For example, the education project "Demola Latvia" started as an extension of a very similar project in Finland. Consequently, the managers of this social innovation transferred expertise and experience of Finland to particular circumstances in Latvia. In other case - "Mission possible", international network of similar

organizations called "Teach for all" developed in parallel to the activities going on in Latvia and "Mission possible" received substantial assistance from this organization in the form of full time employee.

The final category for analysis was Long-term impact of particular social innovation and whether it has been measured. All of the interviewed representatives of social innovations claimed that they see the long-term impact their social innovation has made in particular context. For example, the managers of social innovation "The Big Clean-up" have noticed that the territories that required extensive cleaning every year have become less polluted after the annual clean-ups. Therefore, now they can focus less on cleaning and more on improvement of the environment, for example, building paths, installing garbage cans or similar activities. Educational social innovation "Mission possible" has created a new practice in schools where teachers attend classes of their colleagues to learn from other teaching methods and approaches, which was not performed before.

However, all of this evidence on impact is anecdotal. None of the analysed social innovation cases performed systemic collection of data regarding the impacts the social innovation is producing. Interviewed managers of social innovations claimed that they lack specific skills and knowledge necessary to perform qualitative evaluation and agreed that especially if social innovation receives support from public funds, such evaluation is important. Therefore, it can be concluded that evaluation of the impact of social innovations should be an integral part of policy instruments.

## Conclusions

The concept of social innovation is defined in different manners and so differs also the research performed around this concept. This study applied a compiled definition of social innovation to empirically study how government institutions

shape the processes of social innovation in Latvia.

The analysis of social innovation cases in Latvia indicates that so far the role of government has been fragmented. It focuses only on several stages of social innovation (mainly expansion) and is started only when social innovators themselves request for it. However, as interviewees indicate, additional and targeted support from government would be welcome. As most necessary assistance was mentioned support at the starting phase, assistance with attracting necessary personnel to the team and help with monitoring and evaluation of the impacts of social innovation.

However, at least in the cases analysed for this study, it was interesting to observe that maintaining independence from either government or other sponsors is very important

for social innovators. Despite lack of targeted policy mechanisms towards social innovation, interviewed managers of social innovations claimed that the overall environment or ecosystem for social innovation is friendly and they have not faced any serious problems while dealing with government institutions.

This study focused only on the role government institutions play in the development and sustaining of social innovation. If a systems perspective is applied to understand social innovation, more research has to be performed to better understand the role of other innovation system actors such as private businesses, different groups of society, non-governmental institutions, the role of societal engagement in social innovation (Amanatidou et al., 2016) and other.

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## **HOME ECONOMICS**

## INDUSTRY IN POLAND

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**Abstract.** The article presents the agri-food products trade balance and its impact on the situation of food industry in Poland. The authors used descriptive methods and the statistic analysis to check whether changes in the trade balance have an impact on development of food industry in Poland. The authors wanted to check if changes in the trade balance of agri-food products have an impact on development of food industry in Poland. Particular attention was paid to the number of food processing companies and the number of people employed. We found that the balance of agri-food products had a positive impact on number of enterprises. The authors found that Poland is self-sufficient in food and the agri-food balance has improved.

**Key words:** trade balance, food industry.

**JEL code:** Q11, Q14

### Introduction

Globalisation is a growing tendency within the world economy. This process is one of the most important in building the current economy. International corporations, factories and global trade are good examples describing these processes (Marks-Bielska et al., 2015).

As Juchniewicz and Lukiewska (2011) point out "the food industry is the most important and developing sector of the EU. It constitutes 13 % of all production companies in the EU - 286,000 companies". The industrial production of this sector reached 1,048 billion EUR and is employing 4.2 million people, which was 15.5 % of the employees in the production sector (Data&Trends...2014).

The food industry is an important sector because it is responsible for 18 % of industrial production in Poland. Another factor describing the food sector is that Poland is 8th amongst food exporters in Europe and Polish trade is recognizable throughout the world (Sektor spozywczy w Polsce, 2013). The food sector includes diverse activity, including meat and milk processing, and processing of animal and plant products, which can be both low and highly processed.

The food industry not only involves agriculture, but also enterprises and other economic sectors taking part in the production and distribution of food. These branches deliver food industry production means, services,

knowledge and information to food consumers (Urban 2012; Brelik, 2014). The agricultural and food industry are parts of the food sector.

The development of the food industry is closely linked with changes in agriculture. According to Czyzewski and Majchrzak (2016), agricultural income falls when agriculture production rises. This effect is described in the literature as King's Law and reflects the low price elasticity of demand for agricultural products. However, agriculture plays an important role in the EU economy, although its share in Gross Domestic Product (GDP) is decreasing (Nowak et al., 2015).

The food industry is an important sector of the national economy. Its development will be dependent on the inclination to introduce innovation, which depends on investment outlays. The analysis carried out by Grzybowska (2013) proved that the investment outlays are diversified regionally in Poland. The highest percentage in investment outlays in the years 2005-11 were in the following provinces: Mazowieckie (40,3 %), Wielkopolskie (9,5 %), Malopolskie (7,6 %), Slaskie (6,9 %), Kujawsko-pomorskie (6,0 %), Lubelskie (5,7 %), Podlaskie (5,3 %), Lodzkie (3,3 %), Pomorskie (3,2 %), Opolskie (2,6 %), Zachodniopomorskie (2,3 %), Warminsko-mazurskie (2,0 %), Dolnoslaskie (1,9 %), Podkarpackie (1,7 %) and Swietokrzyskie (0,8 %). The results of the

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investment in the food industry were important because they enabled the increase in the number of enterprises taking part in agri-food product trade and further improved the technical and technological state of enterprises (Urban, 2009).

The food sector takes part in the world's Global Value Chain. The agri-food value chain includes a "wide variety of activities from input suppliers, such as seeds, machinery and chemicals, to farming, processing, distribution and other food related services (also financial inputs" (Giovanetti and Marvasi, 2016). The authors analysed food exporters in the global value chain in Italy. They found, for example, that "Italian food firms producing high-quality products are more likely to export and to more distant and richer destinations". The phenomenon has an impact on food quality and "reorganization in the production in the food sector has led to the emergence of public and private quality and safety standards within the value chain".

Many factors have an impact on agri-food trade. Generally, we can divide these factors into two groups: external factors (exogenous), mainly international policy and trade liberalization, and internal (endogenous), mainly linked with the efficiency usage of production factors (Marks-Bielska et al., 2015). One of the most important factors influencing the competitiveness of trade in Poland is the exchange rate. When the national currency is low exports are profitable. Other factors are the accession into the European Union, which helped get access to new markets, modernization of the agribusiness sector, and low production costs (Hamulczuk et al., 2014). The changes of the functioning economy and the agribusiness sector were caused mainly by Poland's adoption of European regulations, liberalization of trade, and the improved competitiveness of the Polish agricultural sector (Kacperska, 2014a).

The survey conducted by Firlej (2011) found that enterprises adopt the possibility to cooperate and compete with other developed countries. Among other factors influencing the development of competitiveness of the food industry sector are the environment, technical infrastructure, and characteristics linked to human capital.

The competitiveness of the Polish agri-food sectors was different after the accession to the EU. The biggest export orientation was in the following branches: fish production and processing, potato processing, drinks production, and the production of food for animals. The export orientation was the weakest in ice cream production, grain product processing, potato, and the wine and beer sectors (Kowalski, 2009).

### Research results and discussion

The objective of the research was to recognize the impact of trade balance of agri-food products on the nutritious industry in Poland.

To develop the problem of nutritious industry development, the authors attempt to answer the following questions:

- What is the profitability of nutritious industry in Poland?
- What is the current liquidity of nutritious industry in Poland?
- Is the nutritious industry developing in Poland?

The authors used data after 2004 and integration to the EU. The authors used regression analysis to describe the impact of the agri-food balance on the development of the food industry.

In order to determine the impact of trade balance on the development of food industry, a multiple regression approach was used, which is described by the following formula (Sobczyk, 2005):

$$Y_i = \beta_0 + \sum_{j=1}^K \beta_j X_{ij} + \varepsilon_i \quad (1)$$



where:

$\gamma_i$  is the observation on the dependent variable ( $i=1,2,\dots,n$ )

$\chi_{ij}$  is the observation on dependent variable belonging to the set of explanatory variables.

$\beta_0, \beta_j$  are structural parameters of the regression equation.

The explanatory variable was:  $X_1$  (trade balance of agri-food products). The authors put in the table the estimated values of the regression, standard errors, the t test to evaluate the regression equation and the level of significance ( $p=0,05$  most important).

The authors used also descriptive, tabular and graphic methods to present the research results.

We used the method of stepwise regression. It is based on adding variables sequential to the model as they have the next most important impact on gross output. Variables were sequentially explained:  $Y_1$  (number of enterprises of meat industry),  $Y_2$  (employment in meat industry in 1000 people),  $Y_3$  (number of dairy enterprises),  $Y_4$  (employment in dairy industry),  $Y_5$  (current liquidity of meat industry),  $Y_6$  (current liquidity of fruit and vegetables industry).

The choice of variables was due to substantive logic and the accessibility of data.

A positive trade balance of agri-food products in Poland has been observed since 2003 and is still rising. The difference between exports and imports is increasing with a positive impact on trade balance.

Only in 2009, there was a decrease of exports as an effect of the financial crisis. It was due to efforts by countries to save money and reduce expenditures. Since 2010, the trade of agri-food products has increased (Kacperska, 2014b). Most of the exports of agri-food products are dedicated to other EU countries, Russian third countries, China, South America, Africa and Asia countries.

Russia was a very important trade partner. The value of exports to Russia in 2011 exceeded 1 mld USD and in 2013 increased by more than 30 % (Baltyk, 2014). However, the political crisis

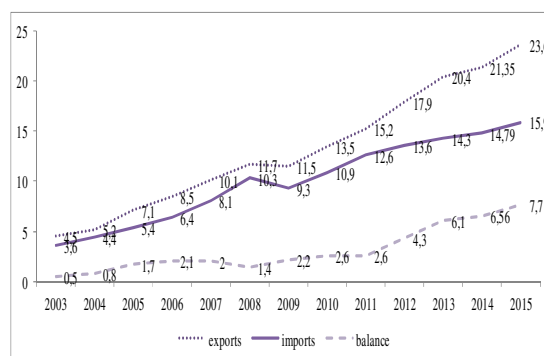
with Russia led to a decrease exports by Poland and other EU countries due to the imposed embargo. Another problem hurting exports was the instability in the Middle East and North Africa and these problems lead to lower prices, which hurt farmers (Borawski et al., 2016).

As a result of accession, Poland had to adopt EU regulations, but gained new markets. The accession led to elimination of tariffs, which created trade improvements. Polish agricultural products are rather cheaper than West European products and can be sold at lower prices. Poland as a country adjusted to the EU rules such as its trade policy that gave external benefits (Nacewska-Twardowska, 2014).

Germany was Poland's most important agri-food products' trade partner with 50 mln EUR in exports and 3.4 mld EUR in imports in 2014.

The second position in exports was Great Britain with 1.7 mld EUR, the third was France with 1.5 mld EUR, followed by the Czech Republic with 1.4 mld EUR.

Other export customers in 2014 were Denmark (699 mln EUR), Norway (698 mln EUR), and Italy (640 mln EUR) (Polish trade...,2015).



Source: author's calculations based on Ministry of Agriculture and Rural Development data

Fig. 1. Export, import and trade balance of agri-food products (mld EUR)

More than 80 % of exports and imports of Polish agri-food products involve EU markets. That is why the EU markets are most important. However, Russia is an important partner, although this has changed because of the embargo. Russia is not self-sufficient in food

production and imports accounted for 23 % of the total consumption in 2013 (Smutka, et al. 2016). The tendency highlights the consolidation of the nutritious industry and increasing scale efficiency. The employment in the milk industry decreased, which demonstrates the general replacement of labour by capital throughout the economy (Borawski, Dunn, 2014).

Table 1

**Characteristics of nutritious industry in Poland**

Years	Number of firms of meat industry	Employment in meat industry (in thou people)	Number of dairy enterprises
2010	697	79.8	205
2011	710	76.1	196
2012	717	79.9	195
2013	680	84.7	188
2014	693	87.0	181
2015	656	85.9	177

*Source: author's calculations based on meat market in Poland and milk market in Poland*

The agri-food industry is linked with agribusiness, which as a sector created demand for agricultural products, and has an impact on delivering enterprises, creates the investment in the processing industry and is responsible for trade balance. The enterprises of the rural market are engaged in production and processing, storage, and adding value to final products required by consumers (Firlej, 2010).

The nutritious industry is changing in Poland. The number of firms of the meat industry (-5.9) and the number of dairy enterprises (-13.7 %) decreased on one side, whereas the employment in the meat industry increased in the years 2010-2015 (7.6 %).

Profitability is the relationship between income and assets. As Niezgodna (2005) points out, the most important factors differentiating profitability of farms are the skills and competitiveness of the farmers. The decrease of profitability discourages farmers from making new investments and borrowing (Felczak, 2011). The percent profitability of net revenue (gross profit) is

changing. Profitability as a % on net revenue increased only in 2010-2015 in the oil industry (118.3 %) and the fruit and vegetable industry (24.8 %), whereas the profitability in Poland in 2010-2015 decreased in the nutritious industry (-9.5 %), the meat industry (-9.6 %), the milk processing industry (-61.9 %).

Table 2

**Profitability of nutritious industry in Poland**

Years	Profitability in % of net revenue (gross profit)				
	Food industry	Oil industry	Meat industry	Milk processing industry	Fruit and vegetable industry
2010	5.57	1.09	3.76	2.68	4.24
2011	4.16	-0.23	2.29	2.18	3.05
2012	4.46	-0.23	2.45	1.68	4.72
2013	4.54	3.33	2.36	2.58	2.71
2014	4.56	5.66	3.35	1.33	5.89
2015	5.04	2.38	3.40	1.66	5.29

*Source: author's calculations based on meat market in Poland and milk market in Poland*

Liquidity is a crucial factor influencing the economic situation of enterprises. It is defined in different ways, including the ease of changing assets into money, the possibility to regulate the liabilities, and the positive state of financial resources (Wasilewski, Galecka 2010).

The relations between current and fixed assets are important. The equipment in fixed assets determines the need for current assets from one side and the intensive engagement of current assets can have a negative impact on efficiency and reduce the efficiency and financial competitiveness. The big equipment in fixed assets can reduce the investment (Golas et al., 2013).

Current liquidity is calculated as the ratio of current assets to short-term liabilities. It increased in 2010-2015 in the nutritious industry (5.3 %), oil industry (74.6 %), meat industry (9.2 %), and fruit and vegetable industry (22.5 %). It only decreased in the milk processing industry (-6.6 %). The decrease of liquidity and increase of debt is a factor pointing

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out the necessity to control the situation. The improvement of liquidity requires the control of losses on sales.

Table 3

**Current liquidity of nutritious industry in Poland**

Years	Current liquidity of				
	Food industry	Oil industry	Meat industry	Milk processing industry	Fruit and vegetable industry
2010	1.33	1.38	1.20	1.51	1.29
2011	1.37	1.07	1.24	1.48	1.44
2012	1.36	0.74	1.22	1.55	1.60
2013	1.25	0.95	1.30	1.57	1.49
2014	1.42	1.15	1.34	1.63	1.60
2015	1.40	2.41	1.31	1.41	1.58

Source: author's calculations based on meat market in Poland and milk market in Poland

Table 4

**The results of regression**

Specification	Coefficient	Std error	T-students	P value
Number of enterprises of meat industry	-8.57	3.92	-2.19	0.09
Employment in meat industry (in thou people)	2.57	0.29	8.82	0.00
Number of dairy enterprises	-5.29	0.46	-11.46	0.00
Employment in dairy enterprises	-0.59	0.13	-4.25	0.01
Current liquidity of meat industry	0.025	0.00	10.41	0.00
Current liquidity of fruit and vegetables industry	0.025	0.00	7.90	0.00

Source: author's calculations based on meat market in Poland and milk market in Poland

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The trade balance of agri-food products had an impact on employment in the meat industry, the current liquidity of the meat industry and the current liquidity of the fruit and vegetable industry.

The trade balance had a negative impact on number of enterprises of the meat industry, the number of dairy enterprises and employment in dairy enterprises.

**Conclusions, proposals, recommendations**

International trade is an important factor creating opportunities not only in the nutritious industry, but also agriculture as a part of the national economy.

- The current liquidity of the food industry is at a stable level, although its biggest changes have been observed in oil industry.
- Since 2010 the profitability of the milk industry has decreased the most (-61,9 %) and the meat industry (-9,6 %). Profitability as a % on net revenue increased only in 2010-2015 in the oil industry (118.3 %) and the fruit and vegetable industry (24.8 %),
- Statistical analysis showed essential negative relations. The trade balance of agri-food products is increasing and the number of food industry enterprises is decreasing, which indicates consolidation of this industry.
- The food sector is an important part of the economy in Poland, which includes 286.000 enterprises, that account for 13 % of all production companies in the EU.

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## CHANGES IN THE STRUCTURE OF HOUSEHOLDS' CONSUMPTION EXPENDITURES IN SELECTED COUNTRIES OF THE EUROPEAN UNION

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**Abstract.** The objective of the study is to assess the differentiation of the structure of households' consumption expenditures in the Central and Eastern European Countries (CEEC) and the Western European countries (EU-15), and to determine changes in this differentiation in the years 2004-2015. This issue is crucial to establishing the economic and social cohesion in the European Union. The differentiation of the structure of expenditures was determined by employing the structure differentiation measure based on the Bray-Curtis measure. Moreover, Pearson's linear correlation coefficients were calculated to determine the correlation between the share of expenditures on a particular group of goods in households' total consumption expenditures and real GDP per capita. The background for analysis is data collected from national sources by the Statistical Office of the European Communities (Eurostat). In the years 2004-2015, the structure of households' consumption expenditures in the Czech Republic, Lithuania, Latvia, Poland and Slovakia is akin to the structure of households' consumption expenditures in the EU-15. There is, however, an evident difference in the standard of living caused by different levels of the economic development. The level of real GDP per capita had an impact on the structure of households' consumption expenditures. However, a wide variation between countries with respect to the existing dependencies may be indicative of a considerable effect of non-income conditions of the consumption level and its patterns.

**Key words:** structure of consumption expenditures, differentiation.

**JEL code:** I31, D12, E21.

### Introduction

One of the fundamental objectives of the European Union is the economic and social cohesion. The expansion of the European Union in 2004 by the Central and Eastern European Countries (CEEC), Cyprus and Malta constituted a significant challenge to achieve this objective. Households' living standards in the CEEC have changed tremendously in the last few decades. In the early 1990s' the CEEC commenced transforming from the centrally planned economy to the market one. Since 2004, those countries' transformation has primarily aimed at achieving the level of development of the Western European economies, including the level of their living standards.

Differences in the living standard are frequently determined through analysing the level of income generated by households (Kim J., Tebaldi E., 2013, Gottschalk P., Smeeding T.M., 2000) but a vast number of economists assert that those are expenditures that better reflect people's living standard and more explicitly present economic and social inequalities (Johnson D., Shipp S., 1999, Atkinson et al., 2005, Fisher

J. et al. 2015, Hoerseman K., 2016). The level and structure of households' consumption are evidence of the advanced development of economies and societies, and reflect the progress of civilization. The consumption is shaped by numerous factors. All factors, including economic and non-economic ones, commonly occur concurrently and have multi-directional effects, and it is thus difficult to statistically determine their impact on consumption (Kramer J., 1997). Incomes are one of the most important factors affecting the level of consumption (Zalega T., 2013). Not only do they affect the amount of consumption expenditures, but also their structure. Engel's law states that as a consequence of rising incomes, the share of expenditures on food declines. Budgets of less prosperous households usually spend more to satisfy their basic needs such as food, non-alcoholic beverages and fixed residential charges (Dudek H. et al., 2012). In budgets of more prosperous households, expenditures on surplus needs have a greater share (Douglas M., Isherwood B., 1996). Further, international comparisons prove that countries with a higher

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level of development measured in GDP per capita have a smaller share of expenditures on food and non-alcoholic beverages in total expenditures. In addition, by comparison with other countries, those countries frequently have a greater share of expenditures on transport, recreation and culture, hotels and restaurants (Kusmierczyk K., Piskiewicz L., 2012). Structural changes lead to orienting the consumption towards non-material needs, including individual and social ones (Cyrek M., 2013). The structure of consumption expenditures is, therefore, one of the factors that assess the household's living standard. A fundamental question that arises in the social cohesion analysis is to whether households' consumption patterns become similar among the EU Member States. The answer to this question is particularly crucial to determining a macroeconomic policy.

The consumption structure differs in social and economic groups (Utzig M., 2016). Standard of living differs regionally (Mikula A., 2016). Other factors differentiating the structure of consumption expenditures may be divided into demographic, social, cultural, psychological, and information and educational factors (Zalega T., 2011).

The objective of the study is to assess the differentiation of the structure of households' consumption expenditures in the Central and Eastern European Countries (CEEC) and the Western European countries (EU-15), and to determine changes in this differentiation in the years 2004-2015. This gave the opportunity to observe changes in households' living standards in individual countries, in particular to determine whether the structure of consumption expenditures shifted towards the more favourable pattern characteristic for households with higher living standards.

In this study, the Eurostat data for the years 2004-2015 were applied. The final consumption expenditures of households refer to the

expenditures incurred on the domestic territory on goods and services used for the direct satisfaction of individual needs. The household consumption expenditures have been classified by consumption purpose according to the COICOP classification (Classification of Individual Consumption by Purpose). The COICOP categories are as follows: food and non-alcoholic beverages; alcoholic beverages, tobacco and narcotics; clothing and footwear; housing, water, electricity, gas and other fuels; furnishings, household equipment and routine household maintenance; health; transport; communication; recreation and culture; education; restaurants and hotels; miscellaneous goods and services.

Structural changes are assessed with measures based on the multi-dimensional statistical analysis. Individual structure factors are provided as vectors  $q_{ij}(i=1...n, j=1,...m)$ , where  $n$  means a number of objects and  $m$  means a number of structure factors. Methods of measuring the structure differentiation are delineated in a vast number of scientific studies (Malina A., 2006, Kukula K., 2014, Adamczyk P., 2015).

Since the structure of households' consumption expenditures is shown as shares, its differentiation between the selected countries of the CEEC and the EU-15 is measured by using the Bray-Curtis measure. To compare the structure of object  $i$  and  $r$  it is necessary to measure the differentiation according to the following formula:

$$v(Q_i, Q_r) = \frac{\sum_{j=1}^m |q_{ij} - q_{rj}|}{\sum_{j=1}^m |q_{ij} + q_{rj}|}, \quad j = (1...m) \quad (1)$$

This measure takes values from 0 to 1, where 0 is for identical structures and 1 is for completely dissimilar structures.

The relationship between the consumption structure and the level of real GDP per capita is determined by using Pearson's linear correlation coefficient.

## Research results and discussion

The level of consumer expenditures shows the differences in the standard of living of households. Table 1 shows households' consumption expenditures *per capita* in 2004 and 2015.

Table 1

### Households' consumption expenditures in the EU-15 and the CEEC in 2004 and 2015, in euro and PPS per capita

Details	Final consumption expenditure of households				
	Current prices, euro per capita		Real expenditure, PPS per capita		Dynamics of changes in real expenditure per capita, 2004=100
	2004	2015	2004	2015	
EU-15	15.200	18.300	15.200	18.200	120
CZ	4.700	7.600	8.800	12.500	142
EE	4.200	8.200	6.700	11.500	172
LV	3.100	7.500	6.200	11.500	185
LT	3.600	8.100	7.200	14.200	197
HU	4.500	5.600	7.700	10.000	130
PL	3.400	6.500	7.100	12.700	179
SI	7.800	10.400	10.500	12.900	123
SK	3.600	7.800	7.200	12.700	176

*Source: author's calculations based on Eurostat data*

In the years 2004-2015, consumption expenditures per capita were greater in the EU-15 households compared to the CEEC ones. Those differences were larger at the beginning of the analysed period. In 2004, the lowest consumption expenditure per capita was observed in households in Latvia - 3,100 euro or 20 % of the EU-15 expenditure. Considering the purchasing power standard (PPS), this relationship was better but the difference in the level of expenditures was considerable - Latvian households spent 41 % of what was spent by the EU-15. However, in 2015 this situation was much better as in the purchasing power parity households' expenditure in Latvia equalled to 63 % of the EU-15 expenditure. In Slovenia, at the beginning of the analysed period the average consumption expenditures amounted to 7,800 euro, which equalled to almost a half of

the consumption expenditures in the EU-15. In 2015, Slovenian households' expenditures increased by 30 % which, in comparison with a 20 % increase in the households' expenditures in the EU-15, improved the expenditure relationship to 56 %. Interestingly, the analysis of changes in expenditures measured in PPS shows that the dynamics of their growth in Slovenia and in the EU-15 was very similar in the analysed period. This means that Slovenian households' consumption expenditures virtually increased but the distance to the EU-15 has not been reduced. A small change in the distance of expenditures expressed in units of PPS was also observed in Hungarian households. In the year of Hungary's accession to the EU, real expenditures of its households equalled to almost 51 % of real expenditures of households in the EU-15 and - 11 years later - 55 %. The narrowing distance to the EU-15 is observed in the remaining countries of the CEEC. The greatest changes have occurred in households' expenditures in Lithuania - the real growth by almost 100 % and the change in the relationship of real average consumption expenditures increased from 47 % in 2004 to 78 % in 2015. Large changes have also been observed in expenditures of households in Latvia, Poland and Estonia (Table 1). Although the distance between the value of consumption expenditures in the EU-15 and in the CEEC has been reduced, this distance is still explicit.

Table 2 shows the structure of households' consumption expenditures per capita in the EU-15 and in the CEEC. In both 2004 and 2015, in the EU-15 the greatest share in households' consumption expenditures was held by housing, water, electricity, gas and other fuels. A similar situation was observed in four countries of the CEEC in 2004, i.e. in the Czech Republic, Poland, Slovakia and Slovenia. In the remaining countries of the CEEC, the largest share of expenditures was earmarked for food and non-alcoholic beverages. In 2015, only in two countries of the

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CEEC, i.e. Estonia and Lithuania, expenditures on general consumption expenditures of households. this group of products had the greatest share in

Table 2

**Structure of households' consumption expenditure in the EU-15 and in the CEEC in 2004 and 2015, %**

Final consumption expenditures of households by consumption purpose, percentage of total									
Details	2004								
	EU 15	CZ	EE	LV	LT	HU	PL	SI	SK
Consumption purpose	EU 15	CZ	EE	LV	LT	HU	PL	SI	SK
Food and non-alcoholic beverage	11.8	15.6	19.3	22.9	27.0	17.2	21.1	15.6	19.1
Alcoholic beverages, tobacco and narcotics	3.9	7.6	8.2	8.0	7.5	6.8	7.1	4.8	5.5
Clothing and footwear	5.5	4.3	6.7	5.2	6.4	3.6	4.8	5.9	4.1
Housing, water, electricity, gas and other fuels	22.3	24.5	19.1	18.8	14.8	18.4	21.3	18.5	26.5
Furnishings, household equipment and routine household maintenance	6.1	5.8	4.9	3.1	5.7	6.8	4.3	5.8	5.0
Health	3.4	1.8	3.1	4	4.2	3.9	4.2	3.4	3.1
Transport	13.4	10.1	11.4	12.3	14.2	14.8	10.6	15.3	8
Communications	2.9	3.3	3.2	3.5	2.9	4.0	3.2	3.2	3.6
Recreation and culture	9.5	11.2	8.6	10.2	7.2	8.4	8	10.9	8.4
Education	0.9	0.6	1.2	2.2	0.7	1.7	1.4	1	1.4
Restaurants and hotels	8.5	7.5	6.7	5.1	2.9	6.0	2.9	6.6	6.6
Miscellaneous goods and services	11.8	7.8	7.4	4.7	6.6	8.4	11.2	9	8.8
	2015								
Consumption purpose	EU 15	CZ	EE	LV	LT	HU	PL	SI	SK
Food and non-alcoholic beverage	11.7	16.6	20.7	18.8	23.4	18.2	16.9	15.4	17.8
Alcoholic beverages, tobacco and narcotics	3.7	8.4	8.8	8	6.8	8.3	6.8	5.7	5.1
Clothing and footwear	5	3.4	6.8	5.1	5.8	3.4	4.9	5	4
Housing, water, electricity, gas and other fuels	24.6	25.9	18	22	15.8	19.1	21.5	18.8	24.9
Furnishings, household equipment and routine household maintenance	5.4	5.4	4.4	3.6	6.5	4.4	5.2	4.8	5.9
Health	3.8	2.3	3	3.9	5	4.8	5.1	4	2.5
Transport	13.1	9.3	10.9	11.7	14.6	12.7	12.2	16	7.5
Communications	2.5	2.8	3.1	3.3	2.6	3.8	2.4	3.1	3.4
Recreation and culture	8.6	8.6	8.2	9.3	7.8	6.8	7.8	8.6	9.9
Education	1.1	0.5	0.4	1.7	0.5	1.7	1	1.4	1.6
Restaurants and hotels	8.8	8.7	7.8	6.2	3	8.4	3.1	7	5.8
Miscellaneous goods and services	11.7	8	7.9	6.4	8.1	8.5	13.1	10.3	11.6

Source: author's calculations based on Eurostat data

Therefore, it may be said that the differentiation of the structure of expenditures has decline in this regard and the living condition standard has improved in the CEEC. It is noteworthy, however, that in all the countries of the CEEC the share of expenditures on food and alcoholic beverages was much greater compared to the EU-15 and, additionally, in the analysed period the share of expenditures on this group of products grew in the Czech Republic, Estonia and Hungary, which is not favourable with respect to

the assessment of the living standard. It is also noteworthy that in the EU-15 the share of expenditures on housing, water, electricity, gas and other fuels increased in the analysed period, which is also disadvantageous. This may be a consequence of the worsening financial position of households, in particular in some countries of the old Fifteen. Another essential group of households' expenditures was transport. In 2004 and 2015, in the EU-15 expenditures on this group of goods and services equalled to 13 % of



households' consumption expenditures. In the CEEC, in 2015 those values ranged from 7.5 % in Slovakia to 16 % in Slovenia. On the other hand, education is a category for which households in all the analysed countries earmarked the least.

In the EU-15, the greatest growth dynamics was observed for shares of expenditures on education, similarly to Slovenia. The greatest increase in the share of expenditures on miscellaneous goods and services was observed in Lithuania, Latvia and Slovakia. Whereas Hungary and Estonia relatively had the highest increase in the share of expenditures on restaurants and hotels. In the remaining analysed countries of the CEEC, the greatest growth dynamics had the share of expenditures on health. In turn, the greatest decrease in the share of expenditures in the EU-15 was characteristic for the category of communication, whereas in the CEEC- education (Estonia, Latvia, Lithuania and Poland), recreation (Czech Republic and Slovenia), health (Slovakia) and household equipment (Hungary).

Table 3 shows the differentiation of the structure of consumption expenditures between the households of the CEEC and of the EU-15 in 2004 and in 2015 by using the structure differentiation measure on the basis of the Bray-Curtis measure.

In 2015, similarly to 2004, the structure that is the most similar to the structure of the households' consumption expenditures in the EU-15 was characteristic for Slovenian households. Interestingly, in the analysed period this structure became more diversified, albeit changes were small. The greatest differences in the structure of expenditures on consumption of goods and services in 2004 and 2015 were observed in households in the EU-15 and in Lithuania. In the period from 2004 to 2015, the consumption structure that was the most akin to that characteristic for the EU-15 was households in Latvia, Slovakia and Poland. On the other

hand, in the analysed period the increased differentiation (compared to the EU-15) was observed in Estonia, Hungary and Slovenia.

Table 3

**Differentiation of consumption expenditures structure between the CEEC and the EU-15 in 2004 and 2015**

	2004	2015
CZ	0.117	0.113
EE	0.137	0.163
LV	0.184	0.136
LT	0.212	0.194
HU	0.128	0.138
PL	0.14	0.11
SI	0.088	0.095
SK	0.142	0.109

Source: author's calculations based on Eurostat data

Table 4 shows estimations of Pearson's linear correlation coefficient between the share of expenditures on a particular group of goods and real GDP per capita. Due to the data access, the correlation analysis covered the period from 2004 to 2013.

In the EU-15, the strongest negative correlation was observed for alcoholic beverages, tobacco and narcotics and then for food and non-alcoholic beverages. On the other hand, a positive dependency was observed for other goods and services. In the CEEC, a considerable and quite strong negative correlation between GDP per capita and the share of expenditures on food and non-alcoholic beverages in total consumer expenditures was reported only in four countries such as Latvia, Poland, Slovakia and Slovenia. In the Czech Republic, the strongest positive correlation was recorded between real GDP per capita and the share of expenditures on health in total consumer expenditures. In that country, the level of GDP per capita also considerably affected the share of expenditures on other goods and services. Whereas, a considerable negative correlation was observed for expenditures on clothing and footwear and a moderate negative dependency was for

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transport. In Estonia, with the increase in real GDP per capita, the share of expenditures on transport skyrocketed, whereas the share of expenditures on health and education decreased moderately. The share of Latvian households' expenditures on housing and other goods and services had a strong positive correlation with real GDP per capita and a moderate negative correlation with respect to food. The level of real GDP per capita considerably affected the growth of the share of expenditures on clothing and

footwear, transport and other goods and services and had a great impact on the decrease in the share of expenditures on alcoholic beverages, housing and communication in households in Lithuania. In Hungary, in the analysed period the essential statistically negative correlation was shown by the level of real GDP per capita and the share of expenditures on education. In Poland, the structure of households' consumption expenditures was considerably affected by the level of real GDP per capita.

Table 4

**Correlation coefficient between real GDP per capita, euro, and the share of expenditures on particular goods in total consumption expenditures of households (2004-2013)**

Consumption purpose	Correlation coefficient between real GDP per capita and the share of expenditures on a specific group of goods in the total consumption expenditures								
	EU 15	CZ	EE	LV	LT	HU	PL	SI	SK
Food and non-alcoholic beverage	-0.71*	-0.36	-0.28	-0.64*	-0.3	0.07	-0.97*	-0.66*	-0.76*
Alcoholic beverages, tobacco and narcotics	-0.77*	0.27	-0.13	-0.23	-0.84*	0.21	0.74*	0.05	-0.84*
Clothing and footwear	-0.12	-0.73*	0.3	-0.01	0.75*	-0.05	-0.43	-0.25	-0.33
Housing, water, electricity, gas and other fuels	-0.1	0.58*	-0.31	0.80*	-0.70*	-0.13	0.12	-0.15	-0.83*
Furnishings, household equipment and routine household maintenance	-0.06	-0.57**	-0.07	0.28	-0.42	-0.24	0.67*	0.16	0.76*
Health	-0.31	0.95*	-0.56**	-0.45	-0.41	-0.16	0.67*	-0.11	0.90*
Transport	0.34	-0.57**	0.85*	-0.11	0.81*	0.32	0.85*	0.05	-0.82*
Communications	-0.48	-0.31	-0.33	-0.35	-0.70*	-0.17	-0.92*	-0.35	-0.29
Recreation and culture	-0.04	-0.66*	0.02	-0.5	0.03	0	-0.14	-0.09	0.91*
Education	0.1	-0.01	-0.57**	-0.48	0.09	-0.64*	-0.81*	0.45	0.44
Restaurants and hotels	0.13	0.64*	0.58**	-0.18	0.24	0.13	0.11	0.54	-0.75*
Miscellaneous goods and services	0.64*	0.73*	0.17	0.91*	0.67*	0.03	0.69*	0.61**	0.88*

\*correlation coefficients are essential for  $p < 0.05$ , \*\*correlation coefficients are essential for  $p < 0.1$

Source: author's calculations based on Eurostat data

The strong positive dependency was observed for the share of expenditures on alcoholic beverages and transport, whereas the strong negative correlation was for food, communication and education. Together with the increase in real GDP, part of expenditures on housing, health and other goods and services rose moderately. In Slovenia, the moderate positive correlation occurred only for the share of expenditures on other goods and services and the moderate negative one - only for the share of expenditures

on food and non-alcoholic beverages. In Slovakia, the level of real GDP per capita affected the structure of consumption expenditures. The positive correlation was reported for the share of expenditures on recreation, culture, health and other goods and services, as well as on housing, whereas the negative correlation was observed for real GDP per capita and the share of expenditures on alcoholic beverages, tobacco and narcotics, housing, transport, food, restaurants and hotels.

This great differentiation in correlation coefficients provides grounds to conclude that the analysis of the structure of expenditures at a national level does not show actual differences among households.

### Conclusions

The objective of the study is to assess the differentiation of the structure of households' consumption expenditures in the Central and Eastern European Countries (CEEC) and in the Western European countries (EU-15), and to determine changes in this differentiation in the years 2004-2015.

The analysis has proven the following.

The situation of households as to the living standard defined by the structure of consumption expenditures was highly diversified in the EU.

- 1) In the analysed period, there was observed the considerable increase in consumption expenditures measured in PPS in the CEEC, particularly in Lithuania, Latvia, Poland, Slovakia and Estonia. However, the CEEC households spend about 70 % of what is spent by the EU-15 households.
- 2) The structure of expenditures of the CEEC households demonstrates the lower living

standard compared to the EU-15. In the analysed period, however, most of the analysed countries had patterns that became similar to the EU-15 ones.

- 3) The change in the differentiation of the structure of consumer expenditures shows the process of "catching up" the EU-15 by the CEEC. Five countries, i.e. the Czech Republic, Lithuania, Latvia, Poland and Slovakia, reduced the differentiation of the structure of households' consumption expenditures compared to the EU-15.
- 4) The level of real GDP per capita had an impact on the structure of households' consumption expenditures. There is, however, a great differentiation among countries with respect to the existing dependencies. This may prove that besides conditions arising from the economic theory, consumption expenditures and consumption patterns are connected with social values, preferences and cultural values of each society.
- 5) The research upon the differentiation of the consumption structure at a national level may not show any actual differences in the living standard among households within the boundaries of one country.

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## FOOD WASTE IN LATVIAN HOUSEHOLDS: AMOUNTS, ECONOMIC ASPECTS

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**Abstract.** Even though thousands of people suffer from hunger every day, there are people that simply throw away their food. Nowadays, even if the food wasting problem is getting more and more urgent, and all kinds of political and non-governmental organizations accentuate the importance of research on this problem, still not much research has been conducted regarding food wasting. A broader research study of food wastage would help to understand how fundamental the influence of a food choice pattern is on the lives of people. The aim of the paper was to find out how much food gets wasted and to identify factors that influence such behaviour in Latvia from the perspective of eating habits. To achieve the aim, the authors conducted a survey in 2013. The 2013 survey questionnaire consisted of 48 open and closed questions. The 2013 study revealed that 13.3 % of all the food bought household members lost and 9.39 % - wasted. In monetary terms, the average household wastes EUR 475.56 per year. By stressing the food waste issue in Latvia early on, it could be possible not to reach average EU wastage rates, which were around 22-25 % in 2016.

**Key words:** eating habits, food wasting, income, behaviour.

**JEL code:** D12

### Introduction

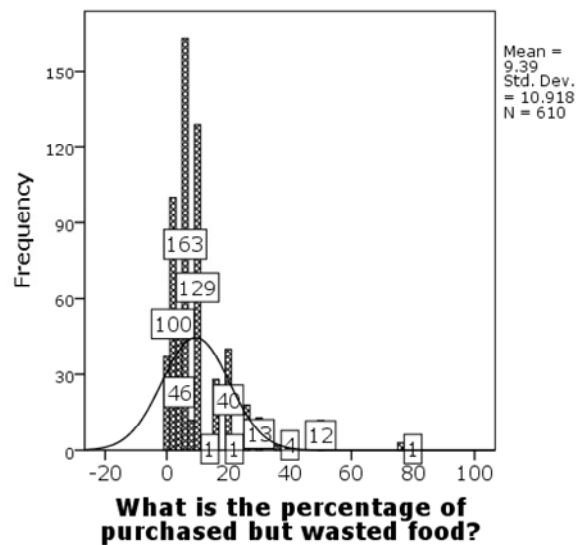
The aim of the paper was to examine the situation regarding food wastage in Latvia and to identify aspects that influence such behaviour. The authors have conducted two research studies that were grounded on a previously developed theoretical basis. This paper identified which of the previously determined economic and social aspects affected food wastage in Latvia and also calculated wastage amounts and wastage cost, as well as studied what kind of food gets wasted the most.

The authors conducted the research in 2013. The research survey questionnaire consisted of 48 open and closed questions. Respondents were asked to identify how much of food bought they wasted, and to indicate it as a percentage of the total amount of food bought. The assessment was done by feel.

The authors didn't research the waste of donated or home-grown food. In the framework of the paper, donation of food bought for people or animals isn't considered food wasting. In the context of the paper, food discarding, whose expiration date has expired, or food discarding, whose taste, look, smell has changed and is no longer suitable for consumption are considered food wasting.

### Research results and discussion

The question about how much of the food household members are able not to discard is closely linked to food waste.



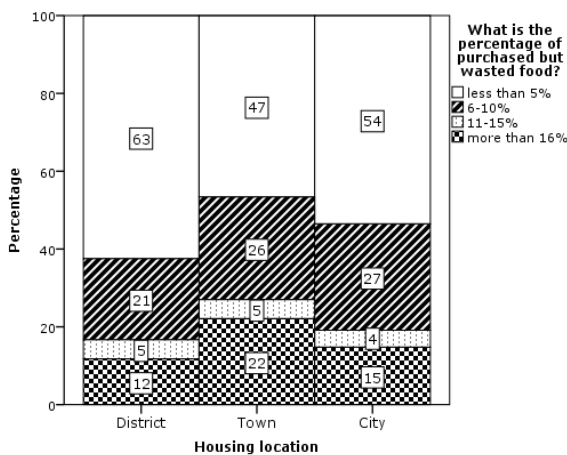
Source: authors' construction based on the 2013 survey

Fig. 1. The normal distribution curve for food wasted by the surveyed household, year 2013, quantity (n=610)

The data of wasted food don't form a normal distribution curve, as the answers with a lower value dominate. Household members on average waste 9.39 % of all purchased food, this part of food is still suitable for consumption or was suitable at the time of purchase. The authors' research data indicate that on average households spent EUR 422.47 on food; if 9.39 % of the lost food is converted into money, then in

total an average household loses EUR 39.63 per month/ EUR 475.56 per year.

All the questions that were closely connected with the study of economic aspects by the authors of the paper were divided into two groups. The first group - aspects that affect food security, and the second group – aspects that are closely connected with customers' behaviour, which are divided into two subgroups: a demographic profile and personal aspects.

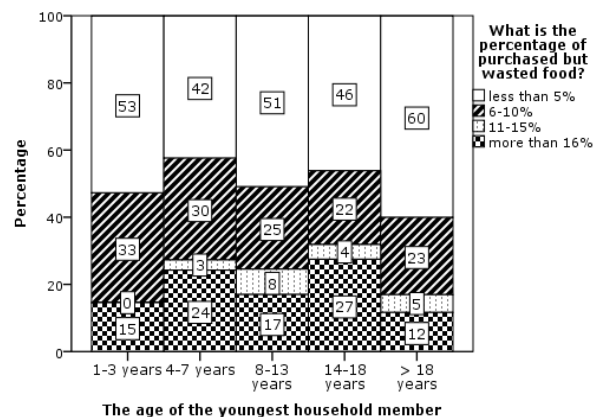


Source: authors' construction based on the 2013 survey

Fig. 2. The impact of the sub-aspect "housing location" on wasted food amounts, year 2013, % (n=610)

The housing location correlates with wasted food amounts, and this correlation is negative, meaning that the greater the city where the household is located, the more food is wasted in this household. People from rural areas, who live closer to the food production sites and often see how food products they buy are grown, as well as those people who have their own allotments, which are used for food production, are also those people who waste food way less. By contrast, people in cities waste food the most among all Latvia's citizens. This could be explained by the ease of food access in urban areas, and by the fact that when people don't grow their food themselves, they don't realize what kind of effort it requires, and what kind of resources are used when food is grown, thus not realizing the negative impact of food waste on the environment.

The packaging is important from the food safety perspective because it helps to prolong the freshness of the food and it also makes food longer safe for human consumption, thus it is possible to buy food and be able to fully consume it before it spoils. The 2013 research data analysis indicates that consumers pay more attention to price and a food product's expiration date, rather than to packaging, even if the packaging of the product directly correlates to duration of food validity. It is difficult to assess the extent to which household members understand the **labelling** on food products. For example, if they understand what kind of food products is still safe for consumption for some time after the labelled expiration date or not. Food labels can mislead people into thinking that the product is unsuitable for the consumption, assuming that the expiration date indicates the exact day when product must be discarded obligatory. If they understand all the label information about additives and preservatives, they buy food only suitable for the particular person's consumption, and food isn't wasted due its characteristics.



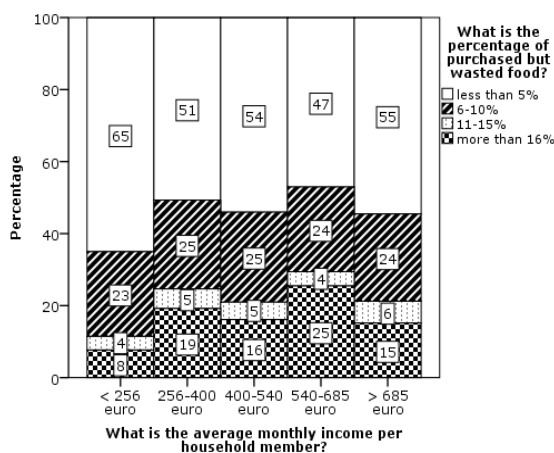
Source: authors' construction based on the 2013 survey

Fig. 3. The impact of the sub-aspect "age of the youngest household member" on wasted food amounts, year 2013, % (n=610)

The authors' study indicates that in Latvia food is wasted the most in households with children but the least food is wasted in households where live only adults (more than one member). This situation could be explained by the fact that it is easier to plan meals in

households with only adult resident; adults already have a particular taste for food and mostly know what they like and don't like to eat, while children, in their turn, especially children aged 4-7, are often too picky when it comes to food, and some of the food that was cooked particularly for them may get wasted.

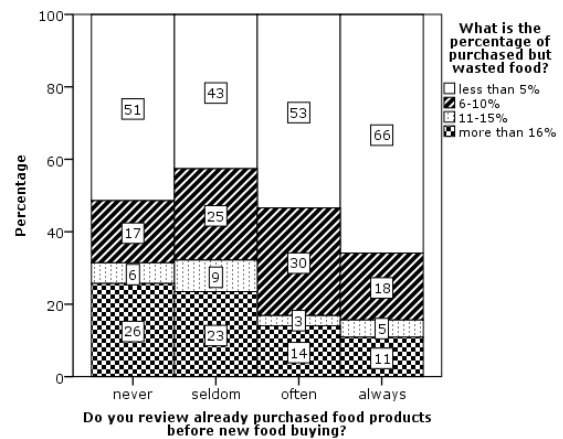
The study, which was conducted in the United Kingdom in 2012, indicated that the greatest amount of wasted food was generated in single person households (DEFRA, 2013). Similar trends were shown in a study conducted in Denmark (EPA, 2012). With a probability of 93 % it can be asserted that a similar situation is observed in Latvia.



Source: authors' construction based on the 2013 survey

Fig. 4. The impact of the sub-aspect "average monthly income per household member" on wasted food amounts, year 2013, % (n=610)

With a probability of 95 %, there is a correlation between the average income per member of a household and how much food is wasted in this household; besides, an increase in income also increases the amounts of wasted food.



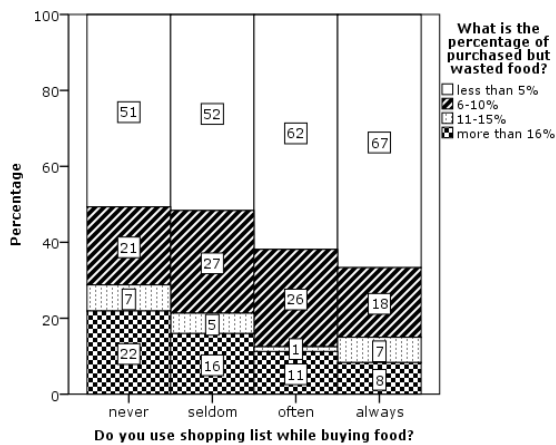
Source: authors' construction based on the 2013 survey

Fig. 5. The impact of the sub-aspect "review of already purchased food products" on wasted food amounts, year 2013, % (n=610)

The 2013 research indicated that the average amount of wasted food in the household was around 9 %, while the potential increase of incomes can have a positive effect on the growth of wasted food amounts.

The **creation of a shopping list** as an economic aspect affects the wasted food amounts in households. There is a negative correlation between the responses to the question whether before making the food purchase household members check what kind of food they already have at home and how much, as a percentage of purchased food, gets ultimately wasted. The more often household members **review already purchased food products**, the least food gets wasted in the household.

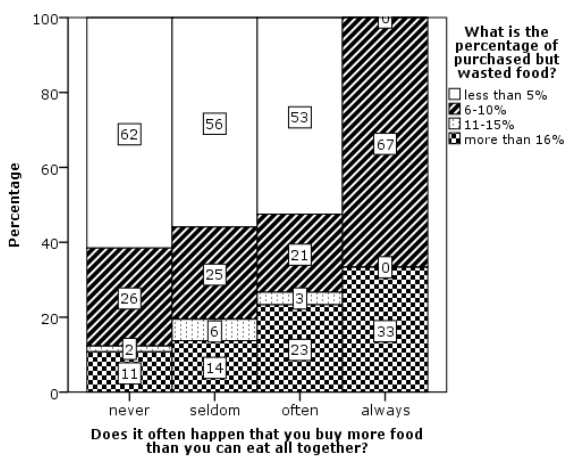
The prepared shopping list helps to reduce wasted food amounts. The correlation between the aspect and wasted food amounts is negative, the probability is 99 %. Thus, it can be confirmed that the creation of a shopping list and using it during purchasing food have a positive impact on the reduction of wasted food amounts.



Source: authors' construction based on the 2013 survey

Fig. 6. The impact of the sub-aspect „use of a shopping list” on wasted food amounts, year 2013, % (n=610).

Planning meals and listing products that need to be bought can help reduce food wasting because that can help with preventing from buying unneeded products spontaneously. But no matter how good a person previously thought about what to buy and what to do with bought food, during shopping, it still is hard not to buy the food that wasn't planned, and thus this action, in the end, can be a reason for some food wasting.

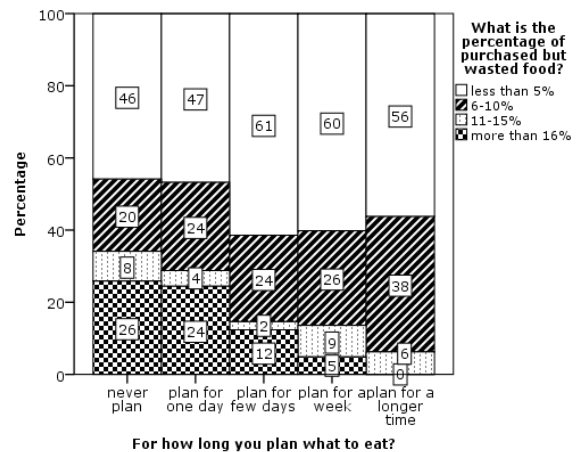


Source: authors' construction based on the 2013 survey

Fig. 7. The impact of the sub-aspect „amount of purchased food” on wasted food amounts, year 2013, % (n=610)

The correlation between the questions "Does it often happen that you buy more food than you can eat all together?" and "What is the percentage of purchased but wasted food?" is positive, which indicates that despite the fact that the shopping list gets created and also used during shopping routine, it is still hard for

household members not to buy a product that wasn't listed, thus also buying more than they can eat.



Source: authors' construction based on the 2013 survey

Fig. 8. The impact of the sub-aspect "length of the planning period" on wasted food amounts, year 2013, % (n=610)

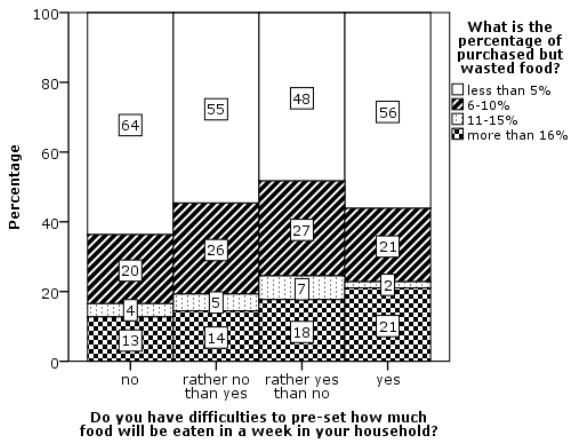
And even if Latvian respondents plan their meals beforehand, it is still hard for them to refrain from impulsive buys influenced by short-term desires.

According to the research results, there isn't a significant correlation between wasted food amounts and household members' practice to divide food buying chores. But in households where only one person is responsible for food provision, the amounts of wasted food are much lower. The more people are shopping together, the greater the possibility is that purchased food will be wasted, because each member of the household tries to meet their immediate food related wishes.

The research data show a positive effect of shopping list creation on the reduction of food wastage. Thus, it was expected that the more difficult it is for household members to determine in advance the household food consumption amounts in a week, the more food they would waste. The correlation coefficient is positive; the probability is 99 %. These correlations suggest that it is important to pre-plan meals, to keep track of food that was bought and food that still needs to be bought, as well as to track expiration dates and spoiling of the products, and to try to



integrate food into meals while the food is still suitable for consumption. The more often food related planning and coordination will be carried out in the household, the easier it will be for household members to determine in advance the food consumption amounts.

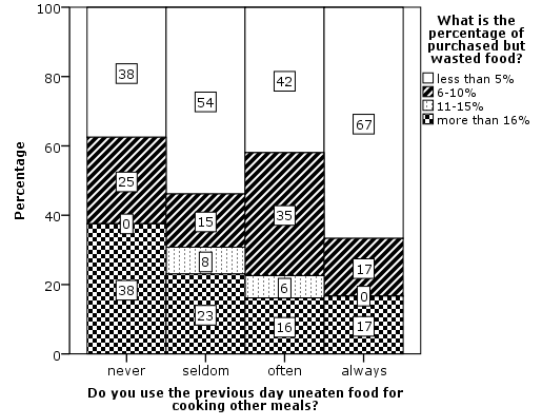


Source: authors' construction based on the 2013 survey

Fig. 9. The impact of the sub-aspect "difficulty of determining in advance the consumption amounts" on wasted food amounts, year 2013, % (n=610)

A food **storage** practice is tightly linked to how long food will stay fresh and valid for consumption, thereby directly affecting the food efficient use. It is therefore safe to say that the right type of storage helps to use the purchased food sustainably. It is possible to see the correlation between the existing of storage places and the amount of food that could possibly not be wasted. Household members waste the least or less than 5 % of all their purchased food, if they have an adequate food storage space. And, the more storage space they have, the less food gets wasted.

