ECONOMIC SCIENCE FOR RURAL DEVELOPMENT

1.Finance and Taxes

2.New Dimensions in the Development of Society

№ 33
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2014

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All reviewers were anonymous for the authors of the articles.

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Publication Ethics and Malpractice Statement for the International Scientific Conference "Economic Science for Rural Development"

The conference and its proceedings are dedicated to topical themes of rural development, such as primary and secondary agricultural production and cooperation; integrated and sustainable development; finance and taxes; resources and sustainable consumption; home economics and other.

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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The authors of reports of original research should present an accurate account of the work performed as well as an objective discussion of its significance. Underlying data should be represented accurately in the paper. A paper should contain sufficient detail and references to permit others to replicate the work. Fraudulent or knowingly inaccurate statements constitute unethical behaviour and are unacceptable.

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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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Disclosure and conflicts of interest

All authors should disclose in their manuscript any financial or other substantive conflict of interest that might be construed to influence the results or interpretation of their manuscript. All sources of financial support for the project should be disclosed.

Fundamental errors in published works

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

Every year the Faculty of Economics and Social Development, Latvia University of Agriculture holds the international scientific conference "Economic Science for Rural Development" and publishes internationally reviewed papers of scientific researches, which are presented at the conference. **This year** researchers from various European countries representing not only the science of economics in the diversity of its sub-branches have contributed to the conference; they have expanded their studies engaging colleagues from social and other sciences, thus, confirming inter-disciplinary and multi-dimensional development of the contemporary science. The conference is dedicated to topical themes of rural development; hence, the research results are published in 4 successive volumes (No 33, No 34, No 35, and No 36). The first volume of scientific conference proceedings was published in 2000.

The following topical themes have been chosen for the conference:

- Production and Co-operation in Agriculture
- Integrated and Sustainable Regional Development
- Finance and Taxes
- Marketing and Sustainable Consumption
- Rural Development and Entrepreneurship
- Home Economics
- New Dimensions in the Development of Society

Professors, doctors of science, associate professors, assistant professors, PhD students, and other researchers from the following higher education, research institutions, and professional organisations participate at the International Scientific Conference held on 24-25 April 2014 and present their results of scientific research:

University of Economics, Prague	Czech Republic
Estonian University of Life Sciences	Estonia
BA School of Business	Latvia
Baltic International Academy	Latvia
Latvian State Institute of Agrarian Economics	Latvia
University of Latvia	Latvia
Latvia University of Agriculture	Latvia
Riga International School of Economics and Business Administration	Latvia
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South Dakota State University	USA
Pennsylvania State University, State College	USA
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Saratov State Socio-Economic University	Russia
Kazakh Economic University	Kazakhstan

The comprehensive reviewing of submitted scientific articles has been performed on international and inter-university level to ensure that only high-level scientific and methodological research results, meeting the requirements of international standards, are presented at the conference.

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 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.

All the papers of the international scientific conference "Economic Science for Rural Development" are arranged into the following four thematic volumes:

No 33 Finance and Taxes
New Dimensions in the Development of Society

No 34 Production and Cooperation in Agriculture

No 35 Marketing and Sustainable Consumption
Rural Development and Entrepreneurship
Home Economics

No 36 Integrated and Sustainable Regional Development

The publishing of the Proceedings before the conference promotes exchange of opinions, discussions, and collaboration of economic scientists on the international level. The research results included into the Proceedings are available worldwide to any interested person.

The Conference Proceedings are indexed in ISI Web of Knowledge, AGRIS, CAB Abstracts and EBSCOHost Academic Search Complete databases.

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
Ingrida Jakusonoka
Professor of Faculty of Economics and Social Development
Latvia University of Agriculture

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Contents

1.FINANCE AND TAXES

2. NEW DIMENSIONS IN THE DEVELOPMENT OF SOCIETY

COMPARATIVE ANALYSIS OF DEBT LEVEL IN LITHUANIAN ECONOMIC SECTORS

Lina Martirosianiene[1]
Aleksandras Stulginskis University

Abstract. Debt level in business entities is inversely proportional to their stability. Financing a large part of the assets by debts one can expect bigger effectiveness of business entity's activities and, in the same time, attribution of a bigger part of profit to equity capital. However, big debts increase the potential problems of business entity's insolvency. Various scientific research have analysed the hypothesis which state that on favourable conditions on credit markets the business entities most often increase their financial leverage. If it becomes more difficult to borrow, the borrowing rate should decrease. This article analyses debt level indicators of Lithuanian economic sectors during different economy cycles: economy peak, recession, trough, and recovery. Debt level in economic sectors is evaluated while calculating two relative indicators – debt ratio and financial leverage. The article compares trends of debt level in the companies with changes of main factors – fixed assets, asset tangibility, and profitability ratios. The results of the research indicate that during the first years of Lithuanian economy recession the financial leverage in the business entities remained stable and high. The research has shown that debt level in Lithuanian economic sectors increases with growing fixed assets purchase and profitability have negative effects on business entities debt level.

Key words: debt level, economic sectors, profitability, economy cycles, financial leverage.

JEL code: Q14

Introduction

The most common mistake made by business entities is irregular financial policy. According to J.Pettit (2007), financial policy including the capital structure, debt level, cash flows, and company's liquidity is not only a choice of best combination of mentioned objects but also its adaptation to companies strategy and market expectations. The benefits of debt capital are confirmed in both theoretical and practical levels. Debt capital is the most convenient financial form that allows keeping the part of current shareholders in the company unchanged and attracts necessary funds. According to V.Alekneviciene (2009), lend sources of financing are cheaper than owned ones because (1) the borrowers have priority compared with shareholders both in revenue allocation and in case of bankruptcy procedure; (2) debt capital is taken from the company meanwhile owned capital stays in the company; (3) paid interest is not subject to taxes.

K.M.Kahle and R.M.Stulz (2010) have analysed the hypothesis that on favourable conditions on credit markets the companies most often increase their financial leverage. If it becomes more difficult to

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borrow, i.e. the credit supply decreases, the borrowing rates should decrease. Yet, the research results did not confirm this idea. The research conducted by Ch.Chari and K.Patrick (2008) have shown that companies' crediting remains unchanged during the first years of crisis. Meanwhile M.T.Leary (2009) states that in most cases companies, seeking to compensate the impact of credit contractions, decrease the dividend allowances, buy up less shares and issue more equity securities.

Financial policy based on company's value comprehensively describes the changes that occurred in the company finance policy during the past decades. Many discussions and writings analyse the financial crisis that has begun several years ago and there is no unified opinion about if the crisis is already over. What fundamental events and changes have occurred during this period and have they influenced the changes of debt level in the companies? Have the reduced credit supply by itself stimulated the companies to increase the level of their equity capital?

The object of the research is the debt level in Lithuanian economic sectors.

The aim of the research is to evaluate debt ratios in Lithuanian economic sectors during different economy cycles and to compare their trends with other financial indicators.

The aim is achieved by implementing following tasks: 1) to provide the theoretical backgrounds for debt level evaluation in the business entities; 2) to calculate and evaluate debt ratios of Lithuanian economic sectors while excluding their variations during different economy cycles in Lithuania; 3) to compare trends of debt level indicators with other financial indicators.

Research methods: analysis of foreign and Lithuanian authors' scientific literature and legal documents, comparison of information, systematization, detalisation and conclusion methods, analysis of statistical data. Research period – the years 2005-2012.

Research results and discussion

According to R.Kaplan and R.Cooper (1998), in practice there are such cases of bankruptcy that confirm the paradox of "free market", i.e. business entities which just had very good financial indicators "die". Such unexpected cases are especially common between business entities that have big financial leverages.

Regarding the negative effects of liabilities on business entity management, F.N. AL-Shubiri (2012) noted that liabilities can influence business entity behaviour through the following three channels. Firstly, as increased liabilities rise bankruptcy risks business entity managers who fret over the possibility of shareholders, holding them accountable tend to move to curb borrowings and/or reduce investments, potentially raising the prospect of underinvestment. Secondly, as larger interest payment burdens, resulting from higher debts reduce funds in hand, debt has a negative impact on the investment activities of business entities with promising investment opportunities.