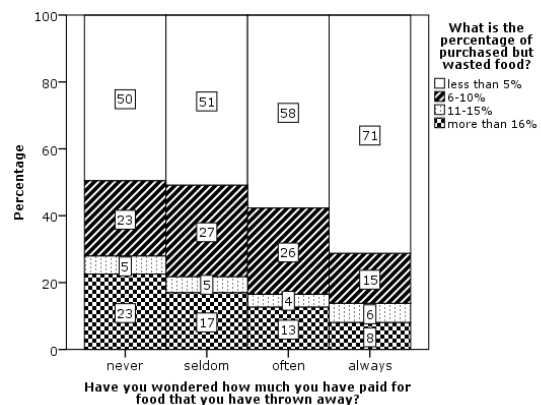
In order to assess the awareness of food wastage amounts, the question "Do you use the previous day's uneaten food for cooking other meals?" was asked to be able to figure out whether respondents often adopted a practice to use leftovers while cooking new meals, thus reducing wasted food amounts and also saving some money, because they wouldn't need to buy extra food.



Source: authors' construction based on the 2013 survey

Fig. 10. The impact of the sub-aspect "use of leftover food" on wasted food amounts, year 2013, % (n=610)

Household members often are unaware of wasted food amounts because discarded food doesn't stay for that long in the household. Therefore, respondents were asked whether the previous day's uneaten food was used in their households for the cooking of other dishes. The data indicate that with a probability of 99 %, there is a negative correlation between the use of the previous day's uneaten food and wasted food amounts, meaning that the less food leftovers are integrated while cooking new dishes, the more households waste their food. And the less household members are conscious about discarded food amounts, the more these households waste food. This issue is also closely correlated with the matters that concern the meal planning routine and potential improvement of financial stability.



Source: authors' construction based on the 2013 survey

Fig. 11. The impact of the sub-aspect "realizing how much wasted food costs" on wasted food amounts, year 2013, % (n=610)

After assessing the economic impact of the aspect's "potential improvement of financial stability" sub-aspect "realizing how much wasted food costs" on wasted food amounts, with a probability of 99 %, it is possible to confirm that this sub-aspect correlates with wasted food amounts, and the correlation is negative, which indicates that the less members of the household think about how much they have paid for the food they have wasted in the end, the more, in percentage terms, gets wasted from the bought food. This points to the fact that Latvian citizens are motivated to waste less when they know how much they paid for such an action. Information provided by "Viduskurzeme Waste Management Organization" Ltd shows that sorted bio-waste collection costs 30 % less than unsorted waste; if the organic waste collection rate is equal to 7.93 EUR/m<sup>3</sup>, then the unsorted waste collection rate is 11.33 EUR/m<sup>3</sup> (VAAO, s. a.). Often, when people say that they do not waste their food, they really believe in what they say, because the food that is intended to be thrown away does not stay stored in the house for too long (Jones, 2004). That is why people do not really see the actual amount of food they waste because when considering the amount of food that gets consumed, the wasted part of it seems insignificant.

To get a clearer picture, the issue of the food cost identification was studied from the perspectives of average household members' incomes and wasted food amounts. With a probability of 99 %, it can be confirmed that there is a negative correlation between the questions, the correlation coefficient is -0.13. The result analysis indicates that in households where an average income per person did not exceed EUR 256, their members most often thought about how much wasted food had cost them. By contrast, households where an average income per person exceeded EUR 685 were also the ones that had spent most money on food and also thought the least about how much wasted

food had cost them. It is therefore important to speak more about the food waste problem, so that even those who can buy as much food as they want and don't aim to save some money also could think about the consequences of their actions.

### **Conclusions, proposals, recommendations**

The research studies on wasted food amounts and motivating aspects are not done regularly, and they don't help to reveal global trends; that's why it is difficult to monitor the trends. Methods for calculating food waste amounts can differ, so sometimes wastage amounts can differ in a context of one country, even if real wastage amounts can be pretty similar. Therefore, the aim of this paper was to determine the wastage amounts in Latvian households and to research the economic aspects that affected such behaviour.

- 1) People in cities waste food the most, because people in urban areas have easy access to food; in addition, by not growing their food themselves, people don't realize what kind of effort it requires, and what kind of resources are used when food is grown.
- 2) International research studies indicate that food packaging is important from the food safety perspective because it helps to prolong the freshness of the food; it also makes food safe longer for human consumption, thus it is possible to buy food and be able to fully consume it before it spoils. The members of households surveyed by the authors indicated that consumers paid more attention to price and the food product's expiration date, rather than to packaging, even if the packaging of the products directly correlated with the duration of food validity.
- 3) In households with only adult residents, food gets wasted the least. This situation can be explained by the fact that children, especially children aged 4-7, are often too picky when it comes to food; therefore, it is harder to plan meals in such households. But, in contrast,

adults already have a particular taste for food, and mostly know what they like and don't like to eat, and they also can plan and cook their meals for themselves.

- 4) Single-person households generate the greatest amount of wasted food.
- 5) Households with higher incomes waste more food, international studies also indicate a similar tendency. Therefore, it can be expected that an increase in the average income per household member can influence the increase of wasted food. This is the reason why in Latvia the food waste problem must be addressed, although the wastage amounts are below the average EU figures.
- 6) Storage practice indicates that household members waste their purchased food the least, if they have an adequate food storage space. And, the more storage space they have, the less food gets wasted.
- 7) Planning meals and listing products that need to be bought positively influence food waste reduction, but no matter how good a person previously thought about what to buy and what to do with the bought food, during shopping, it still is hard for Latvian consumers not to buy food that wasn't planned, and thus this action in the end can be a reason for some food wasting. The more household members think about what they plan to eat in a longer term, the less food is wasted in the end. The data also correlates with the shopping list positive effect on the reduction of the wasted food amounts. Thus, naturally, the more difficult for household members it is to determine how much food is eaten in a week in their household, the more food gets wasted in these households.
- 8) The household members' active involvement in food shopping list planning motivates these people to also more often cook wholesome meals at home. However, an analysis of the responses indicates: the more people shop together, the greater the possibility is that the bought food gets wasted, because each member of the household tries to meet their immediate food-related wishes, therefore buying more food than needed, and it also can be difficult to integrate the bought food into meals.
- 9) The less household members are aware of wasted food amounts in their households, the more food gets wasted in such households, and the less food leftovers are integrated while cooking new dishes.
- 10) The less members of a household think about how much they have paid for the food they have wasted in the end, the more, in percentage terms, gets wasted from the bought food. This points to the fact that Latvia's citizens are motivated to waste less when they know how much they paid for such an action.

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## **FINANCE AND TAXES**

## **EFFECT OF THE TRADABLE SECTOR ON AVERAGE NOMINAL INCOME: THE CASE OF LATVIA**

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**Abstract.** In a small open economy, the income level and, as a result, the standard of living are determined by the development level of the tradable sector – labour productivity in this sector –, which, in its turn, determines the wage and salary level both in the tradable and in the non-tradable sector. Economic growth and income increase in a small economy are mainly a result of export growth. The research aim is to examine the relationship between the tradable sector's performance and the average nominal wage and salary in Latvia. The research performed an analysis of correlation between the average wage and salary and the amount of exports; the correlation coefficient reached almost 1.0. Labour productivity in the tradable sector in Latvia was, on average, four times lower than in developed countries, regardless of the technological level. In order for Latvia to theoretically reach the current nominal income level of developed countries, the country's exports have to rise approximately fourfold to about EUR 57 billion.

**Key words:** tradable sector, average nominal wage and salary, labour productivity, Latvia.

**JEL code:** F49.

### **Introduction**

The income level in Latvia considerably lags behind that in developed countries, and forecasts had been made, which predicted how many decades it would take for Latvia to reach the income level of developed countries without giving a detailed explanation by means of which industries or sectors it could be achieved. The present paper focuses on the role of the tradable sector in Latvia as a small economy and the dependence of the average nominal wage and salary level on the amount of exports, as well as the necessary theoretical amount of exports to reach the income level of developed countries.

The research aim is to examine the relationship between the tradable sector's performance and the average nominal wage and salary income level in Latvia. The specific research tasks are as follows: 1) to specify the role of the tradable sector in an economy; 2) to examine the dependence of the average nominal wage and salary income on the amount of exports in Latvia and the difference in labour productivity between Latvia and selected developed countries for selected tradable sector industries; 3) to estimate the necessary theoretical amount of exports for Latvia to reach the current nominal wage and salary level of developed countries.

The present research examined a correlation between the average nominal wage and salary

and the amount of exports in Latvia, which allowed estimating the necessary theoretical amount of exports for Latvia to reach the current standard of living of developed countries, as well as the difference in labour productivity between Latvia and selected developed EU Member States for selected tradable sector industries.

The research used national statistical data on the average wage and salary in Latvia, Eurostat data and other official data sources. It employed correlation analysis, analysis and synthesis as well as the logical construction method.

### **Research results and discussion**

#### **1. Role of the tradable sector in an economy**

Any open economy theoretically consists of two economic sectors: tradable and non-tradable (Salvatore D., 2007). The tradable sector encompasses all the industries whose goods or services can be sold in foreign markets. The tradable sector mainly represents goods, and only a small proportion of goods cannot be sold in foreign markets, at least in distant ones because of the short expiry period, too large weight or volume or some other reasons. Some proportion of services is exportable to other countries, e.g. tourism, transport, financial, IT and other services. However, it is impossible to sell a considerable proportion of services in foreign markets, usually because of technical reasons, e.g. house-related services – utilities (heating and water, electricity and gas supply)

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and rent of premises –, rent of land, most of educational and medical services as well as the services provided by government institutions and paid for by the government – beginning with public administration through to the army, customs and border guards. Infrastructures – both social and technical – are also provided by the central government and local authorities. The technical infrastructure (roads, railways etc.) is partially used for international business – transit operations. This means that both sectors – tradable and non-tradable – are strongly interconnected. Besides, it has to be mentioned that sometimes it is difficult to distinguish tradable goods or services (tradables) from non-tradable ones (non-tradables).

In the 1960s, a Hungarian economist, Bela Balassa, and an American economist, Paul Samuelson, developed a theory (the Balassa-Samuelson theory) that explains two important phenomena: 1) price levels across countries are positively related to gross domestic product per capita; 2) labour productivity in the tradable sector determines the wage and salary level both in the tradable and in the non-tradable sector (Krugman P.R., Obstfield M., 1994).

As regards price level disparities, there is the so-called law of one price that says the prices of identical goods have to be the same across open economies (Krugman P.R., Obstfield M., 1994). However, in reality, the prices are not and cannot be the same, as there are non-tradables that distort price levels, and the non-tradables will exist regardless of technological progress and economic globalisation.

However, a much more important problem is labour productivity in the tradable sector, which determines the wage and salary level not only in the tradable but also in the non-tradable sector, i.e. in the whole national economy. Wages and salaries are the key income source in the society. The wage and salary level determines other kinds of income – social and other benefits, pensions etc. – and hence the overall standard of living. In

a small economy, the tradable sector is of particular importance, as nowadays any open society consumes all the goods and services our modern civilisation has created, beginning with food through to airplanes and other complicated manufacturing goods and various services. However, a small economy is not able to produce all the goods and services the modern society consumes. The specifics of a small economy are that a lot of goods and services have to be imported; yet, to ensure it, first of all, a lot have to be exported. Unlike a large economy, which is relatively self-sufficient in terms of foreign trade because it can develop a greater number of industries and produce a greater range of goods and services, a small economy is not self-sufficient in this respect and extremely depends on its foreign trade. This, in its turn, determines not only the availability of the goods and services it cannot efficiently produce but also the income (wage and salary) level and the standard of living.

The role of exports has been also stressed in policy documents developed by the government of Latvia, e.g. Guidelines on Promoting Exports of Latvian Goods and Services and Attracting Foreign Investments for 2013-2019 and the National Development Plan of Latvia 2014-2020 that declares that "the economic basis of Latvia is the efficient, prudent and concentrated use of resources to promote entrepreneurship in the country. The most important enterprises are those (large, medium and small) producing goods and services for export. The foundation and development of creative and high value-added enterprises are of great importance".

## **2. Dependence of the average nominal wage and salary income on the amount of exports and the difference in labour productivity between Latvia and selected developed countries**

The present research did a correlation analysis to identify the strength of the correlation between increases in the average wage and salary and increases in exports of goods for the

period 1993-2015, i.e. as long period as data are available since Latvia has transitioned to a market economy after regaining its independence. Performing such an analysis was facilitated by the fact that a tight monetary policy had been implemented since the middle of 1992 when Latvia introduced its national currency; the currency's nominal value against the currencies of developed countries was stable and actually fixed from the beginning of 1994 when the

Latvian lat was unofficially pegged to the SDR; in 2005 it was repegged to the euro and in 2014 the lat was replaced with the euro.

Table 1 shows data for the mentioned period; only the most characteristic and necessary years were presented in the table owing to the large data amount. The statistical data on exports of goods are available for a period from 1993, while those on exports of services are available for a period from 1995.

Table 1

**Correlation between average monthly nominal wage and salary income, EUR, and exports, mIn EUR, in Latvia for selected years in 1993-2015**

Indicator/ year	1993	1998	1999	2003	2004	2008	2009	2011	2012	2015
Income	67	190	201	274	300	682	655	660	685	818
Exports:										
goods	961	1521	1435	2349	3059	6302	5126	8535	9871	10372
goods and services*	-	2512	2465	3789	4560	9630	7979	11684	13519	14334
Correlation coefficient:										
goods	0,96									
	0.87	1.0		0.98	0.22		0.99			
goods and services*	0.97									
	0.97	0.85		0.99	0.26		1.0			

\* - data for goods and services are available since 1995

Source: author's calculations based on the CSB of Latvia, Eurostat and World Bank data

In general, the correlation between the average wage and salary in Latvia and the country's exports for the entire period of analysis was very high: the correlation coefficient for goods  $r=0.96$ , while for goods and services it was slightly higher – at 0.97 (author's calculations). However, it is important to analyse the correlation for individual periods that were different in the period of analysis. The entire period of analysis (from 1993 to 2015) has to be split into sub-periods.

The first sub-period extends to 1998 when a financial crisis began in Russia in August of that year, which significantly affected Latvia's exports to this country and also the total amount of its exports, as Latvia was quite dependent on Russia as an export market (reaching 30 % of the total exports in 1993, which decreased to 21 % in 1997 and 12 % in 1998) (CSB data). The exports of goods in 1994 compared with the previous year decreased; the reason was the appreciation

of the lat against the dollar by approximately 30 % in 1993. In 1995, Latvia faced a huge banking crisis; yet, it significantly did not affect the country's exports. For the mentioned period, the correlation coefficients was 0.87 for goods, while that for goods and services was very high – at 0.97. The difference in the correlation coefficient may be explained by the fact that the exports of services, mostly Russian freight transit through Latvia, played a large role in that decade.

In the next sub-period – from 1999 to 2003 (the year of pre-accession to the European Union) – an increase in the exports of services was smaller (on average, 10 % per year, compared with 33 % for the period 1995-1998) and a decrease in the exports of services was observed in 2002 and 2003, whereas an increase in the exports of goods was quite steady (author's calculations). The mentioned decrease in the exports of services and, at the same time,

a considerable increase in the government's debt, compared with the previous period after the 1998 financial crisis in Russia decreased the correlation coefficient for goods and services, while an increase in the exports of goods perfectly correlated (1.0) with an increase in the average wage and salary in that period.

The next sub-period starts with 2004, which was the year of Latvia's accession to the EU, and extends to 2008 – the global financial and economic crisis. The increases in the exports of both goods and goods and services perfectly correlated with an increase in the average wage and salary.

The penultimate period of analysis is a period from 2009 when the global crisis reached its peak to 2011 when the crisis was overcome in Latvia. The correlation coefficients were very low, which meant that a decrease in the average wage and salary was relatively small in comparison with a much more significant decrease in exports. This was possible due to the fact that the government increased its expenditures and debt, and some part of the expenditures was paid as salaries and other incomes. Otherwise, the decrease in the average wage and salary would be greater and it would more correlate with the change in exports. The low correlation coefficients were also affected by an increase in the grey economy, which was specific to any crisis period.

The last sub-period extends from 2012 to 2015, which was characterised by very high correlation coefficients.

It has to be noted that the correlation coefficients reached 0.98 for goods and 0.99 for goods and services if excluding the data for 2009 and 2010, which were the years of a very serious crisis, from the time series.

As a whole, one can find that the developments in the tradable sector, i.e. changes in the exports (of goods and services) very considerably affected changes in wages and salaries (which other kinds of income depend on); therefore, this allows estimating the necessary amount of exports for Latvia to theoretically reach the income level of developed countries.

The wage and salary level and an increase in this level are determined by labour productivity and its change in the tradable sector. For this reason, the present research analysed differences in labour productivity in certain tradable sector industries between Latvia and selected developed EU Member States as well as differences in the average wage and salary between the countries. For the analysis, the author selected such developed countries as Germany, which is the largest economy in the EU and which is often considered as the economic growth driver, and Latvia's neighbouring countries – Sweden and Finland – as well as Ireland, which is a relatively small country that could grow fast after joining the EU and where a lot of Latvia's residents have worked and still work there.

The data and calculation results are presented in Table 2.

Table 2 shows that the average wage and salary in Latvia was approximately four times lower than in the selected countries, and the average labour productivity or gross value added per person employed in the most important tradable sector industries of Latvia was considerably, on average, 3-5 times (with a few exceptions) lower than in the selected EU Member States.



Table 2

**Differences in average monthly nominal wage and salary income, EUR, and apparent labour productivity, EUR per person employed, for selected tradable sector industries between Latvia and selected developed countries in 2015**

Indicator/country	Latvia	Germany	Ireland	Sweden	Finland	Avg in developed countries	Avg/Latvia
<b>Income</b>	818	3612	3035	3440	3338	3356	4.1
<b>Labour productivity*:</b>							
<b>manufacturing, incl.:</b>	16	69	208***	91	68	109	6.8
- food products	12	38	173***	65	61	84	7.0
- wood and products of wood, except furniture	18	48	33	58	48	47	2.6
- furniture	9	53	42	61	45	50	5.6
- textiles	13	48	60	64	54	57	4.3
- basic pharmaceutical products	29**	131	924	362	202	405	14.0
- fabricated metal products	16	56	50	72	58	59	3.7
- machinery and equipment	18	74	87	97	79	84	4.7
- electrical equipment	21	73	58	81	79	73	3.5
- high-technology	40	91	443***	158***	81***	73	3.5
- medium high-technology	18	82	n.d.	81***	81	193	4.8
- medium low-technology	20	61	n.d.	69***	65	81	4.5
- low-technology	14	48	n.d.	73	72	65	3.3
<b>accommodation</b>	12	26	25	46	39	34	2.8
<b>ICT services</b>	33	117	219	110	93	135	4.1

*n.d.* – no data; \* - data for 2012; \*\* - data for 2008; \*\*\* - data for the latest available year

Source: author's calculations based on the CSB of Latvia, Statistics Finland, Statistics Sweden, Destatis, Central Statistics Office of Ireland and Eurostat data

Manufacturing is the core industry of the tradable sector. The labour productivity in this industry in Latvia was almost 7 times lower than in the selected four developed countries. If excluding the very high productivity indicator for Ireland, the mentioned difference reached almost 5 times, which was close to the difference in the average wage and salary. The differences in labour productivity between Latvia and the selected developed countries for all the sub-industries of manufacturing were quite similar; the smallest differences were about three times, while that for pharmacy was 14 times, which was considerably raised by Ireland's industry; if

Ireland was excluded, the difference would be 8 times.

The difference in labour productivity for the manufacture of food products – an industry with old traditions in Latvia – was 7 times, which was considerably raised by the indicator for Ireland; if Ireland was excluded, the difference would be less than 5 times.

An analysis of the sub-industries of manufacturing classified by technology (high, medium high, medium low and low) shows that, on average, the labour productivity in Latvia was about 4 times lower than in the selected developed countries. Latvia lagged behind the least in low technology manufacturing – about

3.3 times, while in medium low technology it was 4.5 times. As regards medium high and high technology, Latvia lagged behind the developed countries 4.8 and 3.5 times, respectively, which showed that no explicit difference in labour productivity was observed with regard the technological level.

Table 2 also presents data for such a tradable sector industry as accommodation. This industry is not associated with the development and use of complicated technologies, and labour productivity in the accommodation industry in Latvia could be as high as that in the developed countries. However, the difference is almost three times. This may be explained by relatively cheap labour in Latvia, which did not force entrepreneurs to reduce the number of their employees and raise labour productivity.

In contrast, ICT services are associated with complicated technologies to a much greater extent and high-qualification labour, and Latvia lagged behind in this industry approximately four times.

One can conclude that Latvia considerably lagged behind the developed countries in terms of labour productivity – about four times regardless of a tradable sector industry, a level of technology and other factors. The author makes an assumption that has to be proved that an increase in labour productivity in low technology industries in Latvia depends on an increase in labour productivity in high technology industries (creating high value-added and, as a result, high incomes). An increase in labour productivity in high technology industries leads to higher wages and salaries in these industries, which, in its turn, makes the labour force more expensive in the entire national economy, and businesspersons and entrepreneurs engaged in low technology industries are forced to raise pay for their employees. This, in its turn, makes them reduce the number of employees and raise labour productivity at their enterprises and in the whole industry. Otherwise, if there is no increase in

labour productivity in high technology industries, no considerable increase may be expected in low technology industries too, e.g. in such industries as agriculture, forestry, wood processing, food processing etc. The mentioned industries do not produce technologically complicated, high value-added goods and services or technologies for the production of goods and services but mainly use complicated technologies that Latvia buys from other countries, thereby creating no high value-added and no high incomes for those employed in Latvia's national economy.

### **3. Necessary amount of exports for Latvia to reach the income level of developed countries**

Over the past two decades, a number of forecasts have been made regarding how long it would take for Latvia to reach the income level of developed countries, which were mainly done by the Ministry of Economics of the Republic of Latvia. According to the most optimistic forecast, it would take 20-30 years. It is difficult to forecast economic growth and development for the future, particularly for a very distant future. It is also difficult to predict whether Latvia ever is going to reach such a level within a human lifetime. However, it is possible to quite precisely estimate the theoretical amount of exports necessary for reaching the current income (wage and salary) level of developed countries, as there is a very high correlation between the average wage and salary and the amount of exports (goods and services). The correlation coefficient for the entire period of analysis was 0.97 and even reached a value of 0.99 if excluding the years of global crisis that weakened this causal relationship. In order for Latvia to increase incomes (wages and salaries), labour productivity has to be raised primarily in tradable sector industries, i.e. output (and value-added) per employee has to be raised in this sector and the goods and services produced have to be exported.

In 2015, Latvia exported goods worth EUR 10.4 billion and services worth EUR 3.9 –

totally EUR 14.3 billion. To theoretically reach the (current) wage and salary level of developed countries and also their standard of living, Latvia's exports have to climb approximately four times to about EUR 57 billion (author's estimate).

### Conclusions

- 1) In a small and open economy, the tradable sector plays the crucial role in the level of wage and salary income, which was proved by a very high coefficient of correlation (0.96-0.97) between the average wage and salary and the amount of exports in Latvia. If excluding the years of global crisis, the coefficient of correlation between the average wage and salary and the amount of exports reached a value of 0.99, i.e. almost a perfect correlation. This indicates that the national economy of Latvia is extremely dependent on its foreign trade and all the economic developments in the global market.
- 2) The average nominal wage and salary in Latvia was, on average, four times lower than in the developed EU Member States selected for analysis, which was determined by labour productivity in tradable sector industries, primarily in manufacturing.
- 3) Labour productivity in Latvia's tradable sector industries was, on average, four times lower than in the developed countries. This requires

raising labour productivity particularly in the tradable sector's industries, as an increase in the labour productivity in the non-tradable sector does not considerably contribute to the income level.

- 4) Latvia's exports of goods and services (mostly goods, as their export value is greater and they play a greater role in the case of Latvia) have to be increased about four times to approximately EUR 57 billion to theoretically reach the current nominal income level of developed countries and their standard of level.
- 5) In Latvia, labour productivity in all the sub-industries of manufacturing broken down by technology level, i.e. in low technology manufacturing industries too was, on average, four times lower than in the developed countries. This may be explained by the reluctance of businesspersons and entrepreneurs to raise the labour productivity at their enterprises, replacing their employees with technologies etc., as the labour force was still relatively inexpensive in Latvia.

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## LAND PRODUCTIVITY AND ITS PRICES IN THE COUNTRIES OF EU-15 AND EU-12<sup>1</sup>

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**Abstract.** The aim of article is assessmet the impact of the affiliation of the country to the EU-15 or EU-12 on agricultural land productivity and its price. The tasks of article are evaluation of intensity in agriculture in the countries EU-15 and EU-12 and evaluation of differences in land productivity and its prices between EU-12 and EU-15 countries in years 2007-2013. The analysis showed that in the 2007-2013 period the EU-15 and EU-12 significantly differed in capital intensity. It is also proved that capital intensity of agriculture determines the productivity of agricultural land and its price. In the EU-15 countries (with higher intensity of capital), were higher rates of land productivity and land prices as well as were the relationship between these values. In the EU-12 (with lower intensity of capital), were much lower rates of land productivity and land prices and there was no link between the productivity of agricultural land and its prices. Time range of analysis included the period of 2007-2013 and spatial range of analysis included representative farms from EU-15 and EU-12 countries. Due to the lack of information regarding prices of agricultural land in Cyprus, Malta, Greece, Luxembourg, Austria, Portugal and Slovenia, these countries were excluded from the analysis.

**Key words:** agriculture, land productivity, intensity of capital, prices of agricultural land.

### Introduction

Regardless of the system of agricultural production (extensive or intensive management in the agricultural sector), land resources and its prices are determinant of the efficiency of agricultural production. Agriculture is not the only one but the most important user of the land due to the spatial nature of production and occupying large areas (Baer-Nawrocka, Mrowczynska, 2007; Masniak, 2010; Majchrzak, 2015). Frequently intensification of agricultural production is associated with an industrial (conventional) farming model, which had performed commonly since the end of the World War II until the first oil crisis (Clock, 2014, pp. 198-199, 203; Czyzewski A., Czyzewski B., 2015). The example of agriculture and agricultural policy of the EU shows that political considerations play a crucial role in creating conditions for the development of agriculture and its intensification. The EU agricultural policy, i.e. the Common Agricultural Policy (CAP) was established as a response to the need to ensure food security for Europe's citizens, and although it has been significantly modified for more than 50 years, it should be noted that these changes were possible through the achievement of this

2016). In support of this statement, it is worth quoting the original objectives of the EU agricultural policy. Article 33 of the Treaty Establishing the European Community specified the following (version 2016):

- to increase agricultural productivity by promoting technical progress, rational development of agricultural production and the optimum utilization of the factors of production, in particular labour;
- thus, to ensure a fair standard of living for the agricultural community, in particular by increasing the individual earnings of persons engaged in agriculture;
- to stabilize markets;
- to ensure security of supply;
- to ensure reasonable prices in supplies to consumers.

From above statements one can conclude that countries with long membership in the EU have been subjected to the influence of institutional considerations to a greater extent, aimed at increasing the efficiency of European agriculture, which is reflected in the primary objectives of the CAP. It was not actualized until the reform of the EU agricultural policy in 1992, when there was introduced a method of less intensive agricultural

<sup>1</sup> The project was funded with the means of the National Science Centre allocated on the basis of decision number DEC-2012/07/D/HS4/01601.

production in the EU by changes in individual agricultural markets (Brouwer, Lowe 2000, p. 5; Fiedor, 2004).

The phenomenon of the intensity of agricultural production in the traditional sense expresses the relationship between the factors of labour and capital, and the factor of land. Its degree is measured by the size of consumption of labour (AWU<sup>1</sup> and capital) per area unit. It, therefore, expresses the sum of the inputs flowing through all branches of the production in a given time unit with respect to the land area (Adamczuk, 1996). This means that as agricultural production gets more intense, the greater the amount of labour and means of production per 1 ha is. The process of growth of living and objectified labour per area unit is called intensification. Basically, there are two ways of intensification of agricultural production: labour intensive and capital intensive. The first of these types means, above all, a change in crop structure and the introduction of more labour-intensive crops (root or industrial crops) and an increase in the number of livestock. It is usually practised in small-area farms leading to increased farming scale with extensive nutrition due to limited growth of the sown area. This, in turn, determines an increase in the material consumption in the form of industrial feed. In this type of intensification, land productivity growth is usually accompanied by a relative decrease in labour productivity. The second type of intensification leads to increased land productivity through higher yields and quantity of production means (fertilizers, pesticides, animal feed, industrial certified seed). The most important reasons for such intensification of farms are (Czyzewski, Smedzik-Ambrozy 2013, p. 29):

- limited land resources,
- low natural fertility of the soil and climatic conditions, especially unfavourable rainfall

<sup>1</sup> AWU (Annual Work Unit). In years 2007-2010 1 AWU=2 200 hours per year, and from 2011 year 1 AWU=2 120 hours per year (Floriańczyk et al. 2014, p. 4-6).

causing frequent imbalance in the water balance and the efficiency of fertilization.

It is assumed that the higher costs of labour and capital per unit of land, the greater the intensity of agricultural production is. Therefore the aim of article is assessmet the impact of the affiliation of the country to the EU-15 or EU-12 on agricultural land productivity and its price. The tasks of article are evaluation of intensity in agriculture in the countries EU-15 and EU-12 and evaluation of differences in land productivity and its prices between EU-12 and EU-15 countries in years 2007-2013.

### Research methodology

As the rate of land productivity, there was total agricultural production (131 SE) per ha of utilized agricultural area (025 SE) of representative farms in the EU-15 and EU-12 used. There were average values for the years 2007-2013 used. To determine the differences in the intensity of agriculture between the EU-15 and EU-12, there were indicators labour and capital intensity used. The first of them was labour input in AWU (SE 010) per ha and the other concerning capital intensity was understood as the sum of the value of buildings (SE 450), machinery and transport equipment (SE 455), fertilizers (SE 295) and pesticides (SE 300) in EURO per ha. Since the sample size was less than 30, in order to evaluate the statistical significance of differences in the intensity of agriculture, there was exact U Manna-Whitney test applied (Stanisz 2007, p. 223)<sup>2</sup>. It allowed answering the question of whether the EU-15 and EU-12 significantly differed in labour and capital intensity. Average indicators of the intensity of agriculture and land productivity and its prices per 1 ha in representative farms for the EU-15 and EU-12 are included in Table 1. Then there was one-dimensional and univariate ANOVA analysis carried out, in which the qualitative predictor was the affiliation of the country to the EU-15 or EU-

<sup>2</sup> It is assumed that a large sample covers more than 50 observations (Stanisz 2007)

12 and the dependent variables, which were the average prices of agricultural land in 2007-2013 per ha and the average productivity of agricultural land in years 2007-2013. Differences are statistically significant if the significance level ( $p$ ) is less than 0.05. The analysis excludes Cyprus, Greece, Luxembourg, Malta, Austria, Portugal, Slovenia, due to lack of data regarding prices of agricultural land in these countries. Applied research methodology allowed determining whether the intensity of agriculture was a determinant of productivity and agricultural land prices in 2007-2013. In the conclusion, there was an analysis of the correlation between indicators of land productivity and its prices in the EU-15 (excluding Greece, Luxembourg, Austria, Portugal) and the EU-12 (excluding Cyprus, Malta and Slovenia) in each year of the research period (2007- 2013) performed. In this case, the aim was to answer the question whether in the groups of countries that differ in intensity of agriculture, there were differences in the strength and direction of the relationship between the productivity of agricultural land and its prices.

## Results

In the EU-15 compared to the EU-12 there were both - higher capital intensity of production per ha of utilized agricultural area (more than 2 times) and land productivity (more than 3 times). There were also significantly higher average land prices in 2007-2013. In the EU-15, land prices were up to 6 times higher than in EU-12 countries (Table 1). Thus the results confirm that in the EU-15 price of the agricultural land are significantly higher than in the EU-12 countries, although the fastness of price growth is much faster in the EU-12 than in the EU-15 (Majchrzak 2015, p. 205). The statistical significance of differences in capital intensity and land productivity and its prices among the EU-15 and EU-12 was confirmed by U Mann-Whitney test. In the EU-12, there was slightly higher average labour intensity of production per area unit (Table 1). However, the differences in this regard between the EU-15 and EU-12 were not statistically significant ( $p=0.11$ ). On this basis, we can say that the EU-15 compared to EU-12 was characterized by higher intensity of agriculture, namely a much greater capital intensity of production per unit of land resource.

Table 1

### Average indicators of labour and capital intensity of agriculture and the productivity of the land and its prices in clusters of the EU countries in 2007-2013.

Countries	Number of countries	Labour intensity [labour input in AWU per ha]	Capital intensity [capital input in EUR per ha]	Land productivity [total agricultural production in EUR per ha]	Prices of agricultural land [in EUR per ha]
EU-15	11	0.035	1896.03	3300.11	18877.81
EU-12	9	0.058	735.81	1049.74	3101.08
<b>Totality</b>	<b>20</b>	<b>0.045</b>	<b>1373.93</b>	<b>2287.44</b>	<b>11778.28</b>

Source: authors' study based on EUFADN data

The evaluation results of statistical significance proved the existence of impact of affiliation of the EU-15 and EU-12 on both land productivity as well as its prices. In both cases,  $p$  was less than 0.05 (Table 2). Therefore, there are reasons to conclude that membership in the EU-15 or EU-12 affected both the productivity of

agricultural land and its price. In the EU-15, in 2007-2013 occurred both - higher than the average productivity of agricultural land and its prices than in countries with lower capital intensity, i.e. in the EU-12 countries (Table 1 and Table 2).

Table 2

**The results of evaluation of the statistical significance of differences in productivity and prices of agricultural land [in EUR per ha] between clusters of countries in the EU (one-way tests of significance, parameterization with sigma-limits, decomposition of effective hypotheses – differences are significant:  $p < 0.05$ )**

	Variable	SS	MS	F	p
<b>The affiliation of the country to the EU-15 or EU-12 as a qualitative predictor</b>	productivity of land [in EUR per ha]	25067576	25067576	4.46558	0.048811
	Land prices [in EUR per ha]	1.232080E+09	1.232080E+09	10.93929	0.003916

Source: authors' study based on the data from EUROSTAT and EUFADN

The results confirm the conclusions Majchrzak and Smedzik-Ambrozy (2017), according to which agriculture of the EU-15 countries get a higher productivity of agricultural land than the agriculture in EU-12 countries. They also noted that the EU agricultural policy during the last financial perspective (2007-2013) did not contribute to the reduction of disparities between the productivity of the land in agriculture between the EU-15 countries and EU-12 countries (Majchrzak, Smedzik-Ambrozy 2017). It also follows from research A. Tarnowska (2014, p. 216) in which it stated that in the EU-15 countries was in 2012 double higher productivity of the land than in agriculture of EU-12 countries. It proved to them that these differences were the result of differences in the degree of intensity of agriculture between compared groups of countries. This was confirmed also in this research, because their results show that agriculture from the EU-15 countries characterized by higher productivity of land as

well capital intensity per hectare of agricultural land.

The results in Table 3, in turn, proved a significant linear association between land productivity and its prices across the EU. It is represented by significant and high correlation coefficients in each of the years of the study period with the exception of 2009. On this basis we can say that in 2010-2013 there was a positive, linear relationship between the productivity of agricultural land and its prices, which remained throughout the whole EU on a very high level, as evidenced by the average correlation coefficient for the period, amounting to up to 0.87<sup>1</sup>. Compared to previous years, this relationship has intensified. Interesting conclusions about the collinearity of productivity of agricultural land and its prices provide in particular the distribution of the EU countries for the EU-15 and EU-12, as demonstrated before, significantly different in capital intensity of agriculture.

Table 3

**Pearson correlation coefficients between the prices of agricultural land and its productivity in the EU countries, differing in capital intensity of agriculture in the years 2007-2013**

Correlation coefficients	Cluster	2007	2008	2009	2010	2011	2012	2013
	EU-15	0.41	<b>0.61*</b>	0.17	<b>0.85*</b>	<b>0.85*</b>	<b>0.84*</b>	<b>0.86*</b>
	EU-12	-0.24	-0.24	-0.16	-0.11	0.047	0.047	0.056
	EU	<b>0.54*</b>	<b>0.69*</b>	0.33	<b>0.87*</b>	<b>0.87*</b>	<b>0.86*</b>	<b>0.88*</b>

Source: authors' study based on the data from EUROSTAT and EUFADN

\* significant correlations

It must be said that throughout the study period in the EU-12 countries characterized by a lower capital intensity of agriculture than in the EU-15 countries, appeared insignificant relationship between the productivity of agricultural land and its prices for ha (Table 3).

This means that in the EU-12, price of agricultural land resource to a large extent was determined by the factors not related to the productivity of the land. Such factors include, for example, legal regulations as well as the demand and supply of this resource. Based on the results

<sup>1</sup> The values of Person correlation coefficient means: up to 0.2 - no linear relationship, 0.21 - 0.4 - weak relationship, 0.41 - 0.7 - moderate dependence, 0.71 - 0.9 - a fairly strong relationship, > 0.9 - a very strong correlation (Statystyka 2016).

we can say that the statement Weil (2003, pp. 156-166) that today the quality of the land, affecting its productivity, determines the price of agricultural land is not valid for EU-12 countries. Contrarily is in the EU-15 countries, where the research showed high correlation coefficients between the productivity of agricultural land and its prices in each year of the last financial perspective of the EU (2007-2013), with the exception of years 2007 and 2009. It should also be noted that in the years 2010-2013 the linear relationship between the productivity of agricultural land and its prices in the EU-15 countries has intensified, as compared to the previous period, and the average correlation coefficient for this period was 0.85.

Therefore, the studies show that the EU-15 and EU-12 countries differ significantly capital intensity, productivity of agricultural land and its prices. In connection with this aim and tasks of article have been achieved. Practical significance of results follow from the fact that, depending on the groups (EU-15 or EU-12) to perform or not perform the relationship between the productivity of agricultural land and price of agricultural land. Results show that, in the EU-15 in years 2007-2013, the higher productivity of the land was reflected in higher price of agricultural land. Such a relationship was not present in the EU-12 countries.

### **Conclusions, proposals, recommendations**

In conclusion, it is worth noting the following:

- 1) Limitation and lack of mobility of agricultural land is one of the most important prerequisites of intensification of agricultural production. It aims to increase agricultural productivity and can be done in two ways. The first is associated with increased consumption

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- of labour and the other with capital intensity concerning fixed assets, i.e. agricultural machinery and equipment and current assets, i.e. fertilizers and pesticides per land unit.
- 2) Finding is also reflected in the intensity of European agriculture, which was confirmed by research. It turned out that the agriculture of the UE-15 countries is characterized by decidedly higher level of capital intensity than agriculture from the EU-12 countries. While statistically insignificant between the EU-12 and EU-15 were differences in the labour intensity.
- 3) Studies have shown the impact of capital intensity in agriculture on productivity of agricultural land and prices of this resource. It turned out that in countries with a higher capital intensity of agriculture (EU-15) is a positive relationship between the productivity of agricultural land and its prices. This compound was not present in countries with lower capital intensity of agriculture (EU-12). In this regard, it should be noted that in the EU-12 prices of land resource are determined by non-productive factors, i.e. legal conditions, governing the availability of this resource as well as its size. On the contrary, in the EU-15, there is a strong positive relationship between the prices of agricultural land and its productivity.
- 4) Conducted studies also showed that farmers from the EU-15 achieve significantly higher production results per unit of land and higher prices of this resource than in the EU-12. The research results testified that statistically significant differences in the average rates of productivity and agricultural land prices (per ha) between the EU-15 and EU-12 existed.



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## SUPREME AUDIT INSTITUTION' PRACTICE IN THE BALTIC SEA REGION

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**Abstract.** Currently there are very few researches on the public sector auditing and none focusing on the comparative analysis among the Supreme Audit Institutions (SAI) of the Northern and Central-European countries. This paper aims to examine the external audit practice among the Baltic Sea Region countries. The task was carried out by conducting the content analysis of the publicly available information on the functioning of the corresponding supreme audit institutions. Overall SAIs in the Baltic Sea Region are established based on the monocratic and collegial functional models. Almost all of the examined SAIs perform three types of audit –regularity, compliance and performance audits. This paper indicates that among the Baltic Sea Region countries the Supreme Audit Institutions are some of the most coherent in their practice and the overall functioning principles with slight differences which can be attributed to their historical establishment, as well as the chosen functional model of the audits institutions. The paper indicates a space for further research in the field of the SAI functional model's impact on the accountability system.

**Key words:**supreme audit, accountability, oversight, governance, performance.

**JEL code:** H83

### Introduction

Supreme Audit Institutions (further in text SAIs) are a corner stone for accountability within the public system and ensures the functioning of any democratic state, which can increase impact on the performance of both the formation and use of public resources, and thus is utmost important (Otetea, Tita, Ungureanu, 2015). In the most cases, the supreme audit institution audits the government offices and agencies under the central government. These institutions both provide the executive and legislative powers with an independent inside information on the implementation of the government policies as well as they provide the citizens with an independent information which may help them hold the central government accountable with the help of the vertical accountability mechanism – public elections (Bringselius L.,2011). The International Organisation of the Supreme Audit Institutions SAI is an integral part of every state which defines the functioning of the public accountability system for helping reach the broader good (ISSAI,2013). The Audit institutions can pursue truly independent audits only if they are independent from any political influence (INTOSAI,2001, INTOSAI,2011).

Currently there is a lack of information on the functioning of the SAIs and their role in the overall public accountability system in the in the Northern and Central-Europe as well as on their

place and differences in the countries of the Baltic Sea Region (BSR). The BSR is believed to be one of the most dynamic regions in Europe totalling at 85 million people (17 % of EU population) and overall high human development index(EUBSR,2017). Taking into concern these factors, it is clear that the overall tasks for reaching of the overall prosperity of each and every country must include the establishment of a sound public financial management which is possible only if a common understanding about the functional purpose and role of an effective yet independent external audit institution is present. The aim of the paper is to examine the external audit practice in the BSR in order to underline the similarities and differences of the selected supreme public audit institutions, as well as to investigate the current public audit practice in Latvia. The tasks of the paper include: 1) defining the public accountability framework, which defines the functioning of supreme audit institutions; 2) investigating the existent public audit functional models; 3) comparing the functional basis of the supreme audit institutions in the BSR. 4) offering recommendations for further research. The chosen research methods include analysis of the publicly available information on the functional and organisational principles and statistical data of the SAIs in the BSR.

Limitations of the research: the countries of the BSR are considered as the EU countries bordering the Baltic Sea. Although at present the Germany case is not analysed to a larger degree. This is due to the fact that the overall public governance system of Germany is substantially different from the rest of the observed countries due to its con-federative nature and the fact that the German *Rechnungshof* or the Federal Court of Audit consists of multiple independent regional branches and that it functions upon largely different organizational principles than the rest of the audit institutions which are under the focus of this paper. This research offers an overview of the functioning principles and the main differences between the supreme audit institutions of SAIs of Estonia, Latvia, Lithuania, Poland, Denmark, Sweden and Finland.

### **The Functional Principles of SAIs**

The SAIs may be defined along their model of functioning. The three major models are the Westminster model, the Napoleonic model and the Collegiate. Each different model has stronger ties to a different institution: the Napoleonic to the judiciary, the Board to the legislator, and the Westminster to the executive (EIF, 2014).

Under the Westminster model, which is also known as the audit office and monocratic model, the SAIs (National Audit Offices) are run by the Auditor General and are closely linked with the parliamentary accountability system while mainly focusing on the value-for-money financial audits. Under this system the authority and the responsibility is bound to the auditor general (or President) personally rather than the institution with some occasions when the authority to some level is shared with the subdivisions (Noussi, 2012). The President is elected for a fixed or non-limited term while his independence is further emphasized by a broad mandate to choose the staff unilaterally and to submit budget requests to the Parliament directly independently of the government. According to this model, the SAIs report on the annual accounts of all

government agencies and public bodies and on their use of funds is granted by the Parliament. The reports and the following recommendations are submitted to the Parliament via the Public Accounts Committee (PAC). Under this model, the SAI has to have a close working relation with the PAC. Accordingly, there ought to be a proper mechanism whereby the Government is required to respond to the PAC on the implementation of the recommendations produced by the SAI. In some occasions, the Auditor General may take the role of the Comptroller General, which includes the ex-ante authorisation of Ministries of Finance funding requests based on the acquired assurance that they are within the limits approved previously by the Parliament (DFID, 2004).

Meanwhile under the Judicial also, known as the Napoleonic model, the SAIs are known as the Courts of Audit or the Courts of Account (Noussi, 2012)– independent institutions which are neither subordinate nor obliged to report to neither the Government nor the Parliament. The President of the Court usually is chosen from within Members of the Court for a non-limited period of time. The functioning of the courts is mainly focused on the legality audits while the auditors (the judges) have the right to sanction the public officials or to grant discharge (Transparency International, 2013). The Court of Audit (or Accounts) is a self-standing public body which deals only with financial matters while its main focus is on verifying the legality of the Governments' transactions. The above mentioned reasons define why often in the corresponding public accountability system there is no Public Accounts Committee and the follow-up on the Courts activities is rather limited (Noussi, 2012).

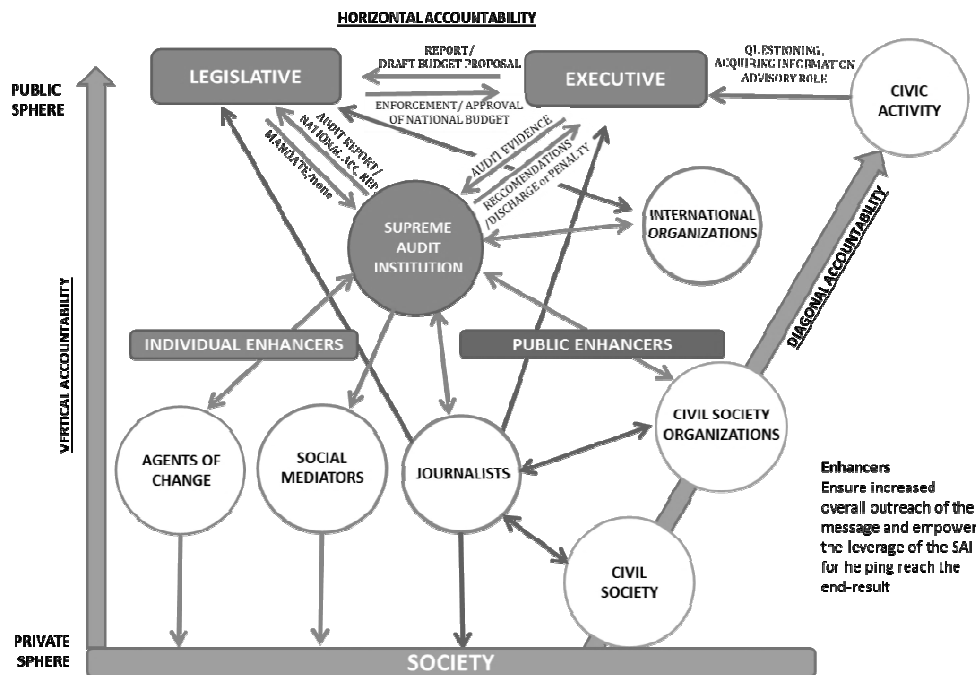
The SAIs functioning according to the Collegiate (or Board) model have multiple member governing board, which takes decisions jointly with the collegially elected head President. The members of the Board are elected for a fixed term by the Parliament. The audit work may be

further split into subcommittees, in which the decision making follows the same collegiality principles. Similarly to the Westminster model, under the Board model the auditors do not have legal rights to penalize the public officials. The SAIs in most cases are a part of the parliamentary accountability system and have close partnership with the PAC(Transparency International,2013).

**Role of SAIs in the Accountability System**

On the one hand, the SAI is tasked with the objective of advising on the functioning of the public policies and/or exercising penalizing functions and ensuring the horizontal accountability throughout the public sector. On the other hand, the SAI serves the needs and

mandate of the citizens, which has been acknowledged by the ISSAI 12 stating that not only do SAIs need to add value to society and make a difference to the lives of citizens but also that SAIs need to demonstrate ongoing relevance to citizens, parliament and other stakeholders to hold government and public accountable(ISSAI, 2013). The overall accountability system landscape, in which the SAIs are functioning, revealed in the SAI-centric Interrelation Accountability Connection map (Fig.1), includes a variety of different public and private sector entities and a set of interrelation paths. The exact positioning of the SAI, however, closely depends on the chosen functional model of the specific public audit institution.



Source: author's created based on WBI, 2015

Fig. 1. Universal SAI-centric Accountability Connection map

As it can be observed, the overall accountability landscape includes not only horizontal, but also vertical as well as diagonal accountability mechanisms with the separate entities, institutions and organizations as well as parts of public having their place as say within it (WBI,2015). The main institutional publics for an SAI within the horizontal accountability level are the Legislative and Executive (including the auditees) bodies with which it holds close and

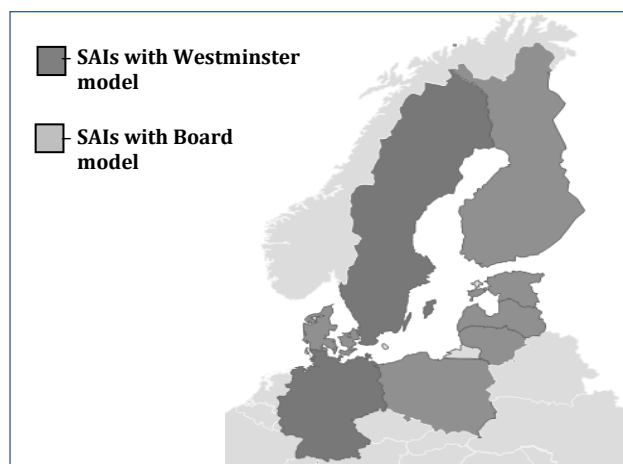
formally bound two-way communication ties. The international organizations function as the informational/advisory bodies for both the Legislative and the SAI. At the same time, SAIs can benefit from non-formal relations with the individual (agents of change, social mediators) and public enhancers (journalists, civil society organizations, civil society)(ISSAI,2013). The diagonal accountability allows for the civil society organizations to provide its resources and

expertise by participating in public working-groups or other formal consultative meetings to fulfil the semi-public tasks mandated by the Executive. Eventually, the general society learns the necessary information from the enhancers and thus is enabled to fully exercise their vertical accountability powers via electoral power(WBI,2015).

## Research results and discussion

### 1. The different types of SAIs in the BSR

Despite the clear differences among the existing SAIs functional models, in reality the SAIs employ mixed type models. Therefore, the SAIs may be categorized according to their main characteristics according the three ideal types.



Source: author's compilation

Fig. 2. SAIs according to their model of functioning

The SAIs in the Baltic Sea Region hold many similarities since most of them have chosen similar institutional basic principles. When comparing the SAIs according to their distinct characteristics of any of the three dominant SAI functional models, it can be observed (Fig.2) that the majority of SAIs in the BSR pursue the *Westminster* or *monocratic* model with only two exceptions – the SAI of Germany (Bundesrechnungshof,2017) and the SAI of Sweden (Santiso,2009), which pursue the *collegial*, also known as the *board model*. In the meantime, none of the SAIs in the sample are pursuing the *Judicial-Court* model.

It can be observed (Table 1) that the overall principles of functioning of the SAIs in the BSR

are similar. When comparing the SAIs according to the overall term of the head of the institution, it can be seen that the overall length of the term among the SAIs with a *Westminster* model range between four and six years with the exception of the SAI of Denmark in which the Head of SAI is appointed without a fixed tenure with the limitation of 70 years as the retirement age – a factor seen as a precondition for securing the independence of the SAI (Rigsrevisionen, 2017). Meanwhile the heads of the both the SAI of Sweden and SAI of Germany, which are following the *Board* model, are appointed for a longer median term – seven and twelve years accordingly(SNAO,2017; Rechnungshof, 2017). The case of the Swedish SAI is somewhat different compared to peer organisations since it is governed by three Auditors Generals. This specific is considered by many, including even the institutions staff itself, a cumbersome obstacle to its effective functioning (Bringselius, L., 2011).

### 2. Comparison of SAIs of the BSR

When comparing the SAIs of BSR according to the average number of employees (Table 1), the SAI of Poland (1638) and Germany (1250) hold the record, with the second largest group following – Lithuania (370), Sweden (340) and Denmark (270). Meanwhile the SAI of Latvia (180), Finland (140) and Estonia (90) attribute to the third group. The overall number of employees does not in any case represent the performance of the institution, but rather the form it has chosen to follow and corresponds to the overall size of the government in the particular country. For instance, the Polish SAI has approximately 1638 employees and multiple regional offices (NIK,2015), which increases its overall size when comparing with other SAIs of the region.

Table 1

**Overview of the BSR SAIs**

SAI by Country	Year of establishment	No of Employees (est.)	Term in years of the Head of SAI	Municipality audit
Poland	1919	1638	6	X
Germany	1949	1250	12	X
Denmark	1976	270	indef.	
Sweden	1961 (2003*)	340	7	
Finland	1948	140	6	
Estonia	1918 (1990**)	90	5	X
Latvia	1923 (1992**)	180	4	X
Lithuania	1919 (1991**)	350	5	X

\*the year of reforms of the institution

\*\*the year of re-establishment of the institution

Source: author's compilation based on Riksrevisionen, 2017; NIK, 2017; Vkontrole, 2017 Bundesrechnungshof, 2017; Rigsrevisionen, 2017; VTV, 2017; NIK, 2015, Rekvizitai, 2017, LRVK, 2017

Concerning the subordination and independence all of the observed SAIs within the BSR, the authors bared similarities which are clearly representing the common grounds of these institutions. The SAIs of Sweden, Lithuania, Latvia and Denmark report to the Public Accounts Committee of the corresponding National Parliament (Riksrevisionen, 2017; Rigsrevisionen, 2017; Vkontrole, 2017; LRVK, 2017;) while the Polish SAI reports to the *Sejm*, the lower chamber of the Polish Parliament (NIK, 2017). The Finnish SAI, however, is subordinate to and works in close affiliation with the Parliament (WGPD, 2015). The Estonian SAI, on the other hand, is the only institution of the sample in which the auditor general holds similar rights as those granted by law to the ministers (Riigikontroll, 2014).