Various research works of the structure of business entity capital have revealed that factors influencing the debt level in a business entity exists. In their scientific research, R.Rajan and L.Zingales (1995) have indicated four factors which have the biggest influence to business entity debt level: a) fixed assets; b) company size; c) ratio of the market and the book value (which reflects growth potential for the business entity); and d) profitability.

The costs of capital and business entity dividend policy could affect debt choice. When management perceives the cost of utilising internal funds to be relatively higher than the cost of debt, it certainly would opt for debt regardless of how profitable the firm may be at that point. Most profitable firms may wish to benefit from the tax-savings associated with debt capital, when corporate tax laws permit deductions of interest payment (F.Modigliani, M.H.Miller., 1963). Based on E.F.Fama, K.French (2002), A.H.Khrawish, A.H. Khraiwesh (2010) and S.C.Myers (2001) empirical research, profitable companies tend to have lower debt level comparing to less profitable companies.

In their scientific research, S.O.Collins, A.A.Clement and A.R.Funke (2013) have also confirmed that profitability have negative effects on the company debt level. The results of S.Jang and C.H.Tang (2009) conducted analysis have also found opposite inter-dependence between financial leverage and profitability. In the authors' opinion especially low or especially big financial leverage decreases company's profitability.

S.Titman and R.Wessels (1988) observed a significant correlation between the market and the book values of debt for identical periods, thus, whether the market value or the book value is used as the indicator of debt value is unimportant. Moreover, G.F.Micheal and H.J.Wesley (1979) believed that the book value of debt ratio could reflect actual firm reliance on debt.

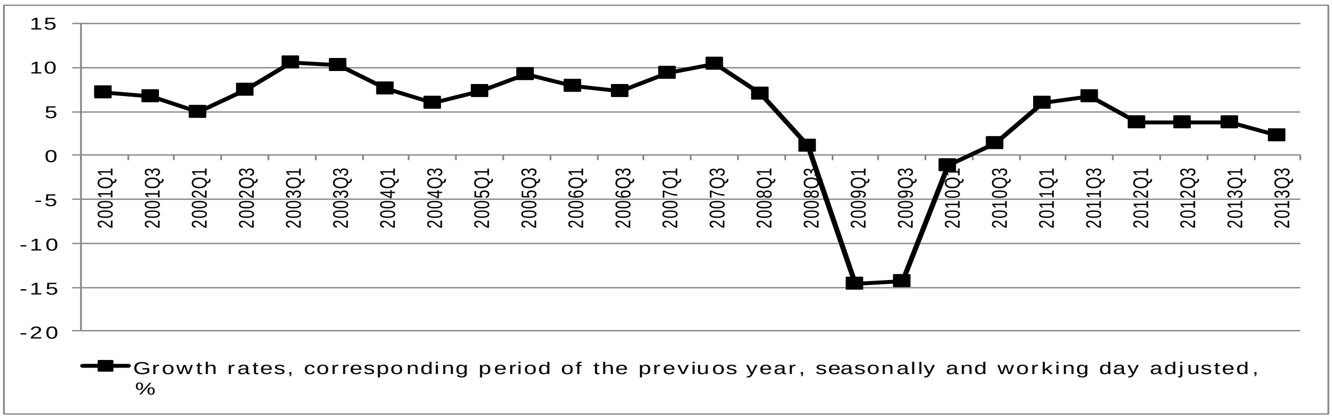
M.Harris and A.Raviv (1991) have indicated the correlations of the factors with company debt level. According to the authors, debt-to-equity ratio (1) increases with the increase of fixed assets, tax benefits, growth perspectives and company size; or (2) decreases with increased variability of the company, advertising expenses, research and development, bankruptcy risk, profitability, and product authenticity.

Most authors (S.Titman and R.Wessels, 1988; R.Rajan and L.Zingales, 1995) state that indicators that are used to evaluate corporate debt level include main factors that influence the financial leverage of the company. According to the authors, main indicators that measure debt level include asset tangibility (ratio of fixed assets and total assets), profitability (ratio of net profit and sales), company size, and ratio of equity capital market value and book value., Such indicators as effective tax level, activities risk, research and development expenses, capital expenses and sales expenses indicators are rarely used due to data inaccessibility or its shortage (S.Titman and R.Wessels, 1988).

Company debt level can be evaluated using financial ratios. E.V.Valladares and J.L.D.Flores (2005) note the following debt level indicators: total debt ratio, debt-to-equity ratio (financial leverage), capital multiplier, long-term debt ratio and interest coverage ratio. R.H.Fosberg and A.Ghosh (2006) define capital structure by total debt ratio and financial leverage. V.Alekneviciene (2009) states that debt level is also reflected by the financial leverage which can be calculated as ratio of financial debts and equity, seeking to determine the effects of financial leverage, i.e. the impact of financial risk to return of equity.

The author of this article measures corporate debt level using two relative indicators: 1) ratio of total debt capital to total assets which reflects debt ratio; 2) ratio of total debt capital to equity capital which shows what part of debt capital is covered by equity capital, or debt-to-equity ratio. The article compares the trends of debt level with changes of other main indicators – fixed asset, asset tangibility, and profitability.

The author suggests that while conducting the analysis of the debt level of business entity and evaluating its trends, it is important that economic cycles in the country would be taken into account. Economic cycles are a type of nation's economic activity fluctuations; the cycle is comprised of growth phase which is characteristic to most areas of economic activity during that period, which shifts to recession also common to the whole economy, slowdown of production and later to improvement, which transforms into the next phase of the cycle – the recovery. Such shifts of cycle phases are recurrent but not necessary regular. Gross domestic product – an indicator reflecting total amount of goods and services produced in the country – is considered to be the main indicator which shows the changes in economy cycles. Changes of this indicator show what is happening in the economy of the country – whether it grows, or shifts to economy contraction phase (Figure 1).



Source: author's construction based on the data of the Department of Statistics, 2001-2013, www.stat.gov.lt

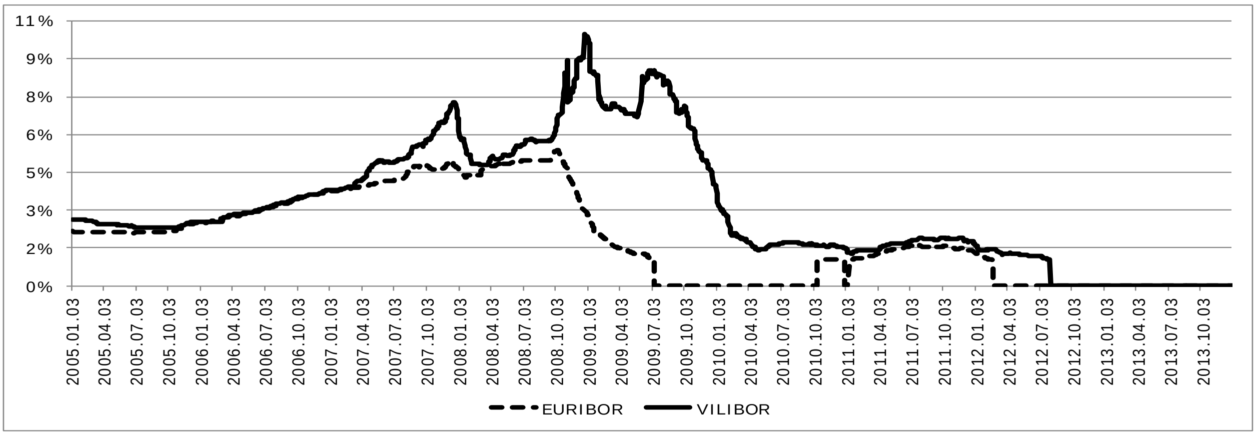
Fig. 1. **Actual GDP compared with the past period in Lithuania, seasonality eliminated, %**

While the study is limited excessively by the short period of analysis, Figure 1 clearly shows the period of economic recession, which occurred in Lithuanian economy in the end of 2008 and lasted until the beginning of 2009. The following economic cycles can be indicated – economy growth from 2000 Q1 to 2007 Q2; economy peak from 2007 Q3 to 2008 Q2, economy recession from 2008 Q3 to 2009 Q4; economy trough from 2010 Q1 to 2010 Q2; and economy recovery, which started in 2010 Q3 and continues till today. Based on these economy cycles the article will provide comparative analysis of debt level in Lithuanian economic sectors.