From the historical viewpoint, the observed SAIs were established on different periods of time and had as well a unique further development. It should be pointed out that the auditing practice in some of the countries was existent long before the establishment of the current republics, for instance, the Kingdom of Poland established the Office of Accounts in 1816 (NIK, 2017) and in the current day Finland a

General Revision Court was established in 1824 (VTV, 2017), but they did not represent the existing form of countries as we know them today. Overall the current national audit institutions have been created whether during the interwar period or after the WWII (Table 1). In this context, half of the BSR SAIs (Polish, Latvian, Lithuanian and Estonian) were established in the interwar period out of which the Baltic SAIs legally ceased to exist in 1940 after the loss of statehood and were to be restored only in 1990s (LRVK, 2017; Vkontrole, 2017; Riigikontroll, 2017). Meanwhile the Polish SAI despite its multiple transformations and systematic burdens continued to function throughout the WWII interim governments and forms of systems ruling under the management of the Soviet Union. Eventually, the NIK regained its former status in 1989 and was granted the same rights and it acquired its mandate under the independent republic. In the meantime, the current day SAIs of Germany, Denmark, Sweden and Finland are inherited from the institutions established in post-war era.

Since all of the SAIs in the BSR are whether monocratic or collegial type of institutions, they tend to perform all three audit types (regularity, compliance and performance) with variable proportions and frequency. The only exception is the Swedish NAO, which according to the legal regulations is tasked with conducting only financial and performance audits with focus on the latter (SNAO, 2002). The Swedish SAI was reinstated in 2003 on the collegial governing principles. Nonetheless, at its first form the organisation carried out performance audits with the focus on the compliance. As a result, in 2010 changes to the regulation were made to enable the SAI to focus its mandate on the three Es – Economy, Efficiency and Effectiveness (Bringselius L., 2011). In the meantime, all of the SAIs except for the Scandinavian SAIs (Denmark, Sweden, Finland) are performing municipality audits (Table 1).

### 3. Case of the State Audit Office of Latvia

The State Audit Office of the Republic of Latvia (SAO of Latvia) is an independent collegial supreme audit institution obliged with the task of providing evaluation of whether the use of public or foreign resources by the budget institutions, municipal and other derived persons has been assured in a lawful, correct, economical and efficient way, as well as to provide the necessary recommendations to avert the found issues (LRVK, 2016a). The institution is in charge of the external audit of the State run functions and is obliged to report to the Parliament each year on the state and municipal budget execution, and any other significantly relevant revelations (Likumi.lv, 2017). Thereby it can be observed that the SAO of Latvia holds a default discharge mechanism, which seeks for approval of the government's actions for execution of the annual state budget.

The State Audit Office has three functional fields of practice – the financial audit (i.e. regulatory), compliance (i.e. legality) audit and the performance audit. In the same time, the institution is responsible for controlling the use of resources with the EU or other international organisation or institution origin along with any other resource with traceable public interest (LRVK, 2016a).

Among the tasks, the SAO has to follow the practice of informing the auditees about the results of the audits (Likumi.lv 2017). The SAO can also turn to the Cabinet of Ministers to set-up a special task group for evaluation of the audit results. The law prescribes that the latter has to report to the SAO about the actions that have been taken as a result of the work of the task group. According to the legislation, the SAO is free to choose the audited entity, the type of audit to pursue, along with objectives of the audit on a collegial decision by the Council of the State Audit Office (LRVK, 2016a).

Since its re-establishment the SAO of Latvia has been seeking for increasing its professional

capacity through international advice and partnership. This is most evident by the fact that since 1994 it is a member of the International Organisation of Supreme Audit Institutions (INTOSAI), from 1995 – a full-fledged member of the European Organisation of the Supreme Audit Institutions (EUROSAI), while before Latvia's advance of becoming an EU Member State in 2004, the SAO pursued a member role within the Network of the candidate and potential candidate countries and EU Member States SAIs (LRVK, 2017). Since Latvia's accession to the European Union in 2004, the SAO of Latvia is a member of the Contact Committee of the Supreme Audit Institutions of the European Union (LRVK, 2017). Lately, the SAO of Latvia has been pursuing to introduce amendments to the State Audit Office Law. It would enable the SAI to introduce legal measures to initiate legally binding recovery of funds from the guilty public officials (LRVK, 2016b). The authors believe that it indicates of the SAI's wish to introduce a more Judicial model based approach and thus would place the SAI among the SAIs of mixed functional model.

### Research conclusions

This paper indicates that the Baltic Sea Region country' Supreme Audit Institutions are coherent in their practice and the overall functioning. There are many similarities among the SAIs in their historical establishment, as well as the type of audits conducted. Among the SAIs of the BSR the Westminster or monocratic model is the most prevalent (in six cases) model followed by the Collegial or the Board model (in two cases). Nonetheless, the existent variety of functional models in the region does not include the Judicial also known as the Napoleonic model.

Historically, many of the sampled SAIs have long-lasting record of existence (even before 20th century), yet they have all gone through extensive reorganisation process, which was also influenced by historical events. As a result, the existent supreme audit institutions of the given

countries can be differentiated according to their period of establishment – into the interwar and post-war period SAIs. The interwar periods SAIs include the SAI of Latvia, Estonia, Lithuania, Poland. Meanwhile the post-war SAIs group includes SAIs of Germany, Denmark, Sweden and Finland. This suggests that in the future research the historical perspective should also be taken into account to verify the hypothesis on whether there are significant relationship between the chosen SAI functional model and other aspects.

The SAIs of the BSR region can also be differentiated by the provided types of audit. Almost all of the SAIs except for the SAI of Sweden (Riksrevisionen) perform three types of audit - regularity, compliance and performance. In the case of the Swedish SAI, the given mandate is focused on performing performance audits. The first mandate of the institution was not clearly implemented (the audit work mainly focused on performing compliance audit), and thus after the structural reforms changes to the regulation were made to enable the SAI to focus its mandate on the three Es – Economy, Efficiency and Effectiveness. Another important factor for the future research is the existence of a municipality audit practice. Out of the examined SAIs, all except for the SAIs of the Nordic countries are performing such type of audit.

The overall length of the term of the head of the SAI can affect the independence level of the leader of an SAI. It is believed that a longer term

may grant greater guarantees to pursue the chosen strategy without worrying about the re-election period. In this regard, the SAIs of Sweden and Germany ensure the longest lasting office time among the corresponding SAIs with a fixed term due to the fact that they are pursuing the Board model. The Danish SAI, however, stand out among the "monocratic SAIs" due to the fact that the head of the SAI is elected for a non-fixed term thus offering an unprecedented level of independence.

On this background, the SAI of Latvia follows a similar approach to the majority of the SAIs of the sample group. Nonetheless the topical amendments to the legal regulations may clearly introduce mixed Monocratic-Judicial model functionality. Another aspect which differentiates the Baltic country SAIs from the rest of the sample group is the fact that their institutional development and legacy was reset until the regaining of the national independence and the following re-establishment of the legal institutions.

The further research should focus on defining the practical implications of choosing a certain type of functional model on the overall performance of the accountability system and its further implications on the performance of the accountability system in a given country. Further on a research on the functionality and its impact on the regional development of the municipal audit should be performed.

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## OPTIMAL TAXATION OF SMALL BUSINESSES

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**Abstract.** The existing Microenterprise tax regime has a negative impact on the development of the business environment in Latvia, because it has not sufficiently contributed to employment, it fosters social security problems for workers in Microenterprise tax regime and the Microenterprise tax regime is used for tax optimization.

The purpose of this research is to evaluate the optimal taxation regime for small businesses. The object of the research is taxation of small businesses in Latvia. The tasks for the research: to analyse the existing taxation regime gaps, including whether this tax regime is not used for tax optimization; to evaluate how the existing taxation regime impacts the employment in Latvia and social security contributions; to identify the opinion of international experts; to develop possible solutions and to evaluate the impact on taxpayers with various income levels. In the research, authors have used such methods as descriptive, theoretical research, statistical and calculation method.

The research found that the existing taxation regime contributes to the tax optimization and improvements are needed for optimal taxation regime of small businesses in Latvia. The optimal taxation for small businesses can be achieved by the state social insurance contribution segregation from Microenterprise tax by linking it with paid salaries. In order to reduce the tax burden on small businesses, it is necessary for smaller wages to implement untaxed minimum of the social security insurance contributions. At the same time, the Microenterprise tax rate shall be reduced. In addition, the necessary changes for other taxes shall be evaluated.

**Key words:** taxes, small businesses.

**JEL code:** H21, H25

### Introduction

There was introduced Microenterprise tax (hereinafter – MET) in Latvia in 2010. The implementation of the MET had 3 objectives:

- to contribute to commerce business;
- to simplify the tax application; and
- to reduce the shadow economy.

Several unexpected problems have raised; therefore, it has caused active discussions about effectiveness and reasonability of this tax at all. Moreover, there are other taxes closely related with the MET and taxation of small businesses, for example, state social insurance contributions. Unfortunately, there were not evaluated all possible consequences and negative impact to general taxation and economy before changes in taxation of small businesses.

The purpose of this research is to evaluate the optimal taxation regime for small businesses. The object of the research is taxation of small businesses in Latvia. The tasks for the research: to analyse the existing taxation regime gaps, including whether this tax regime is not used for tax optimization; to evaluate how the existing taxation regime impacts the employment in Latvia and social security contributions; to

identify the opinion of international experts; to develop possible solutions and to evaluate the impact on taxpayers with various income levels. In the research authors has used such methods as descriptive, theoretical research, statistical and calculation methods.

In fact, the MET is a unique tax worldwide, because other countries have tax reliefs or other different solutions for small businesses.

The MET regime has regularly been changed and improved. Mainly, it was for reducing attempts to avoid tax. It was because the MET regime significantly reduced the tax burden, which was not properly assessed in the time when the MET was introduced.

There was a time of economic recession when MET was introduced in Latvia. As a result of the economic crisis, unemployment had increased from 5.3 % at the end of 2007 up to 19.7 % at the end of 2009. It was intended that after the introduction of the MET the unemployment in Latvia would decrease. Through the MET regime, tax rates were decreased, particularly on labour, and also the burden of tax administration was reduced. In addition to helping out new small businesses and the expansion of small

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Table 1

enterprises in general, over time the reform has been connected with providing greater incentives for formalization.

Under the MET regime, the enterprise is no longer subject to:

- personal income tax (PIT) rate of 23 %;
- the mandatory state social insurance contributions (MSSIC) of 34.09 % for employees (23.59 % for the employer and 10.5 % for the employee) or 30.58 % for self-employed individuals;
- corporate income tax (CIT) of 15 %.

A share equal to 80 % of MET goes to mandatory state social insurance contributions.

The MET also aims at simplifying tax administration as the number of tax payments were reduced to one every three months compared to seven payments a year for medium-size enterprises on average. Rather than a range of different taxes and social contributions, the tax due calculation is simplified as it is based on turnover.

To qualify for the MET regime, enterprises need to fulfil three criteria:

- the sales volume (turnover) does not exceed EUR 100,000 in the calendar year;
- the number of employees (including the enterprise owner) with positive earnings does not exceed five in any month;
- the monthly income of any employee or the owner of the microenterprise does not exceed EUR 720, excluding the dividends calculated from the profit of a microenterprise (Word Bank, 2016).

The number of MET payers has increased 6.5 times at the beginning of 2016 compared with the data of 2011 (Table 1). In contrast, the number of taxpayers in general tax regime has increased relatively little. This shows that the number of MET payers has developed from the general tax regime rather than from new entities.

**Number of taxpayers**

Year	MET regime	General tax regime
2010	7194	257334
2011	17820	279924
2012	25164	304861
2013	31978	330395
2014	40007	345255
2015	47169	350924

Source: State Revenue Service, 2016

The number of employees has increased significantly, which fully or partially are employed in micro enterprises. The total number of the MET workers in the time period from 2011 to 2015 has increased by 8.7 %, although in the general tax regime State social security contribution and personal income taxpayers have increased only by 1.2 % (Table 2).

A similar trend is seen in the number of business forms, where the MET is growing rapidly and the number of entities in general tax regime does not change MET significantly (Table 2).

Table 2

**Number of employees**

Year	Employees with work in the MET regime and general tax regime	Employees with work in MET regime	Employees with work in general tax regime	Total
2011	11586	20306	755979	787871
2012	19375	32704	764650	816729
2013	25541	43403	770057	839001
2014	29920	53292	771712	854924
2015	31680	59369	765005	856054

Source: State Revenue Service, 2016

Although there have been significant changes in the tax regimes, the revenues of MET have not increased significantly (Table 3).

Table 3

**Revenues of MET**

Year	MET revenues, million EUR
2010	0.04
2011	13.01
2012	26.16
2013	40.53
2014	51.07
2015	58.85

**Source: State Revenue Service, 2016**

According to the Micro enterprise tax law (Saeima, 2010) Article 9 Sub-article 2, the object of the mandatory state social insurance contributions is calculated for a full calendar month for each employee of the micro-enterprise paying the micro-enterprise tax in proportion to the number of employees indicated in the micro-enterprise tax declaration each month and their actual income. In practice, the micro enterprise employee contribution is actually from 24 % to 30 % from declared income (Ministry of Welfare of the Republic of Latvia, 2016). This means that in the event of social risk these persons will be less socially protected, because services will be calculated of the much lower contribution object.

The object of the MET employee contributions from 2011 to 2016 on average per month is around 40 % of the minimum wage in Latvia. Thus, the contributions paid by employees are not sufficient to ensure the minimum state old-age pension amount, and taxpayers who pay contributions in accordance with general taxation regime will actually maintain micro enterprise employees when they will have reached retirement age (Ministry of Welfare, 2016).

The MET regime (according to the amount of employees and entities) is mostly used for legal and accounting services (10 % from all), IT services (5 %) and in other services, but not in such industries as production (State Revenue Service, 2016). Apparently, industry variations of the MET in total employment raises concern that companies use the MET regime to reduce tax burden. Namely, the MET regime is used in

industries with high salaries and salary tax costs against turnover. In contrast, for industries with higher material and technical costs it is more attractive to operate in the general tax regime.

In 2014, about 12 % of all micro enterprises (State Revenue Services, 2015) were companies with no or very small turnover (less than EUR 1000.00 per year) but with employees, who receive salary.

A large part of micro enterprise employees receives income from other resources, e.g. in 2015, about 34 % of employees received income from other resources than micro enterprise (State Revenue Service, 2015).

**Literature overview**

Douglas Holtz – Eakin believes that there is dilemma between business incentives to grow and expand and tax systems that encourage businesses to stay small. It is essential to create a strong tax transcendence model that would be focused on small entrepreneurs' formation and integration into the global economy and not focused on income level that interferes in enterprise development (Douglas Holt-Eakin, 1995).

Ernest R. Larkins and Fred A. Jacob consider that there are two main entities for the potential tax-saving advantages - small foreign sales corporation (hereinafter - SFSC) or an interest-charge domestic international sales corporation (hereinafter - ICD). These special entities are to encourage export activity by providing significant tax incentives. The tax incentives for small business exporters require to create a special entity (i.e., a SFSC or an ICD) and that the entity continuously comply with relevant statutory and laws. An ICD is less expensive to establish and maintain, but the parent company of this form of entity must pay interest charges on the balance of deferred taxes. Any taxes deferred must eventually be paid. So, in this way a decision rule that selects the export entity returning the larger net present value of cash flow is appropriate (Larkins, 1996).

The true situation for small businesses is revealed by the tax burden. The burden of corporate income tax (hereinafter – CIT) for small and medium enterprises (hereinafter – SME) differs significantly in each European country. Italy, Switzerland, Finland and Belgium have a high fiscal burden, but Ireland, Estonia and Bulgaria have a less fiscal burden. Only in 5 countries (France, Greece, Belgium, the UK and the Netherlands) there are more favourable conditions for SME than for large corporations, but in 7 countries (Austria, Bulgaria, Estonia, Italy, Slovenia, Sweden and Switzerland) there are no special regimes for SME. Tax credits, additional deductions and accelerated depreciation schemes are rare, and are often related to very restrictive criteria (Spengel, Hausemer, Brautigam, Evers, Plances, & Streif, 2015).

In Europe, there is no single tax policy for SME. Accelerated depreciation schemes are applied in Belgium, Finland, Germany, Poland, Spain, also the USA, investment deductions - in Belgium, Germany, Poland, the Netherlands, the UK and Croatia, exemptions in Belgium, France, Greece and Ireland, but tax credits what are less prevalent – in France, Poland, Spain and Japan. Special rates are by far most popular tax relief for SMEs, but reduced rates just for micro enterprises (by definition) are applied in Croatia, France, Lithuania, Rumania and Spain. (Spengel, Hausemer, Brautigam, Evers, Plances, & Streif, 2015).

Although there are tax reliefs for SMEs in many countries, difference in their tax rates and incentives are relevant, e.g. in the Netherlands standard rate is 25 % (for SME – 20 %), but in France standard CIT rate is 31,33 %, but for SMEs even 15 % (OECD, 2015).

Tax solutions for SMEs are different and mostly applied to income level, but the European Commission expresses that focusing only on idea of "higher tax rates on higher income" makes distortions for tax system in general. Attention

should be targeted on 4 principles in the content of SMEs: effectiveness - tax incentives should provide enterprises with increased liquidity and enable additional investments and growth. Neutrality - enterprises should gain from their legal form and the growth of enterprises must not be obstructed. Eligibility thresholds relating to the size of enterprises provide an incentive to remain small. Transparency - the size of the relief should be predictable for entrepreneurs and investors (they can appropriately consider the relief when making investment decisions). Manageability for tax legislators - the losses in tax revenue should be foreseeable and flexible to improve (Spengel, Hausemer, Brautigam, Evers, Plances, & Streif, 2015).

In Portugal, for small businesses there exists simplified tax regime (hereinafter – STR). Maria Damos and Antonio Martins have found out that 68 % of the chartered accountants wouldn't recommend the STR, and 91.6 % of the mentioned the reason of tax explanation necessity to the entrepreneurs who provided services (Damaso, 2015).

Regarding MET regime in Latvia, Inguna Leibus defines two main problems:

- unfair competitiveness through lower burden of tax because of dividend amount for micro-enterprises isn't limited;
- micro-enterprises which are established with a purpose to reduce the labour costs, thereof it reduce social insurance for employees and social security also in the future (Leibus, 2014).

Inguna Leibus considers that MET rate 9 % shall be applied for enterprises with labour costs under 40 %, but for those enterprises that exceeds 40 % should impose 12 %, but enterprises, higher than 60 % labour costs, – 15 %. This approach would ensure social insurance amount equated at minimum salary and ensure equity competitiveness between

enterprises with different burden of labour costs (Leibus, 2014).

### Research results

The results of the research suggest that in the existing MET regime the main problems are as follows:

- state social insurance mandatory contributions for MET employees are much less than for employees in general taxation regime, it leads to a negative impact on the social contribution system;
- the MET regime is used in industries with high salaries and labour tax costs;
- MET regime employees are highly skilled professionals;
- every month is a relatively highly proportion of employees with no turnover at all;
- a large part of MET employees receives income from other resources;
- increase of the amount of employees working in the MET regime comes from the general taxation regime.

The results show that companies use the MET regime for tax avoidance (because of the existing gap between the tax burden in the MET regime and general taxation regime) instead of the MET purpose - a simplified application of the tax. Therefore, it develops unfair tax policies (comparing MET regime with general taxation regime).

The main reason for that is the tax burden that is much less in the MET regime than in the general taxation regime (Table 4). The total tax burden may vary from 8 % to 43 % and it is affected by turnover, number of employees, industry, other costs (e.g. material-intensive industries) and other factors.

In the research, authors have calculated possible costs for similar companies: the MET regime and general taxation regime with personal income tax, social security insurance mandatory

contributions on condition when profit is minimal or EUR 0.00. In order to have comparable data in the calculation the MET restrictions were met, namely, 5 employees, salary EUR 720.00 per month, and maximal turnover per year - EUR 100'000. Calculations were made for 2 companies: company 1 with no other costs than salaries and taxes (Case 1), e.g. consultation or other activities, and company 2 with other costs (e.g. material costs), which compose maximum amount of costs in theory (70 % from turnover). Besides, calculations are made for 4 different amounts of turnover per year: EUR 5000; 10 000; 50 000 and 100 000. The following turnovers have been chosen as the samples, because the MET rate changes with turnover more than EUR 7 000, and at the same time including the maximum turnover per year - EUR 100 000.

Based on the calculations, it is seen (Table 4) that the tax burden is different for different turnovers and different costs, e.g. if the turnover is EUR 5000 and the company pays maximum salary to employees then the total tax burden for MET regime is 12 % but for general taxation regime - 28 %; but in the situation when employees receive minimum salary, the tax burden for MET regime remains unchanged - 12 %, but for general taxation regime the tax burden decreases till 8 %.

The situation is different for the mandatory contributions of social security insurance. For the same turnover (EUR 5 000) in the Case 1, social tax burden in the MET regime is 11 %, but in general taxation regime - 34 %; accordingly, in the Case 2 social tax burden in the MET regime slightly decreases to 10 %, but in general taxation regime it remains unchanged - 34 %.

The calculation shows that social contribution burden is much lower also in the MET regime (from 10 % to 14 % compared with general taxation regime - 34 %) (Table 4).

**Comparison of tax burden**

	<b>Turnover, EUR per year</b>	<b>5000</b>	<b>10000</b>	<b>50000</b>	<b>100000</b>
<b>Case 1</b>	Taxes % (MET regime) (max salary)	12	13	15	15
	Taxes % (General taxation regime) (max salary)	28	36	43	43
<b>Case 2</b>	Taxes % (MET regime) (min salary)	12	13	15	15
	Taxes % (General taxation regime) (min salary)	8	8	12	12
<b>Case 1</b>	Social security tax burden, % from salary (MET regime) (max salary)	11	12	14	14
	Social security tax burden, % from salary (General taxation regime) (max salary)	34	34	34	34
<b>Case 2</b>	Social security tax burden, % from salary (MET regime) (min salary)	10	10	12	12
	Social security tax burden, % from salary (General taxation regime) (min salary)	34	34	34	34

*Source: author's calculations*

### Discussion

In order to improve the MET regime in Latvia, it would require significant improvements in tax framework for small businesses. This could be achieved through combining a number of changes. Changes in the tax regulation shall be carried out taking into account the following principles:

- including solutions for Social state insurance mandatory contributions/ social guarantees;
- to reduce the gap of the tax burden with the general taxation regime;
- simple application / small bureaucracy.

Firstly, mandatory contributions of social security insurance shall be changed. It has to be applied to paid salary not to turnover, rather than as it is currently. There is no reason to attract the social security insurance mandatory contributions to turnover, because costs does not fit in tax base and after these costs salaries are paid out to employees. The social security insurance mandatory contributions shall be linked with salary.

Therefore, these changes will prevent from tax avoidance in the industries with small resources and large salaries. This would guarantee an adequate social guarantee for employees. At the same time in order not to increase tax burden the whole system is variable

in essence – to introduce the untaxed minimum, to abolish the contribution limit and to set a pay out limit. According to the law of Solidarity tax and the Cabinet Regulation No. 1478, if the employee in the taxation year exceeds the maximum amount of social security insurance mandatory contributions - EUR 52 400 - the employee shall pay the solidarity tax. This framework shall be changed by introducing a special solidarity budget. This will reduce social security payments for small salaries, providing a smooth tax increase. In general, the following changes will equalize the gap of social security insurance burden between the MET regime and general taxation regime, preventing that enterprises changes taxation regime from general to MET regime. Thus, by carrying out the recalculation of the same companies (Case 1 and Case 2) with 4 different amounts of turnover per year (EUR 5000, 10000, 50000 and 100000), it will avoid the gap of social security insurance contribution. In addition, the social security burden would be less for smaller companies and lower wages. For example, in the Case 2 with turnover EUR 5 000, the social security insurance mandatory contributions with minimal salaries should be 0 %, but for the Case 1 the social contribution burden of the salary would be 6 % in the MET regime and 8 % in the general taxation regime. Accordingly, the total tax burden for the

Case 1 with turnover EUR 5000 would be 17 % for the MET regime and 12 % for the general taxation regime, but for the Case 2 - 12 % for the MET regime and 0 % for the general taxation regime. Secondly, with regard of the application of the proposed changes of the social security insurance mandatory contributions, social contribution burden will increase the total tax burden for MET; therefore, the MET rate shall be decreased from 15 % to 5 % - 10 %. If the MET rate 12 % for turnover until EUR 7000 and more than EUR 7000 remained unchanged - 15 %, then the MET regime became uncompetitive and it lost its meaning. If the MET tax rate decreased to 5 % - 10 %, then the total tax burden would be aligned.

Proposed changes would prevent entrepreneurs to change the general taxation regime to the MET regime and the benefits of the MET will remain - simplicity and less administrative burden, according to its purpose.

In addition, the existing restrictions of the salary limit and the amount of employees shall be abolished, because they have no interest. Whereas the social security insurance mandatory contributions should be linked to salaries, then according to the paid salary the social contributions should be paid.

However, to extend this procedure for the small businesses, the restriction of turnover till EUR 100 000 shall be unchanged, or even should be reduced - turnover until EUR 50 000, i.e. in accordance with national VAT threshold.

The changes in other taxes shall also be evaluated, for example personal income tax, respectively for economic activity and license fees. Existing personal income tax regimes are fragmented, different groups have different application, which complicates tax administration and creates problems for taxpayers choosing the best tax regime, it also promotes tax avoidance. The system should be simplified by integrating personal income tax application of economic

activity, license fee and other possible mods of MET regimes.

Perhaps, it would be necessary to assess the VAT change for small businesses by introducing flat tax rate (COUNCIL DIRECTIVE 2006/112/EC, Article 294).

In the future, it would be necessary to assess the simplification of the tax system, e.g. the MET is calculated based on the information in the bank account by the tax administration, thereof removing the requirement for tax declaration and other formalities.

### **Conclusions, proposals, recommendations**

The MET regime has regularly been changed and improved in Latvia. The main reason for this was to reduce possibilities for tax avoidance, rather than those purposes why the MET regime was introduced, namely, for the simplification of tax administration.

- 1) However, the changes still have not achieved positive outcomes, as results show that there are still serious problems: social security insurance contributions are attached to turnover which does not ensure an adequate social contributions for employees; there is a gap of total tax burden and social security burden tax between MET regime and general taxation regime which leads to the change of taxation regime and to the tax avoidance.
- 2) It is necessary to carry out complex changes to the taxation system for SMEs. The new tax regime shall include following principles:
  - simple application;
  - social guarantees for employees;
  - support for new business owners;
  - support for small (lifestyle, family) business owners;
  - preventing unfair competition.
- 3) The necessary changes shall be appropriate and adjusted according to the impact on budget revenues.



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## GREEN INVESTMENT FINANCING ALTERNATIVES

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**Abstract.** The article is aimed to analyse problems of financing the green investments – one of the more important green economics growth engines. Increasing flows of green investment condition the necessity of instruments for effective financing of these flows. In the article, concept and importance of green investment is revealed, green investment change tendencies are discussed. Based on the research in scientific literature, also on research of various organizations and research institutions, main green investment financing instruments are identified. Given the importance of private capital, as one of the most important green projects financing sources, the barriers of this capital to participate in the green investments financing are revealed. The role of public financial institutions is revealed and – based on the actual cases – their green investment financing instruments are analysed. Comparative analysis of literature sources and green investment financing instruments application case analysis are performed. Analysis showed, that there are neither financing instruments that would be universal to all the green projects, nor the universal set of such instruments. Application of these instruments depends on various factors, such as size of investment project, investment area etc. Based on the analysis results, recommendations for the further research are formed: to estimate the effectiveness of green investment financing instruments; to research the possibilities of usage of innovative financing instruments for the green investment projects financing.

**Key words:** green investment, green investment financing instruments, green growth.

**JEL code:** F21, G20, H81, Q54

### Introduction

Climate change is one of the most pressing challenges facing the planet. Worldwide during the active transition to green economy, issues related to green growth, green investments, green finance attract more and more attention of researchers and practitioners. Global and EU states agreements (Kyoto Protocol, the Paris Agreement, the 2030 Agenda for Sustainable Development, the EU strategy "Europe 2020" and others) show a particular concern about climate change problems of both developed and developing countries. In 2015, the Paris Agreement signed by 179 countries of the world to reduce global warming by 2035 – is one of the larger-scale agreements, thanks to which an especially important step was taken in solving a globally pressing climate warming problem. The extent of the Agreement is reflected by the number of participating countries (both developed and developing). The objectives set in the Paris Agreement and the 2030 Agenda for Sustainable Development will require "... an unprecedented mobilization of both public and private finance - some USD 90 trillion over the next 15 years" (Financing sustainable

development, 2016). Ambitious goals lead to the need for financing instruments that can meet the necessary green investment flows.

The scientific literature that deals with green investment financing issues is not abundant. There is a lack of scientific research on the complex analysis of green investment financing instruments, their main peculiarities, application specifics or the effectiveness estimation. Due to the high practical significance, this question is usually discussed by world-class organizations, research institutes (Organisation for Economic Co-operation and Development (OECD), Climate Policy Initiative, Global Green Growth Institute, World Bank, World Resources Institute) in works (reports, presentations of research results, etc.). As the theme of green investment is relatively new, scientists (Lindenberg N., 2014; Green Finance, 2016; Eyraud L., Wane A., 2011) focus on green economy, green investment, green finance definitions searches.

Certain financing instruments for the use of green investment financing issues were discussed at M.C. Voica, M. Panait, I. Radulescu (2014), L. Olmos, S. Ruester, S. Liong, (2012), H.B. Dulal, R. Dulal, P.K. Yadav (2015) scientific

publications, studies carried out by various organizations, research institutes surveys, usually covering specific countries', case studies analysis. Recently, more attention of researchers is attracted to issues of renewable energy, energy efficiency increase.

The aim of the article - to explore the green investments financing alternatives. To achieve the aim the following tasks were set: to reveal the essence of green investment, the importance of sustainable economic development and to overview global trends in green investments; identify key green investment financing instruments; disclose private green investment financing instruments and mechanisms.

The research methods are as follows: analysis of scientific literature; grouping, comparing, specifying and generalising of information.

## **Research results and discussion**

### **1. The global green investment tendencies of changes**

In scientific literature, the term of green investment is usually associated with investment in environmental protection, renewable energy sources, increased energy efficiency and other projects. In literature (Inderst, G., Kaminker, Ch., Stewart, F., 2012), the following green investment areas are identified: 1. General Environmental Management; 2. Renewable energy; 3. Combustion technologies for improved efficiency; 4. Climate change mitigation; 5. Indirect contribution; 6. Transportation; 7. Buildings. According to M.C. Voica, M. Panait, I. Radulescu (2014), green investments can incorporate other investment approaches like- ESG (environmental, social and governance), SRI (sustainable responsibility investing), RI (responsible investing), SI (sustainable investing), double or triple bottom-line Investing, universal ownership concept etc. These investments play a significant role in the economics green growth, which is critical for the implementation of sustainable development goals. According to the OECD, green growth means fostering economic growth and

development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being of relies. In order to green growth, it is necessary to catalyse investment and innovation, which will underpin sustained growth and give rise to new economic opportunities.

Various studies by global organizations, institutions (World Bank, the OECD, World Resources Institute) speak about the recently fast-growing green investment flows, growth of which should be even faster in the future. According to the World Research Institute's study (Bishop R., 2014), from 2015 to 2030, the transition to low-carbon economy will require USD 93 trillion of investment in transport, energy and water areas.

The rapid growth in green investments flows are shown by results of different studies. One such example was the World Resources Institute's study, which showed that in the period of 2012-2014, green investments flows in different regions grew from more than 30 % in Asia to nearly 80 % in the USA. Although, according to green investments flow change Europe is the leader, where these investments have increased by about USD 15000 bn, the growth was much lower than in the USA and reached below 60 %.

The growing investment demand leads to the need for financial instruments that would be used for green investment financing.

### **2. Green investment financing instruments**

Scientific literature, studies carried out by various European and world organizations, research centres, financial institutions, surveys analysing the green economy projects, financing issues, show that there are no universal instruments appropriate for financing of all the green economy projects. Their choice is determined by various factors: the size of a project, the type of investment, financing instrument source availability, state, financing institution and others. According to G. Inderst,

Ch. Kaminker, F. Stewart (2012) financing instruments can't in themselves be green - greenness is derived from the uses to which they are being put - underlying assets or activities. The most common conventional financing instruments (such as loans and securities), for their specific purpose only - to finance green investment projects, take on a new form and can be called new, innovative investment instruments. Examples of such instruments are green loans, green bonds and other.

The authors dealing with the implementation of green investment and their financing issues do not provide a single approach to the investment financing instruments, their composition, suitability. N. Lindenberg (2014) separates green investment financing instruments into three categories: instruments that provide financing directly to projects (equity, grants, loans, credit lines); instruments do not directly transfer money, but transfer knowledge or mitigate risk (guarantees, technical assistance); instruments are used to raise additional private funds that, then, can be transferred to green projects via one of the above mentioned instruments (green bonds and structured funds). P. Del Rio, P. Mir-Artigues (2014) studying renewable electricity projects, divide financing instruments into primary and secondary. M.C. Voica, M. Panait, I. Radulescu (2014) present two main forms of green investment: green equity and green bonds. S. Venugopal, A. Srivastava C. Polycarp, E. Taylor (2012) divide financing instruments and mechanisms that encourage participation of private capital in green investment financing into two groups: public support mechanisms; public financing instruments (lending, equity investment, de-risking instruments). These instruments are particularly important in order to attract private capital investment in green projects.

An analysis of scientific literature allows us to identify the key green investments financing instruments. These instruments are: budget

financing instruments, green bonds, green equity, green loans.

**Budget financing instruments.** Budget financing instruments have a clearly significant role in the financing of green investment. The budget funding usually appointed with regard to the state programs. As the various countries of the world carry out a sufficient number and variety of programs to finance green projects, we will take a look at EU programs, funds (or part of the funds) are used for green projects. Table 1 shows the 2014-2020 programs implemented by the EU, their budget and funding areas.

Table 1

**EU funded green investment**

Fund/ Programme	Funding, EUR bn	Funding areas
Horizon 2020	19.2	Energy efficiency; renewable energy; sustainable urban mobility
LIFE	3.4	Climate change mitigation and adaptation; climate governance and information
European Structural and Investment Funds (ERDF, CF, EAFRD, EMFF)	114	Energy efficiency; renewable energy and smart grids; environment protection; low carbon economy

**Source: authors' construction based on European Commission data**

The funding of these programs is not hundred per cent, but it is important financing tool for innovative investments, often characterized by a high risk. It is worth noting that these programs contribute to green economy initiatives implemented by the EU. 28 October 2014, the Council of the European Union adopted conclusions on the European Semester and the "Europe 2020" greening, i.e. to include sustainability and resource efficiency issues in the "Europe 2020" strategy. By the way, the European Union's aim is to achieve, by the end of 2030 energy efficiency would reach 40 %, the production of energy from renewable energy sources would increase to 30 % and greenhouse gas emissions compared to 1990 would level

down to 40 %. For the period of 2014-2020, 20 % of the EU budget will be allocated to climate-related action. Given the EU's objectives, it can be expected that in the coming years 2021-2027 period, the focus on climate change issues will increase and this will condition more green investment funding needs.

**Green bonds.** Green bonds are one of the more efficient capital market instruments with climate change-related projects examples. This is a debt security, which is different from conventional bonds by its purpose - to finance green investment projects. Green bonds are an alternative to bank loans, providing direct access to capital markets. Like any other bond, green bond is a fixed income (coupon) financial instrument for raising capital from investors through the debt capital market (Green Bonds, 2015). The strength of green bonds is that they can bundle various projects together in a single Security (Lindenberg N., 2014). Although the green bond market is relatively young (the first green bond was issued by Europe Investment Bank in 2007), it is one of the fastest growing markets in the last few years. In 2012-2016, this market has grown more than 30 times. In 2012, there were USD 2.6 bn green bonds issued and in 2016 even for USD 81 bn (Climate Bonds Initiative, 2017). In 2017, an especially active green bond market growth is planned. It is scheduled to issue securities for USD 130 bn. This growth speaks about the aim of countries to effectively address climate change, using this prospective financial instrument. The largest green bonds publisher is the World Bank, which, since 2008, issued green bonds for more than USD 9.7 bn in 18 currencies. Most green bonds were issued for funding of renewable energies and energy efficient sector projects. For instance, in 2015, renewable energies took 48.8 %, and energy efficient projects - 19.6 % of the green bond issue amount.

**Green equity.** Green equity is an equity, the purpose of which is to finance green projects. As

providers of property become owner of the project, this form of financing constitutes a strong commitment (Lindenberg N., 2014). Growth in number of companies engaged in green projects encourages growth of the need of this funding instrument as one of the financing options. Investment in green equity attractiveness, the return trend is best reflected by green equity indices. Analysing green equity indices one can observe the difference in constituent number of companies, sectors. Some indices include only a certain sector businesses. For example, The S&P Global Clean Energy Index, comprising 30 companies involved in clean energy related businesses. However, there are indices that include a variety of sectors. One of the examples of such indices is the NASDAQ OMX Green Economy Index, covering 13 sectors (energy efficiency, pollution mitigation, renewable energy generation, etc.). This index belongs to the NASDAQ Green Economy Family group index, which comprises more than 70 indexes. In recent years, we are able to monitor the growth of many indices, which indicates investment in green projects becomes more attractive. However, it can be seen that green investment returns tend to be lower than the non-green investments. It is associated with a higher risk of green investment. Moreover green projects generally have higher capital costs, particularly at the beginning of implementation of projects (The Green Investment Report, 2013). For these reasons, the state uses various public instruments to reduce risks in green projects investment and encourage private green investments.

**Green loans.** Green loan is a type of loan, which is used by financial institutions (mainly banks and credit unions) in many countries around the world to finance the environmentally friendly services and products. Usually, this instrument is used to finance the projects concerning renewable energy, energy efficiency, water use management and carbon reduction.

### 3. Private green investment promotion instruments

Recently, researchers are focusing more on private investment as one of the green investment financing alternatives problematic consideration. As budgetary resources are not sufficient to provide the necessary funding (Lindenberg N., 2014), it is necessary to attract private green investment. Scientific publications, practical studies mentioned barriers restricting private capital involvement in promoting green growth financing: greater investment in green projects costs; unstable legal and economic environment; distortionary subsidies; lack of liquid debt and equity markets and others. In order to overcome these barriers, governments should seek to mobilize private green investment by: creating an enabling environment for long term green investment; efficiently using public budgets and investments; through private green investment risk minimization instruments. As shown by the analysis of literature, the risk is one of the most important reasons influencing the lack of private green investment.

In the scientific literature, various organizations conducted studies, no universal green investment risks classification was provided. A variety of risks types is determined by various factors: amount of the investment, investment area, a state in which the project is realized, and so on. Certain types of risk (e.g., economic risk, industry risk, political risk) are inherent not only to green, but also to the usual investments. In literature (The Green Investment Report, 2013; Micale V., Frisari G., Herve-Mignucci M., Mazza F., 2013; Amin A., Naidoo Ch., Whitley Sh., 2014; Lindenberg N., 2014), it usually referred to these green investments types of risk: political risk, economic risk, technological risk, environmental risk, operational risk.

In order to reduce the risk for private investors and create an attractive investment environment in green projects, various public instruments are applied. Public financial instruments are designed to reduce real or

perceived risk and / or to increase return on investment (Amin A., Naidoo Ch., Whitley Sh., 2014). In literature (The Green Investment Report, 2013; Amin A., Naidoo Ch., Whitley Sh., 2014; Waissbein O., Glemarec Y., Bayraktar H., Schmidt T.S., 2013), it is generally referred to these de-risking financial instruments: grants, loan guarantees, insurance. These instruments may be used at different points in an investment program cycle to target different investors (Amin A., Naidoo Ch., Whitley Sh., 2014).

**Grants** - are resources, which are intended to finance green investment, not expecting the money be repaid. This instrument is easily applicable to all kind of projects, especially for early project development phase (Lindenberg N. 2014). The main advantages of this instrument: simple to implement and manage; gives viability to a project; covers full cost of adaptation, complements other instruments; reduces administrative costs, as no payback is required. The main drawback of the instrument is that there are no reflows and hence it is expensive for public budgets.

To promote the private green investment, **guarantees** and innovative **insurance** instruments are used. They are provided by governments and financial development institutions and often are intended to decrease the political risk. Political risk guarantees are particularly useful in developing and emerging markets (The Green Investment Report, 2013). One of the examples of political risk minimizing guarantees providing institutions is the World Bank Group's Multilateral Insurance Guarantee Agency (MIGA).

Apart from the discussed de-risking instruments, public support mechanisms are applied. The main purpose of such mechanisms is to promote the private green investment. Examples of such mechanisms are the following: feed-in tariffs, renewable energy quotas and repealing support for "brown" sectors (The Green Investment Report, 2013). They are used to raise

the private investment level by reducing the cost of capital of green growth.

An important role in leveraging private capital is performed by public financing facilities (PFIs). PFIs can provide financing (through a variety of financing instruments) and advisory services (providing assistance to public authorities in creating favourable conditions for private sector In 2012, the World Resources Institute (WRI)

conducted a study that aimed to identify two types of international PFIs (Climate investment Funds and Development Bank) 2005-2011 applied green investment financing instruments, their structure, proportions and the like. 214 projects were studied. Table 2 illustrates the survey of results relating to the applied financing instruments.

Table 2

**PFIs financing instruments**

Institution		Number of projects reviewed	Financing instruments (% of all projects)
International Climate Funds (ICF)	Clean technology fund (CTF)	25	Loans and grants (NA); Equity (NA); Guarantees (NA)
	Global environment facility (GEF)	80	Grants (49 %); Loans (44 %); Guarantees (7 %)
World Bank Group (WBG)	Public sector arms: International bank for reconstruction and development (IBRD); International development association (IDA)	40	Loans (93 %); Credits (3 %) Grants (4 %)
	Private sector arm: International finance corporation (IFC)	55	Loans (81 %); Quasi-equity (8 %); Equity (9 %); Risk-sharing facilities (2 %)
	Private sector arm: Multilateral investment guarantee agency (MIGA)	14	Political risk guarantees (100 %)

Source: authors' construction based on World Resources Institute data

Analysing the financing instruments structure applied by PFIs, one can observe that loans and grants were applied most often. The most popular instrument of financing was loans. Of all the 214 projects financed almost half (56 %) were financed through this instrument.

The examination of various instances of the practical application of financial instruments it can be seen that there is no universal instrument for financing or a combination thereof, which would suit all the green projects. The quantity of instruments applied to the projects financing varies, as well as their proportions. Practice shows that in different institutions application of the same instrument has certain peculiarities.

Most PFIs (e.g. WBG) provide financing instruments not only to green, but also other projects. However, the world practice shows growing institutions specializing in the financing of a number of green projects. One of those

institutions is a rapidly rising Green Investment Bank (GIB). It is a public entity established specifically to facilitate domestic private investment into low-carbon, climate-resilient (LCR) infrastructure (Green Investment Banks, 2015). In December 2015, in the world there were 13 national and regional/local level GIB: in the United States, Australia, Japan, the United Kingdom, Malaysia and others. Most GIBs were set up in 2014-2015. The first of its kind bank was established in the United Kingdom in 2012. GIB plays a particularly significant role in financing green investment projects in emerging markets. By the way, as evidenced in recent years, the green banks are already successfully leveraging private capital in a number of countries and proving that such investments can be profitable.

### Conclusions, proposals, recommendations

- 1) Green investment plays important role in solving currently especially important problems of climate change and in reaching tasks of green growth of economics. Global-wide agreements (The Paris Agreement and the 2030 Agenda for Sustainable Development), rapid increase of green investment volume and ambitious tasks – to mobilize more than USD 90 trillion of public and private finance for the climate change problem solving – necessitates the increase of financing need. This increase can be sustained by using green investment financing instruments.
- 2) Analysis of green investment financing instruments showed, that there are neither financing instruments that would be universal to all the green projects, nor the universal set of such instruments. Selection of the financing instruments is determined by various factors: investment area, accessibility of the financing source, development level of the country, size and type of the project, conditions by the institution that provides financing etc.
- 3) The main reason for the insufficient levels of private green investments is higher risk to compare it to the risk of common investments. Even though traditional instruments (such as loans and guarantees) are often used to minimize the risk and create appealing environment for private investing, performed analysis has revealed other, more

rarely used, but equally important means for private green investment stimulation.

- 4) Obviously, development of capital market should add to the active use of such instruments as green bonds and cause the appearance of new financing instruments, which would be aimed at effective financing of green investment projects. Moreover, important role in sufficient financing of necessary investments will be held by the specialized financial institutions – Green Investment Banks. Establishment and development of these institutions is important step of the countries towards the promotion of active private capital involvement and towards more effective usage of green investment opportunities in the capital market.

Recommendations for the future research

- 5) To estimate the effectiveness of green investment financing instruments. As most of green investments financing instruments (e.g. green bonds) are quite new and statistical data is limited, in the future it is important to estimate the effectiveness and benefit of such instruments usage.
- 6) To perform further researches on the possibilities of usage of innovative financing instruments for the green investment projects financing.

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## TRENDS OF INCREASE OF LAND PAYMENTS IN THE RUSSIAN FEDERATION: EXAMPLE OF SAMARA REGION

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**Abstract.** The article analyses the dynamics of land payments in Samara region of Volga Federal district of the Russian Federation. The aim of the study is to analyse the changes of land payments (land tax and leasehold payment) from the beginning of the land reform in the time period from 1992 to 2014, which could be divided into the following periods: formation of land payments system (1995-1998); period of slow growth of payments (1999-2002); period of rapid growth with recession and further compensation (2003-2007), and rapid sustainable growth (2008-2014). The correlation among collection of land payments and stages of the cadastral valuation, speed of inflation and other factors was found out, the conclusions were made regarding possible reasons for a decrease of the annual growth rate of land payments.

**Key words:** land payment, growth factors, land tax, leasehold payment, payment for land purchase.

**JEL code:** H710

### Introduction

In the Russian Federation, in 1990-1993, with the beginning of land reform and introduction of private ownership of land, development and registration of data in the information system of the real estate state cadastre started, which was known as the land registry by 2011. Due to a huge area of land stock in the Russian Federation (1709.8 million hectares, which makes 1/9 of the total area of the Earth's dry land) a necessity of significant amount of work of cadastral registration appeared.

Changes in the taxation system occurred simultaneously with accumulation of information in real estate cadastre data base: increased taxation base resulted in growth of land payments. Land tax plays an important role in the taxation system of the Russian Federation because it is a local tax. Therefore, land tax is one of the main sources of income in budget of municipalities, and it has a great influence on formation of the financial base of local governments. It has a significant impact on socio-economic development of regions.

The cadastral assessment of land and real estate, as well as processes related to it is widely studied by scientists of different countries. A relatively small number of scientists, economists and other specialists have studied cadastral valuation and real estate taxation in Latvia. The assessment and possible enlargement of taxes,

payable to local budgets, have been investigated in the research conducted by S. Stucere, G. Mazure, A. Boruks, V. Baumane, V. Parsova etc. (Baumane V. 2010, 2011, 2013; Parsova V. 2010, 2013; Stucere S. 2014; Mazure G. 2014). The importance of land payments and the quality of the cadastral valuation of land to increase municipal budgets have been specified in the research conducted by Volovich N., Syrov A., Hasaev G., Vasilyeva D., Chepurin Ye., Lobanov V., Volodina T. etc. (Volovich N. 2003, 2016; Syrov A., Hasaev G., 2016; Vasilyeva D. 2013, 2016; Chepurin Ye. 2016; Lobanov V. 2016; Volodina T. 2016; Voronin V. 2013; Vlasov A. 2013, 2016).

It is shown that the financial resources of local authorities often are insufficient to carry out the functions entrusted to them under the legislation and regulations. The tax capacity of different regions varies along with the amount of collected taxes and, consequently, influences the total amount of regional and local budgets. It depends on the economic development level of a region and also on intra-regional policy pursued by local authorities.

The **aim of the research** is to analyse changes of land payments from 1994 to 2014 on the example of Samara region, as well as to find out trends in increase of land payments in future. **The research methods** include economic analysis and statistical data analysis. The study is

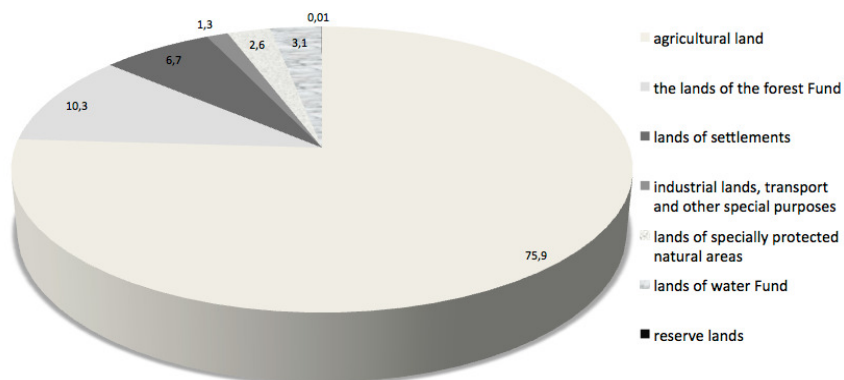
based on the data of land payments summarized by the Ministry of Finance and the Ministry of Economic Development of Samara region, on the data of the State Agency of Registration, Cadastre and Cartography (*Rosreestr*) and its territorial body of Samara region.

### Research results and discussion

Samara region is situated in the south east of European Russia and occupies an area of 53.6 thousand km<sup>2</sup> or 0.3 % of the whole territory of

Russia. Samara region is located in the Volga Federal province which consists of 10 urban and 27 municipal districts (Voronin V. et al. 2013).

The public report on status, situation and use of land in Samara region on January 1, 2016 shows that the largest proportion is occupied by agricultural land (76 %), forest land covers 10 %, but other categories of land covers an insignificant area (Fig. 1) (Report on the status..., 2016).



**Source: constructed by the authors on the basis of the data from the Report on the Status and Use of Land in Samara region**

Fig. 1. Breakdown of areas of land categories in Samara region (on 01.01.2016)

Since the region is on the border of forest-steppe and steppe environmental zones, fertile soils (*chernozems*) cover more than 70 % of the territory, most of which are under cultivation.

Payment for land use was introduced in Russia on 1 January 1992, after adoption of the Law "On payment for land", which provides types of fees as follows: land tax and leasehold payment (On payment for land, 1992).

Land tax was established by the Tax Code of Russian Federation and legislative acts of representative bodies of municipalities. Representative bodies of municipalities determine the tax rates within the limits established by the Tax Code, as well as define the procedure and terms of the tax payment. These bodies also may determine tax reduction, substantiation and procedure of taxation including the size of not taxable amount for particular categories of taxpayers (Tax Code ..., 2000).

The authors analyse the amount of total land payments (land tax and leasehold payment) for

using all categories of land in Samara region since 1992 (Table 1).

Table 1 shows that dynamics of payments from year to year is very uneven, but in the time period from 1998 to 2006 there was a significant decrease. However, for example, after the decline in 1998 there was a very sharp rise in 1999. The calculated average growth rates for several years enable to make a conclusion that this growth compensated for the fall of the previous year. At the same time the fall in 2006 resulted in the change of trends and transition to a new, slower than in the previous phase, but stable growth.

As it can be seen from the Table 1, it makes sense to analyse the dynamics of the payments starting from 1994–1995. Characteristic stages (of course, their borders are loosely fixed) can be selected in the interval until 2014:

- 1995-1998 - formation of payment system;
- 1999-2002 - slow growth;

- 2003-2007 - rapid growth with the fall and subsequent compensation;
- 2008-2014 - rapid, sustainable growth.

Table 1

**Total payments for the use of land in Samara region**

Year	Total payments, thousand RUB	Annual rate of change, %	Average rate of change over 2 years, %	Average annual rate of change for 3 years, %
1992	1 935	-	-	-
1993	7 826	-	-	-
1994	54 391	-	-	-
1995	103 127	90	-	-
1996	187 877	82	86	-
1997	277 761	48	64	72
1998	254 323	-8	16	35
1999	637 889	151	52	50
2000	860 863	35	84	46
2001	884 263	3	18	51
2002	1 232 347	39	20	25
2003	2 507 550	103	68	43
2004	3 140 926	25	60	53
2005	3 346 448	7	16	40
2006	2 443 950	-27	-12	-1
2007	4 179 619	71	12	10
2008	5 254 524	26	47	16
2010	6 457 646	11	55	27
2011	6 725 963	4	9	13
2012	7 311 394	9	6	9
2013	7 583 086	4	6	6
2014	8 028 109	6	5	6

**Source: the authors' calculations based on data provided by the Agency of Registration, Cadastre and Cartography (Rosreestr)**

Figure 2 presents the dynamics of increase of total payments for all categories of land in Samara region from 1995 to 2015. The analysis of Figure 2 shows that there are several key events strongly influencing the dynamics of payments. The decline in revenues in 1998, obviously associated with the global financial crisis that influenced negatively the Russian economy, can be attributed to such events. As it

is known, the country in general was able to take advantage of favourable opportunities and quickly dealt with consequences of the crisis, as it is graphically illustrated.

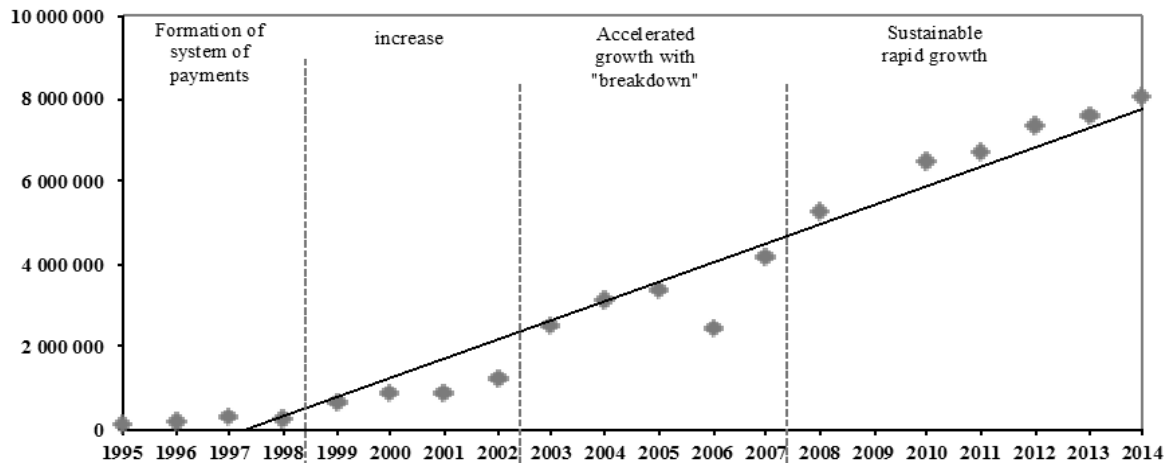
A significant "jump" of the land payments occurred in 2003 followed by the period of sustained stable growth. The analysis showed that this jump was associated with objective changes in the accounting system of data on land parcels and with formation of the state land cadastre, later called the state cadastre of real estate.