Analysing the trends of business entity debt level it is no less important to reveal the impact of external factors (investors) to business entity financing decisions. According to J.Stiglitz and A.Weiss (1981), market imperfection influencing the choices for capital structure might mean that business entity financial decisions partly depend on borrowers as these financial intermediaries carry on their activities in ways which conform the needs of business entity financing, as well as the desires of the investors.

Interbank interest rates reflect the expectations of banks and intentions of the central bank to stimulate or slow down the economy growth. Many authors (A.Naka, T.K.Mukherjee and D.Tufte, 1998; D.Pilinkus and V.Boguslauskas, 2009) acknowledge this fact. The analysis of scientific literature has shown that the authors do not have a unified opinion regarding the choice of interest rate type, thus, two interest rate types were chosen for analysis purpose – EURIBOR and VILIBOR.

The comparison of interbank interest rates (Figure 2) shows that the common trend of interbank interest rate variations is similar. Due to joining the European Union and perspective of Euro introduction in Lithuania, VILIBOR was quite quickly approaching the analogous European indicator – EURIBOR and it exceeded in 2008. Nevertheless, due to worsening economic situation and unsustainable economy development in Lithuania the gap between VILIBOR and EURIBOR interbank interest rates began to increase very quickly.

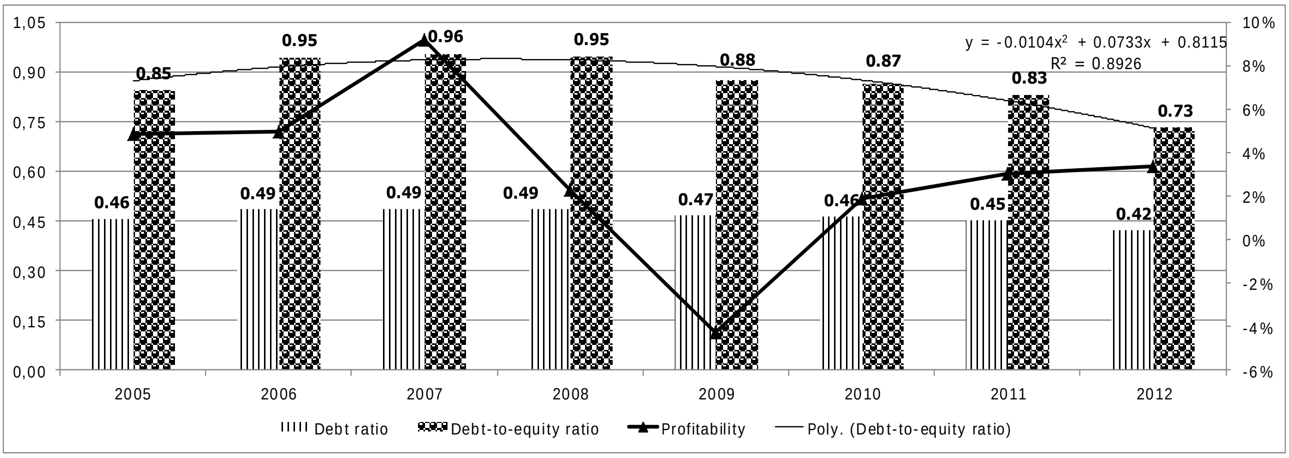


Source: author's construction based on the data of the Bank of Lithuania, 2005-2013, www.lb.lt