Thus the collection and registration of the data into state cadastre was realized in the territory of Samara region in the period from 2003 to 2007 in the process of planned activities conducted throughout the Russian Federation at the expense of the Federal budget. Between 2003 and 2005 information on more than 1 million land plots, based on historical data on previously surveyed land, was included in the state cadastre. This allowed to create a complete data base of taxation objects, and to consider all the essential economic characteristics. Average indicators on permitted use for cadastral blocks were used as objects of cadastral values. Since 2004 cadastral value of residential areas was determined on the basis of the Decision of Governor of Samara region No. 254 "On approval of state cadastral assessment of the residential areas of Samara region (03.07.2003)", which took into account developing land market for the first time (Decree № 254 ...2003).

Stable growth of payments after 2003 was interrupted by a sharp decline in 2006. Such decline, in the authors' opinion, happened because in 2005 massive cadastral valuation of all categories of land was carried out in the territory of Samara region. Cadastral mass appraisal was included as part of nationwide system of activities on formation of national real estate cadastre system and was financed from the Federal budget. For the first time land cadastral valuation was declared as a national

activity and was implemented according to the

common methodologies suitable for all subjects.



Source: the authors' calculations based on the data provided by the Agency of Registration, Cadastre and Cartography (Rosreestr)

Fig. 2. Payments for use of land in Samara region (thousand rubles)

Since 2006 the Tax Code has required to use only cadastral value as a tax base for all land categories. In addition, all methods of calculation of leasehold payments were transferred to the basis of the cadastral value in each municipality of Samara region. Level of cadastral value determined on 1 January 2006 was made as close as possible to market value determined by independent appraisers. Therefore, regardless of a huge amount of registered taxable cadastral objects, the level of specific indicators of cadastral value for a number of land categories was determined lower than the standard value.

From 2006 to 2007 there was a noticeable stable increase of payments due to high inflation, but the amount declined after the economic crisis in 2008. Leasehold payments for land use, which formed more than 60 % of all revenues, were calculated taking into account coefficients of increasing inflation. Besides, a wave of land acquisition for private property was observed in that period in large quantities because the Land Code provided preferential purchase order at the price of 2.5 % of cadastral value for companies which continued land privatization. Therefore, local budgets were enriched by payments for land purchase.

In the period of 2004-2014, a number of regulations on cadastral value of residential areas were adopted since legislative acts provide that

cadastral valuation should be performed periodically (Decree № 254 ...2003; Resolution of Government Nr.178 ..., 2005; Resolution of Government Nr.56 ...2005; Resolution of Government Nr.179 ... 2005; Resolution of Government Nr.141 ...2005).

Since 2009 there has been a sharp increase in cadastral value of the common type of land use for individual building sites and low-rise building sites, as well as there has been a certain increase of other types of land use. Further steady growth of amount of payments was ensured by a rise of leasehold payments due to inflation. Currently, in the Russian Federation further reform of taxation system is going on. Since 2016 in some regions, including Samara region, the taxable object for physical persons is the whole real estate based on its cadastral value, therefore it may lead to further growth of land payments.

The creation of regional model of spatial data infrastructure will promote further growth of land payments. This will improve the quality and efficiency of management at national and municipal level due to a wide use of information resources in management decision making and monitoring of their use. It will reduce budget expenditures on creation of spatial data in general, improvement of their quality by elimination of work duplication and establishment of interaction with information between ministries

and departments of Samara region. Regional infrastructure of spatial data is necessary not only for supervision of the region's economy. It should provide the basic information to all users who are entitled to access this information according to the law.

### Conclusions, proposals, recommendations

- 1) Accumulation of information in real estate cadastre data base expanded taxation base and initiated changes in the taxation system resulting in the growth of land payments. Increase of land payments to local budgets improves the level of financial independence and the capacity of all local governments.
- 2) Land tax plays an important role in the tax system of the Russian Federation because it is a local tax and has a significant impact on socio-economic development of regions.
- 3) The tax capacity of different regions varies; therefore, the amount of collected taxes is different influencing the total amount of regional and local budgets. It depends on the economic development level of the region and

- also on intra-regional policy pursued by local authorities.
- 4) The amount of land payments was very uneven from year to year, but a stable growth was observed. In the time period 1995–2014, the following characteristic stages can be identified: 1995-1998 - formation of payment system, 1999-2002 – a slow growth of the amount of payments, 2003-2007 - rapid growth with the fall and subsequent compensation, and 2008-2014 - rapid sustainable growth.
  - 5) It is necessary to provide a regional network of differential satellite stations in the territory of Samara region. This will allow to create a single coordinate-time space, to move the sector of professionals to the single coordinate system and give them the possibility to work with any existing and perspective satellite systems and operative decision making.

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## COMPARABLE FINANCIAL ANALYSIS AND CONTROL PROCEDURES OF AGRICULTURAL COMPANIES IN RUSSIA AND THE CZECH REPUBLIC

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**Abstract.** An article is aimed to investigate financial condition of agricultural companies in Russia and the Czech Republic and to estimate acting control procedures. The object of the investigation is accounting reports of both Russian and Czech agricultural companies having average headcounting of regular staff more than 50 persons. The investigation involves the period 2009 - 2015. The number of analyzed companies is 4 317 pcs. Representativity of the data is proved by the X-square method. To estimate financial condition four criteria have been taken: profitability ratios, turnover ratios, liquidity and capital structure ratios. To define differences in financial condition of both countries the T-test method has been used and the significance level is 0.05. The biggest difference is underlining. ROCE demonstrates the biggest difference being 2 times more in Russia than in the Czech Republic. It is caused by bigger share of long-term capital in Russia by comparison with the Czech Republic. Credit period in Russia is 2 times longer than in the Czech Republic due to availability of credits and absence of available cash assets to pay to suppliers or at the moment of making deals. Liquidity ratio is 2 time less in Russia than in the Czech Republic. Reliability of accounting reports is of big importance too. Some control procedures are proposed in the article.

**Key words:** controlling, statistical analysis, internal audit, internal control

**JEL code:** Q14, M42

### Introduction

Stable agriculture is an insurance of the country's food security. Profitable agricultural companies provide the country with food without import.

In Russia, there is a trend to amalgamate and integrate agricultural companies (Butorin S., 2016). It is caused by some reasons. Agricultural industry has traditionally weak profitability in comparison with other industries (Melnik M., 2017). In Russia, depending on the region, average profitability is about zero or negative without state support (Ministry of Agriculture, 2016).

Business activity of agricultural companies is to be controlled by outer side and internally. Internal control, however, is mostly formal (Alborov R., et.al, 2013). At the same time reliable and correct accounting reports help take reasonable managerial decisions (Kontsevaya S., 2014).

### Data description

The object of the investigation is accounting reports of both Russian and Czech agricultural companies having average headcounting of regular staff more than 50 persons. The data is taken from Amadeus database. The database contains comparable harmonized accounting data

of individual companies in all branches. It was selected panel data from NACE Rev. 2 (Code C01). The investigated period is 2009-2015. The number of analysed companies is 4317 pcs. (359 companies in the Czech Republic and 3957 companies in Russia). Financial condition of the companies has been estimated by means of nine financial indicators. Only relative amounts but not actual ones have been taken. Besides the period of 7 years has been investigated in order to smooth misrepresentation in reports as during the last two years 2014 and 2015 Russia suffered from falling in the exchange rate and political decision about food embargo. The indicators presented below are the most important aspects of financial condition of the company (Bureau van Dijk, 2016):

- Profitability ratios - Return on Capital Employed, Return on Assets, Profit margin;
- Turnover ratios - Assets turnover, Collection period, Credit period;
- Liquidity ratios - Current ratio, Liquidity ratio (Asset based);
- Capital structure - Solvency ratio.

The software used for calculations is STATA13.

The authors realize the fact that the investigation does not take into account such

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important factor for the estimation of the company as land area. This factor is not presented in the database Amadeus. This factor is expected to be taken into account in further investigations.

**The aim of the research** is to investigate and compare financial condition of the agricultural companies in Russia and in the Czech Republic over the period 2009 - 2015.

**The tasks of the research:**

- short review of current condition of agriculture in Russian and in Europe;
- scientifically based statistical selection from accounting data of individual agricultural companies (average headcounting more than 50 persons) in Russia and in the Czech Republic;
- estimation of financial condition of agricultural companies has been carried out by means of statistical check of the hypothesis: the investigation provides the reasons of difference between financial indicators in Russia and in the Czech Republic;
- the control procedures improving reliability of accounting reports of the companies are proposed in the article.

**The hypothesis of the research:** The null hypothesis: there is no any differences between financial conditions of Russian and Czech companies. Alternative hypothesis: there is a significant difference in financial condition between Russian and Czech companies.

**Research results and discussion**  
**1. Estimation of current condition of agriculture in Russia and European Union countries**

Russia occupies an area of 17 mil. square km. It involves four climate zones: arctic, subarctic, moderate and tropical. It embarrasses comparison between agriculture in Russia and in Europe as European countries are mostly situated in one climate zone. Agriculture depends on weather conditions. The following countries have

been chosen in order to investigate and compare with Russia (RU):

- developed markets - Germany (DE), France (FR);
- European countries from the Soviet bloc - the Czech Republic (CZ), Poland (PL);
- countries with Northern climate conditions - Finland (FI).

The results of the comparison are presented in the Table 1.

Table 1

**Assessment of the current state of the agricultural holdings of Russia and Europe in 2013**

Country	Total country population, mil.units	Agri area, mil. ha	Agri hold., units	Labour force per 1 agri hold., units	Agri area per 1 hold., ha
CZ	11	3	26	4	133
DE	81	17	285	2	59
FR	66	28	472	2	59
PL	38	14	1 429	1	10
FI	5	2	54	1	42
RU	144	191	20	140	9 483

Source: author's calculations based on Eurostat, Rosstat

It should be mentioned that comparison between Russian and European agricultural companies is quite complicated. In Russia there are mostly large agricultural holdings but in Europe the agricultural companies are mostly small sized with small headcounting and lands. The most suitable country to compare with Russia is the Czech Republic. Moreover, abovementioned European countries (except for the Czech Republic) have unrepresentative number of suitable companies with headcounting more than 50 persons in the Amadeus database.

The amount of investigated selection is presented in the Table 2. The selection contains major and average companies with headcounting more than 50 persons. Representativity of the data has been validated by means of the

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**X-square method.** The calculation is in the Table 3.

Table 2

**Sample size in total agricultural output and number of holdings in 2013**

Country	Country Total	Sample	Share, %
<b>Agricultural output (mil Euro)</b>			
CZ	4 835.85	2 315.97	47.87
RU	46 088.16	17 078.02	37.06
<b>Total number of holdings (units)</b>			
CZ	26 250	359	1.37
RU	20 160	3 957	19.63

Source: author's calculations based on Eurostat, Rosstat, Amadeus database

Table 3

**Calculation X<sup>2</sup> test on base Operation revenue in each country, bil, EUR**

Country	Sample, company, €	Sample, %	Total amount company, €	Total amount company, %	Expected number of cases	X square
CZ	2.3	11.9	4.8	9.5	1.8	0.122
RU	17.1	88.1	46.1	90.5	17.6	0.013
<b>Σ</b>	19.4	100	50.9	100	19.4	0.134

Degrees of freedom=1

Ho: ratio=3.841; Ha: ratio !=3.841;

P-value less than 0.05

Source: author's calculations based on Eurostat, Rosstat, Amadeus database

The total sum of Chi-Square is 0.134, but to reject the null hypothesis with 1 degrees of freedom, Chi-Square must be more than 3841. Thereby, the null hypothesis should not be rejected. The null hypothesis means, that observed number of cases in each country is exactly equal to the expected number of cases in each country. The dataset sample completely represents the whole population.

Characteristics of basic dataset of both countries are aggregated in the Table 4. Size of a company is measured by turnover (operating revenues) and total assets in thousands EUR. Profit is measured by Earnings before Taxes (EBT) in thousands EUR. Standard deviation is

obviously more in Russia than in the Czech Republic but mean is approximately equal.

Table 4

**Key features of the basic dataset (thousands EUR)**

Variable	Obs	Mean	Std. Dev.	Min	Max
<b>CZ</b>					
Turn-over	359	6451	6120	970	52277
Assets	359	8790	6460	900	48085
EBT	359	408	640	-199	6386
<b>RU</b>					
Turn-over	3957	4315	19377	2	708190
Assets	3957	7975	24018	24	616648
EBT	3957	310	1754	-29074	44251

Source: author's calculations based on Amadeus database

**2. Statistical test**

An average amount of each financial indicator has been calculated over the period of 2009 - 2015. So, each company has one average value for each of 9 financial indicators used for statistical analysis.

Outliers of each financial indicator have been removed so the number of observations depends on the particular case.

In order to visually estimate normal distribution, the density diagram has been constructed for each indicator. The box plot has also been constructed for each indicator in order to visually demonstrate difference between indicators of both countries.

The T-test is utilized to compare two groups of indicators. If the p-value of the difference ratio test is less than the chosen alpha level ( $\alpha=0.05$ ), then the null hypothesis of no difference between the two groups is rejected.

The results of the analysis are presented in the Tables 5-13.

Statistical analysis made by means of the T-test suggests that there is statistically significant difference between financial indicators of Russia

and the Czech Republic. This fact rejects the null hypothesis about equality of these two groups.

ROCE is very important indicators for estimation of company's revenue power.

Table 5

**T-test of ROCE(%)**

	Mean	Std. Err.	Std. Dev.	[95 % Conf. Interval]	
CZ	5.0602	.1752	3.2306	4.7156	5.4048
RU	9.3202	.1525	9.2250	9.0212	9.6192

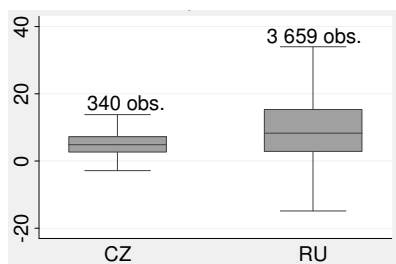
$Diff = \text{mean}(CZ) - \text{mean}(RU)$

$H_0: \text{diff} = 0; H_a: \text{diff} \neq 0; P\text{-value} = 0.0000$

**Source: author's calculations based on Amadeus database**

$$\text{Return on Capital Employed (ROCE, \%)} = \frac{(\text{Profit before tax} + \text{Interest paid})}{(\text{Shareholder funds} + \text{Non-current liabilities})} * 100$$

It demonstrates the profit of the company from long-term own and external capital employed. Investors consider this indicator very important.



**Source: author's calculations based on Amadeus database**

Fig. 1. **Box plot ROCE(%)**

Statistical test demonstrates that ROCE in Russia is two times more than in the Czech Republic. Expected revenue power of the capital strongly depends on inflation. In 2015, annual inflation was 6 % in Russia and 1,5 % in the Czech Republic. Business activity in Russia is of high risk compensated with expected high profitability. Big value of this indicator attracts investors which leads to increased amount of investments. Big ROCE also means big value of long-term capital instead of high profitability. This hypothesis is proved by the following values of ROA indicator.

**T-test of ROA (%)**

	Mean	Std. Err.	Std. Dev.	[95 % Conf. Interval]	
CZ	3.7299	.1560	2.898	3.4231	4.0368
RU	4.6156	.1174	7.2786	4.3853	4.8459

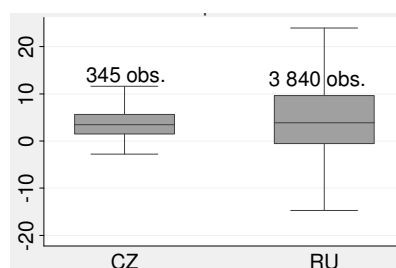
$Diff = \text{mean}(CZ) - \text{mean}(RU)$

$H_0: \text{diff} = 0; H_a: \text{diff} \neq 0; P\text{-value} = 0.0000$

**Source: author's calculations based on Amadeus database**

$$\text{Return on Assets (ROA, \%)} = \frac{(\text{Profit before tax})}{\text{Total assets}} * 100$$

Value of this indicator is not so different in the investigated countries as ROCE. ROA depends on profit margin and assets turnover.



**Source: author's calculations based on Amadeus database**

Fig. 2. **Box plot ROA(%)**

Consequently, profit share is not so high as it could be suggested according to values of the previous indicator ROCE.

Table 7

**T-test of Profit margin(%)**

	Mean	Std. Err.	Std. Dev.	[95 % Conf. Interval]	
CZ	<b>5.2438</b>	<b>.2386</b>	<b>4.4968</b>	<b>4.7744</b>	<b>5.7132</b>
RU	<b>6.8936</b>	<b>.1954</b>	<b>11.928</b>	<b>6.5103</b>	<b>7.2768</b>

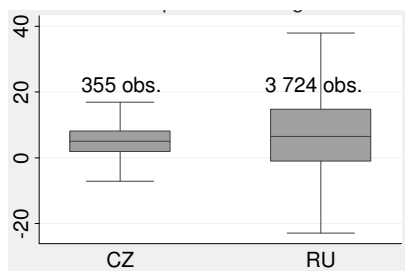
$Diff = \text{mean}(CZ) - \text{mean}(RU)$

$H_0: \text{diff} = 0; H_a: \text{diff} \neq 0; P\text{-value} = 0.0000$

**Source: author's calculations based on Amadeus database**

$$\text{Profit margin(\%)} = \frac{(\text{Profit before tax})}{\text{Operating revenue}} * 100$$

Profit margin is expressed as a percentage and, in effect, measures how much out of every monetary unit of sales a company actually keeps in earnings. It is strongly affected by input-output efficiency, price setting and cost management (Spicka J., et.al., 2016).



Source: author's calculations based on Amadeus database

Fig. 3. Box plot Profit margin (%)

Value of profit margin proves that Russian agricultural companies get more profit from one unit of the product. Some companies are unprofitable and the share of these companies is bigger in Russia than in the Czech Republic which is shown in Fig. 3.

It should be taken into account that actual profit is less due to inflation in Russia. Production process in the agricultural companies functions according to the postponed scheme i.e. costs of the current year will be covered by profit of the next year. However, actual profit will be decreased by high inflation.

Table 8

T-test of Assets turnover (x)

	Mean	Std. Err.	Std. Dev.	[95 % Conf. Interval]	
CZ	.75032	.0093	.1622	.7318	.7687
RU	.69466	.0048	.2824	.6851	.7041

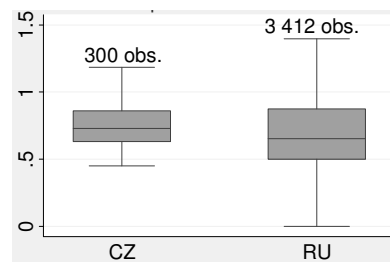
Diff=mean(CZ) - mean(RU)

Ho: diff=0; Ha: diff !=0; P-value=0.0000

Source: author's calculations based on Amadeus database

$$\text{Assets turnover (x)} = \text{Operating revenue} / \text{Total Assets}$$

This indicator is additional to ROA. The more value of this indicator the better financial condition of the company. In other words, the more assets turnover, the more profit is generated from assets by the company. However, due to some specificities, this indicator is expected to be less in agriculture than in other industries.



Source: author's calculations based on Amadeus database

Fig. 4. Box plot of Assets turnover (x)

This indicator is higher in the Czech Republic than in Russia. It might be caused by different climate conditions, which provide 2-3 crops per year in the Czech Republic (i.e. the capacities are used intensively) unlike the situation in Russia where only 1 crop per year is possible.

Table 9

T-test of Collection period (days)

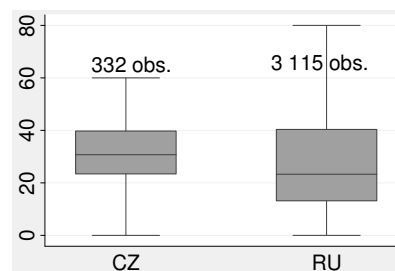
	Mean	Std. Err.	Std. Dev.	[95 % Conf. Interval]	
CZ	32.068	.6217	11.328	30.845	33.291
RU	28.425	.3501	19.540	27.738	29.111

Diff=mean(CZ) - mean(RU)

Ho: diff=0; Ha: diff !=0; P-value=0.0000

Source: author's calculations based on Amadeus database

The indicators' collection period and credit period define effectiveness of debts management in the company.



Source: author's calculations based on Amadeus database

Fig. 5. Box plot Collection period (days)

The collection period is the number of days between product shipment and completed payment for shipped products.

$$\text{Collection period (days)} = (\text{Debtors} / \text{Operating revenue}) * 360$$

The less this period, the more active financial flows and thus the better this situation is for the company. As quickly obtained money is possible to use in business activity immediately, long period of money retrieval does not support

development of the company. Big collection period is caused by strong monopolization of agricultural products processors, which sometimes might be single customers. Consequently, they are able to dictate unfavorable conditions to their suppliers.

Table 10

**T-test of Credit period (days)**

	Mean	Std. Err.	Std. Dev.	[95 % Conf. Interval]	
CZ	25.6850	.753	13.312	24.202	27.167
RU	42.9755	.550	31.569	41.896	44.054

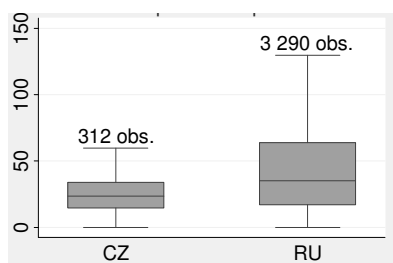
Diff=mean(CZ) - mean(RU)

Ho: diff=0; Ha: diff !=0; P-value=0.0000

Source: author's calculations based on Amadeus database

$$\text{Credit period (days)} = (\text{Creditors} / \text{Operating revenue}) * 360$$

Credit period is the period of time between purchases and complete payment for purchased products. The longer period between these events, the better this situation for the company. Long credit period may be caused by good relations between agricultural companies and their suppliers.



Source: author's calculations based on Amadeus database

Fig. 6. **Box plot Credit period (days)**

Credit period in Russia is two times longer than in Europe. It may be explained by the fact that agricultural companies have no available money for concluding purchases and making contracts with delayed payment. As soon as money for crop is obtained, the payment is expected to be effected. For instance, fuel for sowing season is supplied in spring but paid as soon as grain is collected and sold. One more reason of long credit period may be explained by popularity of credits in Russia. Delayed payment is not profitable and favorable to suppliers due to

high inflation, and some suppliers work with complete pre-payment for delivered products. In this case, agricultural companies use credits. For instance, in the biggest bank "Rosselkhozbank" specialized in collaboration with agricultural companies there is special credit programme "On security of further yield". The bank provides the credit to pay costs in sowing season and when yield is collected this credit is paid.

Table 11

**T-test of Current ratio (x)**

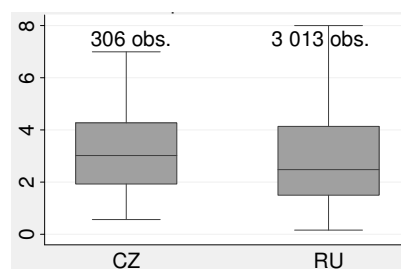
	Mean	Std. Err.	Std. Dev.	[95 % Conf. Interval]	
CZ	3.2096	.0898	1.5719	3.0328	3.3864
RU	3.0030	.0338	1.8606	2.9365	3.0695

Diff=mean(CZ) - mean(RU)

Ho: diff=0; Ha: diff !=0; P-value=0.0321

Source: author's calculations based on Amadeus database

$$\text{Current ratio (x)} = \text{Current assets} / \text{Current liabilities}$$



Source: author's calculations based on Amadeus database

Fig. 7. **Box plot of Current ratio (x)**

Table 12

**T-test of Liquidity ratio (x)**

	Mean	Std. Err.	Std. Dev.	[95 % Conf. Interval]	
CZ	1.5675	.0531	.9615	1.4629	1.6721
RU	.6107	.0079	.4374	.59510	.6264

Diff=mean(CZ) - mean(RU)

Ho: diff=0; Ha: diff !=0; P-value=0.0000

Source: author's calculations based on Amadeus database

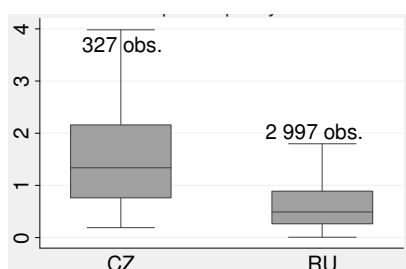
$$\text{Liquidity ratio (x)} = (\text{Current assets} - \text{Stocks}) / \text{Current liabilities}$$

This coefficient demonstrates ability of the company to discharge its current (short term) liabilities by means of current assets only. The bigger is this coefficient the better is paying capacity of the company (Savitskaya G., 2005). The higher is this coefficient the better working capital management. The result of the analysis

proves that management in the Czech Republic is more effective than in Russia.

This coefficient demonstrates ability of the company to discharge its current liabilities in case of difficulties with disposal of products using different funds on bank accounts, short-dated securities, and funds from debtors. The higher is this indicator the better solvency of the company. Normal value of this indicator is (0,6-1,0). This indicator is 2 times lower in Russia than in the Czech Republic.

This coefficient is additional to the previous one.



Source: author's calculations based on Amadeus database

Fig. 8. **Box plot R of Liquidity ratio (x)**

Solvency ratio depends on the capital structure. The higher is this indicator the higher internal financing. It is quite important for the company, especially in the time of crisis. However, if the company relies only on internal capital, it neglects the opportunity of production development by means of loan capital.

Table 13

**T-test of Solvency ratio (x)**

	Mean	Std. Err.	Std. Dev.	[95 % Conf. Interval]	
CZ	65.4474	.799	14.999	63.875	67.019
RU	58.0353	.416	26.184	57.217	58.852

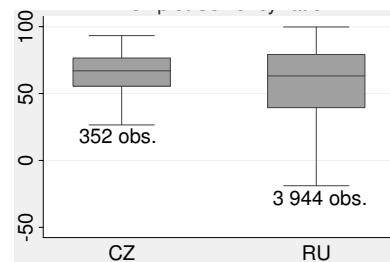
Diff=mean(CZ) - mean(RU)

Ho: diff=0; Ha: diff !=0; P-value=0.0000

Source: author's calculations based on Amadeus database

Solvency ratio (Asset based, %)=(Shareholders funds / Total assets) \* 100

Czech companies rely on internal capital more than in Russia.



Source: author's calculations based on Amadeus database

Fig. 9. **Box plot of Solvency ratio (x)**

Investigated period was also the time of credit boom in Russia. Banks offered clean credits at quite profitable interest and as a result of this policy companies and common people have got lots of credits.

### 1. Control procedures

Reliability of accounting reports used for validation of the financial condition of the company is pressing issue in Russia. Accounting reports are often misrepresented due to avoiding taxes and decreased taxation basis. One of the methods proving reliability of accounting reports is internal and external financial audit. Proposed control procedures are universal and can be used in the agricultural companies of Russia and the Czech Republic.

Methods and techniques of control procedures implementation are the following.

- 1) Preliminary control provides justification and legal order of facts concerning business activity of the company presented in the reports. It is to be done, firstly, by an auditing committee of the agricultural company taking into account all objective conditions.
- 2) Routine control provides completeness and accuracy of the records about business events in the reports. This type of control is intended to avoid illegal operations in business activity.
- 3) Follow-up control is used to prove validity of records about operations. Control boards of both the company and Ministry of Agriculture may perform this type of control.
- 4) The following methods and techniques can be utilized for preliminary, routine and follow-up control: examination of documents, control of

justification, legal order and completeness of obtained financial assets, proper use of financial assets, traceability of performed financial and business operations, verification of reasonable use of these assets, recalculations validating arithmetic truth, observations and inspection of business operations.

### Conclusions

This article is aimed to estimate financial condition of the agricultural companies in Russia and the Czech Republic over the period 2009-2015.

1) According to the results of the analysis Russian agricultural companies have higher profitability than Czech ones. ROCE in Russia is two times more than in the Czech Republic due to different capital structure. Russian companies use significantly more loan assets and credits for shareholder funds. Investigated period coincided with credit boom in Russia. ROA and profit margin in Russia is a little bit higher than in the Czech Republic. Russian companies obtain more profit per product unit than in the Czech Republic.

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However, there are more unprofitable companies in Russia.

- 2) Credit period in Russia is two times longer than in the Czech Republic that is explained by availability of credits and absence of available cash for immediate payment for delivered products in Russia. Collection period is longer in the Czech Republic because of strong monopolization from customers' side.
- 3) Liquidity ratio proves that working capital management is more efficient in the Czech Republic, the companies are of greater stability and internal capital prevails in the capital structure.
- 4) Control procedures are necessary to perform control of financial reports, which is used to take managerial decisions. The types of control are preliminary, routine and follow-up.

The opportunity for next research would be benchmarking study of the agricultural companies in Russia and Central Europe using the factor of land area.

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## ASSESSMENT OF AGRICULTURAL TAX BURDEN IN LATVIA

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**Abstract.** No preferential tax regime for agriculture is imposed in Latvia. Farmers pay the same taxes as entities from other economic sectors; though, tax reliefs are applied to substantially reduce tax payments made by farmers to the budget. Therefore, the tax burden in agricultural sector is significantly lower than the general tax burden in Latvia. Nevertheless, it increases faster irrespective of many tax reliefs. The research **aim** is to study the dynamics and structure of tax payments in agriculture of Latvia to identify factors promoting the increase of tax burden. Result of the research concluded that the tax burden in agriculture grows at expense of production or production prime costs impacting taxes, while the capital tax burden decreases in the recent years. The planned inclusion of subsidies into the taxable income will increase budget revenues from capital taxes; thus, allowing to decrease labour taxes further leaving an impact on the prime cost of agricultural produce and enhancing the competitiveness of agricultural products produced by Latvia's farmers.

**Key words:** agricultural taxation, tax reliefs, agricultural tax burden.

**JEL Code:** H26, Q14

### Introduction

Latvia's farmers shall be competitive compared with the neighbouring countries. The application of tax reliefs is one of the key fiscal instruments to support a particular sector. There is no specifically designed agricultural taxation system in Latvia as farmers pay the same taxes as entrepreneurs from other sectors; however, farmers receive very substantial tax reliefs. Nevertheless, the annual tax burden in agriculture has increased for the past years. The research **aim** is to study the dynamics and structure of tax payments in agriculture of Latvia to identify factors promoting the increase of tax burden. The advanced **hypothesis** – increase in the tax burden on agriculture in Latvia is primarily caused by an increase in the tax burden on labour. The following **tasks** are set for the research: to analyse the changes in legal status of taxpayers in agricultural sector, to analyse the structural changes of tax payments in agricultural sector and to study the impact of tax reliefs on the agricultural tax burden.

The research employs monographic and descriptive statistical methods and covers the period from 2005 to 2015, though, in some cases the period is shorter due to the insufficiency of the data.

### Research results and discussion

In recent years, there have been relatively few research on agricultural taxation, and the existing studies basically focus on developing countries, where agriculture occupies a very large proportion of GDP. It is recognized that the tax ratio is lower in those countries where the share of agriculture in GDP is higher, since countries apply tax exemption to a large part of agricultural activities due to political reasons (Brun, Diakite, 2016).

The EU agricultural taxation is more researched by the scientists of new Member States, which can be explained by a more significant role of agriculture in GDP of these countries. Polish researchers Soliwoda and Pawlowska-Tuszko when comparing agricultural taxes divide the EU Member States into three groups: 1) countries with special preferential taxation system for agriculture; 2) countries with limited preferences directed to agriculture; and 3) countries with systems without tax preferences for agriculture (Soliwoda, Pawlowska-Tyszko, 2014). Consistent with this division, Latvia is a country with essential preferential taxation system for agriculture. Poland and Lithuania, the neighbouring countries of Latvia, in turn, had a preferential taxation system for agriculture, and these countries have implemented significant tax reforms particularly

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in recent years to include agriculture in the single taxation system. However, according to Lithuanian scientists, the tax reform has caused higher tax calculation costs than the increase of agricultural tax burden (Slavickiene, Savickiene, 2013). The comparison of tax burden in agricultural enterprises of different size has allowed Lithuanian colleagues to conclude that small and medium size farms have higher tax burden (Miceikiene, Girdziute, 2016). Similar situation is identified also in Latvia – tax burden decreases with the sales increase of a farm (Leibus, Irmeja, 2014). It is worth mentioning that recently tax legislation has been improved in Latvia – a number of measures have been undertaken to harmonise tax rules and to ensure higher fairness particularly in the agricultural sector.

Both legal entities (limited liability and joint-stock companies characteristic with an owner's limited liability) and natural entities (household farms and individual merchants, which have a full owner's liability) operate in the agricultural sector in Latvia. There is still a high proportion of farms with statutory legal entity status but given an owner's full responsibility they are more considered as natural entities. The breakdown of all agricultural companies by type of income tax – either payers of corporate income tax (CIT) or personal income tax (PIT) – is more appropriate for the analysis of taxes than the breakdown by legal status. Unfortunately, no data are gathered according to such breakdown. In Latvia, small farms (annual income below EUR 300 thou.) may freely choose the type of income tax; in addition, it may be changed every calendar year. It was very expressive in 2010-2012, when the payment of CIT (lower income tax rate, subsidies being tax exempt) was more profitable for agricultural companies; hence, many farms were registered as CIT payers. A tendency to re-establish the

status of PIT payer by employing its advantages (easier accounting, no additional income tax payments on an owner's personal consumption) is observed for the past years.

Between 1991 and 2016 or within the period when Latvia regained its independence, the Enterprise Register of the Republic of Latvia has registered 38.4 thousand farms, of which 11.5 thousand farms or 30 % have been liquidated; this means that 26.9 thousand farms are still registered hereof. An intensive liquidation of farms started in 2014 with the introduction of a minimum annual income tax payment of EUR 50. The minimum tax introduction was aimed to reduce the number of inactive companies. Though, a proportional increase of active agricultural companies is not observed, since the number of economically active units has also significantly decreased (Table 1), i.e. by 15.6 % within 10 years. The largest decrease relates to farms (30.4 %) due to legal deficiencies of farm status in Latvia or the contradiction between the legal status of a farm and the full material liability of an owner. Still the majority of farmers perform active agricultural activities under the status of self-employed persons (51.5 % in 2015), i.e. registering themselves as taxpayers by the State Revenue Service (SRS) without registering a company. This reflects the high proportion of small agricultural companies. However, the number and proportion of self-employed persons shows a decreasing tendency (by 19.7 % and 2.6 percentage points (pp) respectively). The number and proportion of individual merchants increase; yet, it is relatively small as the legislation of Latvia does not prescribe a compulsory registration of a merchant in case of small-scale economic activities (with an annual turnover below EUR 300 thou.).

Table 1

**Economically active agricultural units and their breakdown by legal status in Latvia**

Legal status	Type of income tax	2005		2010		2015		Changes 2015/2005, %
		Number	%	Number	%	Number	%	
<b>Commercial companies</b>	CIT	1465	4.5	1957	6.4	3440	12.6	+134.8
<b>Individual merchants</b>	PIT	112	0.3	528	1.7	555	2.0	+395.5
<b>Self-employed</b>	PIT	17457	54.1	16226	52.7	14019	51.5	-19.7
<b>Farms</b>	PIT/CIT	13219	41.0	12100	39.3	9207	33.8	-30.4
<b>Total</b>	-	<b>32253</b>	<b>100.0</b>	<b>30811</b>	<b>100.0</b>	<b>27221</b>	<b>100.0</b>	<b>-15.6</b>

Source: the CSB data, 2016

Tax payments made by agricultural producers to the state budget increase with every year contrary to the reduction in the number of active agricultural companies (Table 2); thus, in 2015, tax payments have grown more than 2.67 times or 167.2 % compared with 2011. The only exception was the year 2014, which was very

unfavourable for crop farming. According to the SRS data, in 2015, the farmers have paid almost EUR 77.9 million to the state budget. Yet, this figure excludes immovable property tax payments on land paid to the budget of local governments and taxes related with the use of vehicles.

Table 2

**The state budget revenues from agricultural producers in Latvia, thou. EUR**

Type of tax	2011	2012	2013	2014	2015	Share 2015, %	Changes, 2015/2011, %
<b>PIT</b>	14050.7	16441.8	19000.6	13980.8	22746.5	29.2	+61.9
<b>CIT</b>	2247.2	1785.2	7099.1	1493.7	1386.1	1.8	-38.3
<b>MSSIC</b>	28033.1	31165.3	37722.2	26165.3	41553.4	53.3	+48.2
<b>VAT</b>	-16228.0	-4480.9	6145.9	6444.7	11579.8	14.9	+171.4
<b>Excise</b>	565.3	708.2	722.2	127.6	39.5	0.1	-93.0
<b>Natural resource</b>	370.6	361.0	441.6	322.4	525.3	0.7	+41.7
<b>Customs</b>	113.1	132.9	91.0	28.0	61.6	0.1	-45.5
<b>Total</b>	<b>29152.0</b>	<b>46113.5</b>	<b>71222.5</b>	<b>48562.6</b>	<b>77892.1</b>	<b>100.0</b>	<b>+167.2</b>

Source: the SRS data, 2016

Value added tax (VAT) payments have increased most essentially (171.4 %) with the crop farming primarily ensuring the growth. Negative VAT revenues in 2011 and 2012 mean that farmers have received refund of the input VAT more than they have calculated VAT on their products. This was caused by large agricultural investments made in previous years, and the changed procedure for VAT refunds in 2011, since the overpaid VAT accrued within the previous three years was repaid hereof. In addition, a significant decrease of VAT payments is forecasted already starting from 2016 due to

the introduction of VAT reverse charge procedure for cereals.

Labour taxes, mandatory state social insurance contributions (MSSIC) and PIT constitute the highest proportions of taxes in agriculture. Increase of labour taxes is related with the average wage increase in the sector, for example, from EUR 394 in 2012 to EUR 501 in 2015 or 27.1 %. Although the wage in agricultural sector is lagging behind the national average, the difference decreases with every year: in 2012, the wage in agriculture constituted 59.7 %, while in 2015 - 63.3 % of the average

wage in the country. This fact should be assessed positively. Moreover, the average hourly rate difference is even smaller; hence, in 2015, it was 5.51 EUR/hour in the country, while in agriculture the respective figure was 4.05 EUR/hour (the SRS data) or 73.5 % of the national average. One can predict that the labour tax payments and their proportion will rise in the coming years simultaneously with the necessity to attract more skilled labour force in agriculture.

Growth of the natural resource tax in agriculture (41.7 %) is caused by a more intensive economic activity and increase in the natural resource tax rate that will also continue in the coming years.

The largest agricultural companies also carry out CIT payments, though, their share is relatively small (1.8 % in 2015), and it decreases

with every year. This is due to significant tax reliefs for farmers (tax exempt subsidies, tax reliefs for utilised agricultural area (UAA), the possibility of covering losses of the previous years).

Irrespective of the output, the immovable property tax payments on land are essential for every farmer; furthermore these tax payments annually increase but the data on tax payments by sectors are not available.

In recent years (2012-2015), the SRS summarises and publishes data on tax revenues broken down by sectors consistent with the NACE classification. Such breakdown allows analysing the tax burden (proportion of calculated basic taxes vs. sales) and its changes in agriculture (Table 3).

Table 3

**Basic tax burden in agriculture in Latvia (NACE 01), %**

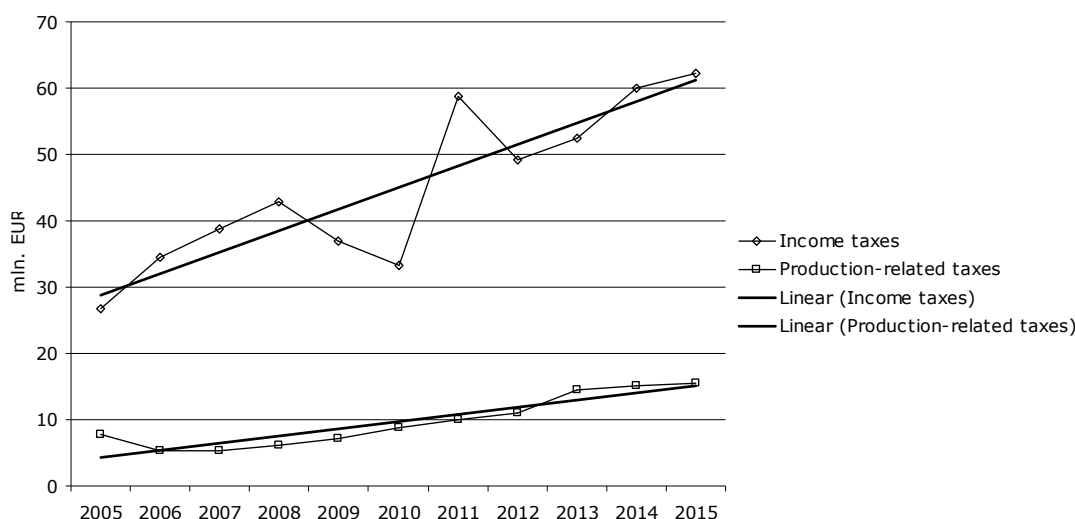
Year	VAT payments	VAT repayments	MSSIC	PIT from wages	PIT from economic activities	CIT	MET	Total
2012	5.70	-5.27	2.53	1.19	0.46	0.47	0.03	5.10
2013	5.95	-5.2	2.97	1.38	0.26	0.32	0.04	5.68
2014	5.87	-4.77	3.32	1.51	0.35	0.21	0.04	6.53
2015	6.65	-5.24	3.38	1.53	0.37	0.23	0.03	6.95
<b>Changes, pp</b>	+0.95	-0.03	+0.85	+0.34	-0.09	-0.24	0.00	+1.85

Source: the SRS data, 2016

The basic tax burden in agriculture increases with every year, i.e. in the period of 2012-2015, the increase accounted for 1.85 pp or 0.62 pp annually on average. As noted above, the largest increase in the tax burden is due to the growth of labour taxes and VAT. In contrast, operating income or profit tax burden tends to decrease: PIT by 0.09 pp and CIT – 0.24 pp, which manifests the low level of income or profit in agriculture as well as substantial income tax reliefs for farmers.

The Ministry of Agriculture annually calculates the amount of production and income taxes in agricultural sector when analysing the changes of value added and income in agriculture (Latvijas

lauksaimniecība, 2016). The Ministry of Agriculture calculations (Figure 1) demonstrate that the amount of income taxes in agriculture exceeds the amount of production taxes more than three times. Besides, income taxes grow more rapidly than production taxes. In fact, income taxes also include labour taxes hereof. It is believed that attributing of labour taxes to production costs would be more appropriate, since paid labour force compared with the work of own family members plays a more significant role in agriculture with every year. Consequently, taxes on labour have an increasingly higher impact on the prime cost of agricultural produce.



Source: Latvijas lauksaimniecība, 2016

Fig. 1. Production and income taxes in agriculture in Latvia, mln EUR

Tax reliefs, which are also called tax expenditure, play an essential role in agriculture. Tax expenditure are any incentive that reduces the amount of tax owed by a group of taxpayers compared with other taxpayers. Tax expenditure may express itself through exclusions from the taxable base, tax-exempt minimums, preferential tax rates, deferral of tax liability, tax credits etc. In Latvia, farmers pay taxes consistent with the general procedure, i.e. there are no special taxes for farmers; though, significant tax reliefs are applied for the agricultural sector (Table 4).

In total, there are 15 taxes in Latvia, of which eight taxes prescribe various reliefs for farmers. These tax reliefs substantially reduce agricultural tax burden. In addition, reliefs are applied both to income and production taxes.

The most fundamental tax reliefs for agriculture (Table 5) refer to a preferential excise tax for diesel fuel (EUR 36.9 mln in 2015), which is 2.1 times more compared with 2010.

Substantial amendments to excise tax reliefs for farmers were done in 2015: 1) tax exemption was substituted by a reduced excise tax 50 EUR/tonne (341 EUR/tonne in general case); 2) relief is attributed also to animal husbandry; 3) differentiated tax relief amount for diverse sectors. Nevertheless, the introduced amendments to the excise tax rates have not reduced the overall tax relief amount for farmers.

Table 4

#### Tax reliefs in agriculture in Latvia

Type of tax	Reliefs for farmers
CIT	1) tax-exempt object – subsidies for agriculture and rural development (till 31.12.18); 2) tax relief – 14.23 EUR/ha for cultivated UAA
PIT	Tax-exempt objects: 1) subsidies for agriculture and rural development (till 31.12.18); 2) income from agriculture and rural development ≤ 3000 EUR/per year
MSSIC	Self-employed farmers of retirement age, disabled persons of Groups 1 and 2
Labour taxes	In crop farming, smaller tax is paid for seasonal agricultural workers - 15 % of gross wage (of which 10 % are redistributed as PIT and 90 % as MSSIC)
VAT	Entities not paying VAT receive a 14 % compensation on agricultural produce supplied to processing companies
Excise	Lower tax rate 50 EUR/t is paid for diesel fuel
IPT	A tax on agricultural land is paid from a special value to limit an annual tax increase ≤ 10 % per year
VOT	For trucks farmers pay 25 % of the tax amount
CCT	Exempt from tax on vehicles (cars)

**IPT - Immovable property tax, VOT - Vehicle operation tax, CCT - Company car tax**

Source: author's construction based on the tax laws of the Republic of Latvia

Unlike most of the EU Member States, special VAT exemptions are not applicable for agricultural produce in Latvia. The only exception is the reduced VAT rate (12 %) for the supplies of specialised food products intended for infants, for example, milk and dairy products, soy

products, fruit, berry and vegetable juices, squashes and purees; special easily digestible meat products and homogenised mixed-ingredient products; drinks for infant nutrition etc. A VAT compensation paid by a processor of agricultural produce to a farmer who is not a VAT payer is a material VAT relief in agriculture. The compensation is paid in the amount of 14 % of the value of sold produce. In 2015, farmers received EUR 7.9 mln as VAT compensations, i.e. 1.4 times more compared with 2010 (Table 5). Increase of the VAT registration threshold 3.5 times in 2011 enhanced the growth of VAT compensation payments. Hence, the number of VAT payers in the sector decreased and a greater number of farmers were able to receive a VAT refund, as they were no longer entitled to the input VAT.

Table 5

**Tax reliefs for agriculture in Latvia, mln EUR**

Type of tax relief	2010	2011	2012	2013	2014	2015	2015/ 2010
VAT compensation 14 %	5.7	7.2	8.3	8.3	8.2	7.9	1.4
Excise tax cut	17.2	17.2	33.9	36.3	34.1	36.9	2.1
CIT relief for UAA	2.0	1.6	3.4	2.2	1.3	2.6	1.3
CIT exemption for subsidies	n.d.	16.0	17.2	14.3	16.1	14.7	-
Income gained from agriculture and rural development and not taxed by PIT	n.d.	n.d.	10.1	4.1	3.9	3.7	-

**Source: Latvijas lauksaimniecība, 2016; Likuma "Par valsts ..., 2017**

Significant CIT reliefs for agriculture include the following aspects: 1) CIT is not imposed on subsidies, thus, reducing the CIT payments by EUR 14.7 million in 2015; and 2) the CIT relief for UAA equalling to EUR 2.6 million (Table 5). The CIT relief amount varies every year, as it greatly depends on the industry earnings and the

number of CIT payers. In addition, farmers also employ general CIT reliefs, for example, reduction of CIT taxable income for the previous years' losses, tax benefits for investment and donations.

Small-scale farmers (annual turnover below EUR 300 thou.) receive a PIT relief by applying a non-taxable minimum to an income from agriculture and rural tourism (EUR 3000 per year). In 2015, this relief reduced PIT payments to farmers by EUR 3.7 mln (Table 5). Exemption of subsidies from taxes constitute a substantial PIT reliefs in agriculture (similar with CIT); there are no data on the amount of relief.

Farmers receive significant tax incentives for vehicles, for example, in 2015 the vehicle operation tax relief was EUR 0.3 mln and the company car tax relief equalled to EUR 1.4 mln (Likuma "Par valsts ..., 2017).

A tax relief for the employment of seasonal agricultural workers is being applied in agriculture from 2014 (Table 4). For these workers employers shall not pay taxes consistent with the general procedure, when tax amount may even exceed 50 % of gross wage but instead a seasonal agricultural worker income tax is paid, which amounts to 15 % of calculated gross wage and includes both labour taxes – PIT and MSSIC (Table 4). Such procedure essentially facilitates the employment of seasonal agricultural workers and reduces tax payments on low-skilled labour force. There are no data on the scale of tax incentive use; however, it may be estimated that relatively few farmers use this type of tax relief. In August 2016, only 445 workers (the SRS data) were employed as seasonal agricultural workers, which is approximately 2 % of people employed in agriculture. Moreover, the introduction of this tax incentive was aimed at reduction of illegal employment not reduction of tax burden.

An immovable property tax relief on agricultural land is being applied from 2016. The tax calculation is based on the property cadastral

value, which has sharply increased for agricultural land – in 2016, the growth amounted to 29 % on average or even 70 % in some places compared with 2015. The value increase was primarily due to the activation of land market. The next ten years the immovable property tax on agricultural land will be calculated from specially calculated value instead of the cadastral value to slow down the rapid growth of tax. This is done to ensure an annual tax increase by not more than 10 %. This tax relief is applied to approximately 53.3 % of rural land units. Therefore, immovable property tax payments will grow for farmers with every year irrespective of the limited tax increase.

### Conclusions, proposals, recommendations

- 1) No preferential tax regime for agriculture is imposed in Latvia. Farmers pay the same taxes as entities from other economic sectors; though, tax reliefs are applied to substantially reduce tax payments made by farmers to the budget. The neighbouring countries Lithuania and Poland have undertaken agricultural tax system reforms to include farmers into the single tax system.
- 2) The tax burden in the agricultural sector is significantly lower than the general tax burden in Latvia. Nevertheless, the increase of tax burden in agriculture is faster irrespective of many tax reliefs.

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- 3) The increase of agricultural tax burden is mainly due to the average wage growth in the industry, which outpaces the average indicators of Latvia, and the increase of agricultural land cadastral value, which leads to the immovable property tax growth. The increase of natural resource tax payments is also forecasted due to the tax rate growth.
- 4) A significant decline of the agricultural sector VAT payments is forecasted in the coming years, since a VAT reverse charge mechanism has been introduced in grain farming, which is one of the largest agricultural sectors in Latvia.
- 5) It is negative that the tax burden in agriculture grows at expense of production or production prime costs impacting taxes, while the capital tax burden decreases in the recent years. The planned inclusion of subsidies into the taxable income (PIT for small-scale farmers and CIT for large farmers) from 2018 will increase budget revenues from capital taxes; thus, allowing to decrease labour taxes further leaving an impact on the prime cost of agricultural produce and enhancing the competitiveness of agricultural products produced by Latvia's farmers.

## PERSPECTIVES OF CROWDFUNDING AS INNOVATIVE AND ALTERNATIVE FINANCE PLATFORM IN LATVIA

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**Abstract.** Crowdfunding is funding a project or venture by raising monetary contributions from a large number of people. Crowdfunding basically operates in the form of crowdsourcing and alternative finance. Crowdfunding is also an alternative funding such as mutual loan or "peer-to-peer lending", collective loans or "equity crowdfunding" donation based money funding or "crowdfunding" means financing models, which are not dependent on banks, institutions, non-bank lenders or various funds and organisations. Crowdfunding is a relatively new type of financing, especially in Latvia; thus, the research aim is to evaluate the possibilities for Latvia's promoters to raise funding through crowdfunding platforms. The research proved that crowdfunding success engine is "People Funding Stories", since people are fascinated by stories - no matter whether these stories tell about a dream of a new entrepreneur or helping other people. Latvia's residents are open to new technologies and support the idea of crowdfunding. The basic concerns relate to organisational aspects of transactions not on the necessity of raising funds. Energetic and ambitious people from Latvia have also tried their luck to raise funds through international crowdfunding platforms like "Kickstarter" and "IndieGoGo". Here one can mention production of a cartoon "Stones in my pocket", start-up for production of "AirDog" - a small, agile, foldable quadcopter, especially designed for filmmakers and action sports enthusiasts who use GoPro cameras, development of an electric water heater "MIIT" (on "Kickstarter") and manufacturing of a board game "Mission to Mars 2049" (on "IndieGoGo").

**Key words:** crowdfunding, platforms, support, projects, innovation.

**JEL code:** G23, M51.

### Introduction

Crowdfunding is a financial source demonstrating a worldwide rapid trend of increase; however, it is little researched in Latvia with main studies done abroad (Belleflamme, Lambert, Schwienbacher, 2010; Blace, Grubisic, 2016; Brüntje, Gajda, 2016; Cohen, 2016; Freedman, Nutting, 2015; Nagymihaly, 2013; Müllerleile, Joenssen, Müllerleile, 2014; Poetz, Schreier, 2012; Stemler, 2013; Valanciene, Jegeleviciute, 2013; Wardrop, Zhang, Rau, Gray, 2015). Crowdfunding is an efficient method of project financing, which acts as a platform where a number of people or groups help support other efforts via providing financial resources. Hence, crowdfunding is an alternative form of finance as a result of non-traditional financial system. Its model is made up of three running parts: the promoter, which offers ideas for funding or project; people who support the idea; and an intermediary organisation or a platform that brings together the parties involved to implement ideas. This platform has emerged as a springboard for countless projects, and in recent years its importance has increased significantly,

since 1) the provider of financial support maximises result with the particular amount of financing; 2) financial risk of each provider of support decreases due to the risk division among all partners; and 3) the quality of project implementation grows due to the control of several organisations. The research **hypothesis**: crowdfunding has a potential as demanded and supported tool for fund raising in Latvia. Therefore, the research **aim** is to evaluate the possibilities for Latvia's promoters to raise funding through crowdfunding platforms. The following tasks are advanced to achieve the set aim: 1) to study functionality, demand and dynamics of crowdfunding in the world; 2) to describe the most essential crowdfunding platforms in the world; and 3) to describe the success and possibilities to collect funding on Latvia's crowdfunding platforms. The information compiled by the European Commission, the World Bank, scientific publications of foreign researchers, and other materials have been used for the purpose of the study. The research is mainly based on the monographic descriptive method as well as the methods of analysis and

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synthesis are used to study the problem elements and synthesise coherencies or formulate regularities.

### **Research results and discussion**

Functionality, demand and dynamics of crowdfunding

Crowdfunding idea has various interpretations and types. Most often it is compared with micro-financing, peer-to-peer lending, equity crowdfunding, donation-based crowdfunding, rewards-based crowdfunding and others. Poetz and Schreier (2012) consider that crowdsourcing attempts to outsource the phase of idea generation to a potentially large and unknown population of users (the "crowd").

According to some other authors, crowdfunding is a method of collecting many small contributions, by means of an online funding platform, to finance or capitalize a popular enterprise (Freedman and Nutting, 2015). Müllerleile, Joenssen et al. (2014) have argued that crowdfunding is a process where commercial or noncommercial projects are initiated in a public announcement by organisations or individuals to receive funding, assess the market potential, and build customer relationships. The European Commission, in turn, defines crowdfunding as an open call to the public to raise funds for a specific project (European, Commission, 2014). Blace and Grubisic (2016) in their article have studied the European Commission approach and admit that "there are two possible divisions of types of crowdfunding. The first one includes crowd sponsoring (donation, reward or pre-sales based crowdfunding), crowd investing (profit-sharing or securities-based) and crowd lending campaigns. Further they state that crowdfunding is still in the early development stage so these main models can evolve in the future. The second division is that crowdfunding is associated with non-financial returns (donations, rewards and pre-sales) and with financial returns (crowd investing and crowd lending)" (Blace and Grubisic, 2016).

The research author agrees to these opinions, as crowdfunding may be found in various expressions.

The history of early crowdfunding may be traced back even to 1700s, while its modern aversion appeared at the very end of the 20<sup>th</sup> century. The first recorded successful instance of **crowdfunding** occurred in 1997, when a British rock band funded their reunion tour through online donations from fans. Inspired by this innovative method of financing, ArtistShare became the first dedicated crowdfunding platform in 2000 (The History ..., s.a.). Therefore, it is a new and innovative type of funding due to the fact that the most essential and successful fundraising platforms have launched their operation only some 10-12 years ago.

Crowdfunding is also an alternative funding as such mutual loan or "peer-to-peer lending", collective loans or "equity crowdfunding" donation based money funding or "crowdfunding" means financing models, which are not dependent on banks, institutions, non-bank lenders or various funds and organisations.

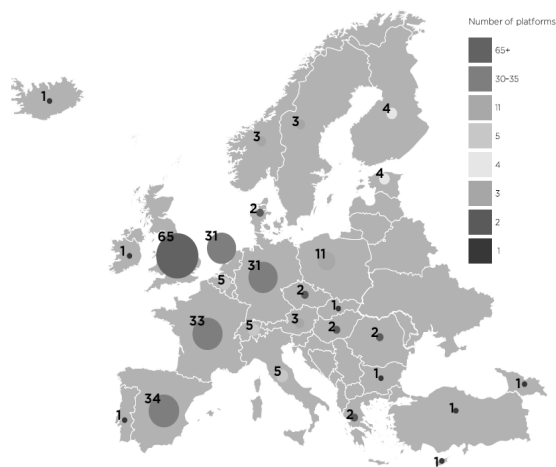
One of the best known is a crowd funding principle ("rewards-based crowdfunding"). This type of lending allows financing of some creative and innovative projects, business ideas or start-in return for products or services after the project implementation (Pieaug alternativas ..., 2016). This is the principle many platforms follow.

Therefore, one can say that crowdfunding is a simple, safe and efficient financial mechanism based on collective fundraising and investing. Crowdfunding is an EU-wide phenomenon, as crowdfunding projects are identified in every Member State. However, there are significant differences in levels of activity between Member States (European Commission, 2016).

In 2015, professors from the University of Cambridge published a comprehensive report on the development of crowdfunding in Europe "Moving Mainstream. The European Alternative Finance Benchmarking Report". The researchers



here admit the strength of the European online alternative finance market. They have surveyed 255 platforms in 27 European countries between 2012 and 2014 and concluded that these platforms had facilitated EUR 4.66 million worth of funding to European consumers, entrepreneurs, creative artists, SMEs, social enterprises, renewable energy projects, community organisations and good causes (Wardrop et al., 2015). However, the dispersion of crowdfunding platforms in Europe by countries is quite heterogeneous (Figure 1).



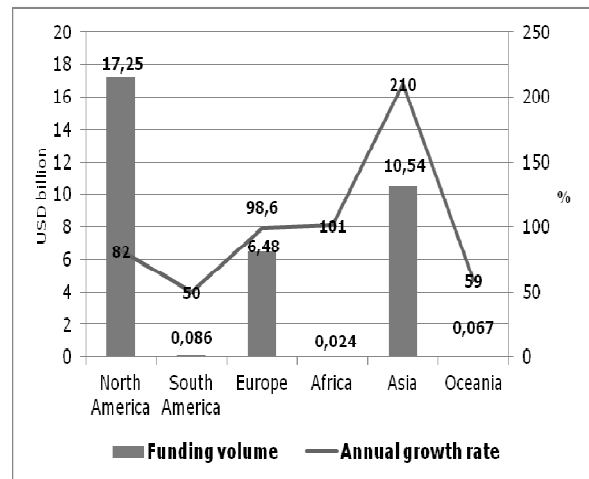
Source: Wardrop et al., 2015

Fig.1. The geographical distribution of alternative finance platforms in Europe in 2015

The absolute leader in the number of crowdfunding platforms is the UK with 79 % share of alternative finance platforms in Europe. The UK online platform-based alternative finance industry has reached EUR 2.34 million in 2014 with a 168 % annual growth rate. The European online alternative finance market, excluding the UK, has grown by 147 % from EUR 137 million in 2012 to EUR 338 million in 2013 (Wardrop et al., 2015). The previously mentioned report shows that the three-year average growth rate for the European market is 115 %. As the geographical distribution of surveyed alternative finance platforms illustrates, the online alternative finance markets are well developed in Spain (which has 34 platforms), France (33), Germany

(31) and the Netherlands (31) (Wardrop et al., 2015).

Success of crowdfunding is evidenced also by forecasts related to the annual funding volume and growth rate (Figure 2).



Source: author's construction based on Crowdfunding Industry Report, 2015

Fig.2. Regional crowdfunding volume and growth rate prediction for 2015

According to the Crowdfunding Industry Report, the largest amount of funding is raised in the North America with the key centre of the USA, followed by Asia and Europe. However, the highest annual growth rate is to be observed in Asia (210 %), Africa (101 %) and Europe (98.6 %). The World Bank has identified that "despite its slow adoption in developing economies, crowdfunding has been heralded as an opportunity to expand access to capital for entrepreneurs. Developing countries in Africa are among the lowest performing in the world in terms of utilizing crowdfunding. In 2015, the African crowdfunding market totals about USD 70 million, which accounts for less than half of one percent of global crowdfunding activity and about 21 % of emerging market activity" (Crowdfunding in Emerging ..., 2015).

### Crowdfunding platforms in the world

Crowdfunding might be considered as a truly global phenomenon with many platforms operating in different countries of the world sourcing both transactions and investors. Apart from many others like "Crowdfunder",

"EquityNet", "Crowdrise" and "RocketHub", the world's largest crowdfunding platforms for the implementation of various ideas are "Kickstarter", "IndieGoGo" and "GoFundMe". Each of these platforms has its own specific features and slightly different principles of operation, which have to be taken into account when promoting a project and raising foundation (Table 1).

Table 1

**Comparison of three largest crowdfunding platforms in the world**

	<b>Kickstarter</b>	<b>GoFundMe</b>	<b>IndieGoGo</b>
<b>Year of foundation</b>	2009	2010	2007
<b>Aim</b>	platform for creative projects	social fundraising platform	platform for entrepreneurial ideas
<b>Principle of funding</b>	very limited campaign period and, if it fails to collect the desired amount, it will be returned to the investors and the promoter will derive no material benefit	promoters may keep every donation they receive	unsuccessful fixed funding campaigns refund all contributions and fees
<b>Fundraising fee for successful projects</b>	8-10% from the raised amount	5% from each investment	8-10% from the investment amount
<b>Fundraising fee for unsuccessful projects</b>	0%	5% from each investment	8-10% from the investment amount
<b>Benefit to supporters</b>	sponsors receive smaller of bigger gift from the project promoters	sponsors receive moral satisfaction instead of a material one	sponsors may receive not only a symbolic gift or produced output but they may receive also the company's shares
<b>Processing fee</b>	3%	3%	2.9%

**Source: author's construction based on websites of Kickstarter, GoFundMe and IndieGoGo**

The platform "IndieGoGo" is the oldest out of all three analysed fund raising platforms and it brings together a wide range of projects and is unique in the fact that nonprofits and socially minded campaigns enjoy a 0 % platform fee. The platform "Kickstarter" designed for artists, musicians, film designers and other creative people is like an enormous global community - everything from films, games, and music to art, design, and technology. "Kickstarter" is full of ambitious, innovative, and imaginative ideas that are brought to life through the direct support of others. Kickstarter annually donates 5 % of its after-tax profit towards arts and music education, and to organisations fighting to end systemic inequality (Kickstarter, s.a.). The platform "GoFundMe" is intended mostly to individual objectives and personal development, such as education or medical expenses. Unlike a number of other sites, the project applicant may retain his donated money even if it has not reached the desired amount but "GoFundMe" reserves 5 % of

each contribution, while the contributor obtains satisfaction, rather than any material benefit.

Energetic and ambitious people from Latvia have also tried their luck to raise funds through international crowdfunding platforms like "Kickstarter" and "IndieGoGo". Here one can mention production of a cartoon "Stones in my pocket", start-up for production of "AirDog" - a small, agile, foldable quadcopter, especially designed for filmmakers and action sports enthusiasts who use GoPro cameras, development of an electric water heater "MIIT" (on "Kickstarter") and manufacturing of a board game "Mission to Mars 2049" (on "IndieGoGo").

As Brian Meece one of the founders of the USA crowdfunding company "RocketHub" admits that crowdfunding success engine is "People Funding Stories", since people are fascinated by stories - no matter whether these stories tell about a dream of a new entrepreneur or helping other people. Directly stories are those that allow feeling closer to any idea and helping it become a reality. Meece compares crowdfunding with a new type of ecosystem of ideas, driven by people's stories, besides crowdfunding allows bringing together different segments of society and building a sense of community (Crowdfunding ..., 2013). Nevertheless, probably the key to success is being able to tell ideas and vision, and arguing for them. It is no secret that women are able to successfully communicate and a sense of community building is easier for them; thus, women are more successful in attraction of financing directly with the crowdfunding (Crowdfunding ..., 2013). Though, crowdfunding is not a panacea for each company or idea, says Meece (Crowdfunding ..., 2013). Projects attracting people emotionally, those being creative and exciting are better funded on these platforms. In general, enthusiasm with the idea is the key to success.

**Crowdfunding ideas and projects in Latvia**

In Latvia, "ziedot.lv" has been the only internet-based financing platform for many

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years. It was established in 2003 as charity organisation to channel individual and business donations to people in need. According to the information found on the organisation's website its "goal is to encourage the social change by providing an opportunity to donate" (ziedot.lv, s.a.). The organisation does not keep any commission; hence, all donations for 100 % reach the charity goals.

Almost ten years later in 2014, Lielvarde local action group "Zied zeme" set up an internet platform "Idejuarmija.lv" (Army of Ideas), which was the first crowdfunding platform in Latvia. Its mission was to find additional funding for local creative projects. In April 2015, a collective investment platform "Projektu banka" (Project Bank) started to operate after merging of two similar projects "idejuarmija.lv" and "mecenats.lv". The platform "Project Bank" operates after "rewards-based crowdfunding" principle allowing the financing of creative and innovative projects, business ideas or start-ups in return for products or services after the project implementation.

During the current operation period of almost 21 month (April, 2015-January, 2017), the "Project Bank" has successfully supported 23 projects in various fields - gathered the necessary funding for cultural events, music recordings, books, business plans, and other creative projects. In total, different project supporters have invested EUR 51 142, i.e., exceeding the necessary support amount by EUR 5413 or 111.84 % (Projektu banka ..., s.a.). The largest support in the amount of EUR 10 494 was received by a full-length criminal comedy "Criminal Excellence Fund". The project was supported by 239 investors who in turn received cinema tickets, roles in the comedy and some other smaller benefits (T-shirts). The raised financing equalled to 104.94 % of the needed amount. Second largest successfully implemented project was a short fiction film "En garde!", which tells about a noble and elegant

sport with an aristocratic charm - fencing. The film participated in the Cannes Film Festival and was ranked among the best films. The project promoters for raising EUR 4000 offered from invitations to the first showing to those who invested EUR 5 to invitation to the first showing, name on the big screen, digital copy of the film and film poster with filmmakers' autographs to those who invested EUR 35 and more. Another interesting project raising funding 2.8 times with 180 supporters more than required was showing the trilogy "Matrix" on the big screen. Some other interesting ideas been supported include projects submitted by a gaming manufacturer "Kokmaizites", whose games are aimed at promoting children's literacy skills by offering a simple and entertaining card game; funding for apple juice production equipment and funds for 45 children's protective clothing to students organize tours bee apiary (Projektu banka ..., s.a.).

Unfortunately, not all ideas end successfully and raise funding; thus, 21 projects managed to collect only part of the necessary financing, while 5 projects ended with zero.

M. Cirulis, the manager of the platform "Project Bank" explaining the principle for attracting funding notes that "people sell their ideas. If a person is willing to pay, he will invest money in a project and get something back, it is not only the principle of charity. People are investing their money in the project and actually buying a future product. It may be something tangible, like a thing, object, event or service" (Asere, 2016). Besides he admits that often crowdfunding platforms offer advance purchase of a product but it is not so always because the invested amount does not always correspond to the value of gratitude. For example, the "Project Bank" supports a project directed to charity - creation of a children's playground. "Investing EUR 5, a person will receive a child's smile each time a person walks past the playground. It is not a selling in advance - you cannot sell a

child's smile. You invest rather in people's ideas than pre-purchase of a book or disk. Contribution may be larger than just the price of the book", says M.Cirulis (Asere, 2015).

Services of the "Project Bank" are currently free of charge thanks to the Society Integration Fund of Latvia, Island, Liechtenstein and Norway that support financing and maintenance of the platform. However, a small commission for those who want to raise funds might be introduced in the future.

Fifty-three new projects are on the queue to be launched on the "Project Bank" platform with funds ranging between EUR 200 for reflective security bridles for dogs ensuring their visibility at night to EUR 10 000 for a book describing the history of a small town Talsi in Kurzeme region of Latvia. Projects "Latvia in the Space" (EUR 8500) offering to build a rocket and launch it in the height of 100 km on Latvia's centenary in 2018, "Woodline" (EUR 5000) offering to manufacture wooden sinks and "Symbols of Latvia (EUR 900) – a table game aimed at acquisition of different national symbols could be mentioned among the most interesting future projects.

In Latvia, refunding is organised similar to international crowdfunding platforms, i.e. if the project campaign comes to an end and the required amount is not collected, all the investors get back their money via the virtual "Project Bank" account. This sum may be diverted to another project or on request returned to the investor. Promoters of the project, which was not 100 % supported, in turn, may reconsider the idea through lessons learned, rework the project and try to submit it for the second time. However, experience shows that it is better to work on the first campaign at full capacity. If the project has collected more funds than necessary, then all funds raised are directed for the implementation of the project and it means that people believe in the idea and see its necessity.

Another specific feature of crowdfunding may be related to raising funds in the real estate sector.

In December 2016, a real estate crowdfunding and buying platform "Bulkestate.com" started its operation. The platform is owned by LP Private Property, a company with national capital. The companies BDO and Latvia Ober Haus Real Estate Latvia are the innovative project partners. "Figuratively speaking, Bulkestate.com may be called a platform that combines real estate owners and potential investors who are willing to finance a specific project and to make a profit, well above the banks offered deposit interest" (Latvijas investori ..., 2017). The minimum contribution is EUR 50. Bulkestate mission is to make quality real estate investments available to everyone whether a person wants to invest and make a profit or purchase an apartment. The cost of its services is included in the deal price. It means that for group buying offers purchase price already includes cost of the services and there will be no separate fee. For investment projects the expected return on investment represents income after cost of the services (Bulkesatte.com, 2017). As soon as the chosen project has raised the necessary funding, the person becomes an investor. Similar to the platform "Project Bank" if the investment target is not reached, potential investors receive their investment to the bank account within 48 hours.

The platform "Bulkestate.com" provides both investing and group buying possibilities. Investing means investments (from EUR 50) in certain real estate projects, for example, investing in the reconstruction of an apartment house which is published on the platform. Potential investors may choose the amount they want to invest in this project. The second tool is a group buying of real estate. In this case, the platform Bulkestate.com acts as a partner. "In this scenario, for example, we get from the bank apartment houses on the wholesale price," explains I. Puntuss "and offer them to investors

on the retail prices. The customer can choose an apartment in the house. Then he makes a reservation and pays a deposit price per square metre. This possibility of the apartment acquisition process allows to save 30-40 %" (Latvijas investori ..., 2017).

An apartment house in Riga was the first investment object offered by the platform on 12 December, 2016. Fundraising deadline was set to 31 December, and the required amount of investments – EUR 60 000 was collected on time", says I. Puntuss, a board member of Private Property LP (Latvijas investori ..., 2017). The project profitability accounted for 15 % per annum with the investment recovery period of 1 July, 2017. It is worth mentioned that the platform has already attracted around 150 investors.

Several Estonian real estate crowdfunding platforms like "Crowdstate" and "EstateGuru" also operate in Latvia from 2016. Since its founding the "Crowdstate" has attracted private investors in financing 30 projects for EUR 12.88 million (Latvija izveidota ..., 2017).

Hence, it may be concluded that crowdfunding as a new idea gains popularity in Latvia.

### **Conclusions, proposals, recommendations**

- 1) Crowdfunding is an efficient method of project financing, which acts as a platform where a number of people or groups help support other efforts via providing financial resources. Crowdfunding is an EU-wide phenomenon, as crowdfunding projects are identified in every Member State.
- 2) The absolute leader in the number of crowdfunding platforms is the UK with 79 % share of alternative finance platforms in Europe. The UK online platform-based

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alternative finance industry has reached EUR 2.34 million in 2014 with a 168 % annual growth rate.

- 3) Apart from many others like "Crowdfunder", "EquityNet", "Crowdrise" and "RocketHub", the world's largest crowdfunding platforms for the implementation of various ideas are "Kickstarter", "IndieGoGo" and "GoFundMe". Each of these platforms has its own specific features and slightly different principles of operation, which have to be taken into account when promoting a project and raising foundation.
- 4) Latvia's residents are open to new technologies and support the idea of crowdfunding. The basic concerns relate to organisational aspects of transactions not on the necessity of raising funds.
- 5) The crowdfunding platform "Project Bank" operates on mutual trust and confidence principle to achieve higher goals. The managers of the platform examine a project promoter's personality, project compliance with criteria, while investors may analyse the promoter through social networks to get the maximum confidence.
- 6) Most Internet platforms work with consumer credits and are not interested in the real estate market development. By contrast, real estate financing team paves the way to the market via a wide audience, and not only major financial players are among them.
- 7) The research proved the advanced hypothesis that crowdfunding has a potential as demanded and supported tool for fund raising in Latvia. The justification follows from the growing demand for services of crowdfunding platforms.

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## CENTRAL BANK CURRENCY EXCHANGE SWAP TRANSACTIONS IN THE FOREIGN EXCHANGE MARKET OF LATVIA

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**Abstract.** Intervention by central banks, in terms of buying and selling foreign currency, has been a major activity in recent years. The intervention operations provide an opportunity for the commercial banks of Latvia to use foreign exchange reserves for the internal exchange market regulation, to reduce speculative interests and create confidence on the euro exchange rate stability in the future. In addition, which is very important in the research authors' opinion, these operations contribute to the further development of interbank market. The present research is aimed to explore the Bank of Latvia currency intervention transactions during the period from 2008 to September 2016, using data research and data processing methods. The results of the study reveal that the political situation in Latvia and throughout the world significantly impacts the intervention transactions implemented by the Bank of Latvia. Any currency intervention, which is related to another EU currency, shall be performed with the main objective – to maintain the price stability. The Eurosystem applies the currency intervention in close cooperation with the relevant non-euro area national banks. The currency exchange transactions allow stabilising prices, since a lower currency valuation may help improve exports and drive economic growth, while a higher currency valuation cause exports to be less competitive.

**Key words:** central bank, intervention, exchange market, swap.

**JEL code:** E58, F31, G15

### Introduction

The Bank of Latvia is the central bank of Latvia – it is an independent institution and a member of the Eurosystem. The primary objective of the Bank of Latvia is that of the central banks of other euro area countries and the ECB – price stability (or a moderate increase in consumer prices). This is an essential precondition for a strong and growth-oriented economy, and to achieve this aim, the Bank of Latvia participates in the formulation of the Eurosystem monetary policy, related decision-making and implementation (Bank of Latvia, s.a).

Over the years, there have been radical changes in the conduct of foreign exchange interventions and the way it is viewed by economists. In the past ten years, many researchers have studied the role of intervention in the monetary policy of central banks, for example, Baillie (2000); Baillie, Osterberg (1997), Edison (1993), Scalia (2006), Twarowska (2014) etc. have analysed and discussed the role of the exchange rate policy in their home countries, the essence of the currency exchange intervention; though, there are very few studies (Ajevskis et al., 2004; 2012) on the foreign

exchange intervention or swap transactions and exchange rates in Latvia.

A foreign exchange intervention is a monetary policy tool in which a central bank takes an active participatory role in influencing the monetary funds transfer rate of the national currency. Central banks, especially those in developing countries, intervene in the foreign exchange market in order to build reserves, stabilise the exchange rate and to correct misalignments. The success of foreign exchange intervention depends on how the central bank sterilises the impact of its interventions as well as general macroeconomic policies set by the government (Foreign Exchange Intervention, s.a.).

The following hypothesis is advanced in the research: intervention transactions in the foreign exchange market of Latvia help maintain exchange rate stability. The research aim is to examine the Bank of Latvia foreign exchange currency intervention transactions. The following tasks are to be carried out to reach the aim:

- 1) to characterise theoretical aspects of currency interventions;
- 2) to determine the necessity of invention transactions in the foreign exchange market of Latvia;

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3) to study the role of expanded asset purchase programme in foreign exchange intervention operations of the Bank of Latvia.

The information compiled by the central bank of Latvia, publicly available statistical information, scientific and other publications are used for the research purpose. The following methods were employed: the monographic or descriptive method of literature studies, comparative method, factor detection and analysis, graphics, and logically-constructive method.

## **Research results and discussion**

### **1. Characteristics of currency interventions**

Currency intervention is a significant one-time, targeted-driven influence of the national central bank or the state treasury on the currency market and exchange rates. It is carried out either by selling or buying up the currency (Ko nozime ..., 2001).

The academic term database defines currency intervention as measures of the national bank to increase or decrease the national exchange rate. For the purpose of stabilising the exchange rate, the central bank either buys or sells foreign currencies, for example, the central bank buys the national currency and sells a foreign currency to lower the exchange rate and conducts the opposite operation to increase the value of the national currency (Akademiska terminu..., s.a.).

The reasons why central banks intervene in the foreign exchange market and conduct currency interventions may be different but the objective is the same – to artificially influence the national exchange rate against other currencies in general or against a specific national or foreign currency to stabilise the exchange rate.

One of the main reasons for central banks to conduct foreign exchange intervention is the deterioration of international trade conditions due to unfavourable exchange rate fluctuations. For example, if a country's national currency excessively strengthens against national currencies of the major trading partners, the

external competitiveness of exporters worsens abroad and the competitiveness of domestic producers declines within the country. This can lead to a significant deterioration of the current account and the country's overall economy. To prevent this, the central bank may decide to sell large quantities of the national currency in order to stop the excessive growth. The research authors believe that the central bank intervention in the foreign exchange market to stabilise the national currency is a major monetary policy instrument of the Bank of Latvia, mainly for stabilisation of the euro exchange rate now and stabilisation of the Latvian lat exchange rate till 2014 and not for earning profit from the exchange rate differences.

A long-term devaluation of the national currency may also affect the economic development of a country. In this case, the value of the assets in the respective currency declines and foreign investors lose interest for these assets, which leads to a decrease in the flow of foreign investment. In addition, a long-term weakening of the national currency promotes occurrence of the so-called "imported inflation" (import goods become more expensive). In this situation, the intervention would aim to raise the value of the national currency, or at least stop it from further decline (Ko nozime ..., 2001).

Central banks may conduct a coordinated intervention if significant changes in the exchange rate of any world reserve currency lead to global destabilisation.

Foreign exchange interventions of central banks to a greater or lesser extent affect the amount of national currencies in circulation. In order to compensate for the impact of the interventions on the money supply, central banks use such a monetary action instrument as sterilisation. Hence, a central bank seeks to limit the effect of inflows and outflows of capital on the money supply. Sterilisation most frequently involves the purchase or sale of financial assets by a central bank, and it is designed to



offset the effect of foreign exchange intervention. Frequently, this sterilisation process is used to manipulate the value of one domestic currency relative to another (Ko nozime ..., 2001).

Usually the aim of currency interventions is to give a signal to the market that a central bank is ready to act in order to control exchange rates to the desired direction. This type of action has more psychological impact on the market: investors, fearing possible interventions, avoid active playing on the exchange rate rise or fall. Intervention described above can be used, if the currency is not pegged to any other currency. If it is pegged to a currency basket or another currency, the central bank undertakes the so-called "passive intervention" aimed at keeping fluctuations of the national exchange rate within the admissible corridor ((Ko nozime ..., 2001).

The Bank of Latvia has used passive intervention till the introduction of euro, since the Latvian lat was pegged to euro and before to the SDR currency basket.

## 2. Analysis of the intervention transactions in the foreign exchange market of Latvia

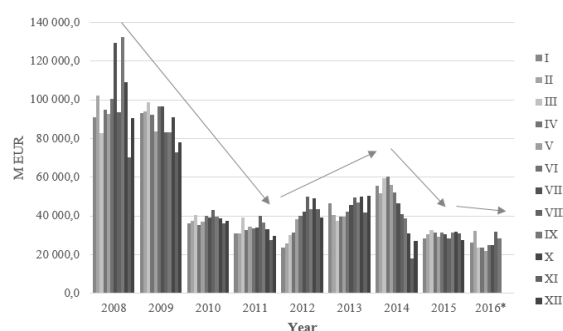
Roberts L. Grava, the ex-head of Market Operations Department of the Bank of Latvia, has described the intervention mechanism performed by the central bank of Latvia, namely, the Bank determines the foreign exchange rates using the SDR formula and global exchange rates. The Bank offers to buy and sell any of the SDR basket currencies to banks at a rate which is by one percent higher and lower than the exchange rate set by the Bank of Latvia. These transactions are offered at any time of the day and in any amount. This means that the Bank of Latvia is the largest market operator and the market complies with certain levels or barriers, since otherwise there would be an arbitration situation, namely, it would always be possible to buy or sell at a more profitable price at the Bank of Latvia. The fact that the Bank of Latvia operates in the foreign exchange market, buying or selling foreign exchange, is an automatic mechanism.

The Bank of Latvia automatically intervenes if the foreign exchange rate impinges the upper or lower margin set by the Bank of Latvia (Latvijas Bankas ..., s.a.).

In order to stabilise the national exchange rate, the Bank of Latvia performs FX swap transactions (foreign exchange swap) or swaps. The Regulation No 101 "Regulation for Compiling Reports on Foreign Currency Purchases and Sales" of the Bank of Latvia prescribes that foreign exchange swap is a transaction in which the counterparties agree on an exchange of two currencies for a specified period of time (Regulation for ..., 2013).

Swap is an OTC currency derivative contract, which provides for the exchange with cash flows between two contracting parties within a specified period and the size of which depends on the exchange rate.

The analysis of currency interventions requires the research authors to evaluate the exchange transactions performed by the Bank of Latvia. The analysed period from September 2008 to September 2016 depicts the largest swap transactions until 2009, followed by the increase in 2014 (Figure 1).



Source: authors' construction based on Arvalstu valutas darijumi..., s.a.

Fig. 1. The dynamics of swap transactions performed by the Bank of Latvia in the period 2008-2016, EUR mln

In September-October 2008, Latvia started to experience a severe financial crisis. Therefore, the Bank of Latvia from July to December 2008 intervened in the foreign exchange market to prevent the possible devaluation of Latvian lat – the national currency. The decrease in the lat value in Quarter 4 of 2008 was primarily caused

by the world financial crisis and rumours on the possible currency devaluation as well as the government decision to take over 51 % of Parex bank shares. The exchange rate of Latvian lat fell dramatically due to the rumours, so the president of the Bank of Latvia declared that only the Bank of Latvia may take a decision on the currency devaluation (Istie baumu ..., 2008).

Nevertheless, rumours on devaluation led to a high demand for euros and a low demand for lats, as a result the exchange rate of lat fell, approaching a critical margin. In September-December 2008, the Bank of Latvia performed foreign exchange transactions trading LVL and EUR to stabilise the exchange rate of the national currency. Hence, the Bank of Latvia artificially attained demand for LVL and increased the national currency exchange rate (Istie baumu ..., 2008).

In 2009, the outflow of Latvian lats continued; however, the situation started to improve compared with the previous year (Figure 1). The stability of lat was again threatened due to the canard in May 2009, when the Swedish newspapers published information that the Swedish banks were preparing for the lat devaluation.

In 2010, contrary to the trend that was characteristic in 2008 and 2009, the Bank of Latvia increased the supply of lats in the market. This may be explained by the fact that Latvia slowly began to recover from the financial crisis.

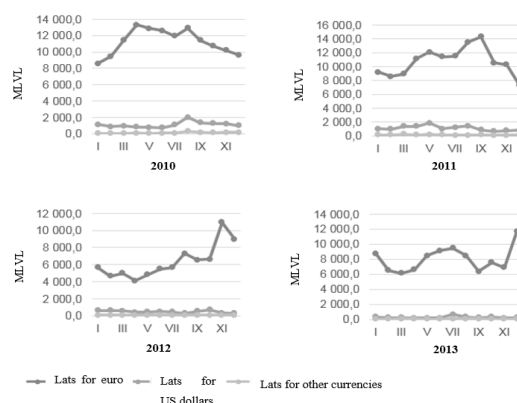
In general, the amounts of foreign exchange swaps slightly fell from 2010 to 2011, significantly increasing until 2014.

In April 2014, foreign exchange swap transactions amounted to EUR 60 245.6 million; according to the research authors the introduction of euro as an official currency in Latvia from 2014 and that fact that the population increasingly began to exchange their savings to euro may explain the growth of swap transactions. Further on, the amounts of swaps gradually decreased until January 2016.

Currently, the foreign exchange swap volumes demonstrate a slight increase; however these amounts are approximately twice smaller than in 2014.

The research analyses the main foreign currency trading transactions for the period 2010-2016, especially considering two periods, namely, the years 2010-2013, when Latvian lat (LVL) was the national currency of the Republic of Latvia and the years 2014-2016, when euro (EUR) is the official currency of the Republic of Latvia.

Between 2010 and 2013, as shown in Figure 2, the Bank of Latvia has mainly sold EUR to buy LVL, the amounts of these transactions being about seven times smaller than the respective transactions related with the sales of USD.



Source: authors' construction based on Arvalstu valutas darījumi..., s.a.

Fig. 2. Foreign currency swap transactions in the period 2010-2013 by months, LVL mln

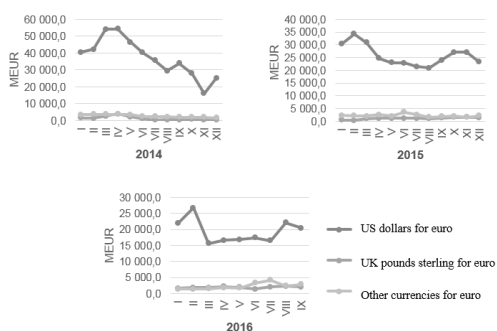
According to Martins Gravitis, the head of the Public Relations Department of the Bank of Latvia (Kapec Latvijas ..., 2007), the Bank of Latvia ensured the exchange rate stability of lat against euro, if necessary, carrying out passive currency interventions. Namely, if the demand of commercial banks for euro exceeded the supply, the Bank of Latvia offered to cover the difference by selling foreign currency for Latvian lats.

In the first week of 2010, the Bank of Latvia made the first major intervention, buying up EUR 55 million from the State Treasury and

selling LVL 38.6 million accordingly (Latvijas Bankas ..., 2010).

In 2010, the demand for euros increased due to the rumours on the possible devaluation of lat triggering in mid-February by the population of Latvia, and shortly afterwards by the Scandinavian and some other foreign banks; thus, the lat fluctuations approached the upper limit – EUR/LVL 0.7098. At this limit, the Bank of Latvia automatically sold euros and bought lats.

As shown in Figure 2, the smallest amounts of money clearings (swaps) between Latvian lats and euros were observed at the beginning of 2012. In the research author's opinion, this may be explained by the fact that in 2012, the president of the Bank of Latvia pointed out that Latvia had successfully overcome the economic crisis in the previous three years. As a result, Latvia regained trust from investors.



Source: authors' construction based on Arvalstu valutas darijumi..., s.a.

Fig. 3. Foreign exchange swap transactions in the period 2014-2016, by months, EUR mln

As shown in Figure 3, the Bank of Latvia has mainly bought USD for EUR in the period from September 2014 to 2016. Until September 2016, the total amount of purchased USD has dropped to EUR 20 000 million, since the exchange rate of EUR against USD and other major currencies had decreased from April 2014.

In 2015, the Eurosystem implemented an expansionary monetary policy due to the slow economic growth of the euro area and under the influence of falling inflation, while the US monetary policy had become more limited already in 2014 due to higher inflation expectations and faster recovery of the economy.

Accordingly, interest rates in the USA were higher than in the euro area. Consequently, it was logical that the exchange rate of EUR fell against USD. Freely floating currencies such as EUR and USD float against each other in the longer term depending on the economic cycles – the currency of the country the national economy of which is beginning to relatively outperform the economy of the other country, strengthens. However, exchange rates in the short term are affected by the currency supply and demand (Eiro vertibas ..., 2015).

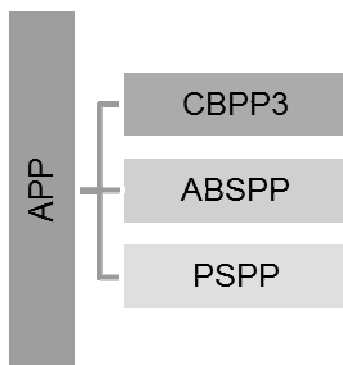
In January 2015, the annual growth rate of inflation was negative (-0.6 %) in the euro area; hence, leading to a deflation. Negative consequences of deflation usually become expressive through postponed decisions on new investments and purchases, expectations for lower prices, reduction of investment and consumption; thus, the economy is stagnating and the central banks have little opportunities to change the economic trends with traditional instruments of monetary policy.

Depreciation of EUR against USD improves the competitiveness of exporters from the euro area. Lija Strasuna, a senior economist of the JSC Swedbank assumes that "it relates not only to exports to the United States but to other countries as well, where USD is the currency used for settlements – these countries include China, Arab countries and the CIS countries. This affects Latvia, both – directly, namely, Latvian exporters who sell their products in these markets, and indirectly, namely, it enhances the growth prospects of the euro area thus increasing the demand for Latvian exports in Europe. Therefore, a lower euro exchange rate is beneficial for Latvia" (Eiro vertibas ..., 2015).

At the same time, it is noted that lower EUR exchange rate against USD raises the import prices for goods, such as energy, electronics, tea and coffee, which are paid for in USD.

### 3. The expanded asset purchase programme (EAPP) in Latvia

In January 2015, the ECB Governing Council members were informed that the inflation rate in the euro area in December turned negative (-0.2 %), which was mainly determined by the fall in oil prices. As the possible secondary effects on wages and prices threatened to adversely affect price developments over the medium term, this situation required for an effective monetary policy response. Therefore, the Governing Council adopted a decision on the launch of the expanded asset purchase programme (APP), which includes a new programme PSPP (public securities purchase programme) as well as the existing – CBPP3 (third covered bond purchase programme) and ABSPP (asset-backed securities purchase programme) programmes (Figure 4) (Eirosistemas monetara..., 2015).



Source: authors' construction based on *Eirosistemas monetara ...*, 2015

Fig. 4. Components of the Eurosystem's APP

The EAPP programme is intended to last from March 2015 to the end of March 2017, or until the ECB sees a sustained adjustment in the path of inflation that is consistent with its aim of price stability. The EAPP monthly purchases will amount to EUR 60 billion but from April 2016 – to EUR 80 billion (PSPP programma..., 2016).

It is expected that thanks to the EAPP, the Eurosystem would be able to replace less liquid assets (securities) with highly liquid funds. It is expected that this intervention will affect the euro area economy through three channels of monetary transmission mechanism:

- direct impact – bond and loan interest rate cuts; this channel may be more active in the case of CBPP3 and ABSPP, since the issuers of securities and lenders purchase under these programmes;
- restructuring of the investment portfolio - cash inflow in the financial system will also reduce the rates of other financial instruments, as banks and other investors may want to invest funds received from the Eurosystem through the EAPP in other, not less profitable investments;
- signal effect - bond interest rates and the euro exchange rate are affected downside (Eirosistemas monetara..., 2015).

In 2014, the central government debt of Latvia to GDP was 40.6 % (initial assessment), which was one of the smallest in the euro area and it also means a relatively smaller amount of securities issued by the government Latvia than other countries. Moreover, the central government debt of Latvia consists of the loans issued by the European Commission (EUR 700 million) and the World Bank (EUR 380 million) as well bond issues in USD in international financial markets (EUR 2.75 billion), which substantially reduced the amount of securities available by the EAPP programme.

Estimates show that the Bank of Latvia should monthly purchase PSSP securities of more than EUR 100 million within the EAPP programme and the total intervention would exceed EUR 2 billion. In case of new issues, the government of Latvia would make securities purchase within the EAPP (taking into account 25 % of the emission limits) up to EUR 1 billion, which means that the Bank of Latvia has to buy the securities of international institutions for more than EUR 1 billion (Eirosistemas monetara..., 2015).

The direct effect of the of APP intervention may not be as much as estimated, since the amount of Latvian government securities (similar to the national debt) is small and foreign investors are the majority interest holders. So

the money paid for the purchase of securities will flow more directly to other euro area countries.

In October 2016, the Bank of Latvia purchased securities of the Republic of Latvia and international organisations of the euro area countries for EUR 257 million. The purchase was done within the public sector securities purchase programme (PSSP) (PSSP programma..., 2016).

Currently, the APP implementation has affected the financial markets as follows:

- lower interest rates;
- increased value of financial assets;
- decreased credit risk;
- increased demand for loans.

However, as financial specialists have recognised the positive development process is slower than the central bank would like (Kurpalikusi..., 2016).

### **Conclusions, proposals, recommendations**

- 1) Any currency intervention, which is related to another EU currency is performed with a main objective – to maintain the price stability. The Eurosystem applies the currency intervention in close cooperation with the relevant non-euro area national banks.
- 2) The Bank of Latvia determines the foreign exchange rates using the SDR formula and global currency rates. The Bank offers to buy and sell any of the SDR basket currencies to banks at a rate which is by one percent higher and lower than the exchange rate set by the Bank of Latvia.

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3) In early 2008, Latvia was experiencing economic recovery, better living standards and high confidence in Latvian lat; though, from July, the Bank of Latvia had to perform significant intervention in the foreign exchange market to sustain exchange rate stability. The situation was worsened by the economic decline, lost confidence in LVL due to the rumours on the devaluation of the national currency.

4) In 2010, the demand for euros increased due to the rumours on the possible devaluation of lat triggering in mid-February by the population of Latvia, and shortly afterwards by the Scandinavian and some other foreign banks; thus, the lat fluctuations approached the upper limit – EUR/LVL 0.7098. At this limit, the Bank of Latvia automatically sold euros and bought lats.

5) During the period from September 2014 to 2016, the Bank of Latvia mainly purchased USD for EUR; such action was notably driven by the US monetary policy that had become more limited already in 2014 due to higher inflation expectations and faster recovery of the economy. Accordingly, interest rates in the USA were higher than in the euro area.

6) The Eurosystem securities purchasing programme has been launched and it has already shown the first positive effects. The programme will affect Latvia mainly indirectly thanks to a more rapid development of the euro area.

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## FACTORS AFFECTING THE INSOLVENCY IN LATVIA

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**Abstract.** The solvency of an enterprise is one of the central problems that is tackled by the management of the enterprise during the entire period of doing business by the enterprise. The research aim is to examine exogenous factors affecting the solvency of enterprises in Latvia. The research novelty involves the identification and analysis of exogenous factors affecting the solvency of enterprises in Latvia in the period 2006-2015 by means of pairwise correlation analysis. The research concluded that the global economic crisis affected the solvency of enterprises in Latvia, yet since 2011 the situation has stabilised and the number of proclaimed insolvency cases reached the pre-crisis level – on average, 84 cases per 10 000 registered enterprises. In tackling insolvency problems in Latvia, entrepreneurs mainly preferred insolvency proceedings, in the result of which the economic activity of the enterprise was terminated. In the period of analysis in Latvia, only 1 % of entrepreneurs who underwent insolvency proceedings and 4 % of entrepreneurs who filed for legal protection proceedings were able to restore their solvency and continue their business. In the period 2006-2015 in Latvia, the solvency of enterprises was affected by: (1) socio-economic factors of the overall development of the country (GDP contraction, increase in unemployment and decrease in the number of the employed), (2) market factors (decrease in imports) and (3) other factors (negative demographic trends).

**Key words:** solvency, insolvency, affecting factors.

**JEL code:** M21, O1, E3

### Introduction

The solvency of an enterprise is one of the central problems that is tackled by the management of the enterprise during the entire period of doing business by the enterprise. The term solvency means a financial situation of an enterprise where the enterprise can perform its financial activity sufficiently successfully in the nearest future in order to meet all its debt obligations. The term insolvency is used for an opposite situation.

The term insolvency has been known in the economic environment in Latvia since the 1990s when the country regained its independence, and along with the development of entrepreneurship, an opposite process was observed – entrepreneurs were unable to meet their liabilities and, consequently, became insolvent.

The factors affecting solvency may be diverse; they are usually classified into two groups: exogenous and endogenous.

The **group of exogenous factors** may be characterised by the inability to manage the factors by the enterprise's management, yet their negative effects have to be predicted and taken into account for tackling solvency problems (Newton G., 2003). The **group of endogenous**

**factors** comprises up to a hundred various factors that are specific to some particular enterprise (Sneidere R., 2009). According to research studies, in countries with a stable political and economic system the negative effects of a third of exogenous factors and two thirds of endogenous factors contribute to the insolvency of an enterprise (Sneidere R., 2009). The authors begin their research on the factors affecting insolvencies with exogenous factors that the enterprise's management cannot influence but have to timely predict and adapt itself to the factors.

The research **hypothesis** is as follows: various exogenous factors having different strengths of correlation affect the solvency of enterprises.

The research **aim** is to examine exogenous factors affecting the solvency of enterprises in Latvia.

Specific research **tasks**:

- 1) To examine changes in the indicators of enterprise insolvency in Latvia.
- 2) To identify the exogenous factors affecting solvency and to examine the mechanism of their effects in Latvia.

The research **object** is enterprise insolvency, while the research **subject** is exogenous factors affecting the insolvency.

The period of analysis is 2006-2015.

The present research is based on the data of the Central Statistical Bureau of Latvia, the Ministry of Economics and the Register of Enterprises of the Republic of Latvia and Lursoft Ltd, explanations provided by the Insolvency Administration and research papers on insolvency problems.

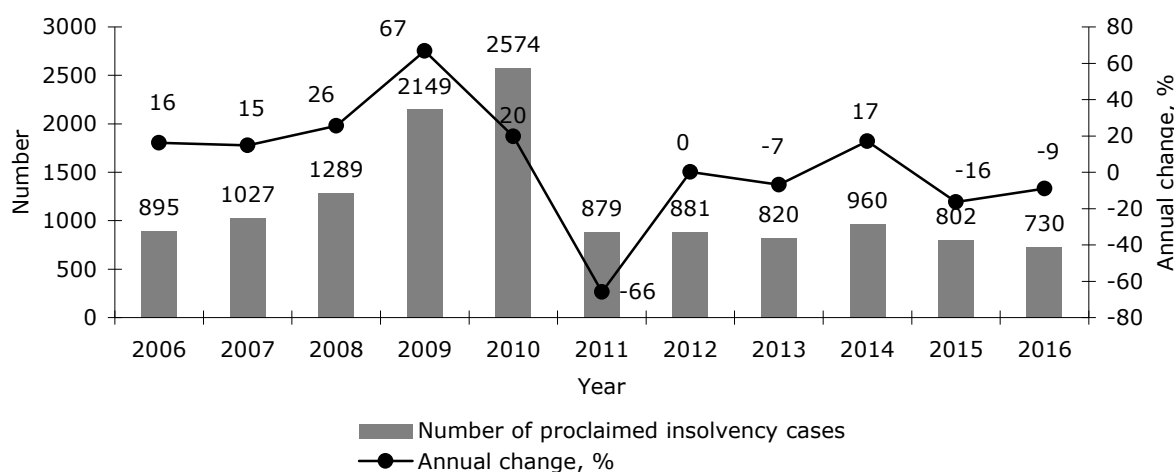
The research employed the following methods: monographic, statistical analysis, synthesis and analysis and Pearson's correlation analysis.

The research **novelty** – the identification and analysis of exogenous factors affecting the solvency of enterprises in Latvia in the period 2006-2015 by means of pairwise correlation analysis.

## Research results and discussion

### 1. Statistical analysis of the research object

**Insolvency** is a financial situation where an enterprise is unable to make payments and its liabilities exceed its assets.



Source: authors' calculations based on data of the Register of Enterprises and Lursoft

Fig. 1. Number of proclaimed insolvency cases for legal entities (entrepreneurs) and annual changes in their number(%) in Latvia in 2006–2016

To fully characterise the insolvency problem, a relative indicator – the number of insolvent enterprises per 10 000 registered enterprises – is employed in international practice. For the purpose of analysis and assessment, R. Sneidere

In the period 2006-2016 in Latvia, 11 758 insolvency cases were initiated for legal entities (entrepreneurs), while the number of proclaimed cases totalled 11 084, which means that 674 insolvency cases (6 %) were rejected by courts as unjustified (Register of Enterprises, s.a.).

An analysis of changes in the number of proclaimed insolvency cases (Figure 1) shows that the largest number of proclaimed insolvency cases was reported in 2009 and 2010 (more than 2000); the highest annual increase rate was observed in 2009 (67 %). The authors of the paper explain the sharp increase in the number of the cases by the economic recession in the country, which began at the end of 2008. The number of proclaimed insolvency cases considerably decreased (by 66 %) in 2011 compared with 2010, and since that year the average number of the cases has been 845 in Latvia.

(2009) suggests dividing this indicator into three levels:

- 1-100 insolvent enterprises – **a low level**;
- 101-200 insolvent enterprises – **a medium level**;



- 201-300 insolvent enterprises – **a high level** (Table 1).

Table 1

**Number of proclaimed insolvency cases per 10 000 registered enterprises in Latvia in 2006-2015**

Year	Number of insolvency cases per 10 000 registered enterprises	Indicator level
2006	118	Medium level
2007	127	
2008	150	
2009	<b>258</b>	High level
2010	<b>296</b>	
2011	94	Low level
2012	88	
2013	79	
2014	89	
2015	72	

Source: authors' calculations based on data of the CSB and the Register of Enterprises

An analysis of the data reveals that a high level of enterprise insolvencies in Latvia was observed in 2009 and 2010. In the period 2006-2008, the number of insolvent enterprises per 10 000 registered ones gradually increased, as the annual rate of increase in this number was higher than that of increase in the total enterprises. Since 2011, the number of insolvency cases gradually decreased, except for the year 2014 (when a slight increase was reported), while the number of registered enterprises continued increasing, which contributed to a gradual decrease in the number of insolvent enterprises per 10 000 registered enterprises.

An analysis of the statistics on the kinds of solution to insolvency shows that most of the insolvent enterprises in Latvia terminated their economic activity and were liquidated (Table 2).

As shown in Table 2, a small number of enterprises that filed for insolvency could improve their financial situation and continue their economic activity.

The authors' calculations showed that in the period of analysis, a solution to 98.9 % of the number of closed insolvency cases was bankruptcy, which meant that the property of the debtor was sold and the funds acquired were used to cover the claims of creditors.

Table 2

**Number of closed insolvency cases by kind of solution to the insolvency in Latvia in 2008-2016**

Year	Kind of solution				
	total	bankruptcies		settlement	financial rehabilitation
		number	percentage		
<b>2008</b>	231	230	99.6	1	0
<b>2009</b>	907	902	99.4	5	0
<b>2010</b>	1175	1172	99.7	3	0
<b>2011</b>	1173	1164	99.2	6	3
<b>2012</b>	897	893	99.6	4	0
<b>2013</b>	633	625	98.7	4	4
<b>2014</b>	394	389	98.7	4	1
<b>2015</b>	400	390	97.5	4	6
<b>2016</b>	148	144	97.3	0	4

Data for 2006 and 2007 are not available

Source: authors' calculations based on data of the Register of Enterprises

The largest number of bankruptcies per 10 000 registered enterprises in Latvia was reported in 2010 – 135 –, and since 2011 it has gradually declined.

In the period 2008-2016, in 2 477 instances insolvency administrators made a report on the lack of any property owned by the debtor and made a proposal to creditors to close the insolvency case, which meant that the creditors' claims were not met in the mentioned instances (Register of Enterprises, s.a.).

Since 2008, legal protection proceedings (LPP) and extrajudicial legal protection proceedings (ELPP) may be used in Latvia to solve the problem of enterprise insolvency.

In accordance with Section 3 of the Insolvency Law of the Republic of Latvia (2010), *legal protection proceedings are an aggregate of measures of a legal nature, whose purpose is to renew the ability of a debtor to settle their debt obligations, if a debtor has come into financial difficulties or expects to do so.* No explanation of ELPP is given in the general provisions of the Insolvency Law. An essential difference between LPP and ELPP is that in the case of LPP, the debtor is provided with legal protection at the moment of initiation of an LPP case (Insolvency Administration, s.a.).

ELPP as a means of solving insolvency problems is intended for situations where the debtor needs no immediate legal protection from creditors, i.e. the debtor can agree with the creditors about the restructuring of the debts. If creditors do not wish to help their debtor to restructure the debts and therefore the debtor faces insolvency, the debtor, submitting an LPP application, has two extra months, during which the debtor can convince the creditors to agree to the restructuring of the debts (Insolvency Administration, s.a.).

As shown in Table 3, debtors preferred ELPP in the first years of availability of this opportunity, while since 2011 the debtors have more opted for LPP, and the number of proclaimed ELPP cases has decreased.

To tackle financial problems, debtors less frequently opted for LPP and ELPP than for insolvency proceedings; however, the number of rejected cases of legal protection proceedings was larger (17 % of the total).

LPP and ELPP can be effective instruments to overcome financial problems if the debtor has a clear vision and a business plan for the restructuring of the business. According to the Register of Insolvencies, half of LPP cases were closed in the period of analysis, as a plan for measures of legal protection proceedings was not coordinated with creditors or did not comply with the Insolvency Law's (2010) requirements. In the

period 2008-2016, debtors managed to fulfil their plans for measures of legal protection proceedings and restore their solvency only in 30 cases (4 %) (Register of Enterprises, s.a.).

Table 3

**Number of initiated LPP and ELPP cases in Latvia in 2008-2016**

Year	LPP cases	ELPP cases	Total
2008	13	0	13
2009	28	55	83
2010	61	155	216
2011	71	44	115
2012	112	35	147
2013	166	49	215
2014	203	50	253
2015	135	10	145
2016	143	6	149

**Source: authors' calculations based on data of the Register of Enterprises**

If the debtor fails to fully restore the solvency during the period of limited solvency, an insolvency case is usually initiated. In the period of analysis, according to the Register of Insolvencies, insolvency cases were proclaimed for 162 (19 %) of debtors that initially filed for LPP (Register of Enterprises, s.a.).

**2. Identification and analysis of the exogenous factors affecting insolvency**

Analysing the causes of insolvency for a number of enterprises, a USA scientist, G. Newton (2003), found that the key exogenous factors were as follows: (1) change in the economy, (2) competitive environment, (3) government restrictions, (4) change in technologies.

I.A.Blank (1999) distinguishes three exogenous factor groups for insolvency: (1) socio-economic factors of the overall development of the country; (2) market factors; (3) other factors.

L.T.Gilyarovskaya (2003) attributes the following factors to exogenous ones: (1) demographic situation, (2) economic situation,

(3) political stability, (4) scientific and technological progress, (5) culture, (6) insolvency of business partners.

To identify which **exogenous factors** affected the number of proclaimed insolvency cases in Latvia in the period of analysis, the authors performed a pairwise correlation analysis. Based on the above-mentioned, the following variables were chosen as dependent ones: (1) total GDP (EUR), (2) GDP change (EUR), (3) GDP change(%), (4) nonfinancial investment (EUR), (5) change in the number of employed individuals, (6) number of unemployed individuals, (7) number of recipients of unemployment benefits, (8) average gross and net annual wages and salaries of employees (EUR), (9) average annual disposable household income per household member (EUR), (10) change in the population, (11) total population in the country, (12) imports (EUR), (13) exports (EUR), (14) inflation, (15) number of committed crimes, (16) number of convicted individuals.

The key results of a Pearson's correlation analysis are summarised in Table 4. The factors that were selected as dependent ones but were not presented in Table 4 had p-values greater than 0.05, which meant that no statistically significant correlation existed between the variables.

The data of Table 4 allow concluding that there was a medium strong negative correlation between the number of proclaimed insolvency cases and the GDP change (EUR) and a strong negative correlation between the number of proclaimed insolvency cases and the percentage GDP change, which means that the number of proclaimed insolvency cases increased owing to a decrease in economic activity. The relevant p-values showed that the correlation between the variables was statistically significant.

The p-value calculated (0.189) by the authors indicated that there was no statistically significant correlation between the total GDP and the number of proclaimed insolvency cases.

In his research studies, G.Newton too found that with economic growth declining, a sharp increase in the number of bankruptcies was reported in the USA at the turn of the century.

Table 4

**Correlation coefficients for the factors affecting the insolvency of enterprises in 2006-2015**

<b>Dependent variables</b>	<b>Correlation coefficient</b>	<b>P-value (2 tailed)</b>
<b>GDP change, EUR</b>	-0.663*	0.037
<b>GDP change, %</b>	-0.731*	0.016
<b>Number of the unemployed</b>	0.770**	0.009
<b>Number of recipients of unemployment benefits</b>	0.646*	0.044
<b>Population change</b>	-0.907**	0.000
<b>Population change, %</b>	-0.915**	0.000
<b>Change in the number of the employed</b>	-0.804**	0.005
<b>Imports, EUR</b>	-0.790*	0.006

\*\* - Correlation is significant at the 0.01 level;

\* - Correlation is significant at the 0.05 level

Source: authors' calculations

In the last decade (2005-2015), growth in the national economy of Latvia was volatile. An economic boom in 2005-2007, which contributed to an imbalance in the national economy, was followed by an economic collapse. The global financial crisis of 2008-2009 heavily affected the national economy of Latvia, considerably raising uncertainty over economic growth and complicating decision-making to stabilise the economic situation. The economy of Latvia contracted by almost 20 % in 2009, compared with its maximum level in 2007, which was followed by rapid growth in economic activity (Bessonovs A., 2014). The authors' research results show that a sharp increase in the number of bankruptcies was observed in Latvia owing to the decline in economic growth.