Fig. 2. **Fluctuations of interbank interest rates with 3-month fixation term**

The comparison of interest rate dynamics and economy cycles shows that the biggest VILIBOR rate was fixed during the economic recession period. Once the Lithuanian economy reached the economy "trough", VILIBOR value approached the EURIBOR's value. It is noticeable that Lithuanian bank sector mitigates common credit conditions for the business entities for one and a half year in a row. Common business financing conditions are mostly positively affected by improved expectations regarding total economic situation in the future, better possibilities of banks to attract financing and increased competition on the market (Review of Banks' Survey…, 2013). There are no assumptions which could increase the interest rate in the short-term, because as it can be understood from ECB signals, expansion monetary policy and especially low interest rates will remain both in 2014 and in 2015 (Lithuanian Macroeconomic Review, 2013). These external factors are favourable enough to finance business entity investments in leveraged finance, but does it lead to increased debt level?

Figure 3 provides the dynamics of the debt level in the Lithuanian economic sectors, excluding the agricultural sector, during the analysed period and compares it with the dynamics of their profitability. It is clear that during the first years of Lithuanian economic recession the financial leverage in the business entities remained stable and high, and only after the economy reached the recession trough, it decreased. This can be explained by indicating several reasons: 1) the business entities have been more willing to lend or use its own capital; 2) the study required a longer period, because the business entities did not change rates so fast; 3) uncertainty and decreased level of business entities growth opportunities. Taking into account the dynamics of profitability ratio, the decrease of financial leverage can be explained by unprofitability of business entities' activities; and growing profitability of business entities during the economic recovery period (starting from 2010) is inversely proportional to the decrease of financial leverage.



Source: author's calculations based on the data of the Department of Statistics, 2005-2012, www.stat.gov.lt

Fig. 3. **Dynamics of debt ratios and profitability in Lithuanian economic sectors, excluding the agricultural sector**

The financial leverage shows that business entities have used less debt capital on average comparing with equity capital during the analysed period. In spite of that, debt capital in food products and drinks production business entities, retail trade and construction sector exceed the equity capital. Those companies had the biggest financial leverage (2.07-3.00) in 2008-2010 (periods of economic recession and trough).

Table 1

Debt and profitability indicators of Lithuanian agricultural sector

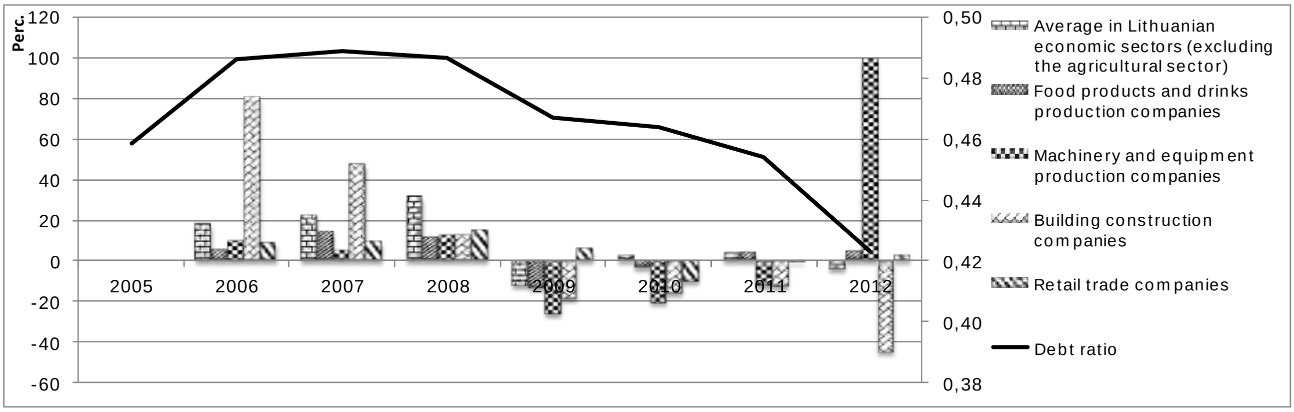
Title	2005	2006	2007	2008	2009	2010	2011	2012
Debt ratio								
< 501 (hectare)	0.08	0.27	**0.37**	**0.28**	0.21	0.21	0.23	0.22
501 – 1000 (hectare)	0.23	0.17	**0.33**	**0.28**	0.22	**0.29**	**0.28**	0.24
>1000 (hectare)	0.21	0.23	0.27	**0.32**	0.28	0.25	0.17	0.18
Crops	0.14	0.21	0.25	**0.37**	**0.31**	0.26	0.20	0.13
Horticulture	0.03	0.03	0.06	**0.23**	**0.19**	0.16	0.01	0.01
Pigs, poultry	0.30	**0.49**	**0.48**	**0.41**	0.25	0.27	0.23	0.29
Mix of crops and grass feeding animals	0.18	0.16	0.23	0.21	**0.24**	**0.24**	0.19	0.21
Profitability								
< 501 (hectare)	21.3	16.1	**5.0**	**7.7**	10.6	11.3	**2.4**	**7.7**
501 – 1000 (hectare)	11.9	16.7	24.8	10.1	**7.4**	9.3	12.3	15.0
>1000 (hectare)	17.6	**4.8**	24.9	15.2	**4.7**	7.1	15.9	16.6
Crops	15.1	**6.3**	30.3	16.3	**-0.9**	12.4	22.6	24.8
Horticulture	16.9	15.9	32.4	12.4	**-8.3**	12.4	**0.1**	**6.3**
Pigs, poultry	18.2	**7.5**	11.2	10.0	20.3	8.6	**3.2**	8.1
Mix of crops and grass feeding animals	17.5	**9.6**	18.5	11.8	**2.8**	**5.6**	14.7	11.2