In the period until 2007 in Latvia, GDP growth was due to the huge inflow of foreign capital,

which stimulated private consumption and investment. In the post-crisis period, GDP growth was determined by increases in exports and domestic demand. In 2014 and 2015, the country's GDP growth gradually slowed down, which was determined by trends in the external environment – a slower than expected pace of growth in the EU as well as the deterioration of the economic situation in Russia (Ministry of Economics..., 2008-1 – 2016-1). For these reasons, nonfinancial investment was chosen by the research as the next variable to be examined; however, the authors did not identify any statistically significant correlation between the nonfinancial investment and the number of proclaimed insolvency cases in the period 2006-2015 (p-value=0.290).

L.T.Gilyarovskaya (2003) pointed out that the deterioration of the overall economic situation in a country decreases market demand, which, in its turn, increases competition among enterprises and not always the enterprises are able to survive.

Affected by the global financial crisis of 2008, the situation in the labour market in Latvia considerably deteriorated at the end of 2008 – the unemployment rate sharply rose and the number of employed individuals decreased. The lowest level in employment was reached in the 1st quarter of 2010 when the employment rate decreased to 57.7 %, while the unemployment rate rose to 20.4 %. Since the middle of 2010, the number of employed individuals has gradually increased. According to labour surveys, the number of employed individuals increased annually, on average, by 9.1 thousand in the period 2011-2015. The increase in employment was due to the economic recovery. The increase in employment contributed to a decrease in unemployment by almost a half (Ministry of Economics..., 2012-1 – 2016-1).

The correlation coefficient values also indicate that there was a strong negative correlation between the number of proclaimed insolvency

cases and the change in the number of employed individuals ( $r=-0.804$ ), as well as a strong positive correlation between the number of proclaimed insolvency cases and the number of unemployed individuals ( $r=0.770$ ).

As shown in Table 4, there was a medium strong positive correlation between the number of proclaimed insolvency cases and the number of recipients of unemployment benefits ( $r=0.646$ ).

Researching changes in the numbers of the unemployed and enterprise bankruptcies in Europe in the period 1998-2007, R.Sneidere (2009) too found that there was a strong causal association between changes in the number of the unemployed and changes in the number of enterprise bankruptcies.

L.T.Gilyarovskaya (2003) has pointed out that the demographic situation significantly determines the quantity and structure of market demand as well as the purchasing power of the population in combination with the economic situation; accordingly, the present research also selected indicators that showed population incomes (average gross and net annual wages and salaries of employees (EUR) and average annual disposable household income per household member (EUR)), but no statistically significant correlation was identified between these indicators and the number of proclaimed insolvency cases in Latvia in the period 2006-2015.

The research also chose such indicators as population change and total population in the country.

The population decreased owing to both negative natural population growth and negative net migration in Latvia in the period of analysis. The sharp population decrease was mainly observed in 2009 (-42330 residents) and 2010 (-45899 residents), which was primarily determined by the negative net migration (CSB, s.a.).

As shown in Table 4, there was a strong negative correlation between the number of proclaimed insolvency cases and the population change ( $r=-0.909$ ). The authors also identified a statistically significant correlation between the number of proclaimed insolvency cases and the total population in the country (p-value – 0.531).

L.T.Gilyarovskaya (2003) has pointed out that the economic situation is affected by inflation, while the authors of the paper did not find a statistically significant correlation between the variable "inflation" and the number of proclaimed insolvency cases (p-value – 0.599).

Latvia is a country with a small economy and cannot produce all goods and services consumed by the modern society; consequently, a lot of goods and services are imported by enterprises.

The value of imports into Latvia started decreasing already in the second half of 2007, as the domestic demand declined, and this trend continued until the 2<sup>nd</sup> quarter of 2009, decreasing to the level of the beginning of 2005. At the end of 2009, the value of imports started slowly increasing, yet since 2013 the growth rate has been low. A slight decrease in imports was reported in 2015 (CSB, s.a.).

As shown in Table 4, there was a strong negative correlation between the number of proclaimed insolvency cases and the value of imports ( $r=-0.790$ ). The relevant p-value indicated that the differences between the variables were statistically significant.

Despite the fact that exports of goods and services is the key driver of the national economy of Latvia (Ministry of Economics..., 2016-1), the authors identified a statistically significant correlation between the number of proclaimed insolvency cases and the value of exports (p-value – 0.178).

I.A.Blank (1999) included also a deterioration of the crime situation in the group of the other

exogenous factors along with the factor of negative demographic trends. The authors selected two statistical indicators to characterise the crime situation: the number of committed crimes and the number of convicted individuals, yet no statistically significant correlation was identified between the indicators of the crime situation and the number of proclaimed insolvency cases (p-values were 0.808 and 0.214, respectively).

### Conclusions

- 1) The global economic crisis affected the solvency of enterprises in Latvia, especially in 2009 and 2010, yet since 2011 the situation has stabilised and the number of proclaimed insolvency cases reached the pre-crisis level – on average, 845 cases per year or 84 cases per 10 000 registered enterprises.
- 2) In tackling insolvency problems in Latvia, entrepreneurs mainly preferred insolvency proceedings; legal protection proceedings and extrajudicial legal protection proceedings were less frequently used by the entrepreneurs.
- 3) In the period of analysis in Latvia, only 1 % of entrepreneurs who underwent insolvency proceedings and 4 % of entrepreneurs who filed for legal protection were able to restore their solvency and continue their business.
- 4) In the period 2006-2015 in Latvia, the solvency of enterprises was affected by: (1) **socio-economic factors of the overall development of the country** (GDP contraction, increase in unemployment, decrease in the number of the employed), (2) **market factors** (decrease in imports) and (3) **other factors** (negative demographic trends).
- 5) In the period of analysis, the solvency of enterprises in Latvia was not affected by the amount of nonfinancial investment, change in population incomes, inflation, exports and the crime situation.

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## SHARED REAL ESTATE SITUATION IN RIGA

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**Abstract.** The topic about shared real estate and ownership of landed property has become important only in the latest years. In connection with the rise of estate tax, the land's cadastre value and the lease of land, the contradictions have also become more aggravated in shared real estate's situations, which had occurred at some point when land reforms and privatization took place. Land owners cannot fully actualize their rights because of the land constraints, while apartment owners cannot fully cover disproportionately steep land lease payments of their apartment buildings, which, most often, have been attached to unreasonably big land units.

The goal of this research is to analyse the most common situations regarding land, land under apartment buildings and compulsory land lease and their connection with the methodology of the real estate valuation, tendencies of the apartments' market values and crediting. The results were compared in order to define the differences of the lease payments, which are also affected by different peculiarities of the real estate parameters and structure.

**Key words:** real estate, valuation, divided ownership, municipal land rent, cadastral value.

**JEL code:** R31, R38

### Introduction

The aim of this article is to disclose different compulsory land lease cases in Riga, under legal framework, in shared real estate situations. The examples reflect current situations in connection with shared real estates and diverse compulsory land lease payments for apartments with similar features and similar location, and the impact of these situations in regard to apartments' market value. As well as the aim of these examples is to give suggestions regarding the evaluation of the apartments in such situations.

The housing is one of the main end-products in construction field – it is the main element that corresponds for human existence and safety and is considered to be one of the indicators of the state's welfare (Henilane, 2015).

By the increase of the cadastral value and land lease payments, the discrepancies have also arisen in situations that were allowed during the time of the land reform and privatization processes. Therefore the situation of the land unit not being in the property's ownership leaves more significant effect on the evaluation methodology of the real estate, because there has not yet been done any probe research regarding the evaluation system of the shared ownership situations (Anspaks, 2012).

As the banks' crediting system assesses the proportion of the income and expenses of the

client, the additional land lease monthly payment may affect significantly the solvency of the client.

In order to achieve the aim of this article such tasks were established:

- 1) to summarize the sources that justify shared real estate historical formation in Latvia;
- 2) to describe the fragments of the current legislative acts in Latvia that define the charge of the compulsory land lease;
- 3) to calculate the most common compulsory land lease payments for the land and land under apartment buildings – to reflect the possible situations by examples;
- 4) to analyse, compare and make conclusions from the gained results.

Following research methods have been used in the article:

- 1) historical method – description of the historical development of the shared real estate situations;
- 2) monographic research method – summarizing of the theoretical aspects of the literature;
- 3) mathematically statistical method – the calculation and comparison of different aspects and formulas;
- 4) logically constructive research method – several conclusions and suggestions were made.

### **Research results and discussion**

In the last decades, Europe underwent irreversible political, social and economic processes, which have significantly affected development of cities and regions. The key element of these processes was the falling apart of Union of Soviet Socialist Republics (USSR) in the 1990. Due to that, in wide range of Europe, socialism was ceased and major corrections were implemented in economic and social processes (Liepa-Zemesa & Baldwin, 2016).

The break-down of Soviet Union started in the 80s and for the people in Latvia it was as a dream coming true, who had never voluntarily joined that state. This dream – to renew state's sovereignty – was conveyed in August 1991. The next important and one of the most difficult tasks was to form a normal and functional market economy, in order to avoid of Post-Soviet economic chaos (Åslund & Dombrovskis, 2011).

Latvia's way to independence and democratization was different, especially comparing this process to the neighbouring Baltic countries – Estonia and Lithuania. Latvia's geopolitical status and demographical structure, as well as changing history and culture, caused a number of unique problems, including "shared real estates".

Privatisation processes continued, and local governments sacrificed many properties for privatisation. Planners lacked experience and use of planning tools based on mutual agreement. In addition, there was no regulatory basis for effective private-public partnerships, which further hampered development (Henilane, 2015).

After the 1990, new democratic governments in Post-Soviet countries wanted to renew private property system and form a market economy (Pichler-Mianovic, 2001). On 20th of March in 1991, by a legislative act, the decision of the Supreme Council of the Republic of Latvia about State and Municipalities' Properties Privatization came into force, in which there were described

guidelines for a reorganization of the ruling of the national economy:

- 1) transformation of a part of the state properties to municipalities' ownership;
- 2) denationalization of state's and municipality's property, by giving priority to the restitution of former owners' rights;
- 3) privatization of state and municipalities' properties;
- 4) exemption of privatization certificates in order to provide a possibility for residents to take part in property privatization process (Ozols & Bisinieks, 2010).

Soon after declaration of state independence, on 21<sup>st</sup> November 1990 new legislative act came into force "Law On Land Reform in the Rural Areas of the Republic of Latvia". It is important to mention that land reform in the rural areas had begun sooner; on 6<sup>th</sup> of May 1989, a legislative act came into force about farms in Latvia. Although the lands were still under state's ownership, however they were assigned for usage to farmers with a land's succession rights. The particular legislative act generated several difficulties for the further process of the land reform, because such farms were formed independently, not taking into account, who owned the particular land previously when Latvia was a free country (Blite, 2000).

To the contrary of the land reform in rural areas, which first part was regulated by the "Law On Land Reform in the Rural Areas of the Republic of Latvia", the law about urban lands was dilatory, it came into force one year later – on 20<sup>th</sup> of November in 1991 "Law On Land Reform in Cities of the Republic of Latvia" (Pichler-Mianovic, 2001).

Divided ownership situations arose from the land reforms, when housings were given for privatization, meanwhile the ownership of the lands under these buildings were renewed for previous owners and their heirs. And these lands were also assigned for usage to other persons – to legal and private persons, with a possibility to



get full ownership of the particular land. Moreover, additionally to the renewal of previous ownerships and new usage assignments, within the land reform the privatization of state's and municipalities' properties, as well as apartment buildings took place.

Compulsory divided ownership also was formed in connection with the land reform – when the housings were assigned for privatization, but the ownership of the lands under apartment buildings was renewed for previous owners and their heirs. Due to this reform and its contradictory results, a new legal framework arose, which was labelled as a "compulsory land lease".

Even historically in Section 968 of a Civil Law, there has been defined a principle that land and structure on it is a combined concept: "A building erected on land and firmly attached to it shall be recognised as part thereof" (Civil Law, 2013).

Therefore, the fact that structure that is located on the land could be a separate real estate seems illogical. Taking into account Latvia's land reform's historical process, which was connected with economical and, mainly, political changes, the result shows that there have been taken a significant step aside from the core principles described in the Civil Law.

By renewal of ownerships of the previous owners and their heirs of the land, on which was a building under other person's ownership, due to the clause 12 of the Law On Land Reform in Cities of the Republic of Latvia (1991) these owners had rights to choose:

- 1) to renew ownership and to receive land lease charge from the owner of the apartment building;
- 2) to ask for equivalent land property;
- 3) to ask for a compensation.

Similar situation arose in rural areas as well, when the ownerships of lands were renewed.

There are 3677 apartment buildings that are involved in compulsory land lease payments, it is 110 970 apartments altogether that are located

on 7354 land units that belong to other persons. These particular 7354 units of land form a cadastral value approximately from 130 000 000 to 180 000 000 EUR. All of these buildings are located on a land that is owned by a different person and 30 % of these buildings are located in Riga (Pazinojums..., 2015). Moreover, especially complicated are situations with joint ownerships of the apartments buildings, because there are many persons involved (apartment owners and tenants), who must come to an agreement with the land owner of the land lease payment amount. The count of apartments under compulsory land lease system in Latvia at the end of the year 2015 is described in Fig. 1.

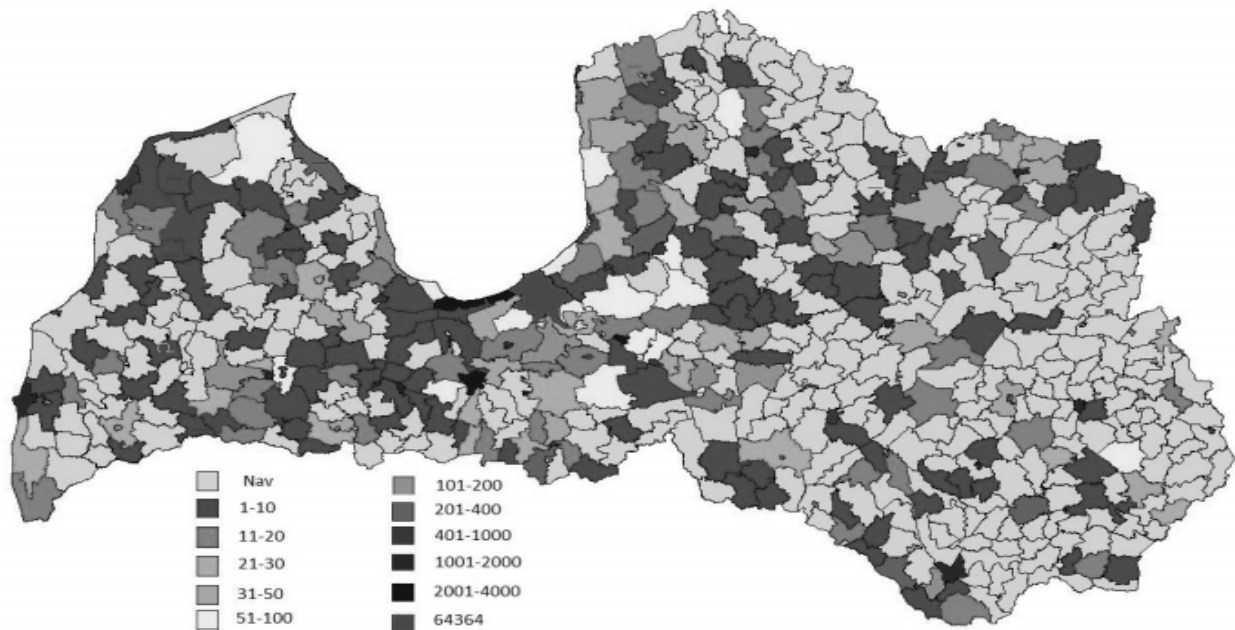
Upon calculation of apartment's market value, very often the real estate valuers come to conclusions that even market situation and closed deals do not show any resemblance, which is the specific deduction of market value (for particular apartments and in particular parts of the city in percentages) due to fact of the land unit that is not included in the ownership. In such situations, the valuer is forced to assume one approximate correction by specific percentage that reduces the market value, but this tactic not always corresponds to market situation, because it is based on assumptions.

Standard evaluation strategy for all apartments, without differentiating them by some compulsory land lease features can give inaccurate results, because of the following aspects.

In the same location, two neighbouring apartment buildings may have different owners of the land unit under the building – it may belong to private person, legal entity or public person<sup>1</sup> and it depends, which one of these persons is the owner, because the land lease charge also changes, because of different legislative regulations.

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<sup>1</sup>Public person shall act in accordance with the principles of public law



Source: State Land Service, 2015

Fig. 1. Count of apartments under compulsory land lease in Latvia

Based on a legislative act Law on Land Reform in Cities of Republic of Latvia (1991) Section 12, Clause 2: "If apartment residential houses are located on such a land, the fee for land lease shall be determined upon agreement of the parties in writing. If the parties cannot agree, the fee for land lease shall be specified in amount of 6 % per year from the cadastral value of the land."

On the other hand, based on the Regulations on Public Persons Land Lease" (2007) Section 2, Clause 7 issued by the Cabinet No.735 states that built-up land plot annual fee of the land lease is determined by:

- 1) until 31<sup>st</sup> of December 2009 – 1.5 % of the built-up land plot value defined by the State Land Service of the Republic of Latvia for privatization reasons;
- 2) since 1<sup>st</sup> of January 2010 – 1.5 % of cadastral value;
- 3) lessee in addition to the land lease pays to the lessor taxes defined by the law.

Taking into account the corresponding law of the Republic of Latvia and Regulations by the Cabinet, apartment building located on a land plot in Riga at address Krisjana Valdemara Street

145, k-5, potential apartment lease models are described below (example No.1).

- Land plot under building at address Krisjana Valdemara 145, k-5, Riga, apartment No.4, cadastral value in 2016 – 781 575 EUR.
- Apartment at address Krisjana Valdemara 145, k-5, Riga, apartment No.4, corresponding undivided share cadastral value – 7 815 EUR.
- Land lease amount at rate 6 % annual fee from cadastral value – 468.90 EUR per year, 39.08 EUR per month.
- Land lease amount at rate 1.5 % annual fee from cadastral value – 117.22 EUR per year, 9.77 EUR per month. The position of the land and apartment`s building is shown in Figure 2.



Source: State Land Service, 2017

Fig. 2. Map of the State Land Service of the Republic of Latvia

The position of the real estate is shown in Fig. 3.



Source: Balticmaps, 2016

Fig. 3. Map of Riga

2. Cadastral value of land plot in one location but for two neighbouring apartment buildings can differ (example No.2).

Apartment at address Krisjana Valdemara Street 145, k-5, apartment No.4, area 42.6 m<sup>2</sup>, with 10/1000 undivided shares of a shared property of an apartment building and land plot. The cadastral value of the land plot in 2016 is 781 575 EUR, cadastral value in correspondence with undivided shares – 7 815 EUR. Land lease payment is calculated assuming that the fee for land lease is 6 % per year of cadastral value: 7 815 EUR × 0.06=468.90 EUR/per year (1).

Apartment at address Krisjana Valdemara Street 143, k-1, apartment No.3, are 41.3 m<sup>2</sup>, with 4125/231805 undivided shares of a joint

property of an apartment building and land plot. The cadastral value of a land plot in 2016 was 160 367 EUR per year, the cadastral value according to undivided shares – 2853.75 EUR. Land lease payment is calculated assuming that the fee for land lease is 6 % per year of cadastral value:  $2\ 853.75 \times 0.06=171.23$  EUR/per year (2).

3. In the same location with two neighbouring apartment buildings with similar are of a land plot under the building, the number of apartment count might differ; therefore, the land lease payment might differ as well. The less apartments are located in the building, the bigger is the undivided share of the corresponding land plot that is under ownership of a different person, therefore the land lease payment will be more significant as well (example No.3).

On a land plot at address Kastranes Street 4, Riga there is located a two-apartment-building. Land plot is under ownership of a private person, the land lease is 6 % of the land's cadastral value. Compulsory land lease is divided between to apartment owners. The cadastral value of a land is 82 571 EUR, that means it is a compulsory land lease of 4 954 EUR per year; therefore, 2 477 EUR for each apartment owner.

4. The land plot area under two seriate buildings may also differ; therefore, the amount of land lease payment will differ as well (example No.4).

Real estate, located at address Krisjana Valdemara Street 151, with land area 1.8181 ha. Cadastral value is 1 784 974 EUR and there are three buildings on this land. Most of the land consists of common use roads, pathways, green area, which is being used not only by the residents of the building that is located on the particular land plot, but also by the residents of the local area as well. Upon situation, if the plot of land would not be included in the ownership of the real estate property, the residents of these apartments buildings would be obliged to pay compulsory land lease for a whole land area

consisting of 1.8181 ha, although the useful land area would have been significantly smaller and, moreover, they would be obliged to pay for the land lease for a land that was being used by other local residents as well. The position of the land and apartment's building is shown in Fig. 4.



Source: State Land Service, 2017

Fig. 4. Map of the State Land Service of the Republic of Latvia

### Conclusions, proposals, recommendations

1) Compulsory payment amount for land lease gives a significant influence on apartment's market value, because potential buyers nowadays pay more attention to the costs regarding to apartment's exploitation, including the costs for a land lease. The employees of the banks, upon consideration of the credit applications, assess the solvency of the client – the proportion of the income and expenses. In addition, the land lease in several places in Riga can significantly raise the expense position of the client; therefore, there is a greater risk for the client to receive from the bank a decline for the credit or worse credit terms. As a result of this, the fact of the land unit not being in the ownership is considered to be a major factor that affects the property itself.

2) Currently, there are several indicators that show that apartments that do not have land unit in the ownership become cheaper. Meanwhile, the evaluation of the property, when the information about land unit's being in ownership or not, is not taken into account,

gives a false market value of the property. For example, in order to make a precise market value calculation, the content of the comparing objects for evaluation must be differentiated. If the land unit is not in the property's ownership, then deeper analysis is needed about the particular property. It is essential to investigate, who is the owner of the land, what is the area of the corresponding land unit for a land lease payments and other factors that might affect the amount of these costs. Based on the example No.1 we can come to conclusions that lease payments can differ by 25 % (in this particular case) depending on the owner of the particular land unit under the corresponding apartment building.

- 3) Example No.2 shows that even for neighbouring apartment buildings the annual land lease charge for a land that is not included in the property ownership can differ by 36 % (even if the lease charge fee is similar – 6 % per year). Wide land area under apartment building that has rather small number of apartments is considered to be an exclusive real estate. It also means that the amount of land lease charge is divided among less apartments than usually; therefore, for such real estates it is essential to pay attention to the amount of land lease charge.
- 4) The example No.4 shows that disproportionately big land units, which are included for compulsory land lease payments, can leave a significant impact on apartment's market price, because the potential buyer can choose an apartment in one of the neighbouring apartment buildings that has land unit included in the ownership or the charge for the land lease is proportionally accurate to the particular apartment building.

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## LIMITATION OF ACTIVITIES OF DISHONEST TAXPAYERS AS TAX COMPLIANCE PROVISION TOOL

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**Abstract.** Due to the development of information technologies, dishonest taxpayers can build more complex tax fraud schemes but at the same time tax administrations can react more quickly to the actions taken by fraudulent taxpayers. Time is a very important aspect in the fight of tax administrations against the tax fraud activities carried out by the missing trader; therefore, an effective fight requires a faster tax non-compliance risk analysis and a mutually agreed action programme between the tax administrations and other state institutions. As a result of this research, solutions are offered for closer cooperation between the State Revenue Service and the Register of Enterprises of the Republic of Latvia and for enhancing the Rapid Alert System, which would promote improving tax administration's work in identifying "missing traders". This means that the Register of Enterprises of the Republic of Latvia needs to develop a risk taxpayer's profile and introduce a risk management system in the company registration process in the Register of Enterprises, and also reduce the possibility of including inappropriate facts in the commercial register in order to limit the possibilities for the registration or re-registration of commercial companies, whose true business goal is participation in VAT fraud schemes.

**Key words:** dishonest taxpayers, value added tax, risk analysis, rapid alert system.

**JEL code:** H26

### Introduction

The topicality of the article is based on the fact that the number of fictitious start-ups and involvement in business chains is increasing every year. Involvement of fictitious companies in value added tax (hereinafter - VAT) fraud chains is a current problem in all countries; and in order to eradicate this phenomenon, solutions are searched at an international level. When planning and administering state budget, tax revenue institutions constantly work on improving collection of VAT – one of the largest state budget revenue providers. One of the main objectives of the State Revenue Service of the Republic of Latvia (hereinafter – SRS) is to ensure the collection of taxes in the most efficient manner and to prevent the dishonest taxpayers defrauding VAT from the state budget. In our society, the issue of Latvian SRS operations relating to tax administration and Latvian SRS activities towards suspension or restriction of dishonest taxpayers' economic activities is very topical. In mass media opinions often appear about Latvian SRS actions in the fight against the shadow economy, where one of the major "players" is the VAT carousel fraud.

One of the most significant reasons of the state budget revenue decline is dishonest taxpayers engaging in tax fraud schemes. This study aims to draw attention to the identification of dishonest taxpayers and possibilities of restricting their economic activities in the administration of taxes. The study has set the following objectives:

- to analyse the most typical activities of dishonest taxpayers who participate in the VAT defraud schemes;
- to explore the Latvian SRS actions taken in order to suspend or limit the economic activities of dishonest taxpayers;
- to develop proposals how to eliminate the possibility of registering missing traders in the Commercial Register (ER) of the Register of Enterprises.

The information compiled from Latvian SRS statistics, scientific publications of foreign researchers, and other materials has been used for the purpose of the study. The research is mainly based on the monographic descriptive method as well as the methods of analysis and synthesis.

### **The issues of taxpayers' behaviour and tax compliance**

Whether the taxpayer will pay taxes in full, in part, or will not pay at all, or even engage in defrauding tax from the state budget is determined by the taxpayer's psychological characteristics. There have always been and there will always be people who will do business in good faith as their ethical standards are high, who will work in compliance with the existing legislative provisions because they do not want to live with the guilt that they have tried to cheat. Honest taxpayers will use legally permitted methods of tax planning, tax payment optimization, will not commit administrative violations or engage in criminal acts. These tax payers will try to comply with the tax laws. Tax payment violations will only occur as a result of negligence. Congdon et al. recognize that "tax behaviour is strongly related to psychological foundations: taxes modify the terms of individual choices, thus affecting personal behaviour and actions; they redistribute wealth, impose cost and trade-offs, taxes can create a drag on economic efficiency and impose welfare costs" (Pukeliene V., Kazemekaityte A., 2016). Congdon et al. (2011) are convinced that tax behaviour greatly affects tax policy design (Congdon W. J., et al., 2011). The Estonian Tax and Customs Board (MTA) can be given here as a striking example where tax collection process is associated with the philosophy that taxpayers "feel more responsibility on the grassroots level and consider paying taxes to be a social obligation" (Bogdanov D. et al., 2015). Ungureanu and Dascalu (2015) believe that the lower the rate of evasion, the lower the rate of evasion, the more and attractive the economy gets for foreign investors and the management of taxes and duties becomes more efficient. The classic mechanisms used to reach this aim are mostly coercive measures based on punishment, usually financial (Ungureanu D., Dascalu D., 2015), which also largely determines the tax behaviour in the concrete country. Hybka (2014)

also agrees that the scale of VAT evasion depends on both institutional and behavioural factors. Certain studies emphasize the importance of such variables as rigorousness of penalty system, certainty of enforcement and audit rules, but they also indicate that corruption in the country, society's trust in public institutions and social norms are the most important factors influencing tax evasion (Hybka M. M., 2014).

Nevertheless, Poniowski et.al. (2016) are sure that reducing the VAT gap takes time and its complete elimination is unrealistic, as part of the non-collection is "naturally occurring; therefore, the fight with the unregistered economy, fraud, avoidance and evasion is very difficult and in recent years none of the countries of the region has managed to significantly improve VAT collection" (Poniowski G., et al. 2016).

Solutions for identifying dishonest taxpayers and restricting their economic activities must also be equally diverse and they will be mostly administrative; as concluded by Sharafipour et al. (2016) and as experience has proved, first it is necessary to create appropriate administrative infrastructure (Mohammadreza Sharafipour, M., et al., 2016), which would include a wide range of activities. Some of the measures have much less pronounced adverse economic effects than others. Measures that encourage VAT compliance and reduce the burden of VAT on compliant businesses are the preferred options (Walpole, M., 2014). For example, in the Czech Republic a new measure requires VAT payers to send tax authorities control statements simultaneously with the value added tax return (Semerad, P., et al., 2016). Whereas in Romania "the measures for the prevention of the fiscal fraud adopted by Romania through the Financial Guard (measures which refer to the permanent monitoring of the goods transports for intracommunity acquisitions, the introduction of some goods in the category of goods with a high fiscal risk and the sealing of the transports of goods included in

the category „high fiscal risk”, up to the actual unloading at the Romanian beneficiary or at the Romanian border in case of transitory transports) have diminished the phenomenon of fraud in intracommunity operations” (Alexandru A., 2013).

### **The importance of limiting fraudulent schemes in the EU and Latvia**

Value added tax (VAT) has spread to more than 140 countries worldwide (Semerad P., Bartunkova L., 2016), including the EU. However, as identified by Bukhsh and Weigand (2014), few Member States publish estimates of the size of the problem; it is believed that in some countries it has reached levels of up to 10 % of VAT receipts (Bukhsh F. A., Weigand H., 2014). Pfeiffer & Semerad (2013) believe that the existing VAT system is very attractive for building fraud schemes because it is relatively simple (Pfeiffer S., Semerad, P., 2013). Due to the existing legislation in the EU Member States, it is extremely complicated for tax administrations to eliminate the activities of fraudulent schemes because in order to limit the tax payer’s economic activities, tax administrations have difficulties in proving that the concrete tax payers are involved in VAT fraud schemes. Besides that, VAT fraudsters specialize in declaring cross-border trade transactions, involving suppliers of different EU Member States or even non-EU countries (The European Commission, 2017).

Theoretically, there are several ways to prevent or reduce the missing trader fraud, for example when it is not possible to recover the calculated VAT from the missing trader, his or her business partner could be obliged to pay the missing amount of VAT into the state budget. This solution is not sufficient, because it will always be necessary to prove that the partner knew or had to know that he or she was participating in VAT fraud (Podlipnik J., 2012), (InfoCuria - Case-law of the Court of Justice, 2017) . Therefore, Timmerman (2016) has joined the discussion on how to reach a balance

between effective criminal liability in VAT fraud cases and the interpretation of legal principles by the Court of Justice of the European Union, and the EU fundamental rights and the national standards (Timmerman M., 2016).

During the last couple of decades it was proved that the EU concept of VAT in force has clearly reached its limits and exhausted its potential; economic and technical development turns the system more and more vulnerable to tax fraud and tax avoidance (Solyom B., 2013). The European Commission’s special report of 2015 entitled “Tackling Intra-Community VAT: more action needed” (European Court of Auditors, 2016) described the missing trader and VAT carousel fraud schemes, but effective methods for combating VAT fraud have not been developed (Hjubka M. M., 2014).

Each individual Member State is unable to combat fraud schemes which are related to new forms of trade and in which several countries are involved (Council Directive 2013/42/EU). For international cooperation and exchange of information between Member States a number of information exchange tools are used:

- exchange of information on request of a Member State, using a standard form – SCAC form approved by the Standing Committee on Administrative Cooperation;
- VAT Information Exchange System VIES, set up under the Council Regulation (EU) No. 904/2010 of 7 October 2010 on administrative cooperation and combating fraud in the field of value added tax;
- multilateral controls conducted simultaneously in several countries;
- EUROFISC network, which is used for fast and targeted exchange of information between Member States with a focus on suspicious traders or so-called conduit companies.

Because of the limited resources of tax administrations, tax administrations have started to use tax risk management practices, ensuring



optimal allocation of labour, finances, time and other resources, thus achieving the most effective compliance with tax obligations.

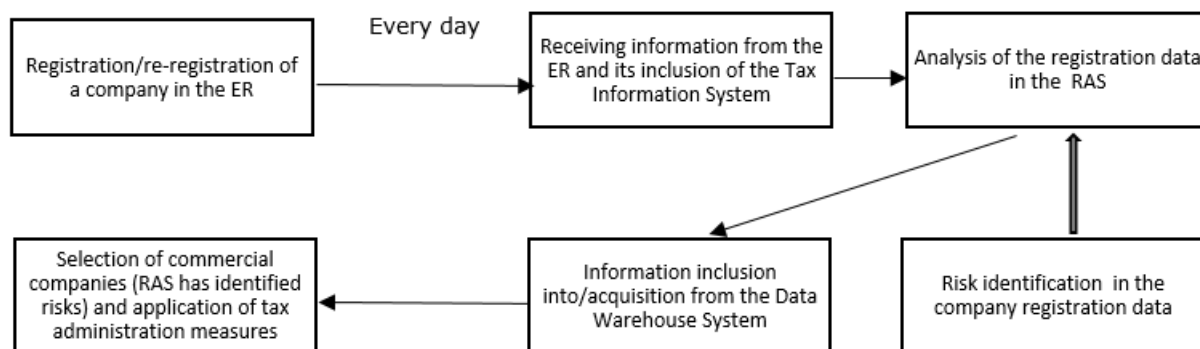
**The importance of identifying risk addresses in limiting fraudulent schemes**

Due to the development of information technologies, dishonest taxpayers can build more complex tax fraud schemes. At the same time tax administrations can react more quickly to the actions taken by fraudulent taxpayers with the help of information technologies. Time is a very important aspect in the fight of tax administrations against the tax fraud activities carried out by the missing trader; therefore, an effective fight requires a faster tax non-compliance risk analysis and a mutually agreed action program between different state institutions.

In the Latvian SRS four information systems are used for VAT risk analysis – Data warehouse (centralized database that is transformed in a form suitable for analysis), ESKORT (a system for legal entities risk analysis), VIES (VAT Information Exchange System), Tax Information System as well as the Analyst’s Notebook – a tool for visualization of data relationships.

The Rapid Alert System (RAS) (early warning system for changes in the registration data of legal entities) is the Tax Information System (hereinafter - TIS) functionality, through which risk information on enterprises is recorded by using information on changes in the registration

data of legal entities. The information of the Rapid Alert System on a company’s official’s current connection with fictitious companies is also used in the process of registration of taxpayers’ applications and their review by Latvian SRS and to identify risky taxpayers against whom Latvian SRS should apply restrictive measures concerning their economic activities, such as excluding these traders from the VAT register of Latvian SRS. The goal for implementing the Rapid Alert System is to ensure that dishonest taxpayers whose actual business goal is to avoid paying VAT or defraud VAT from the state budget are detected as early as possible. The Rapid Alert System provides automatic warning to Latvian SRS on potential missing traders and VAT scheme members. The operational results of the Rapid Alert System are used in work with taxpayers’ registration in the VAT register or refusing to register for VAT purposes as well as exclusions from the VAT register. Information on changes made by taxpayers in the Commercial Register of the Register of Enterprises becomes available in the Rapid Alert System of Latvian SRS only after data transformation that takes place every working day, during the night (Figure 1). The latest information on the taxpayers registered in the Rapid Alert System is available on the day after the changes in the registration data of legal entities are made.



Source: authors’ construction

Fig. 1. The process of the Rapid Alert System

Information on changes made by taxpayers in the Commercial Register of the Register of Enterprises becomes available in the Latvian SRS Rapid Alert System only after data transformation that takes place every working day, during the night (Figure 1). The latest information on the taxpayers registered in the Rapid Alert System is available on the day after the changes in the registration data of legal entities are made.

The data available in the TIS Rapid Alert System are analysed on a daily basis. The system is used in Latvian SRS in order to take decisions on taxpayers' registration in the VAT register, to decide on taxpayers' exclusion from the VAT register and the suspension of their business activities. To date, the Rapid Alert System contains 305 risk objects in total, 188 of which are current, of which 118 risk objects are addresses, other risk objects are associated with the risk persons, phone numbers, negative information about the company etc.

Risks that appear about a concrete taxpayer in the Rapid Alert System do not necessarily indicate that this person is dishonest. The system only draws attention to potential risks. When analysing the economic activities of a taxable person, the tax inspector has to decide whether the risk is justified. The Rapid Alert System compares the changes in the company registration data with risk objects defined in the system, such as risk addresses, and in cases when the specific registered address is included in the list of risk addresses, the company is included in the list of risky taxpayers.

Each taxpayer before the commencement of his or her economic activities must be registered in the Register of Enterprises of the Republic of Latvia. ER examines only the formal document compliance with the law requirements, but does not evaluate the actual business goal of the commercial company. The Register of Enterprises electronically sends the received VAT registration application to Latvian SRS for reviewing and decision taking.

The law "On Taxes and Fees" includes paragraphs about risk address and risk persons who are not able to provide for themselves or overcome specific difficulties, and who do not receive sufficient assistance from anyone else, thus social security has been increased. On 21 July 2012 the Parliament of the Republic of Latvia adopted amendments to the Law "On Taxes and Fees", which will enter into force on 27 July 2012; there Article 1 was supplemented with Paragraph 30, which states that a risk address is the address of the taxpayer, if there exists at least one of the conditions laid down by the law. Inclusion of the taxpayer's address in the list of risk addresses, if compared with the results to be achieved, is a long and complicated administrative process that takes up to several months. In addition, using the list of risk addresses and persons in the process of business registration is a solution based on previous experience.

During the period from 30 June 2015 to 31 March 2016, Latvian SRS has included 93 addresses in the list of risk addresses. 3,727 companies had registered their legal addresses in these addresses at the moment when the decision was taken. In Riga there are 45 addresses with 2,898 companies.

One of the problems is detection of such companies at an early stage – at the time of business registration and forbidding the registration of such companies, whose real business goal is not to make a profit from economic activities. This would mean that Latvian SRS, together with the Register of Enterprises, should develop the risky taxpayer's profile, and introduce a risk management system in the company registration process in the Register of Enterprises in order to detect potential fictitious companies at the moment of their registration or re-registration. It is important to limit the possibilities to register potentially fraudulent companies, otherwise this is a fight with consequences and resources are used for

identification of such commercial companies, suspension of their economic activities, exclusion from the VAT register as well as controls and collection of evidence for the recognition of transactions void and in order to reduce the extent of damage caused for the state budget, and later liquidation of such business companies.

On 1 January 2017 amendments to the law "On the Register of Enterprises of the Republic of Latvia" entered into force, here it is laid down that the ER will provide information to the State Revenue Service on submitted applications, so that SRS can examine these applications prior to registration taking into account a number of characteristics of the applicant. Before registering a person in the VAT register, risk analysis is carried out, but during this process dishonest taxpayers use "clean" natural persons and legal addresses. After a successful registration in the VAT register, they replace the company officials by risk persons or re-register the address to a risk address.

If before a person's registration in the VAT register, Latvian SRS has tools for limiting dishonest taxpayers entering the VAT system or at least for a burden on the entry, then in the cases when commercial registration data are changed, the availability of such tools is limited. So, the fight with such fictitious companies at Latvian SRS is a much more complicated task because in this process it is not possible to proactively avoid or limit such situations, but Latvian SRS has to fight with consequences and take restrictive measures against such companies by limiting their economic activities (suspension of their economic activities, exclusion from the VAT registry of Latvian SRS as well as performing controls and gathering evidence). But this is a time-consuming process during which the dishonest taxpayers continue to cause losses to the state budget.

### **Conclusions, proposals, recommendations**

1) Upon evaluation of the situation with VAT defraud schemes, it can be concluded that

registration of companies in addresses where no economic activities are carried out gives no right to dishonest taxpayers to deduct input VAT; therefore, it does not cause losses to the state budget. Dishonest taxpayers' involvement in VAT fraud schemes is possible only if they are in the VAT register. This means that the Register of Enterprises of the Republic of Latvia needs to develop a risk taxpayer's profile and introduce a risk management system in the company registration process in the Register of Enterprises, and also reduce the possibility of including inappropriate facts in the commercial register in order to limit the possibilities for the registration or re-registration of commercial companies, whose true business goal is participation in VAT fraud schemes.

- 2) The Rapid Alert System needs to include a new risk object – a potential risk address – an address about which the information has been assessed by Latvian SRS and a decision has been taken that this is the address of companies whose business goal is participation in VAT fraud schemes. Such an address cannot be included in the list of risk addresses but it is possible to automatically grant it the status of "observe" for the companies registered there. Complementing the Rapid Alert System by such a new object, tax administrations could continue to observe the companies, which are or were registered in the potential risk address and more scrupulously monitor their VAT transactions, and ask a company official to come to Latvian SRS to provide explanations.
- 3) The risks in the Rapid Alert System should be supplemented by such new risks as a taxpayer's EU business partner who is defined as a missing trader within the framework of EUROFISC and a company official who is linked to a taxpayer defined as a missing trader within the framework of EUROFISC.

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## THE EVALUATION OF MICROENTERPRISE TAX REGIME EFFICIENCY IN LATVIA

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**Abstract.** The primary goal of the article is to study the effect of the single tax introduction for the microenterprises in Latvia. The major aspects affected by the new regime introduction studied in the present article were net registration of microenterprises, the employment level in the country, the budget revenues. The tax benefits and exemptions available for microenterprises in Estonia, Latvia and Lithuania are considered in the article, too. The results of the research indicate that the largest number of tax exemptions for micro-entrepreneurship are available in Latvia. Besides, it was discovered that Latvian tax system is characterized by the lowest level of tax harmonization towards micro-entrepreneurship and the lowest level of the tax neutrality. Existing MET regime was not admitted to be efficient with regards to its impact on the researched aspects. The need for Latvian tax policy change with respect to the microenterprises is substantiated in article.

**Keywords:** tax regime for microenterprises; tax policy development for microenterprises; taxation of microenterprises in Latvia and Baltic states.

**JEL code:** E61, E62, L26

### Introduction

The tax policy exerts a major influence on the entrepreneurial activity (OECD, 2004; Huizinga, Laeven, 2008). Tax policy is able to motivate or demotivate entrepreneurial activity, investment activity and company development (Dickinson, P., 2013; Prohorovs et al., 2016). According to Carter (2013), the strategy in relation to the taxation of the micro, small and medium-sized enterprises is of the outmost importance in the overall tax architecture. Ang (1991) states that micro, small and mid-enterprises are too heterogeneous to consider them as one category of enterprises. Carter (2013) believes that the enterprises, which can be classified as micro-enterprises (ME), are not homogeneous as well (not only classical limited liability companies but also other types of small businesses, which comply with European classification (EC, 2008), are considered as ME in this article). ME undoubtedly form the largest group of enterprises according to the quantity. The share of ME in Europe is 92.2 % (Wymenga et al., 2012), while in Latvia 89 per cent of companies are ME (Prohorovs, Beizitere, 2015), which is 3.2 % lower than in Europe. Based on this, it can be assumed that under certain conditions, which would include also efficient tax system built-up towards ME, there is a potential in Latvia to

increase the quantity and the share of ME in the total number of the enterprises.

Almost every company begins its activity as ME. Besides, ME exert significant impact on the economy development, present and future state budget revenues and expenditures, social policy. Accordingly, the selection of the correct approach to the development of tax policy in relation to the ME plays a major role.

In 2010, a new tax regime for the microenterprises, having the turnover of less than 100 thousand euro and employing less than 5 employees, was introduced in Latvia. Microenterprises were charged with 9 % (12 %/ 15 % in 2017) single turnover tax. The companies are exempt from making social contributions and personal income tax payments for employees. However, as admitted by the government of Latvia, MET regime does not provide sufficient social security to the people employed by the microenterprise (Mikrouzņēmumu nodokļa likums, 2010). Therefore, the main goal of the present article is to research the impact and the efficiency of the microenterprise tax (MET) regime introduced in Latvia in 2010.

It is well-known that a new tax policy in relation to ME has to be developed in 2017 (Delfi bizness, 2016). To be able to correctly define the new tax rates, exemptions and tax benefits

within the tax policy for ME, it is crucial to determine approaches to the development of tax policy for ME and other forms of micro-entrepreneurship in Latvia taking into account the local specifics.

To achieve the stated goals authors of the present paper primarily employed the methods of comparative analysis and descriptive statistics.

Based on the obtained results the authors conclude that the problems associated with MET regime outweigh the benefits it provides and, therefore, its efficiency is minor.

Scientific contribution of the article is the analysis of fiscal policy efficiency in Latvia, Lithuania and Estonia in relation to micro enterprises, analysis of the MET regime efficiency in Latvia, as well as recommendations for improving tax policy in relation to micro and small enterprises in Latvia.

#### **Literature review**

##### ***Main factors influencing the development of tax policy for microenterprises***

The way the tax system affects the small (and medium-sized) enterprises and tax legislation compliance issues by these companies since a long time are of central importance both for the economic policy authorities and the tax authorities (Carter, 2013). According to Makedonskiy (2005), an important task of the state is to create an economic environment favourable to all kinds of socially important entrepreneurship. He believes that when developing tax policy one should take into account the features, specifics and particular needs of groups of companies, which do not apply the general tax regime. Carter (2013) considers that to assess the successes and failures of the existing tax policy in relation to the small business, one needs to conduct a comprehensive analysis of the causes and possible consequences when developing the new tax policy applicable for the particular conditions. He believes that a thorough analysis of the taxpayers has to be done: for which groups and to what extent simplified regime is required.

Makedonskiy (2005) states that it is appropriate to use a fixed tax regime and relatively simple rules for the calculation and payment of tax for those type of companies (and individuals) that often avoid regular taxation. Carter (2013) considers that the abuse of the use of the simplified tax regimes is a serious problem, since the tax regime established for small (and medium-sized) businesses, affects the overall operation of the tax system, also in the context of tax neutrality and fairness. He notes that the tax system of micro, small and medium-sized enterprises also affects the level of the shadow economy and business growth opportunities. According to Makedonskiy (2005), the largest scale of informal economic activities and tax evasion is most common in developing countries, but in recent decades, this trend is similar for countries with economies in transition. Carter (2013) also believes that in many developing countries, the majority of small and medium-sized enterprises, and in particular ME, are to a greater or lesser extent operating in the shadow economy. According to him, informality among the above listed groups of companies is fairly widespread in many countries with an average income level. Makedonskiy (2005) believes that the essential factors for configuration and operation of the tax system are relative size of the shadow economy, the level of corruption (also by the tax authorities) and the consent of the taxpayers to comply with tax laws. Carter (2013) states that developed countries, in the framework of a long-term strategy aimed at stimulating taxation on the basis of the financial reporting, gradually restrict the application of special tax regimes. He believes that poorly designed tax policy in relation to the small business, as well as the improper tax administration can result in serious leakage of tax revenues and social security contributions. According to him, in some cases, tax exemptions and benefits are not offset by the benefits of the state and society in terms of increased economic

growth, employment and productivity of small (and medium-sized enterprises).

**The reasons for the possible differences in the approaches to the taxation of various types of micro-enterprises**

Maikilijs and Robertss (2012) believe that when analysing and the developing tax policy, it is important to take into account the heterogeneous nature of enterprises, which is characteristic for ME. According to Carter (2013), ME are the companies that are unlikely to have incomes above the personal tax threshold (above the subsistence level). Such enterprises are likely to be a family business and, as a rule, do not hire employees. While in accordance with the European classification, ME is an enterprise, which employs fewer than ten employees, its value of net turnover (per year) or the sum of the total assets should not be equal to or be greater than € 2 million (European Commission, 2008).

According to Carter (2013), taking into account significant level of ME heterogeneity, there is a great diversity both in the theoretical approaches and approaches in different countries towards the design and operation of a simplified tax regime for small businesses (Carter, 2013). He states that none of the simplified regime models is suitable for all cases. Carter (2013) finds that in fact many countries are struggling with the trade-off between system simplicity and fairness, as well as the ease of tax burden for particular ME activities. According to Carter (2013), ME sector and small businesses in any country includes street vendors, who barely reach the income of subsistence level, highly paid professionals, companies with a substantial net turnover, as well as innovative start-ups and other types of enterprises. Based on these facts, Carter (2013) considers that an important factor for the proper tax policy design is a thorough understanding of the significant heterogeneity of ME (and small businesses) in different countries.

**Rationale for the introduction of tax exemptions and benefits for small businesses**

According to Carter (2013), in many countries the emphasis is put on the development of small (and medium) enterprises due to the fact that small business is a source of employment, innovation and economic growth. According to OECD data (2015b), promotion of small business is an effective mean of creating jobs and reducing poverty. According to Carter (2013), exemptions and benefits may take the form of reduced tax rates, tax holidays for start-ups, special tax incentives for hiring labour or investing in R & D.

The analysis of the current situation shows that in many countries there are different forms of exemptions and benefits for small businesses. The US Congressional Research Service, (2002) points out that tax incentives should be aimed at promoting a certain type of behaviour of a particular group of taxpayers or at assisting taxpayers in certain circumstances. Toder et al. (2002) believe that the introduction of tax benefits and exemptions must be accompanied by justification, which provides the answers to the following questions: why the introduction of a specific tax credit in fact is necessary; what goals targets the introduction of tax benefit, and how to evaluate the success or failure of this measure; what can become an evidence that the introduction of tax incentives would achieve stated objectives at an acceptable cost; why the introduction of tax benefits is better than the direct budget expenditure to achieve stated objectives. Hungerford (2006) finds that the tax expenditures are an important source of fiscal support, and are used to achieve a variety of economic and social objectives. He believes that the provision of tax benefits and exemptions can be justified if they are: smoothening market failures; aimed at solving urgent problems; not introducing unnecessary complexity to the tax legislation; not distorting the behaviour of economic agents; more effective as judged based

on the comparison of costs and benefits than the programs creating direct costs. Malinina (2010) points out that the introduction of tax incentives and benefits, as well as the tax exemptions, not only has a direct effect, which results in the tax revenue reduction, but also has an indirect effect, which is much more complicated and not always appears to be a loss to society. Altshuler and Dietz (2008) found that the use of tax incentives

aims at addressing specific problems, such as investments for economic growth.

## Research and Discussion

### Taxation of microenterprises in Baltic countries

To start with, we would compare the tax policies applied to different forms of ME in the Baltic States, and consider the main benefits and exemptions in the taxation in Latvia, Lithuania and Estonia (Table 1).

Table 1

### The main benefits and exemptions in the taxation of various forms of micro-enterprises in the Baltic States

Country/Type of benefits and exemptions	Latvia	Estonia	Lithuania
Personal income tax and social security contributions exemptions and benefits	Very significant reductions exist	Almost no reductions (Unemployment tax for the owner is reduced from 1.6 % to 0.8 %)	Individual merchant is eligible to pay social contribution taxes by 5 percentage points less than the standard rate
VAT thresholds	Less than 50 000 EUR	Less than 16000 EUR	Less than 45000 EUR
Benefits and tax exemptions applied in calculation of corporate income tax (CIT)	No other exemptions except for MET regime, Individual Merchant (IM), Individual Company (IC), Sole proprietor/self-employed	Reinvested profit is not taxed (regardless of the turnover)	The tax rate for micro enterprises with a net turnover of less than 300 million euro is set at 5 %, provided that this is the only business of the owner (and his family)

Source: author's compilation based on *Business Guide Lithuania, 2016; Sorainen, 2015*

Comparing tax policy in the Baltic States with respect to various forms of small business, we can state that as of 1 January 2017 in Latvia there was the most liberal tax policy in relation to ME (with not more than 5 employees and a net turnover of up to 100 thousand euro) in the Baltic countries. Our opinion is based on the following facts. First, the highest threshold for VAT is in Latvia. Second, starting with 2010 ME in Latvia can operate under single (imputed) tax policy, which is not the case in Lithuania or Estonia. Third, ME operating under MET regime are eligible to pay very limited amount of payroll taxes, which are several times lower than the same payments made by the similar companies in Lithuania and Estonia. It can be noted that in Latvia there is not just the most liberal of the three Baltic countries, tax policy in relation to various forms of micro-enterprises, but also that this policy is significantly more liberal than the existing tax policy in Estonia and Lithuania in

relation to ME with a turnover of up to 100 thousand euro and not more than five employees. However, we noted that there is completely the opposite relation seen through the taxation policies towards the micro-enterprises with a turnover or balance sheet value of up to 2 million euro and employing less than ten people. The best tax conditions for this ME category are detected in Estonia. First, in Estonia since 2000, all categories of enterprises have a deferred CIT payment prior to the distribution of profits to dividends. Second, Estonian companies are not obliged to make CIT advance payments, which leaves at their disposal more financial resources. Third, if the ultimate beneficiaries of the Estonian enterprises are individuals - residents of Estonia, then, unlike the situation in Latvia, they do not pay income tax on dividends. According to Prohorovs et al. (2016), as a result of these three factors, provided the distribution of 30 % of profit to dividends, Estonian companies have



64 % of profit left over at their disposal. In contrast, Latvian enterprises are left with 37 % of the profits. Prohorovs et al. (2016) believe that the introduction of the CIT deferred payment prior to the profit distribution has a very positive impact on the financial performance of Estonian companies, primarily of the small enterprises. In addition, the introduction of the deferred CIT payment reduced the level of shadow economy in Estonia and increased tax revenue in the state budget. Fourth, according to Dombrovskis (2016), the payroll costs of Estonian enterprises are a few percentage points lower than in Latvia. At the same time, Estonian tax system remains neutral to all categories of taxpayers. In Lithuania, there are two advantages offered by the tax policy in relation to the ME. First, for the companies with a turnover of 300 million euros and less preferential CIT rate of 5 % is set (Sorainen, 2015). Second, Lithuanian individual companies have to pay taxes on labour by almost 5 percentage points lower than the rest of Lithuanian companies has to pay.

In our view, exactly ME, which have an annual turnover of more than 100 thousand and a greater number of employees than 5 people can have a significant potential for further development, as well as these firms are more promising to support country's economic growth and to increase tax revenues. It is also true that they proved their viability and ability to develop as they were able to reach turnover and employee number, which exceed MET regime criteria. On the basis of the data obtained from the Lursoft, we calculated the number of registered in Latvia ME, which comply with the criteria of ME defined by EU but which do not operate under MET regime. As of 1 January 2015, 66826 limited liability companies registered in Latvia corresponded to the EU criteria for ME but did not have the ability to use MET regime. Analysis of the data shows that, in contrast to Estonia, as well as to a large extent in contrast to Lithuania, 72.6 % of ME in Latvia do not have

any tax exemptions and benefits. According to the State Revenue Service of Latvia, as of 1 January 2015, 6236 limited liability companies moved from MET regime to the general tax regime. 22.4 % of the limited liability companies that have used the MET regime gained the potential for further development and switched to regular taxation. And for these ME, and the rest of ME complying with EU classification the current tax policy in Latvia does not provide for benefits and exemptions unlike for similar ME in Estonia and Lithuania. In our opinion, when providing tax exemptions and benefits the principle of continuity, or the so-called escalation principle for more "senior" ME categories and for small businesses, and, perhaps, medium-sized businesses must be in place. In Latvia, unlike in Lithuania, and especially in Estonia, the continuity principle (or "escalator") of tax support for the ME growth is not implemented.

The analysis of the tax benefits and exemptions applied in the three Baltic countries, allow us to conclude that the tax policy of Estonia is the most consistent with the principle of tax neutrality with respect to the taxpayers and ME, primarily due to the introduction of deferred CIT payment until the profit distribution.

It can be assumed that as a result of the tax neutrality principle implementation in relation to all groups of companies and the introduction of deferred CIT payment, which stimulates the development of enterprises, Estonia demonstrates higher rates of tax collection per capita and the highest number of the enterprises per unit of population, given that there are no other tax exemptions and benefits for ME and for Estonian workers.

### ***The evaluation of MET efficiency in Latvia***

We would bring forward several aspects, which were affected by the introduction of MET in 2010 considering entrepreneurial activity in the country, employment level, budget revenues.

Let us consider the facts we have presented in Table 2 on the basis of data obtained by us from

the State Revenue Service (SRS) of Latvia on 3 August 2016. As seen from the data, in the first year after MET regime introduction, it was mainly

(over 70 %) used by the limited liability companies, which complied with MET criteria.

Table 2

**Data of net registration of business forms operating under MET regime in Latvia**

MET payers	2011		2012			2013			2014			2015		
	Quantity	Structure	Quantity	Structure	Dynamics	Quantity	Structure	Dynamics	Quantity	Structure	Dynamics	Quantity	Structure	Dynamics
Individual Merchant	498	5 %	269	4 %	-46 %	207	3 %	-23 %	132	2 %	-36 %	101	1 %	-23 %
Individual Company	61	1 %	7	0 %	-89 %	0	0 %	-	19	0 %	-	-8	0 %	-142 %
LLC	7 478	70 %	5 178	70 %	-31 %	4 613	68 %	-11 %	3 509	44 %	-24 %	2 303	32 %	-34 %
Self-employed (Saimnieciskas darbības veicejs)	2 592	24 %	1 893	26 %	-27 %	1 993	29 %	5 %	4 372	54 %	119 %	4 735	66 %	8 %
<b>Total</b>	<b>10 629</b>	<b>100 %</b>	<b>7 347</b>	<b>100 %</b>	<b>-31 %</b>	<b>6 813</b>	<b>100 %</b>	<b>-7 %</b>	<b>8 032</b>	<b>100 %</b>	<b>18 %</b>	<b>7 131</b>	<b>100 %</b>	<b>-11 %</b>

**Source: authors' calculations based on the States Revenue Service data from 3 August 2016**

The share of individuals operating as self-employed (saimnieciskas darbības veicejs) was 24 % in total amount of entities operating under MET regime. For several years, the share of self-employed persons relative to the overall net registration forms with MET regime more than doubled to 54.4 % in 2014 and to 66.4 % in 2015. In turn, the share of limited liability companies operating under MET regime relative to the overall net registration forms decreased from 70 % in 2011 to 43.6 % in 2014, and in 2015 to 32.2 %. The share of limited liability companies has become two times less than the share of individuals in 2015. It has to be noted that as of 1 January 2016 the share of the limited liability companies was 58.3 % of the total entities operating under MET regime, according to the State Revenue Service of Latvia. The share of individual entrepreneurs amounted to 3.6 per cent, the share of individual businesses totalled 0.5 %, while the share of individuals (self-employed) was demonstrating annual increase and reached 37.4 % in the beginning of 2016.

The reported trend shows that, since 2014, the MET regime started to be used mainly by the private persons, whose activity is not (or not

completely) defined as entrepreneurship. It can be assumed that the substantial part of the self-employed operating under MET regime have chosen this mode in order to reduce the payment of personal income tax and social security contributions. The Law on Microenterprise Tax, which came into force in Latvia on 1 September 2010 (Mikrouzņēmumu nodokļa likums, 2010) states that the regime applies not only to Individual Merchant, Individual Company, agricultural or fish company, to a limited liability company, complying with the relevant ME criteria, but also to the self-employed. But in the Law on Microenterprise Tax, introduced in 2010, the main goal was not stated. On 13 May 2015, an addition has been made stating the purpose of the Law: the law aims to reduce the administrative and tax burden on micro-enterprises, especially in the business' start-up period, as well as on the sectors with low-income potential, while respecting the society's general interest in fair competition and social security. On the basis of the goals of the Law adopted in this edition, it is not obvious that in addition to ME, the law should apply also to the self-employed (saimnieciskas darbības veicejs), since they are

in fact not ME. Besides, the operating activity of individuals does not fully reflect the essence of the entrepreneurship and, as a rule economic activity of private persons is not aimed at the significant future business growth and, therefore, does not need to attract financial resources from external sources to finance business growth. In this case, the beneficial taxation of this group of individuals should be aimed at reducing the poverty level (Carter, 2013). One of the goals Law on MET targets is the society's general interest in fair competition and social security. If guided by this provision of the Law, MET benefits can be applied only to individuals, which belong to the socially vulnerable groups of the population with low income. One can conclude, based on the goal of the Law to apply MET during the start-up phases of the business, that the duration of the preferential ME tax treatment can/should be limited. However, as of 15 January 2017, the above mentioned provisions of the Law were not changed. It should be noted that neither in Lithuania, nor in Estonia there are similar to MET tax regimes, according to which individuals are exempt from social security contributions and personal income tax (Table 1).

In our opinion, as well as, in the opinion of Toder et al. (2002), it is necessary to regularly compare the positive and negative effects of preferential tax regimes (MET) and their impact on economic growth and population's welfare. Evaluation of the effectiveness of tax policy should be in short-, medium and long-term and, if necessary, change the direction and the form of tax support (of micro-entrepreneurship). Another application area of the Government's efforts to increase the number of taxpayers is to reduce the impact of factors negatively affecting the tax morale of the taxpayers. According to Makedonskiy (2005), these factors include the relative size of the shadow economy, the level of corruption (also related to the tax authorities) and the consent of the taxpayers to comply with tax laws.

So, the next dimension of the MET efficiency evaluation is its impact on the formal employment stimulation (and the impact of tax fairness on the rate of formal employment and on the ratio of the employees to the number of residents in the Baltic states) (Table 3).

Table 3

**The share of employed in the total population in the Baltic countries during the 2006-2015**

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estonia	46.5 %	47.1 %	47.3 %	42.9 %	41.2 %	43.8 %	44.7 %	45.3 %	45.6 %	46.6 %
Latvia	44.7 %	46.2 %	46.3 %	40.9 %	39.5 %	40.8 %	41.9 %	43.1 %	43.1 %	43.9 %
Lithuania	43.0 %	44.0 %	43.7 %	40.8 %	39.5 %	40.5 %	41.6 %	42.7 %	43.9 %	44.8 %

Source: authors' calculations based on Eurostat data

In Latvia, in 2014-2015 the ratio of employed to the total population was the lowest among the Baltic countries. In 2015, the share of employed in Latvia in relation to the population size was 2.74 percentage points lower than in Estonia and almost 1 percentage point lower than in Lithuania. Although in 2007 and 2008, the share of employment in Latvia was just 1 percentage point lower than in Estonia and more than 2 percentage points higher than in Lithuania. Since 2011 and through to 2015, an increase in the

growth of employment in Latvia and Estonia was about 3 percentage points. Increase of the proportion of employed in the population in Lithuania for the period was 1.2 percentage points higher than in Latvia.

However, Lithuania and Estonia did not introduce during this period any benefits and exemptions for ME or other groups of companies. Based on our analysis, we can conclude that MET regime introduction in Latvia did not increase the employment rate. Moreover, of the three Baltic

countries, Latvia is the only country, where the ratio of employed to the population has not reached the level of 2006. This can be explained by the lack of the effective and acceptable to the taxpayers tax policy, low tax fairness and, as a result, a lower level of tax moral of the potential taxpayers in Latvia. Lower tax moral and higher level of the shadow economy in Latvia was confirmed by Putnins and Sauka (2015). If Latvia was able to engage in the employment the same share of population as in Estonia, then more than additional 50 thousand people would take part in the contribution to the state budget and social security payments.

Based on our analysis, it can be assumed that the increase in the number of self-employed in Latvia in the period from 2011 to 2015 could have occurred mainly due to the introduction of MET regime, which significantly decreases the tax burden for the self-employed.

When analysing efficiency of the MET introduction, budget revenues cannot be ignored. Table 4 presents the data on growth of the tax collection and GDP growth prior to and post MET introduction. MET introduction primarily affected the payroll taxes (personal income tax and social contributions), which posted lower growth during the period from 2010 to 2015 as compared to GDP.

Table 4

**Growth rate of GDP and four main taxes collection during the 2006-2015  
(year over previous year)**

<b>GDP and taxes</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2010-2015</b>	<b>2007-2015</b>
Real GDP growth	8 %	-22.7 %	-4.7 %	13.0 %	7.8 %	4.2 %	3.7 %	3.1 %	36 %	7.8 %
VAT	-11 %	-27.9 %	7.5 %	14.7 %	15.7 %	7.0 %	5.5 %	5.0 %	57 %	8.3 %
Personal income tax	13 %	-31.0 %	10.0 %	2.2 %	12.1 %	4.3 %	5.7 %	3.4 %	30 %	11.9 %
CIT	27 %	-60.0 %	-40.2 %	62.8 %	25.9 %	3.9 %	-1.8 %	6.8 %	123 %	-32.1 %
Social contributions	11 %	-11.7 %	-12.4 %	13.3 %	9.9 %	1.7 %	2.9 %	2.8 %	34 %	15.2 %

**Source: authors' calculations based on Eurostat data**

In the longer time period from 2007 to 2015, the growth of the payroll taxes collection exceeds GDP growth rate and, therefore, MET did not adversely affect the state budget revenues (Table 4). However, it should be noted that the tax collection to a major extent should have been affected by the economic conditions in the country as well as the change in the shadow economy size.

One of the main principles of the efficiency of tax policy is minimal distorting impact of taxes on the taxpayers behaviour (Hungerford, 2006). The tax system also needs to conform to the principles of fairness, including the application of the tax exemptions and benefits (Carter, 2013).

According to the Ministry of Finance of Latvia, social security contributions per employee paid

by the companies operating under MET regime in 2016 were 38.2 euro per month, and in 2017, they are expected to reach 61.9 euro per month (Leta, 2016). The average gross salary in the private sector in 2015 amounted to 799 euro per month (CSB, 2016). Accordingly, the amount of social security contributions per employee in the private sector in Latvia in 2015 was 272 euro, while taking into account the current rate of wage growth in 2017 contributions are expected to be around 300 euro. Despite the increase in MET rate to 15 per cent, the amount of social security contributions for employees working in the company with MET regime will be 5 times lower as compared to the employees of private enterprises operating in the regular mode.

We calculated that the potential yearly budget losses in 2015 due to the MET regime introduction as compared to the regular tax system could have been 234 mn EUR at 9 % rate and 194 mn EUR at 15 % rate in case the average salary paid by companies operating under MET regime would be equal to the gross salary in the country.

To a certain extent, this amount should be covered by other payers of social security contributions and personal income tax. In the future, such a significant disparity in the payment of social security contributions will have a negative impact on the welfare of the population of Latvia and especially on poorly protected groups of population (in the form of inability to raise the value of minimum pensions and other important expenditure of social budget). Besides, infrastructure investing and other spending of the municipalities are to be reduced as substantial number of employees employed by the companies operating in MET regime contribute significantly less in terms of the personal income tax payments than the employees of the companies operating under the regular tax regime. Similarly, according to Carter (2013), poorly designed tax policy in relation to the small business can lead to serious leakages in tax revenues and social security contributions.

If we assume the complete cessation of MET regime and that there will not be any introduction of tax exemptions for small business, it is very unlikely that the forgone tax revenues amount to less than 200 million euro per year. Shortage of tax revenue limits the execution of the current functions of the state in the public interest and reduces the amount of savings for social payments for future periods, which will further increase the burden on the state budget and increase inequality. Hungerford (2006) notes that there exists a number of principles that should be observed when deciding on the granting of tax exemptions and benefits. According to him, one of those principles is the assessment of whether

the tax incentives are more effective than the direct costs of the programme to address specific problems. Let us suppose that 50 % of the aggregate positive effect of MET regime introduction in 2015 was the transition of 2046 limited liability companies under MET regime to regular tax regime (data provided by SRS of Latvia). In this case, the "price" of budget costs (in the form of tax benefits) to one limited liability company, transformed into the regular tax payer in 2015 amounted to approximately 100 thousand euro.

According to Carter (2013), in some cases, tax exemptions and benefits are not offset by the benefits to the state and society in terms of increased economic growth, employment and productivity of small (and medium-sized) enterprises. Until the beginning of 2017, there were not any public announcements made about the results of the analysis of the MET introduction effectiveness.

### **Conclusion and recommendations**

The present article provides an insight into the effect MET had on various aspects of the country's economics including also fiscal policy. We have also reviewed the existing approaches to the development of the tax policy in relation to the micro enterprises in the Baltic States. As a result of the study, we can conclude that even though Estonia has not introduced any special tax policy tools to support ME or small business, ME support is provided by the deferred CIT payment until the profit distribution, which was introduced in 2000. Introduction of the deferred CIT payment in Estonia provides continuity with regards to the growth of companies and their transition to the larger group of companies (the escalator principle), while this type of tax incentive is neutral to all types of taxpayers. Estonian tax policies do not provide for social security contributions and personal income tax exemptions. As a result, in Estonia the principle of tax fairness is supported more than in Latvia and Lithuania.

Despite the lack of targeted tax exemption and tax incentives for ME Estonia has by 65 % greater rate of enterprise density per capita than Lithuania and Latvia have (Prohorovs, 2017). According to our data, there are better results of innovative technology companies' development and is higher activity of the private venture capital in Estonia. We found that the Estonian tax policy addressing the micro (and small) businesses<sup>1</sup> is the most consistent with the principles of the efficient tax policy among the three Baltic countries.

Obtained results indicate that certain mistakes were made when developing fiscal policy for the micro enterprises. Karlis Ketners considers that the special tax regime for micro enterprises in Latvia has been designed erroneously (Dienas bizness LV, Ru, 2016). Inguna Leibus (2014) states that often MET regime is applied by the companies for tax reduction purposes creating unfair competition and leading to the reduced social security of employees. In our opinion, the existing MET regime in Latvia and ME stimulation system in general require a radical change. More detailed findings are presented in the sections of our study.

Based on the research results, we have developed a number of recommendations regarding the approaches to the development of tax policy in Latvia in relation to the micro enterprises (and small businesses).

It is necessary to exclude from the MET regime all categories of self-employed (saimnieciskas darbības veicējs), since their activities, in fact, are not (or not completely) an entrepreneurial activity.

It is necessary to introduce an escalating system of incentives for ME and larger enterprises following ME. According to this system, new and developing companies (in terms of turnover and/or number of employees and, perhaps, the volume of paid taxes) would be able

to continually enjoy certain exemptions and benefits provided their ability to grow the indicators mentioned before. Our analysis shows that the best form of the step stimulus (the principle of the escalator) is the introduction of deferred CIT payment until the profit distribution.

The introduction of the simplified (single) tax (as MET regime) with the purpose of reducing poverty and for particularly small family businesses that do not employ hired labour, the tax threshold of turnover of such enterprises could coincide with currently existing in Latvia threshold for registration as VAT payer (50 thousand euro). Combination of the two thresholds should greatly simplify tax administration and broaden the existing base of taxpayers. As a result of exemption from VAT, such particularly small enterprises will have a tax exemption of up to 8677 euro per year, or the ability to set the price of their products /services of up to 17.4 % per cent less than the companies that are paying the VAT.

When defining the single tax rate, one has to take into account that the amount of tax payment per employee should not be less than minimum pension and medical care, and, preferably, should also include certain minimal amount to cover other functions and services of the state.

Not only the permanent, but also the time-limited tax incentive regimes (with a possible extension of tax benefits in case of the company complies with certain conditions) should be introduced. They should correspond with the current objectives of the Latvian economy. It is advisable also to foresee that the tax incentive regime for specific companies may be extended, subject to increase the volume of tax payments or increase the volume of export sales.

Informal employment as well as the higher level of the shadow economy are more characteristic for a small business. In addition, in Latvia due to a number of reasons, the level of tax morale of taxpayers is not high, and it is

<sup>1</sup> According to the Register of Enterprises, there are about 160 large enterprises in Estonia.

impossible to significantly increase it in a relatively short time period, even employing administrative measures. Therefore, we believe that one of the possible directions of employee

stimulation to make mandatory social security contributions may be more obvious personalization of social security contributions of a particular employee.

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## WHETHER THE HYBRID AND PUBLIC VENTURE CAPITAL FUNDS ARE THE FIRST INVESTORS OF YOUNG INNOVATIVE COMPANIES?

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**Abstract.** The paper deals with the issues of investment of hybrid and public venture capital funds. The results show that hybrid and public venture capital funds in Latvia in most cases are the first investors. Only a smaller part of these investments are investments of the early stages of funding. The results of our research suggest that venture capital funds with public participation avoid projects with a high level of information asymmetry. The consequence of this can be underfunding of young innovative companies with the potential for rapid growth, which, in turn, is not consistent with the goals of public subsidies of venture capital funds in the context of the need to stimulate innovative economic development.

**Key words:** venture capital, public and hybrid venture capital funds, start-up financing, seed investment, the first investors to start-up companies.

**JEL code:** G21, G24, G28, G32, L25, M13 Introduction

### Introduction

The issues of funding are key issues to the development of young innovative companies with rapid growth potential (Veugelers, 2011). The greatest difficulties in financing young innovative companies emerge in the early stages of funding (Reid, Nightingale, 2011; Prohorovs, Jakusonoka, 2012). At the same time, Ernst & Young (EYGM, 2014) notes that there are significant regional differences in the participation of business angels and incubators and other venture capital investors in the financing of young innovative companies. In some cases, the alternative to financing of young innovative companies with the potential of rapid growth in the early stages of their development may be hybrid and/or fully public venture capital funds (VCF). To finance young companies operating in the sectors of the economy based on knowledge and high technology, governments of various countries use VCFs with public participation (Cumming, 2005). The aim of our research was to obtain and analyse data on the stages of financing, in which hybrid and public VCFs of Latvia invested, and the number of cases where these funds were the first investors. If the first investors of portfolio companies were not VCFs, the aim of the research was to determine the categories of investors which were the first investors.

In the research, we put forward two hypotheses. The first hypothesis: in most cases, hybrid and public VCFs of Latvia are not investors at the early stages of financing. In making the first hypothesis, we proceed from the fact that, firstly, after the global financial crisis of 2008-2009 VCFs reduced their investment activity in the initial stages of financing (Prohorovs, 2013). Secondly, VCFs of Latvia are about 20 years old, i.e. approximately two times younger than VCFs of Western European countries and, due to this fact, the tradition and practice of venture investing in Latvia are less developed. Accordingly, management companies and venture capitalists of Latvia may not have sufficient work experience in the conditions of information asymmetry and, therefore, are not prone to increased risk, which is characteristic of the initial stages of financing. **The second hypothesis: hybrid and public VCFs of Latvia in most cases are the first investors of companies** (regardless of the stage of company financing). In making the second hypothesis, we proceed from the fact that, firstly, the activity of business angels is poorly developed in Latvia (Prohorovs, 2014). Secondly, with the exception of the Green Technology Incubator (legal name: Green Industry Innovation Center) created in 2014, (Green Technology Incubator, home page), in Latvia until 2016 there were no other business

incubators and accelerators, specializing not only in training the teams of start-up companies, as well as allocating funding for the most promising companies. Third, according to the information we have (perhaps due to the fact that Latvia is a young country with one of the lowest per capita income among the EU countries), in Latvia there is low activity of family, friends and non-professional investors ("fools") involvement (FFF) in venture capital financing of young innovative companies. To obtain data, we have conducted a special survey which includes an analysis of investment of all hybrid and public VCFs of Latvia for the period of 2010-2015, as well as an analysis of the types of VC investors who invested in companies prior to the investment of VCFs of Latvia.

The research contribution includes new data on the structure of investment of hybrid and public VCFs by stages of funding, on the structure of the first investors in the companies, as well as the testing of the theory of information asymmetry on the example of investment of hybrid and public VCFs. Our findings can be used for the development of national, regional and European policies to improve the forms, methods and types of financial support for young innovative companies and to increase the effectiveness of public and hybrid VCFs.

### **Literature Review**

Financial market barriers for innovative projects of young companies are too high (Veugelers, 2011; Soderblom et al, 2013.). A common problem of European countries in recent years is the problem of VC attraction from private and institutional investors (Tykvova, et al., 2012). Difficulty in attracting capital in recent years occurred primarily in funds that finance just the early stages of company development, which is particularly characteristic of the CEE countries (Prohorovs, 2014 b). Low rate of return in relation to the risk rate makes it difficult to attract investment for early stage VC in Europe (Cincera, Veugelersb, 2013). Therefore,

governments of some countries use hybrid and public VCFs to cover gaps in the financing of young innovative companies, mostly in the early stages of funding (Cumming, 2005; Cumming & Johan, 2007; Snieska and Venckuviene, 2011). The social capital should not simply be used as a VCF financing tool, but also be a catalyst for attracting private investors, as well as creating more attractiveness for investors to finance innovative projects namely (Pelly, Kramer-Eis, 2011). Public and European Structural Funds play a significant role in the development of small and medium-sized enterprises through investing in VCFs in Lithuania (Snieska and Venckuviene, 2011). In their opinion, the government participation in the financing of VCFs should be carried out so that the innovative SMEs have benefited from these investments. According to Cumming and Johan (2007), in Australia the pre seed VCFs with public participation are the main suppliers of projects for seed stage funding by other VC investors. The life cycle of start-up companies begins with FFF investment (Gromov, 2010). According to him, FFF investments are followed by investment of business angels and other sources of seed capital. This is followed by venture investment in early stages of funding from business angels (BA) and VCFs, and already only then - of later stages of venture capital, which is usually provided by VCFs (Gromov, 2010; Calopa et al, 2014). This scheme is a classic model of financing for young innovative companies (Berger & Udell, 1998). In the UK, BAs play an important role in the financing of high-tech start-up companies in the early stages of development (Sharpe et al., 2009). According to them, one of the reasons for this is the government support through the exemption of BA investment from taxation. BAs are the most important link between the initial and subsequent stages of financing companies, using venture funding (Vasilescu, 2009). BAs and BA syndicates in some cases can not only supplement, but replace VCFs in the early stages of funding

(Prohorovs, 2014 a). Young companies with high growth potential in the emerging sectors of the economy are particularly vulnerable to gaps in funding (Reid and Nightingale, 2011). In their opinion, the reasons for this are a high level of information asymmetry, lack of collateral, lack of reputation, market uncertainty and a number of other reasons. In case of the financial gap in the early stages of development of the companies, the necessary sequence of funding stages of companies in need of venture capital is not provided (Masson et al., 2013). VCFs with public participation provide "work" for VCFs, funding further stages of development of the companies (Hall, Lerner, 2010). In their opinion, if the government stimulates VCF investment in the initial stages of development of the companies, it can have a positive impact on private investment in the next stages of financing. In turn, the presence of gaps in the financing of young innovative companies reduces the flow of private venture capital transactions, which is one of the major conditions of country attractiveness for venture capital (Groh, 2010). Government policies should focus on enabling high potential enterprises to grow rather than merely increasing the number of firms in the economy (Tewari et al., 2013). Developing an effective government program of subsidizing venture capital is not a simple task (Cumming, 2005). To eliminate the gaps in financing of young innovative companies in the early stages of development, concentration of government support of venture capital investment in the earliest stages of funding is required (Prohorovs, 2014 b). Hybrid VCFs only temporarily solve the problem of the missing funds, but do not solve the problem of improving the quality of the investors in the VC industry (Jaaskelainen et al., 2007). According to them, the government should use other forms and methods to stimulate investors, experienced venture capitalists and entrepreneurs for successful development of young innovative companies in key technology sectors. In the use

of the VC to fund new innovative products, the best result is achieved through the cooperation of public and private capital, provided that the syndicate is headed by private capital (Bertoni, Tykvova, 2012). The theory of information asymmetry explains the essence of venture capital investment (Amit, et al., 1998). The level of information asymmetry in VC investment decreases with the transition from the earliest stages to each subsequent stage of financing (Aernoudt, 2005). VCFs with public funding have the potential to reduce the negative effects of high information asymmetry in venture investment (Brander et al., 2010 b). Cumming et al. (2013) concluded on the advantages of hybrid VCFs, compared to fully public VC funds. The best results in VCF investment are achieved in the event that the government support is present, but not dominant (Brander et al., 2010 a). The government should use a broader set of tools to stimulate the VC than simply allocate more public funds to VCFs (Da Rin, et al., 2006).

#### **Data and Methodology**

In the period of 2010-2015, Latvia had five VCFs in the investment cycle. At the same time, one more hybrid fund acted in Latvia (Baltcap). However, its specialization in stages of financing and investment strategy is more in line with Private Equity Funds; therefore, the data on the investment of this fund were not included in the research. All five VCFs considered in the research have public capital investment. The generalized results of research of the five VC funds exclude the data on investment of Imprimatur Capital Seed Fund, since it is a special fund with 100 per cent public capital, which aims only at the pre seed and seed funding for innovative projects. Therefore, the data obtained on investment of Imprimatur Capital Seed Fund in the present research were not added to the amount of investment of the four analysed VCFs, but were used only for the purpose of evaluating the effectiveness of the Fund's activities from the perspective of the subsequent investment of

other VCFs in the companies, which in the pre seed stage were financed by Imprimatur Capital Seed Fund. One of considered funds is hybrid (with the participation of public and private capital). The share of public capital in this VCF is about 67 per cent. Three other VCFs were almost completely funded by public capital (under the terms of the tender for the VCF management, the contribution of private management companies (General Partner, GP) was 5 per cent of the fund amount). To obtain data on investments of the five VCFs of Latvia and information, whether these investments were the first for portfolio companies, the special survey was conducted. If the fund was not the first investor in the portfolio companies, they had to answer the question, what kind (type) of investors was the first investor of the company invested by the fund. All VCFs were given assurances of confidentiality

that the results of the survey will be used only in aggregated form without specifying the names of the funds and portfolio companies. The survey of the VC funds in Latvia was conducted in November 2015 and included data on investments for 2010-2015. One of the VCFs considered in the research, in accordance with its strategy, focuses only on the initial funding stages, and three other VC funds do not have specialization in stages of funding, thus their strategy allows them to invest both in early stages of VC financing, and in later stages. All VCFs considered in the research are managed by private management companies. This may mean that the management principles of these VCFs and investment decisions taken by them are based on commercial viability and principles specific to the asset management companies of private VCFs.

Table 1

**Total number of investments of hybrid and public VC funds in Latvia in 2010-2015 and the number of investments where the VC funds were not the first investors**

Type of investment, according to stages of funding	Seed		Start-up		Expansion		Grand Total	
	Total	Presence of company's investor prior to VCF investment	Total	Presence of company's investor prior to VCF investment	Total	Presence of company's investor prior to VCF investment	Total	Presence of company's investor prior to VCF investment
Type of investment, according to stages of funding	14	9	14	1	32	3	60	13

Source: the data of author's survey

In total in the period under review the VCFs of Latvia with public participation have invested funds in 60 companies. Of the 60 investments, 32 investments (53.3 %) were made on the Expansion stage, that is, not in the early stages of funding. 14 companies were financed both in the Seed (23.3 %), and the Start-up (23.3 %) funding stages, that is in the early stages of funding. As a result of the data obtained in the research, we have proved the first hypothesis put forward by us that, in most cases, hybrid and public VCFs of Latvia are not the investors of early stages of funding.

From this we can conclude that among VCFs with public participation the capital investment in

the later stages of funding dominates. Considering the stated fact from a position that it is in the early stages of funding, there are gaps in the financing of young innovative companies, as it is evidenced by the results of many studies (Cumming & Johan, 2007; Reid & Nightingale, 2011; Snieska & Venckuviene, 2011). Our data indicate that the majority of investments of Latvian VCFs with public participation are not focused on young, innovative technology companies with potential for rapid growth. Although, according to some researchers, for example, Pelly & Kramer-Eis, 2011, Tewari et al, 2013, public policy should be aimed at financing young innovative companies with the potential of

rapid growth. In our opinion, there are two main reasons for this situation. First, the government of Latvia provides VCFs with public participation with quite a lot of freedom of action in the investment policy, not concentrating the subsidized VCFs on investment in the early stages of funding, the most risky for private investors and young innovative companies. This may reduce the risk of VCFs with public participation, but does not fully solve the issue of accelerating the development of innovative economy by means of public capital. Second, having enough freedom in the investment policy, private management companies (GPs) which won the tender for management of VCF with public capital, when choosing to finance projects of the later stages of funding are trying to reduce the level of information asymmetry for their investments (since, the information asymmetry level decreases with the transition from the earliest stages of VC investments to each subsequent stage of funding (Aernoudt, 2005)). That is, they avoid unnecessary risks inherent in the financing of young innovative companies. Although, according to Brander et al. (2010 b), one of the objectives of VCFs with public capital is to reduce the negative impact of information asymmetry for the subsequent stages of funding and attracting private investors.

The authors consider whether the companies had the investors before the Latvian VCFs with public capital invested in them. As displayed in Table 1, in 47 cases out of 60, VCFs of Latvia were the first investors. This means that only 13 companies out of 60 (21.7 %), which were invested by Latvian VCFs with public capital had investors in the earlier stages of funding. Moreover, 9 of the 13 above-mentioned investments were made by Imprimatur Capital Seed Fund with 100 % public capital (in the statute of the Fund, the government of Latvia initially limited the investment strategy of investing in Pre seed and Seed stages of funding of young innovative technology companies).

Accordingly, other classes (groups) of venture capital investors (not the VFCs) were the first investors in only four of the sixty projects (6.7 %). Our analysis confirms the second hypothesis put forward by us - hybrid and government VCFs of Latvia in most cases are the first investors in the companies.

Despite the fact that 78.3 % of the VCFs of Latvia are the first investors, our findings indicate that in Latvia there is a lack of investors in the initial stages of funding, including the investments of BAs, other private investors and VCFs with public capital specializing in the early stages of funding. According to the studies, the main goal of government support to venture capital is to attract private (including institutional) venture capital investors (Da Rin, et al 2006; Cumming and Johan, 2007; Jaaskelainen et al, 2007; Brander et al, 2010 a; Snieska and Venckuviene, 2011; Pelly, Kramer-Eis, 2011; Bertoni, Tykvova, 2012). It can be concluded that the policy of encouraging private venture capital investments in Latvia, especially in the initial stages of funding, needs to be improved.

In 32 examined investments in the funding stage of Expansion, only three projects before the VCF investments had investments of other investors. For the young, innovative technology companies with rapid growth potential is characteristic to have a "cascade" of certain sequence of investment. This is confirmed by a number of venture capital researches, for example, Hall & Lerner (2010), Masson et al., (2013). On this basis, we can assume that Latvian VCFs with public capital have funded not the companies, which are characteristic for the financing by venture capital investors (technology companies with potential for rapid growth, oriented to global markets). As it is known, investments in later stages of funding had significantly lower yields because they have lower information asymmetry (Aernoudt, 2005). It is a higher level of information asymmetry that

explains both the essence of venture capital, and increased profitability in venture capital investments (Amit, et al., 1998). In 93.3 per cent, the investments in the stage of Expansion made by VCFs with public capital were the first investments received by the portfolio companies. This fact confirms our conclusion that private management companies (GPs), which won the tender for management of VCFs with public capital try to significantly decrease the level of information asymmetry for their investments, by

choosing to fund the projects, not specific to venture capital investments.

The authors consider whether Latvian VCFs with public participation were the first investors, or, as it corresponds to the world practice, VCF investments followed by investors who typically invest in the earlier stages of funding. Table 2 shows the number of investments and types of investors (by stage of funding), who made investments prior to VCFs.

Table 2

**Types (kinds) of investors who have invested prior to hybrid and public VC funds of Latvia**

<b>Types of investors (by stage of funding), who made investments prior to hybrid and public venture capital funds</b>	<b>Seed</b>	<b>Start-up</b>	<b>Whether the hybrid and public venture capital funds are the first investors of young innovative companies?</b>	<b>For all stages of funding</b>
Pre seed public VC fund	9			9
Business angel		1	1	2
Other hybrid and public venture capital funds			2	2
Business incubators				0
Private, including foreign VC funds				0
<b>TOTAL</b>	<b>9</b>	<b>1</b>	<b>3</b>	<b>13</b>

**Source: the data of author's survey**

Of the 14 VCF investments in the Seed funding stage, nine investments, i.e. 64 per cent had other investors prior to VC funds. After the analysis of what category of investors have made investments of Pre seed funding, it turned out that all nine investments were made by Imprimatur Capital Seed Fund, which, as we have already noted, in fact, is a pre seed fund. Based on this information, we can state that Imprimatur Capital Seed Fund, being a wholly public fund, is a sufficiently effective mechanism to ensure the flow of transactions (the escalator) for the funds in the next stages of financing. One of the four VCFs considered by us is Imprimatur Capital Technology Venture Fund, which specializes in early stages of funding of technology companies with private capital share of about 33 per cent and an asymmetrical distribution of profit for the activity of the fund between the public and private capital. Our

findings indicate that virtually all seed investments and most of the investments in start-up stages of funding of Imprimatur Capital Technology Venture Fund were made in the companies, the pre seed funding of which was provided by Imprimatur Capital Seed Fund. One would expect that as VCFs proceed to subsequent stages of funding, the proportion of investors who made investments prior to VCFs, would have to increase. However, our findings show the opposite result - already in the start-up stage of funding, this share drops to 7 per cent, and in the Expansion stage - to 9 percent (excluding 9 of 13 investments, which were made by Imprimatur Capital Seed Fund). Excluding the investments of Imprimatur Capital Seed Fund, the share of investors who had invested prior to VC funds considered in the research, would amount not to 21.7, but only to 6.7 per cent. Our data correlate with the data of Cumming &

Johan. They found that VCF with public participation, not specialized in the early stages of funding, are not inclined to finance the companies in the early stages of funding (Cumming & Johan, 2007).

Two main conclusions can be drawn from our data. Firstly, pre seed and seed VCFs with public capital are the most frequently used and, accordingly, effective mechanisms for financing of the first stages of the young innovative companies in Latvia. Secondly, we can state a positive experience of VCFs with public capital "doubled" under the control of one management company (GP), as it is due to this the principle of consistency, and thus ability to finance the early stages of funding following the pre seed stages of funding (the escalator principle) is provided.

It is also necessary to note that among investors, who made up funding prior to VCFs, there were only two investments by BA (0.3 %), and not a single investment by business incubators and other venture investors of initial stages of funding (FFF, accelerators etc.). However, the proportion of BAs and business incubators in financing the start-up stages of funding from 2007 to 2013 in Europe increased from 4.6 to 26.8 per cent (Dow Jones VentureSource, 2014). According to Soderblom et al. (2013), Sweden's experience suggests that for the start-up companies in the first stage of funding it is more appropriate to attract public grants, investments of small private investors and BAs, rather than VCFs. These facts show that in Latvia the infrastructure and tools of financial support for the initial stages of funding young innovative companies and venture investors in the initial stages of funding are developed insufficiently.

## **Conclusion**

One of the major functions of hybrid and public VCFs is to eliminate the gaps of financing in the early stages of funding of young innovative companies. We found that there is a lack of investors for the initial stages of funding in

Latvia, including investments of BAs, other private investors and VCFs with public capital, specializing in early stage financing. In most cases (66.7 %), hybrid and government VCFs of Latvia are the first investors. However, the results of our research show that VCFs with public capital have made the most of their investments (53 %) in the Expansion stage of funding. Proceeding from this fact, it can be concluded that the government of Latvia provides VCFs with public participation with quite a lot of freedom of action in the investment policy, not concentrating the subsidized VCFs on investment in the early stages of funding.

The reason why Latvian VCFs with public capital, having relative freedom of action in the investment policy, avoid the early stages of funding (except Imprimatur Capital Technology Venture Fund), is their desire to significantly decrease the information asymmetry for their investments (we are not inclined to believe that there is no demand for venture capital in Latvia, though, in our opinion, in order to accelerate the development of innovative economy, the public institutions in Latvia need to encourage the demand for venture capital).

Based on the research data, we can also conclude that pre seed and seed VCFs with public capital are the most frequently used and, accordingly, effective mechanisms for financing of the initial round of young innovative companies. We can also note the positive effect of VCFs with public capital "doubled" under the control of one management company (GP), as it is due to the principle of consistency of investment rounds and ability to finance the early stages of funding following the pre seed stages of funding (the escalator principle).

We believe that the policy of encouraging private venture capital investments in Latvia, especially in the initial stages of funding of young innovative companies, is in need of improvement, and that in Latvia the infrastructure and tools of financial support for the initial stages of funding

young innovative companies and venture developed insufficiently.  
investors in the initial stages of funding are

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## PRE-REFORM SERVICE COMPONENT IN PENSION SYSTEMS OF THE BALTIC STATES: HOW FAIR IS THE PLAY?

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**Abstract.** Until now, the pre-reform service component makes the most part of old-age pension benefits of pensioners in Estonia, Latvia and Lithuania. The methods used for treatment of the pension rights acquired before the modern reformed multipillar pension systems came into force vary very significantly among the three Baltic countries. Which method is the fairest? What are the criteria for evaluating such fairness? The author analyses the mechanisms of conversion, their advantages and disadvantages, and verifies them with a set of principles that a fair system meets. Estonian and Lithuanian pension systems successfully pass the test, while Latvian formula fails to meet the requirements.

**Key words:** Baltic States, pensions, fairness, pension reform.

**JEL code:** H55, H75, I38

### Introduction

In 1990s, all post-communist countries in Eastern Europe have undergone radical social and economic changes. Social security systems have been rebuilt on new principles. Pension systems have been reformed drastically; often these reforms were performed under "supervision" of international organisations, such as the World Bank and International Monetary Fund.

The importance of the transition period and the impact of transition rules is, however, under-researched issue in the pension policy analysis in the Baltic States. Even for those who retire today, their pre-reform employment makes a very significant – and often the largest – part of the total employment record, bearing in mind very high rates of employment during Soviet times when work was a duty. The ways of treatment of the pre-reform employment record vary significantly among countries, leading to very different outcomes.

The aim of the paper is to research how fair is the treatment of pre-reform employment histories in pension formulae in Estonia, Latvia and Lithuania. The tasks arising out of this aim included identifying the appropriate criteria for assessment and analysing pension legislation in the Baltic States in its retrospective development since 1990s with relation to the chosen criteria. The research object is old-age pension systems of Estonia, Latvia and Lithuania, and the research methods included analysis of the academic

literature, normative acts (laws and regulations) and relevant statistical data.

### Research results and discussion

#### 1. Criteria of the analysis

We shall follow three complementary approaches to the notion of "fairness" in respect of pension systems. Firstly, this is the conceptual framework for assessing pension systems and pension reforms elaborated by a group of the World Bank (WB) experts (Holzmann & Hinz, 2005; Holzmann et al, 2008; Holzmann, 2012) consistently used in our previous research (Rajevska, 2013; 2014; 2015). WB experts use the term "equity", reading into it practically the same content as the authors of the EC pension policy documents (EC, 2010) by the word "fairness". Therefore, in accordance with their definition, "an equitable system is one that provides the income redistribution from the lifetime rich to the lifetime poor, it is consistent with the societal preferences in a way that does not tax the rest of society external to the system; and one that provides the same benefit for the same contribution". Hence, three sub-criteria can be distinguished: 1) redistribution in favour of the lifetime poor; 2) financed within the system; and 3) the same benefit for the same contribution principle. We believe that this set of criteria can be successfully applied not only to a system as a whole, but also to its separate elements, in particular, to the mechanism of the assessment of the pension rights acquired before the reforms.

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Secondly, these are the principles of fair treatment of the acquired rights articulated by a prominent Swedish scholar Edward Palmer, the architect of many pension reforms in numerous countries including Latvia. He has developed them for the non-financial defined contribution (NDC) systems. Some authors consider that pension point systems – like the ones in use in Estonia and Lithuania – can be also qualified as NDC-schemes (Legros, 2006); therefore, the principles proposed by Palmer are valid for all three Baltic countries. According to Palmer, a fair treatment of the pension rights acquired while a previous pension system was in force can be accessed under two aspects: its compliance with the acquired rights principle and the contribution principle.

"There is a definition of fairness implicit in each:

Principle 1. *Acquired rights principle*. A fair transition to a new system preserves acquired rights.

Principle 2. *Contribution principle*. A fair transition to a new system gives rights based on individual contributions already paid, including a relevant rate of return" (Palmer, 2006:171).

Palmer also notes that when the contributions principle is chosen in the absence of individual records available for the pre-reform period, there are three models for the reconstruction of those: the country average wage; the age- and gender-related average wage; and a rough estimate of the individuals' earnings profile given a few reference years at the time of implementation. As will be demonstrated, the Baltic States chose two of these models.

Thirdly, following the normative standpoint framed by Schokkaert and van Parijs (2003), the priority would be ascribed to the fate of those members of the society who are worst off, in accordance with the Rawlsian theory of justice approach.

The three Baltic countries would be considered consecutively in chronological order of the

reforms of their pillar I mandatory public pensions.

## 2. The pre-reform situation

Estonia, Latvia and Lithuania entered their new eras of independence with identical old-age security systems, inherited from the Soviet period. Pensions in the USSR were financed from the general state budget, no individual contributions by workers were done; entitlement to a pension was based on previous work, benefits linked to the former wage during the last years of working career. Work record books were kept for all employees, but they did not contain information on the salaries.

The processes of radical economic and political reforms in early 1990s were accompanied by reforming the old social security system. All three countries had promptly separated financing of the pensions from the general budget by introducing social insurance budgets replenished by contributions made by employees and employers (in the case of Estonia, only by employers). While Lithuania had not reformed the Soviet pension formula comprehensively until the 1995, Estonia and Latvia adopted new pension laws in 1991, making pensions more generous than earlier, keeping the amount of the pension linked to former earnings (Leppik and Vork, 2006; Vanovska, 2006).

However, these new laws had very short life having collided with economic reality of collapsing enterprises, sharp decrease in contribution base and hyperinflation. In 1993, both Estonia and Latvia removed the earnings-related component from the formula, and pension benefit consisted of two parts: a flat-rate basic pension and a component depending on the length of service (i.e. each year of employment and equalised periods had a certain monetary value). Although the earnings-related component formally did exist in Lithuania, it took a very small fraction of the benefit, complemented with flat-rate supplements.

Thus, by the middle of 1990s there was a strong demand for reformed pension systems capable of balancing assets with liabilities meanwhile providing incentives for the population to pay contributions by linking pension amounts to individual earning histories. Lithuania was the first Baltic country to introduce contribution-based pensions in 1995.

### 3. Lithuania

In Lithuania, pension point system was introduced in 1995, i.e. for each working year a person acquired one pension point if his/her wage was equal to the so called "insured wage" amount (set by the Cabinet), two pension points per year if the person's wage was twice higher than the insured wage etc. (but no more than five points per year on average). At the moment of retirement, the accumulated points are multiplied with the monetary value of one point (equal to 0.5 % of the insured wage). Apart from the point system, the pension formula includes the non-contributory basic pension, depending on the individual's length of service: the longer service record, the higher basic pension (the standard amount is set for 30 years of service). Once the amounts of the "insured wage" and/or the "basic pension" are revised (no regular indexation rules are in place), all pensions in payment are recalculated.

Individual contribution records are being registered since the beginning of 1994; therefore, a procedure for assigning pension points for the pre-reform working years was developed: for each year of employment until 31/12/1993 a person gets as many pension points as were in his/her best five consecutive years between 01/01/1984 and 31/12/1993 (but not more than five points per year on average).

Pre-reform service years thus appear in the pension formula twice: firstly, among the working years in the non-contributory component (having the same monetary value for all pensioners), and secondly, as pension points (having monetary value depending on the individual wage history).

All pensions in payment were recalculated using the new formula. Those pensioners whose benefit increased as a result of recalculation were paid a higher pension, but no benefits were reduced. After the recalculation, it turned out that almost half of all pensioners would have received a lower pension, the other half received an increase (Lazutka, 2006).

Compliance with the WB equity criteria: 1) income redistribution in favour of the lifetime poor – yes, via non-contributory part; 2) financed within the system – yes, all transfers are made within social insurance pension budget; 3) the same benefit for the same contribution – partially, as the five best years only are taken into account.

Compliance with EP principles: the contribution principle has been chosen for transition: the new system gave pension rights based on individual earnings histories, and revaluation of the "insured wage" amount plays the role of the rate of return. The acquired rights principle had been applied partially in relation to the existing pensioners: pensions were not decreased.

Compliance with the "rawlsian" principle: the transition rule provided sufficient protection to the worst off compared to the rest of population.

With the course of time, it was becoming more difficult to find the necessary documents and calculations required a lot of paper work. Initially, the legislators planned to substitute five best consecutive years before 1994 with five best consecutive years after 1994, such law-in-draft was prepared in 2008, but due to crisis has not materialised (Medaiskis and Jaunkauskiene, 2013). Instead, a simplified rule was adopted in 2012 (in force since 2013): for each year of employment until 31/12/1993 a person gets as many pension points as is his/her average annual number of pension points earned in the period from 01/01/1994 until the date of retirement. Thus, the reference period is at least 19 years

(1994-2012) or more. Periods with zero earnings are not counted.

This simplified method is the default one now. However, a person may choose the first method if s/he is in possession of all necessary documents and the calculation is more beneficial than the result of the default option.

Compliance with the WB equity criteria: in comparison to the historically first method described above, the second one provides better compliance with the sub-criterion 3) the same benefit for the same contribution (save for slightly varying weights of pension points in different years due to the lack of the uniform indexation procedure).

Compliance with EP principles: the same contribution principle has been chosen, being applied to another reference period. The acquired rights principle is followed in relation to those willing to use the previous method of calculation.

Compliance with the "rawlsian" principle: the new rule is neutral in terms of this principle.

#### 4. Latvia

In Latvia, the fundamentally reformed pension system based on the Notional Defined Contribution (NDC) pension scheme was introduced in 1996. The NDC approach imitates the logic of funded DC schemes: social insurance pension contributions (20 % of gross wage) are registered on individual notional accounts, once a year they are uprated (valorised) with the annual growth factor (equal to the increase in the countrywide wage bill), and at the time of taking the retirement the accrued notional capital is turned into annuity (by dividing by the statistically average life expectancy at the age of retirement).

The NDC method is used for pre-reform employment record either. The individual's average insured wage (that is the wage or other kind of earnings – unemployment benefit, sick pay etc. – from which social insurance contributions have been paid) during the four-year period 01/01/1996-31/12/1999 is taken as

a reference. In contrast to Lithuania, periods with zero earnings are taken into calculation. The obtained average wage is then multiplied by the length of employment before 1996, and further multiplied by 0.2 ("taxed" with 20 %). The resulting amount is called "initial capital", it is incorporated into individual's notional capital and valorised with the same annual growth factors.

Pensions assigned before 01/01/1996 have not been recalculated. So, presently there are two groups of pensioners: those retired under the provisions of the old pension law - in October 2016 they made 29 % of all old-age pensioners (LM, 2016), - and those retired according to the NDC rules.

As a point of fact, those years 1996-1999 were quite hard for the economy of Latvia and many Latvian individuals suffered from low earnings, long-term unemployment without benefits, grey under-the-table salaries, bankruptcy of employers, being also insufficiently informed of the importance of this period for the amount of their future pension. On the other side, there were well-informed persons, who managed to agree with their employers on high official wages during these four years having guaranteed a comfortable life on retirement.

Eventually, the very first post-reform years have demonstrated that the formula was generating a growing number of very small pensions, and the initial law has been supplemented with two amendments.

- 1) If the individual's average insured wage in the reference period was lower than the country's average insured wage (or the person had no earnings in the reference period), the country's average is used instead of the individual's one, provided that the person has accumulated at least a 30 year-long service record. If a person's service record is shorter than 30 years, another benchmark is applied: the average insured earnings in the reference period uprated by valorisation indices is compared to 40 % of the country's average

insured wage in the year prior to the year preceding the calendar year of retirement. Should the benchmark figure be higher, then it is used for calculating the initial capital instead of the individual's average. In fact, the majority of Latvian pensioners had worked for more than 30 years – the average service record in October 2016 was 36.32 years. And most of them had low salaries in the four-year reference period: 72 % of all retired under NDC-rule who were alive in October 2016 were those to whom the country's average wage was used in calculation of their pre-reform initial capital (LM, 2016).

- 2) In 2006, supplements for each pre-reform year of service amounting to €1 per year were introduced. Initially, they were granted only to persons with low pensions (both to those retired before 1996 and after), but starting from 2009 they were extended to all pensioners. Since 2012 these supplements have been phased out: those who retired before 2012 are still receiving the supplements, but later pensioners are not.

The formulae used for translating the pre-reform service record into post-reform benefit are the cause of many distortions. The remuneration for the major part of the working career of the majority of the current pensioners is conditional on factors they could hardly influence: lack of legal jobs during the four years of high unemployment, tax arrears of their employers, abundance of jobs in the grey economy and year of taking the retirement.

The principle of a 30-year threshold leads to situations when persons with very similar records with only one year difference (29 years vs. 30 years) can vary by as much as 100 %.

Compliance with the WB equity criteria: 1) income redistribution in favour of the lifetime poor – no; 2) financed within the system – yes, except for the one-euro-per-year supplements, that are financed from the general budget; 3) the same benefit for the same contribution – no,

since the four-year reference period was quite non-representative for the pre-reform career. The third sub-criterion is also violated by the 30-year threshold, and by other features of Latvian pension formula, where pension rights in accumulation phase (i.e. pension capital) and pensions in payment are indexed at very different pace, creating unfair conditions for those retired in different years but with same contribution histories.

Compliance with EP principles: although formally the contribution principle has been chosen for transition: the new system gave pension rights based on individual earnings histories in the reference period, the choice of that period and calculation methods cannot allow concluding that the principle had been followed indeed. The acquired rights principle had not been followed, either.

Compliance with the "rawlsian" principle: the transition rule was ill-considered and even worsened the situation of the least secured population groups.

## 5. Estonia

As was mentioned above, the pre-reform (1993-1999) pension formula in Estonia was made of two components: a flat-rate base amount plus a component depending on the years of pensionable service (a certain amount of money for each year). During this period, the importance of the base amount was gradually declining, while the role of the work-related component increased. So, when a pension point system was introduced in 2000, it appeared as the third component to the already existing formula.

Before 1999 there were no individual contribution records, employers had paid social tax on total payroll. Since 1999 the amounts of social tax are recorded individually allowing calculating respective pension points earned in each calendar year (one pension point per year of employment with the country average insured wage). At the moment of retirement, the

accumulated points are multiplied with the monetary value of one point annually indexed with the inflation and wage growth rates. The monetary value of pre-reform working years depends only on the length of employment up until 31/12/1998 as in the old formula: a person gets one pension point for each full year of service, irrespectively of actual earnings s/he had.

This also meant no need in recalculating all pensions in payment: the old pensions are made of the same components (just the third component is equal to zero) and are indexed according to the same rules.

Compliance with the WB equity criteria: 1) income redistribution in favour of the lifetime poor – yes, via non-contributory part; 2) financed within the system – yes, all transfers are made within social insurance pension budget; 3) the same benefit for the same contribution – yes, the persons with similar contribution histories will get the same number of pension points both for the pre-reform and post-reform years of employment.

Compliance with EP principles: Estonia was the only Baltic state to choose the acquired rights principle. Pension rights acquired in the previous scheme are fully preserved and uprated annually at the same pace as the pensions in payment.

Compliance with the "rawlsian" principle: once the preceding system was fully egalitarian with pensions non depending on the actual earnings, the reformed system is, naturally, disadvantageous to low-earners. In this sense, the new rule is not compliant with the "rawlsian" principle. However, Estonian pension system provides relatively sufficient protection to the

least well-to-do via other elements of its institutional design.

### **Conclusions, proposals, recommendations**

- 1) Fairness is a very important criterion for assessment of pension reforms, pension systems and their elements.
- 2) The author follows a complementary approach to evaluating the degree of fairness: a) compliance with the equity criterion as formulated by the World Bank pension experts; b) compliance with the principles of fair treatment of the acquired rights formulated by Edward Palmer; and c) priority of the needs of the worst off ("rawlsian" principle).
- 3) The defined-benefit PAYG pension systems inherited by the Baltic States from the Soviet era were in need of reforms to adjust benefit and contribution structures and motivate people make contributions.
- 4) Lithuania, Latvia and Estonia have chosen very different methods of translating the pre-reform employment records into their reformed pension formulae.
- 5) The transition rules chosen by Lithuanian and, par excellence, by Estonian pension legislators, generally meet the fairness criteria.
- 6) Meanwhile, the method used in Latvia, fails to satisfy any of the examined criteria. Treatment of the pre-reform service record in Latvia should be revisited in order to repair existing injustice.

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## FINANCIAL AND NON-FINANCIAL FACTORS AFFECTING SOLVENCY: A THEORY REVIEW

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**Abstract.** Researchers have developed various models for predicting insolvency as well as analysed dozens of various financial ratios; however, a universal model and set of ratios have not been found. Each country has its own tax policy and national economic indicators that influence the respective business environment. Besides, such factors as business managers' competence and appropriate adoption of decisions can also influence sustainable operation of businesses. In the review of scientific literature on the development of models for forecasting insolvency, the author has created her own theoretical model based on the analysis of financial and non-financial factors. The aim of the research is to analyse the financial and non-financial factors mentioned in the research and choose the ones that will be used in further research about Latvian agriculture companies with regard to the available data. The literature review shows that research defines 4 directions of finance that analyse liquidity, turnover, profit and liabilities based on the data from balance sheets and profit and loss accounts. It is more complicated to establish the non-financial factors due to the unavailability of information; however, it is still possible to analyse such factors as company's age, size and payment behaviour. The author also mentions tax liabilities as an additional non-financial factor that should be analysed in further research.

**Key words:** financial factors, cash flow, non-financial factors, solvency.

**JEL code:** G20, G30, G33

### Introduction

Insolvency of company has been studied since 1960s. The term 'insolvency' describes the financial situation of a company when it is capable of a sufficiently successful performance for meeting all its liabilities (Sneidere R., 2009). Companies, to provide for their sustainability, perform operational financial analysis that deliver timely warning about solvency problems and possible risks by mainly analysing the company's liquidity, its creditability and financial stability. As to 9 January 2017, in Latvia 12 insolvency cases have been filed for legal entities. In 2016, there were 656 such cases, in 2015 – 802 cases and 960 cases in 2014 (Lursoft data base, 2017). The figures suggest a positive trend – decreasing in the number of cases, which means that companies have to assess their solvency to prevent the filing of such cases. The assessment would in due time inform about problems and enable companies prevent company's failure.

Research has been conducted in various fields to adjust the insolvency prediction models to the businesses of various shapes and sizes (e.g. joint-stock companies, private companies). The Author focuses on agriculture as an industry that has been of historic importance to Latvia. The

development of agriculture companies and their ability to survive under changing economic conditions depend on various factors – both on the national agriculture development guidelines as well as global trends in the demand for agriculture products and such financial factors as the availability of credit resources and stability of cash flow.

There have been innumerable studies regarding predicting the solvency of businesses and financial indicators to be used in the process. (Beaver W.H., 1966; Altman E.I, 1968, 2005, 2006, 2010; Ooghe H., 2008; Sneidere R., 2009). In their calculations, researchers use both financial and non-financial factors that allow for early identification of solvency issues. In studies, more attention is paid to the financial ratios calculated based on financial reports rather than non-financial factors, such as management skills or company age.

**The research object** is financial and non-financial factors affecting solvency.

**The aim of the paper** is, based on the analysis of the financial and non-financial factors for solvency prediction examined in scientific literature, to define the factors by which the

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author will further perform the financial analysis of Latvian agriculture businesses.

The aim implies the following tasks: 1) to analyse and assess the theoretical basis provided by scientific literature regarding the factors influencing solvency; 2) to consolidate the data of previous research on the significance of factors; 3) to define the facts the calculation of which would allow to the prediction of solvency in Latvian agriculture enterprises.

## **Research results and discussion**

### **1. Review of literature on financial indicators**

In literature, the models for forecasting solvency are mainly based on the analysis of financial ratios. One of the first researchers addressing the issue in 1968 was Altman E.I. who in his paper "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy" introduced the Z-Score model, based on 5 variables calculated based on the company's balance sheet and income statement data: *working capital and total assets, retained earnings, earnings before interest and taxes, market value of equity, total liabilities and sales* (Altman E.I., 1968). According to this model, the minimum result suggesting the possibility of avoiding failure is 1.8; however, for a company to be in a safe zone, the result has to be from 3.0 upwards. In further research, Altman E.I. enlarged the number of the indicators to be considered. He divided the ratios in 5 accounting ratio categories: leverage, liquidity, profitability, coverage and activity, which are calculated based on 10 financial ratios, thus increasing the number of the significant financial ratios defined by him as follows: *short term debt/equity, liabilities/total assets, cash/total assets, working capital/total assets, EBITDA (earnings before interest, taxes, depreciation and amortization)/total assets, retained earnings/total assets, EBITDA/interest expenses, EBIT (earnings before interest and taxes), sales/total assets, account receivable/liabilities* (Altman E.I., 2010). However, in the study "Financial and non-

*financial variables as long-horizon predictors of bankruptcy"* (2015), there are the following 8 efficient solvency problem predictors highlighted: *total assets, equity ratio, growth in total assets, return on assets ratio, cash and other liquid assets to short-term debt, short term debt to total assets ratio, change in short-term debt to total assets ratio, cash flows to total assets ratio* (2015). This research features cash flow ratio analysis the author believes to be very significant because the presence of profit in business does not necessarily indicate the sufficiency of financial resources. In agriculture, cash flow sometimes plays the decisive role as the business may be affected by its seasonality. Consequently, in her further research the author will pay attention not only to equity, liquidity and profitability ratios but also cash flow ratios.

Beaver W. is to be mentioned as the second among the scholars laying foundations to the analysis of financial ratios by testing 30 ratios in his research "Financial Ratios As Predictors of Failure" (1966) where the ratios were split into 6 groups. A ratio was chosen from each of the groups the changes of which indicate the possible presence of solvency problems: *cash flow/total debt, net income/total assets, total debt/total assets, working capital/total assets, current ratio, and no credit interval*. In this research, cash flow is analysed in relation with other ratios being similar to the ones defined by Altman E.I.

*Low cash flow, increase of expenses, weak profitability, low financial independence (equity/total balance)* are the first indicators of possible solvency problems according to Ooghe H. (2008). The author believes that the increase of expenses at a constant turnover may serve as an indicator of financial problems and lack of professional competence in adopting decisions arising from non-financial factors (management competence).

Linag D. (2016) in his research "Financial ratios and corporate governance indicators in bankruptcy prediction: a comprehensive study"

has conducted a significant in-depth survey and has selected 95 ratios and split them into the following categories: *solvency, capital structure ratios, profitability, turnover ratios, cash flow ratios, growth*, where solvency and profitability ratios are pointed out as the most significant indicators in predicting solvency which has also been suggested by researchers before this survey. The author does not see the necessity for performing the ratio analysis of such a large scale as part of the ratios is derived from the key ratios.

When studying accounting and non-accounting determinants, Bhimani A. (2010) has arrived at 11 financial variables: *days in payables, days in receivables, financial coverage, asset coverage, interest costs, investment ratio, return on equity, return on investment, solidity, var.gross income, working capital/total assets*. Days in payables and days in receivables determine the payment behaviour of both debtors and creditors, and the author has chosen to add these indicators to her model of analysis.

*Profit before taxes/current liabilities, current assets/total liabilities, current liabilities/total assets, no credit interval* are the key ratios selected for failure prediction in Al-Kassar T. research (2014). The results of the research show that for the first, second and third ratio the following is true: the bigger the ratio the lower the risk of insolvency; however; what applies regarding the fourth ratio is: the lower the ratio of current liabilities/ total assets, the higher the risk of insolvency.

Mironiuc M. (2015) in studying "The significance of financial and non-financial information in insolvency risk detection" has selected 9 financial ratios, i.e. *current assets ratio, financial leverage, quick liquidity ratio, financial expenses ratio, operating profit margin, average collection period, average payment period, employees expenses ratio, return on assets*, of which the *return on assets, operating profit margin, financial expenses ratio and*

*average payment period* are highlighted as statistically significant in predicting solvency. This researcher has also chosen the factors previously mentioned by the classics, which just proves for another time that the results of these ratios have been confirmed by research as providing precise information about the financial condition of a company. Sneidere R. (2009) in her review of scientific literature on forecasting insolvency advises that in analysing solvency of Latvian companies, apart from the liquidity factors, other ratios like financial balance (liabilities/equity), proportion of liabilities in the balance sheet (liabilities/total assets), weight of equity in the balance sheet (equity/assets) should be considered. Excessive dependence on borrowed equity presents a risk for company's existence; therefore, when analysing the financial data of agriculture companies, particular attention should be paid to liability and equity ratios.

In Latvia, cash flow ratios have been studied in the paper by Steinberga Dz. and Millere I. (2016) "Use of cash flow statement in evaluation of company's financial situation using data from operating and liquidated companies in the Republic of Latvia", which defines 11 financial ratios from cash flow statements, 6 of which represent cash flow from operations, 3 ratios describe cash flow from investing activities and 2 represent cash flow from financing activities, one of the most significant conclusions being that "the higher the operating cash flow ratio value, the lower the chance of financial problems". The author already indicated the significance of cash flow ratios above and has added them to her model of analysis. Financial factors are not the only factors indicating problems in the company operation, there might also be non-financial factors which will be discussed in the next section.

## **2. Review of literature on non-financial indicators**

*There may be factors affecting business that do not depend on the company itself, such as –*

*legislation, national tax policy, inflation, lending rates and national foreign policy.* A company is not able to influence these factors, but can try to adapt to them or diversify its business to prevent the risk of insolvency. However, there are also relevant non-financial factors determined, which can be changed, influenced, controlled as they depend on the decisions of the company's management.

*Managerial incompetence* is the most pervasive reason for a firm's distress and possible failure (Altman E.I., 2006). Poor company administration as one of the causes of a company failure is also mentioned by Sneidere R. (2009). Wrong management decisions and management incompetence result in the insolvency of start-ups (Ooghe H., 2008). The insolvency of companies may be the result of incompetent management decisions, concerning for example, investments, expenses, or excessive risk.

In the business environment, trust and payment behaviour between business partners are the factors that facilitate cooperation. *Payment behaviour* is another non-financial factor analysed by researchers. Back P. (2005) in his article "Explaining financial difficulties based on previous payment behaviour, management background variables and financial ratios" states that the indicator of payment delays is the statistically most important non-financial factor. The opinion is shared by Altman E.I, (2010, 2015) who has established the following criteria in his research of non-financial factors: *type and sector, size and age, reporting and compliance, management characteristics, payment behaviour, auditor reports.* Payment behaviour and auditor reports present the information the author considers relevant for her model of analysis as payment behaviour is a critical factor in an industry with irregular cash flow.

Ooghe H. (2008), when studying the causes of business failure, also mentions the *industry, size and age of a company.* The *company strategy*

*and its investment policy* are directly related to the *management competence* and *decisions* taken by it as discussed above.

Wilson N. (2013) in his paper on family businesses agrees to divide companies by size and age and lists such non-financial factors as: *board size, age and experience, age of the firms, management quality and reliability, payment behaviour.*

Bhimani A. (2010) also selects the *company's size* and *age* as non-financial ratios in his research on accounting and non-accounting determinants. These ratios have been selected because they associate with a steadier cash flow. The researcher has further subdivided the selected companies by *region* and *industry.*

Non-financial ratios have been little exploited in predicting solvency, however, according to research, the combination of financial and non-financial factors provides for more accurate predictions (Altman E.I, 2015). The examined authors underline that non-financial indicators alone do not deliver sufficient information on solvency issues; therefore, they must be analysed together with financial ratios. The analysis performed within the research shows that non-financial ratios have not been sufficiently studied and need more attention.

The analysis of the non-financial factors of private businesses is very limited as the information is limited – provided exclusively by management reports, information in public media, and appearance of the company in non-payer registers. An additional solvency factor in Latvia might be regular failure to pay taxes. The information on the non-payers is available in the State Revenue Service website. If a company has regular and big tax liabilities, it might be a sign of insufficient financial resources; however, an in-depth studying of the factor is still needed.

### **3. Discussion**

The analysis of company solvency is necessary not only for the company management and owners, but also its creditors, partners and

auditors. Depending on the company form, size and the available information the ratios can be selected for assessing the solvency of the company. The analysis of scientific literature and assessment of the examined research has enabled the author to develop the theoretical model for analysing solvency that is based on financial and non-financial factors listed in **Table 1.**

Table 1

**The author's theoretical model for analysing solvency**

<b>Financial</b>	<b>Non-financial</b>
<b>Cash flow from operations/net turnover</b>	Size (Small, medium, large)
<b>Cash flow from operations/total assets</b>	Age (years)
<b>Cash flow from operations/total liabilities</b>	Payment behaviour – tax liabilities
<b>Return on Sales</b>	Auditor reports
<b>Return on Assets</b>	
<b>Return on Equity</b>	
<b>Net income/total liabilities</b>	
<b>Short term liabilities/assets</b>	
<b>Long term liabilities/assets</b>	
<b>Total liabilities/assets</b>	
<b>Equity/assets</b>	
<b>Total liabilities/assets</b>	
<b>Cash/assets</b>	
<b>Working capital/assets</b>	
<b>Current assets/liabilities</b>	
<b>Long term assets-short term liabilities/cash flow from operations</b>	
<b>Days in payables</b>	
<b>Days in receivables</b>	

*Source: author's construction on selected factors from various literature sources*

The model will be used in further research for analysing the solvency of Latvian agriculture companies. The criteria were selected based on the availability of information on such companies in Lursoft data base which publishes company annual reports. The model will analyse such factors as liquidity, equity, profitability, liabilities, cash flow and assets, by paying particular

attention to cash flow ratios and payment behaviour. A particular feature of agricultural businesses is their inconsistent cash flow, which means that external funding must be raised. Consequently, apart from the factors mentioned above also the analysis of liability and liquidity indicators will allow for assessing the creditability of a company. The non-financial indicators are defined as follows: company age, size, and payment behaviour and audit reports. Tax liabilities – information delivered by the State Revenue Service on the frequency and amounts of debts. The author believes that this might be a significant factor that has not yet been analysed but it still has to be checked if the result provides qualitative and reliable information.

**Conclusions and recommendations**

- 1) The research found in scientific literature mainly focuses on solvency prediction based on financial factors. Less attention is devoted to non-financial factors where researchers admit that these factors are yet to be studied in order to determine their influence on a company solvency.
- 2) Balance sheet, income statement, cash flow statement as well as appendices to annual reports serve as a data source for analysing the factors affecting solvency.
- 3) The key factors of solvency are the financial ones. The non-financial factors alone do not deliver an accurate forecast for the appearance of insolvency.
- 4) The most significant financial factors are connected with the indicators of liquidity, profit, liabilities or solvency, activity as well as cash flow ratios.
- 5) The key non-financial factors are payment behaviour, size and age. Management competence is hard to calculate in Latvia due to the unavailability of reliable data. The analysis of auditor reports could be made based on the auditor reports available in annual reports.

- 6) The author is designing a theoretical solvency assessment model based on financial and non-financial factors. Payment behaviour as tax liabilities represents a new factor to be analysed and assessed in further research.
- 7) The author recommends paying attention to the data on company tax payments available from the State Revenue Service and assessing in further research if this indicator provides reliable information regarding solvency issues.

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## TYOLOGY OF CREDITING STRATEGIES OF RURAL HOUSEHOLDS (ON THE EXAMPLE OF THE MALOPOLSKA PROVINCE)

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**Abstract.** Increase in a general debt level of rural households in Poland, owing to loans, but also a change of their crediting structure, cause that a systematic analysis of households' behaviour on the credit market and determining the financial strategies realized by them are extremely important both from the cognitive and application point of view. Therefore, the main goal of the paper is identification and characterization of individual types of crediting strategies used by rural households, but also determining the motives which govern consumers' decisions about taking out a loan. The main source of data for the analysis was primary information originating from the authors' studies. The appointed objective was realized by means of a non-hierarchical cluster analysis method – k-means grouping.

On the basis of conducted studies, it may be stated, that rural households are characterized by a low inclination for taking out loans. Only every fifth household was repaying a loan during the analysed period. A typical rural household using bank loans is a household where the "family head" is a well-educated person, aged 36-55, earning income as an employee. It is a well-paid married couple with two children who positively assess their material status. Loans were taken out mainly for a house/apartment renovation, property purchase or durable goods purchase. In case of the analysed households, three crediting strategies were identified basing on the loan portfolio structure. The dominating strategy was type 3, characterized by the highest share of households repaying two loans.

**Key words:** credit, rural households, crediting strategies.

**JEL code:** D14, G21, R21

### Introduction

Globalisation of financial markets and the accompanying increasingly more intensive process of financial institutions internationalization do not remain without an effect on a consumer and his behaviour on the market. Increasing importance of these problems is intensified by technological development, extending of the market offer available to consumers and civilisation and cultural changes (Smyczek S., 2012).

In a global market economy, consumer financial behaviour presented on the credit market, occupies a special position among various consumer behaviours on the market. These behaviours refer to consumer choices, visible as seeking, purchasing, using, evaluation and distribution of credit services (Smyczek S., 2014).

The term of a loan is usually understood in two senses. Firstly, a loan may be defined as a form of money lending for a defined period of time and on condition of its return for a defined fee (interest rate, commissions, charges). In the second meaning, loan is understood as money borrowed according to the above mentioned

principles. Fast development of the credit intermediation market and gradual acceptance of running into debt by households result in increasing debt level of this group of entities. Increasingly more often loans become not only a tool allowing equalizing consumption level, but also become an important instrument for a long-term financing of their needs (Walega G., 2013).

The starting point for the analyses of financial behaviours of households are income theories formulated by J.M. Keynes and M. Friedman as well as the life cycle theory by F. Modigliani and R. Brumberg. The first mentioned theory - a hypothesis of absolute income assumes, that consumption level depends on current income. On the other hand, the permanent income hypothesis by M. Friedman assumes that consumption expenditure of households depends mainly on the permanent income, understood as an average income generated for the whole life. According to the permanent income model, households take out loans to fulfil the gap between permanent and current income. Empirical research confirms that the bigger the difference, the more households borrow (Cox D.,

Jappeli T., 1993, Park S., Rodrigues A.P., 2000). On the other hand, life-cycle hypothesis distinguishes two periods of time: the period of work during which the entity accumulates wealth and the period of retirement when it can use the wealth accumulated during the work period, which allows to maintain some determined life standard even during the period of lower income (Ando A., Modigliani F., 1963).

The theories presented above assume fully rational behaviours of entities, which do not have place in practice. In 1975, G. Katona stated that mental factors play the most important role in shaping purchasers' behaviours (Garczarczyk J., Mocek M., Skikiewicz R., 2014). Following this author, numerous papers in economics generally assume that consumers do not act fully rationally on the market.

In 1988, H. Serafin and R. Thaler formulated The Behavioural Life Cycle Hypothesis. The theory bases not only on the analysis of rational behaviours, but also on real human behaviours. The key element of this theory is introducing the notion of mental accounts. According to this theory, households divide their assets into three groups (three kinds of accounts): current assets, current incomes and future incomes. On the other hand, mental accounting involves mental calculation of gains and losses during the decision making process. The process of mental accounting is diversified depending on various financial strategies realized by households (Banbula P., 2006).

As demonstrated by various studies (Deirdre E., 2007, Kata R., 2011, Kusmierczyk K., 2011, Maciejasz-Swiakiewicz M., 2012, Walega T., 2013), crediting strategies realised by households differ depending on the consumer place of residence (urban or rural areas). As demonstrated by T. Japelli (1990) and C. Grant (2007), the causes of diversified financial behaviours of urban and rural dwellers are both on the demand and supply side. The first comprise low incomes of rural communities,

behavioural and educational factors. On the other hand, on the supply side one should point out a development of financial infrastructure in non-urbanised areas, mismatching the offer of services to consumer needs and the problem of information asymmetry. Financial strategies of rural households are also clearly different depending on the region of residence (Czapinski J., Panek T., 2015).

Considering regional diversification of consumer crediting behaviours and also differences in financial behaviours between urban and rural households, it seems necessary to identify the specificity of crediting behaviours of selected consumer groups. Moreover, the interest in the problem of household crediting is determined by its relevance, especially in view of Poland's experience. On the one hand, the increase in general debt level is observed among rural households due to loans, on the other its structure undergoes transformations. Obtained information may be used by financial institutions to conduct a segmentation of the customers, construction of efficient marketing strategies and creating a product offer adjusted to rural dwellers, which may directly affect a higher level of financial services consumption by rural households.

The main aim of the paper was an identification and characterisation of individual types of crediting strategies of households in the Malopolska province but also determining the motives which govern consumers decisions to take out a loan. The following research tasks were appointed in order to realise the above mentioned aim:

- determining the level of the inclination to take out loans by rural households;
- characteristics of the profile of a rural household using credit services.

The basic source of data for the analysis and inference was the primary information originating from authors' own studies. The studies used the



personal interview technique and were conducted at a regional level. The spatial range covered rural areas of one of southern regions of Poland, i.e. the Malopolska province. The object of investigations was formal credit market.

The studies were conducted in 2014 on a group of 384 respondents. The interview was conducted with the "head of a household" – the person responsible for making financial decisions in the household. The respondents were selected by means of proportionate stratified sampling. The structure of the sample in view of sub-region of residence and gender corresponded to general population (GUS, 2013).

Among persons participating in the studies, women constituted 54 % and men 46 %. Only adults (aged over 18) participated in the research. Almost 45 % of the respondents were persons aged from 18 to 35, persons aged in the range from 36 to 55 constituted 36 %, whereas every fifth respondent was aged over 55. The most numerous respondent group possessed higher education (49 %), persons with secondary education made up 36 % of the surveyed. The other respondents declared vocational education. The high percentage of persons with higher education among the surveyed results from the fact that these people were most willing to participate in the studies. The employed persons were the dominant group (2/3 of the surveyed). In addition, students and pupils (19 %), retired persons and pensioners (9 %) took part in the research. The unemployed were the least numerous group (8 %). The dominant group were households of four and households where the monthly net income per capita ranged from 501 to 1000 PLN.

The appointed objective was realized by means of indicators of non-hierarchical cluster analysis method – k-means grouping. The aim of this method is separation of homogenous consumer groups at minimisation of variance within clusters and maximisation of variance among individual clusters (Stanisz A., 2007).

Results of studies were presented in a descriptive, tabular and graphic form.

### **Research results and discussion**

One of the indicators characterising households' behaviours on the credit market is the inclination to take out a loan measured by the percentage of households which were using credit services during the analysed period. As results from the data presented in the Table 1, in 2014 a total of 22 % of the respondents took out consumer and mortgage loans. The other persons were not using any bank loans during the investigated period. The results are lower by almost 20 percentage points than the results of studies conducted jointly on the groups of rural and urban households (Smyczek S., 2014). As results from the research commission by the Office of Competition and Consumer Protection, in Poland large city dwellers most often take bank loans (UOKiK, 2008). This situation may be influenced by both supply factors, connected with the fact that rural areas are characterised by a worse infrastructure of financial institutions, but also by demand factors associated with poor economic condition of rural households and the opinion about very difficult terms of obtaining a loan expressed by consumers (so called self-exclusion from financial market). Presented results confirm also the results of other studies showing that the level of financial services consumption among Polish consumers is low in comparison with better economically developed countries (Consumers, 2010).

6 % of all households were repaying mortgages. This group comprised persons who were repaying only the mortgage (4 %) and the households which during the investigated period were repaying both mortgage and consumer credit (2 % of all households). 17 % of the respondents were repaying consumer credits, which enabled them to finance various current needs. A definite majority of households were repaying one such loan (82 % of persons taking consumer loan and 14 % of all surveyed

households). The other households were repaying two consumer loans.

Table 1

**The number of loans being repaid by rural households and the percentage of household using loans in Malopolska Province in 2014**

Specification	Number	Share in the sample total (%)
<b>1. Households which were repaying mortgage</b>	24	6
<b>2. Households which took out a personal loan/consumer credit total</b>	67	17
<b>including: 1 loan</b>	55	14
<b>2 loans</b>	12	3
<b>Personal loans total</b>	79	-
<b>Loans total</b>	102	-
<b>3. Households which took out a loan total</b>	84	22

*Source: authors' calculations based on authors' research, n=384*

A specific form of household crediting is credits connected with credit cards functioning. In the investigated sample, only 9 % of respondents (8 persons) possessed this financial instrument. A low share of persons possessing credit cards results from the fact that the surveyed respondents were mainly customers of local cooperative banks, which do not have this bank product in their offer.

The inclination to take out a loan was determined by various factors. Loans were most often taken by men, by persons aged 36-55, possessing higher education, by permanent employees and families of four. The above results coincide with the results of studies conducted both in Poland and other countries (Kempson E., 2002; Vandone D., 2009; Over- indebtedness in..., 2010; Walega P., 2013).

The motives for indebtedness are important aspect of crediting behaviours. The reasons for using loans by households are different. In practice, two groups of motives for households' indebtedness may be distinguished:

- a desire to upgrade the household living standard;
- random causes (Bywalec C., 2009).

Two sub-groups of households may be distinguished in each of the above mentioned groups.

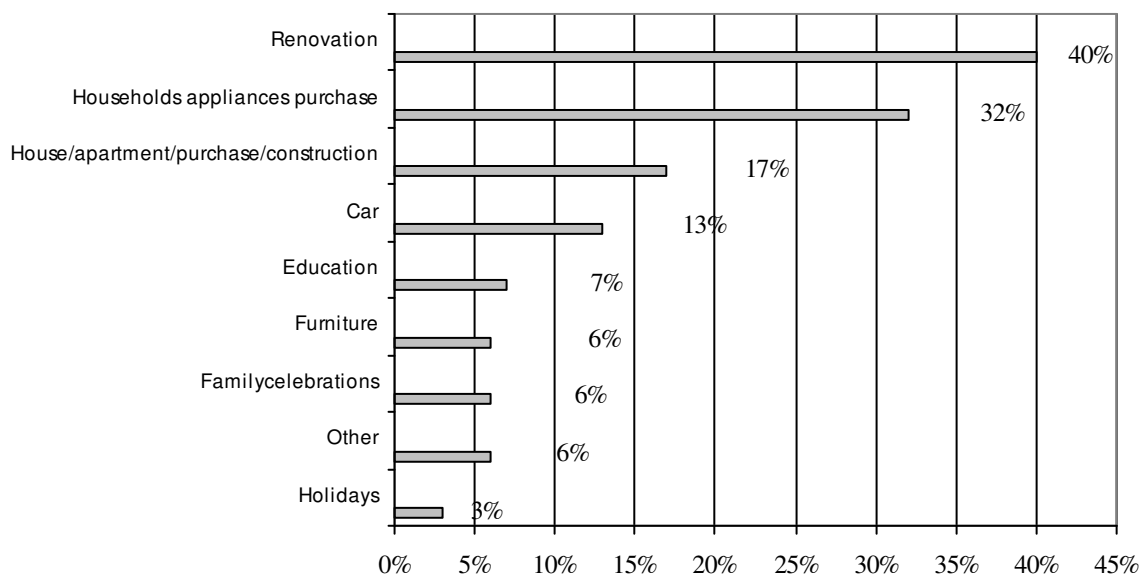
In case of the first motive group, well-off households take out loans to use for financing purchase of consumer goods of a higher order (good class car, exotic trips etc.) or capital properties (property for rent, bonds). In this case, credit for convenience is used to satisfy high consumer aspirations.

On the other hand, less prosperous households apply for credits for needs to satisfy basic consumer needs of their members (food, clothes or health needs). However, as revealed by the investigations conducted in Poland (Czapinski J., Panek T., 2011), borrowing money by better off people is more probable than by those who must do it because of a deficit in their home budgets.

Concerning the second group, random causes, can also be divided into two categories. In the first sub-group, the motives for taking out loans are connected with positive random events (bargain prices on the market). The second category of motives for indebtedness should be associated with sudden and unplanned household expenses (robbery, illness etc.).

As may be seen from the data presented in Figure 1, the main reason for borrowing money by rural households was house or apartment renovation. This answer was marked by 40 % of borrowers, the second motive indicated by the respondents was a purchase of a radio, television and household appliances. Every third household used the borrowed funds for this purpose. Considering this motive for loan taking out, the obtained results are convergent with the results of nationwide studies (Czapinski J., Panek T., 2015). Almost 20 % of loans taken out by the respondents financed the purchase of a

house/apartment or expenses for a self-built house construction.



Source: authors' calculations based on authors' research, n=84, multiple choice, 110 indications

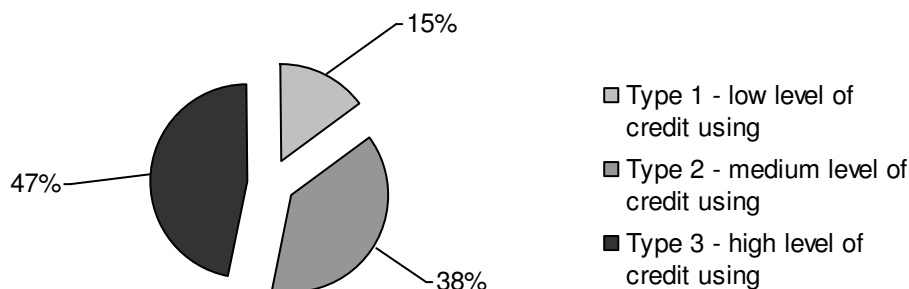
Fig. 1. Motives of indebtedness of rural households in Malopolska Province in 2014

Another reason for taking out a loan is a car purchase. This answer was indicated by 13 % of respondents. The other motives of taking loans declared by households comprised the expenses for education, furniture purchase or financing family celebrations (mainly wedding expenditure). However, the loans for the above mentioned purposes are not too popular. The percentage of households financing such expenditure during the analysed period did not exceed 10 %. Among the other reasons, the respondents mentioned financing expenditure connected with treatment and repayment of former debts.

A non-hierarchical cluster analysis method – k-means grouping was applied to distinguish individual types of crediting strategies of rural households. The basic criterion of classification made using cluster analysis were various forms of crediting. The analysis was conducted on the basis of three variables: mortgage, consumer credit (personal loan) and credit card. Three types of crediting strategies of rural households were identified on the basis of assumed segmentation criteria: Type 1 – low level of using

credits, Type 2 – medium level of credit services consumption and Type 3 – high level of using credits, as presented in Figure 2 and in Table 2.

One of the identified crediting strategies was characterised by a low level of using bank credit services, represented by the least numerous group of households (15 %). In 2014, the respondents in this group were repaying only one loan. Most persons were repaying personal loans (85 %), the other respondents – the mortgage. None of the people from this group possessed a credit card. In comparison with the other identified types, the respondents from this group represented also the lowest bank account penetration. The persons representing this type were mostly women respondents aged 36-55 with secondary education. As compared with other types, this group comprised the highest number of pensioners and retired persons, which explains the fact that the group is characterised with the lowest percentage of persons who took out mortgages. The discussed respondent group also revealed an opinion, that they preferred to save that live on credit.



Source: authors' calculations based on authors' research, n=84

Fig. 2. Crediting strategies of rural households in Malopolska Province in 2014

**Types of crediting strategies of households in Malopolska Province in 2014 (frequency of declared possession of individual credit products - % households)**

Kind of loan	Kind of strategy		
	Type 1 – low level of credit using	Type 2 – medium level of credit using	Type 3 – high level of credit using
Mortgage	15 %	31 %	31 %
Personal loan	85 %	69 %	87 %
Credit card	0 %	13 %	10 %
1 loan	100 %	87 %	64 %
2 loans	0 %	13 %	36 %

Source: authors' calculations based on authors' research, n=84

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explains the fact that the group is characterised with the lowest percentage of persons who took out mortgages. The discussed respondent group also revealed an opinion, that they preferred to save that live on credit.

Another identified type of crediting strategy is a strategy characterised by a medium level of using bank services (40 % of the surveyed taking loans). Every eighth person representing this type was repaying two loans in 2014. Almost 70 % of loans taken out by the respondents in this group were personal loans and almost 1/3 of the surveyed was at the same time repaying a mortgage. The group is characterised by the highest percentage of persons using credit cards and at the same time by the lowest savings ratio. This strategy is typical mainly for women, the youngest persons and multi-person families.

The studies have shown that the most numerous group are respondents representing type 3 – high level of using bank credits (47 % of persons using credit services). Over 1/3 of respondents in this group were repaying two loans in 2014. The group is also characterized by the highest percentage of persons taking out consumer credits and the highest share of persons using credit cards. Persons in this group are mainly men respondents aged 36-55 with higher education. Families of four prevail in this group. The households representing this type are characterised by the most comfortable income status.

## Conclusions

The studies enabled a characterisation of selected crediting behaviours of rural households in the Malopolska province and identification of the types of crediting strategies realised by these households. The following conclusions were formulated on the basis of conducted investigations and statistical analysis.

- 1) Rural households in the Malopolska province are characterised by a low inclination to take out loans. During the analysed period, only every fifth household was repaying a loan. The level of credit services consumption in rural households is lower than the average for the whole country by 20 percentage points. The reasons for such low consumption of credit services are both demand and supply side factors.
- 2) The studies have shown that a typical rural household using bank loans is the one where the head of the family is a well-educated person, aged 36-55 who earns income as an employee. It is a high earning married couple with two children, who positively assess their material status.

- 3) The consumers were usually repaying a personal loan. Almost 6 % of the households were repaying a mortgage. The households repaying one loan dominated in the surveyed group (82 % of households repaying a loan). The other households were repaying two loans during the investigated period. No instances of taking out a higher number of credits were registered.
- 4) Analysis of the declared motives for taking out loans indicates a tendency for financing long-term needs. The loans were mainly taken out for house/apartment renovation, property purchase or purchasing durable goods. Only occasionally loans were taken out to repay debts.
- 5) Three crediting strategies were identified for the studied households on the basis of credit portfolio: type 1 – low level of credit services consumption, type 2 – medium level of using credit services using and type 3 - high level of credit services consumption. The dominant strategy was type 3 – characterised by the highest share of households repaying two loans.

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## CLASSIFICATION OF SELECTED FOOD INDUSTRY COMPANIES LISTED ON THE WARSAW STOCK EXCHANGE - THE IMPACT OF NORMALIZATION PROCEDURES

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**Abstract.** Competent assessment of the financial condition of stock companies becomes very important because trustworthy and timely information is expected by investors. Thus, it is necessary to use methods that streamline the analysis of the stock market. Taxonomic synthetic measures belong to such methods. One of the stages of the multivariate analysis is the data normalization. The choice of the normalization method is one of the most crucial steps for the researchers because it could influence the results of the analysis.

In the present study, the author uses a synthetic taxonomic measure TMAI with selected normalization methods to compare the condition of 13 food industry companies listed on the Warsaw Stock Exchange and create for them the rankings for the years 2013 and 2014. Comparing the results of the individual rankings, it can be stated that the selected normalization algorithm impacts the result of the obtained classification.

**Key words:** the data normalization, taxonomic measure, TMAI, food industry companies.

**JEL code:** C10, G11

### Introduction

According to the Polish Information and Foreign Investment Agency, the businesses of the food sector generate over 13 % of the Polish GDP value and are one of the dominating industries in Poland. Years after the Polish accession to the EU were a period of increasing development of this branch of economy with massive investments in modernization and expansion of food production plants. What's more, the development of commercial networks was also the growth driver. Currently, the retail trade reached some growth barriers, and the condition of food companies largely depends on the fluctuations of the raw material prices and the political situation on our eastern border, which has a negative impact on the meat, dairy and fruit and vegetable industries. Moreover, in 2014 a negative trend of limiting the market appeared, which resulted from the imposition of the embargo on food products from the EU by the Russian Federation.

Taking into account: the Russian embargo, the increase in prices of agricultural raw materials and the food price increases in recent years and the changes in consumer preferences towards healthy foods, it is worth examining how the situation is shaped on the market of food production, analysing the

financial data of the selected companies of this sector listed on the Warsaw Stock Exchange.

One of the groups of methods of the Multivariate Comparative Analysis is methods of linear ordering of objects. The first one who proposed the synthetic measure of development for the comparison of the level of economic development of the selected countries was Z. Hellwig (1968). The Hellwig development measure synthesises information within the diagnostic variables and assigns one aggregated measure to the analysed phenomenon. W. Tarczynski and M. Luniewska (2006) have applied the analogical concept of the construction of the synthetic measure while building the TMAI measure for the capital market, which determines the investment attractiveness of companies.

For all variables used in the algorithm of the synthetic index construction to be mutually comparable in orders of magnitude and devoid of denominations, their normalization is performed. However, the change of the normalization formula of diagnostic features may cause changes in the layout of objects in the ranking, which cause will involve neither the increase, nor the decrease of their evaluation.

The main object of the presented article is to examine the sensitivity of the result of linear ordering on the applied procedure of variable normalization in the construction of the rankings of 13 food industry companies listed on the Warsaw Stock Exchange. The study used the Taxonomic Measure of Investment Attractiveness (TMAI), which allows using the comprehensive analysis of companies based on the most important financial indicators, presenting it in the form of a synthetic ranking. By calculating the distance of each object from the model, it was checked how the application of two different normalization methods of the same diagnostic variables affects the result of the classification. The obtained results were compared to the model ranking proposed by the expert using the correlation coefficient of the Spearman ranks. The study was conducted for the years 2013 and 2014.

For the study, the following companies were selected: Colian Holding SA, Duda SA, Graal SA, Indykpol SA, Kruszwica SA, Makarony Polskie SA, Mieszko SA, Mispol SA, Otmuchów SA, Pamapol SA, Pepees SA, Seko SA, Wawel SA and Wilbo SA, which are listed on the main market of the Warsaw Stock Exchange. The activities of the analysed companies are conducted mainly in Poland, and their profit and loss account is prepared in a spread-sheet. The companies representing the alcohol industry were omitted.

#### **Synthetic TMAI measure – description and results of the study**

Nine of the most important financial indicators were used for the calculation of the synthetic taxonomic measure TMAI in the research of food industry companies. They characterise the most important aspects of the company activity: profitability (*ROE*, *ROA*, *OPMR*), liquidity (*CR*), efficiency (*ITR*, *LR*, *ATR*, *RTR*) and debt (*DR*).

The Table 1 shows description of eight indicators recommended in the works by Tarczynski and Luniewska (2004, 2006).

In addition, the analysis used the Operating Profit Margin Ratio (*OPMR*), calculated as  $(\text{Operating income} / \text{Total revenue}) \cdot 100$ . The increasing value of this indicator means the improvement of the operational effectiveness of the unit's functioning, which in turn may prove the existence of its significant development potential. *OPMR* is, therefore, a stimulant.

Table 1

#### **The selection of variables and their impact on the general criterion**

<b>Ratio</b>	<b>Formula</b>	<b>The impact on the general criterion</b>
Return on Equity (ROE)	Net Income/ Shareholder Equity	stimulant
Return on Assets (ROA)	Net Income/ Average Total Assets	stimulant
Inventory Turnover Ratio (ITR)	Net Sales/ Average Inventory	stimulant
Liabilities Ratio (LR)	(Average Liabilities/ Net Income)·365	stimulant
Asset Turnover Ratio (ATR)	Net Sales Revenue/ Average Total Assets	Stimulant
Receivable Turnover Ratio (RTR)	Sales Revenue/ Average Receivables	nominant (7 - 10)
Current Ratio (CR)	Current Assets/ Current Liabilities	nominant (1.0 - 1.2)
Debt Ratio (DR)	Total Liabilities/ Total Assets	nominant (57 %-67 %)

**Source: Based on papers by Tarczynski and Luniewska, 2004, 2006**

Building the expert ranking of companies of the food sector, it has been stated that the highest impact on the fundamental assessment of the company's condition comes from the profitability indicators and then the indicators relating to the working capital. It was posited that the relatively low information potential is in the indicators connecting the



long-term processes (e.g. income) in relation to the balance sheet positions, which can result from one-time events, e.g. created on 31 December. In addition, some companies knowingly adopt the financial policy, which makes the indicators go beyond some contractual framework, which is not the evidence of bad management. This case concerns, among others, the company Wawel SA, which to a limited degree used foreign capitals to finance its activities and its *Debt rate (SZ)* was the lowest in the entire group of the analysed companies.

Consequently, when creating the classification of companies the ability of companies for the effective management of the assets and to cover the current liabilities of the current assets, effectiveness of own equity and return on operating income were taken into account. Tables 4 and 5 include the layout of companies in the expert ranking for the years 2013 and 2014.

In the first stage of the study, the distributions of financial indicators were analysed, because when choosing the standardization formula one should take into

account both the scale of the variable measurement, and the characteristics of the variable distribution, such as the arithmetic mean, standard deviation and the gap designated for the normalised values of variables (Walesiak, 2004). In addition, it is worth looking at the results of the basic descriptive statistics and check the occurrence of the outliers or extreme values. According to K. Kukula, L. Luty (2015), taking into account the final goal of the research, which is the ranking of objects, one should not use the normalization methods that level the outliers of the diagnostic features, because such methods distort the real image of the spatial distribution of the studied complex phenomenon impacting the sequence of the objects under consideration. A completely different view of the need for eliminating the outliers, as the ones interfering with the ranking, can be found in the article by Bak, Szczecinska (2014).

The Table 2 contains the results of the basic descriptive statistics calculated for all financial ratios for 2013.

Table 2

**Descriptive statistics of variables in 2013**

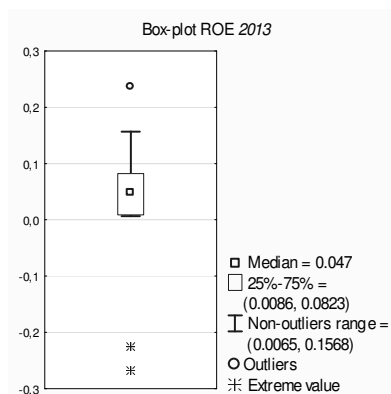
Variable	mean	median	min	max	Q1	Q3	range	interquartile range	Standard deviation	coefficient of variation	skewness	kurtosis
ROE	0.026	0.047	-0.269	0.235	0.009	0.082	0.504	0.073	0.137	529.203	-1.133	1.508
ROA	0.029	0.025	-0.061	0.171	0.004	0.032	0.232	0.028	0.057	200.645	1.095	2.692
OPMR	0.205	0.182	0.101	0.381	0.163	0.219	0.280	0.056	0.082	40.186	0.961	0.446
RTR	6.636	5.773	3.373	13.502	4.130	8.727	10.129	4.597	3.272	49.299	0.995	0.008
ITR	10.860	11.504	2.806	29.106	5.211	12.424	26.299	7.213	6.794	62.557	1.563	3.823
LR	58.565	58.410	20.546	111.181	31.179	75.381	90.634	44.202	28.822	49.214	0.459	-0.394
ATR	1.382	1.251	0.761	2.628	0.998	1.474	1.866	0.476	0.614	44.401	1.127	-0.009
CR	1.335	1.058	0.860	2.575	0.964	1.601	1.715	0.637	0.512	38.368	1.400	1.570
DR	0.514	0.506	0.261	0.855	0.392	0.628	0.594	0.236	0.170	32.953	0.386	-0.145

Source: author's calculations

In 2013, extreme values were observed for the indicators *Return on Equity (ROE)*, *Return on Assets (ROA)*, and the occurrence of the outliers was stated for *Operating Profit Margin Ratio (OPMR)*, *Inventory Turnover Ratio (ITR)*

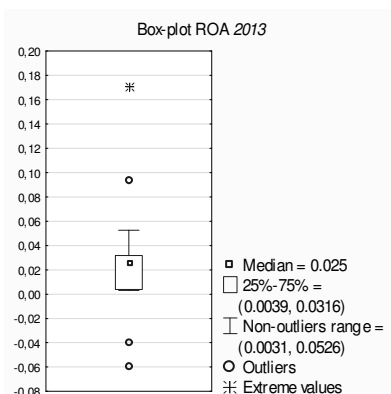
and *Asset Turnover Ratio (ATR)*, which is confirmed by the box-plot graphs no. 1 to 5. The remaining ratios assumed values that did not exceed the non-outlier range. The results of the basic descriptive statistics calculated for

applied financial indicators for 2014 are presented in Table 3.



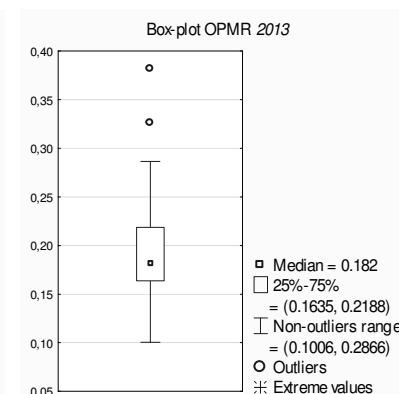
Source: author's calculations

Fig. 1. Box-plot ROE 2013



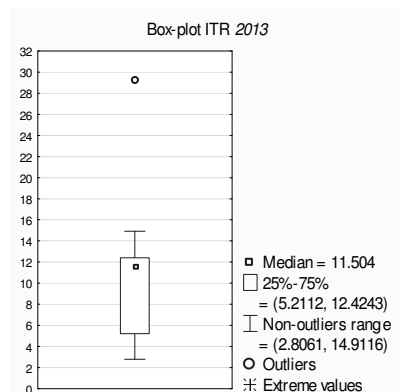
Source: author's calculations

Fig. 2. Box-plot ROA 2013



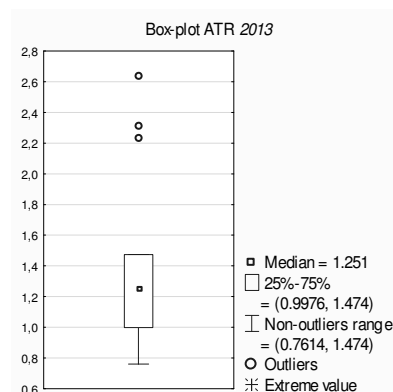
Source: author's calculations

Fig. 3. Box-plot OPMR 2013



Source: author's calculations

Fig. 4. Box-plot ITR 2013



Source: author's calculations

Fig. 5. Box-plot ATR 2013

Table 3

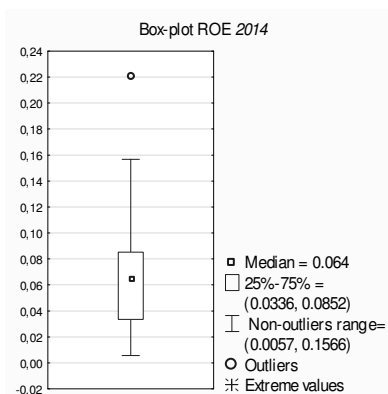
**Descriptive statistics of variables in 2014**

Variable	mean	median	min	max	Q1	Q3	range	interquartile range	Standard deviation	coefficient of variation	skewness	kurtosis
ROE	0.076	0.064	0.006	0.220	0.034	0.085	0.214	0.051	0.059	77.492	1.501	2.411
ROA	0.045	0.033	0.002	0.166	0.020	0.040	0.165	0.020	0.048	106.651	1.943	3.381
OPMR	0.207	0.196	0.110	0.409	0.154	0.223	0.299	0.069	0.086	41.483	1.345	1.782
RTR	7.126	5.509	3.134	17.421	4.556	8.360	14.288	3.804	4.115	57.743	1.723	2.791
ITR	11.131	10.966	2.144	27.592	5.737	14.135	25.447	8.398	6.703	60.220	1.187	2.494
LR	51.422	54.859	19.908	84.615	31.063	67.470	64.706	36.407	20.685	40.227	-0.216	-1.038
ATR	1.444	1.186	0.680	2.602	1.017	1.947	1.922	0.930	0.667	46.174	0.933	-0.615
CR	1.806	1.391	1.012	4.000	1.057	2.414	2.988	1.357	0.995	55.118	1.290	0.643
DR	0.474	0.469	0.166	0.854	0.350	0.580	0.688	0.230	0.197	41.637	0.241	0.034

Source: author's calculations

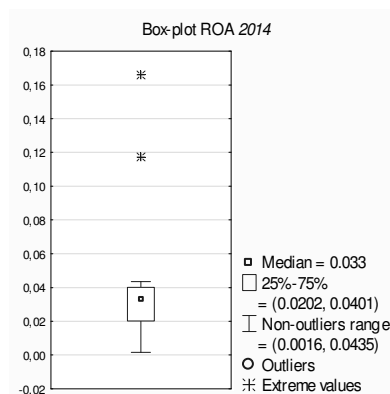
In 2014, the occurrence of extreme values was stated only by the indicator *Return on Assets (ROA)* (Fig. 6). Furthermore, the outliers were observed for the indicators: *Return on Equity (ROE)*, *Operating Profit*

*Margin Ratio (OPMR)*, *Inventory Turnover Ratio (ITR)* and *Receivable Turnover Ratio (RTR)*, which is documented by the box-plot type of graphs from no. 7 to 10.



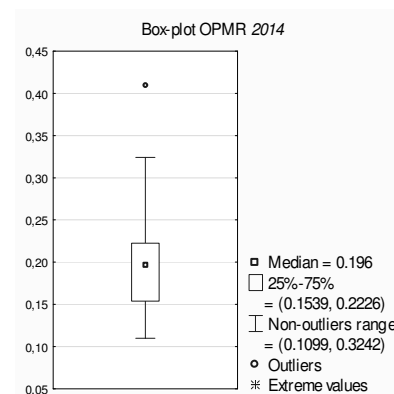
Source: author's calculations

Fig. 6. Box-plot ROE 2014



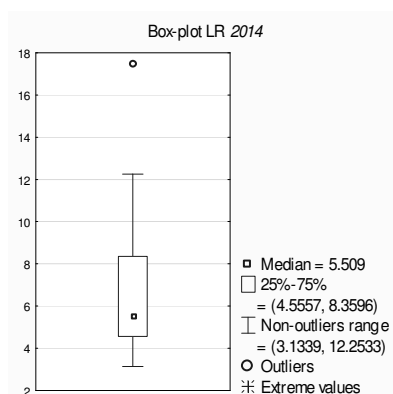
Source: author's calculations

Fig. 7. Box-plot ROA 2014



Source: author's calculation

Fig. 8. Box-plot OPMR 2014



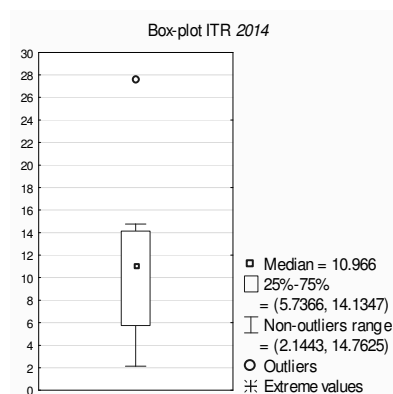
Source: author's calculations

Fig. 9. Box-plot RTR 2014

In the second step, due to the specificity of variables, *Current Ratio (CR)*, *Debt Ratio (DR)* and *Receivable Turnover Ratio (RTR)* were individually transformed from nominants into stimulants. Description of the financial indicators and transformations of variables being nominants into stimulants used in the study was included in the author's work (Chrzanowska, Zielinska-Sitkiewicz, 2014).

In the next stage, when choosing the normalization formulas, the specificity of the variables (financial ratios) was what guided us, and well as the following demands:

- bringing the order of variable magnitudes to the state of comparability;
- possibility of normalization of the characteristics adopting the positive and negative values or only the negative ones;
- possibility of normalization of the characteristics adopting the zero value (Kukula, 2000).



Source: author's calculations

Fig. 10. Box-plot ITR 2014

Two normalization formulas were selected for the further analysis in order to compare the ranking results<sup>1</sup>:

- standardization

$$z_{ij} = (x_{ij} - \bar{x}_j) / s_j \quad (1)$$

- Weber standardization

$$z_{ij} = (x_{ij} - Me_j) / 1,4826MAD_j \quad (2)$$

The classic standardization and Weber standardization cause the unification of the values of all variables in terms of variation measured with the standard deviation or the absolute median deviation. This means the elimination of variation as the basis for differentiation of objects (Walesiak, 2014). It is recommended to use the Weber standardization in order to eliminate the

<sup>1</sup>  $\bar{x}_j, s_j$  - arithmetic mean, standard deviation for  $j$  variable,  
 $Me, MAD$  - median and absolute median deviation

distorting effect of the outlier or extreme observations.

In the last step of the analysis, the Taxonomic Measure of Investment Attractiveness was calculated for two studied periods. The calculations did not include any weights for the applied financial indicators (Luniewska, Tarczynski, 2006). The ranking results for 2013 and 2014 with the expert classification are presented in Tables 4 and 5:

Table 4

**Results of the TMAI measure and the ranking of the studied companies for 2013**

Normalization formulas:	standardization		Weber standardization		EXPERT ranking
	TMAI	nr	TMAI	nr	
Name					
COLIAN HOLDING	0.2488	6	0.3376	6	3
DUDA	0.2961	2	0.3897	3	9
GRAAL	0.2520	5	0.3333	7	8
IDYKPOL	0.2435	7	0.2899	10	11
KRUSZWICA	0.1991	10	0.3717	4	4
MAKARONPL	0.2794	3	0.3322	8	6
MIESZKO	0.2101	9	0.3395	5	5
OTMUCHÓW	0.2271	8	0.3082	9	10
PAMAPOL	0.0000	13	0.0000	13	13
PEPEES	0.1017	11	0.1846	11	7
SEKO	0.3523	1	0.4118	2	2
WAWEL	0.2688	4	0.5103	1	1
WILBO	0.0918	12	0.0223	12	12

Source: author's calculations

Table 5

**Results of the TMAI measure and the ranking of the studied companies for 2014**

Normalization formulas:	standardization		Weber standardization		EXPERT ranking
	TMAI	nr	TMAI	nr	
Name					
COLIAN HOLDING	0.1142	8	0.0502	9	7
DUDA	0.0942	9	0.1928	4	9
GRAAL	0.1619	5	0.1844	6	3
IDYKPOL	0.1146	7	0.1851	5	5
KRUSZWICA	0.1337	6	0.2644	2	10
MAKARONPL	0.1895	3	0.1531	8	4
MIESZKO <sup>1</sup>	-	-	-	-	-
OTMUCHÓW	0.1814	4	0.1665	7	8
PAMAPOL	0.0195	11	0.0000	12	11
PEPEES	0.0675	10	0.0173	11	6
SEKO	0.2213	2	0.2259	3	1
WAWEL	0.4389	1	0.4236	1	2
WILBO	0.0000	12	0.0184	10	12

Source: author's calculations

Comparing the results of the individual rankings, it can be stated that the selected normalization algorithm impacts the result of the obtained classification. In order to perform a detailed analysis of changes in the position of the surveyed companies, depending on the adopted formula of transformation of the variables, the Spearman rank correlation coefficients were calculated between the assessments of companies designated with the TMAI measure and the expert method. Tables 6 and 7 contain the obtained values.

<sup>1</sup> At the request of the company, on December 31, 2014, the board of the Stock Exchange in Warsaw made the resolution to exclude the Mieszko shares from the trading. Therefore, there are no financial results of the company for 2014.

Table 6

**Values of the Spearman rank correlation coefficients between the ranking results for 2013**

Normalization formulas	standardization	Weber standardization	expert ranking
standardization	1	0.817	0.687
Weber standardization		1	0.878
expert ranking			1

Source: author's calculations

Table 7

**Values of the Spearman rank correlation coefficients between the ranking results for 2014**

Normalization formulas	standardization	Weber standardization	expert ranking
standardization	1	0.842	0.896
Weber standardization		1	0.731
expert ranking			1

Source: author's calculations

For 2013 and 2014, quite a high convergence of both rankings was obtained, during the construction of which the classic standardization and the Weber standardization was used. Moreover, in 2013 the classification obtained by using the Weber standardization formula indicated the share of companies closer to the expert ordering, almost equally recognizing the best and the least innovatively attractive companies. It is worth mentioning that in 2013, compared to 2014, much more outlier and extreme values were noted in the distributions of financial ratios. In 2014, the compliance of TMAI rankings with the expert ordering was reversed. There were less companies with the values strongly deviating from the others in the group of the studied companies than in 2013. The obtained

classification using the classic standardization correlated with the expert system. Therefore, one should be advised to consider the adjustment of the normalization methodology of the financial ratios in the case of outliers, or the extreme values, if the comparative studies of the companies are conducted periodically.

**Conclusions**

- 1) The conducted study shows that the use of different normalization formulas of variables can cause the change of the results of the company classification, which results neither from the data structure change, nor the effectiveness modification of their operations. Conducting the analysis based on the financial indicators, one should characterise the distributions of the studied variables calculating the descriptive statistics, which enables for the group of studied companies to identify the outlier and extreme values. If they are stated, one should check whether the change of the normalization procedure from the classic standardization (used in literature quite widely with the TMAI calculation) into the Weber standardization does not lead to a more accurate classification.
- 2) Subjectivity in the construction of taxonomic synthetic metres affects the system of companies in the rankings. The correct classification can be ensured by the integration of expert opinions, supported by a detailed financial analysis in the stages of selecting the group of financial indicators. The selection of the normalization method should be preceded by the examination of the distributions of variables and it is possible to consider the potential use of weights.

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