Source: author's calculations based on the data of the FADN survey results, www.laei.lt

Table 1 provides debt and profitability ratios of Lithuanian agricultural sectors during the analysed period, detailed based on total land area and agriculture type.

The research shows that in Lithuanian agricultural sectors, depending on their size, debts were used to finance 8-37% of capital during the analysed period. Depending on agriculture type, the total debt ratio varied from the least (2011-2012) in crop farms (0.01) to the biggest (2006-2007) in pigs and poultry farms (0.48-0.49). Data shown in this table confirm the earlier conclusions that during the economic recession Lithuanian agricultural sectors have maintained high debt level, and profitability ratios were decreasing during the analyzed period. Meanwhile, during the economy growth period one can notice a negative correlation between profitability and debt level of the companies (especially in the horticulture farms).

In the analysis of debt ratio variations, depending on fixed assets acquisition in the companies, Figure 4 shows changes of fixed assets compared with the previous year. The research has shown that debt level in Lithuanian economic sectors, excluding the agricultural sector, increases with the increase of fixed assets acquisition and vice versa.



Source: author's calculations based on the data of the Department of Statistics, 2005-2012, www.stat.gov.lt

Fig. 4. **Dynamics of debt ratio and fixed assets in Lithuanian economic sectors, excluding the agricultural sector**, **compared with the previous years, %**

During the first year of economic recession (2008), fixed assets acquisition increased in all the analysed companies and only during the second recession year the companies have reduced their acquisitions of fixed assets which led to a decreased debt ratio. In 2012, construction companies have continued to decrease substantially their fixed assets' changes; respectively debt ratio in these companies has decreased from 0.74 in 2006 to 0.69 in 2012. The highest debt ratio was characteristic to this activity area during all the analysed period. In 2012, 98.9% more of fixed assets were measured in machinery and equipment production companies compared with 2011. Debt ratio in these companies was the lowest (0.36 in 2006; 0.26 in 2010) during all the analysed period but the debt ratio has also grown (0.52 in 2012) with the increase of fixed assets.

The results of the research indicate that total investments of business entities during the Lithuanian economy growth and peak periods were 69% higher comparing with the after-crisis period (Figure 5). In 2011-2012, the investments were growing but the survey of Lithuanian business entities conducted by the Bank of Lithuania has shown that business entities, planning the investments, prepare to finance only 13% of their business development by borrowed finance and more than half (almost 60%) business entities stated that they will finance their business development only from internal sources (Lithuanian Macroeconomic Review, 2013). This leads to a conclusion that debt ratio in the business entities will not increase.

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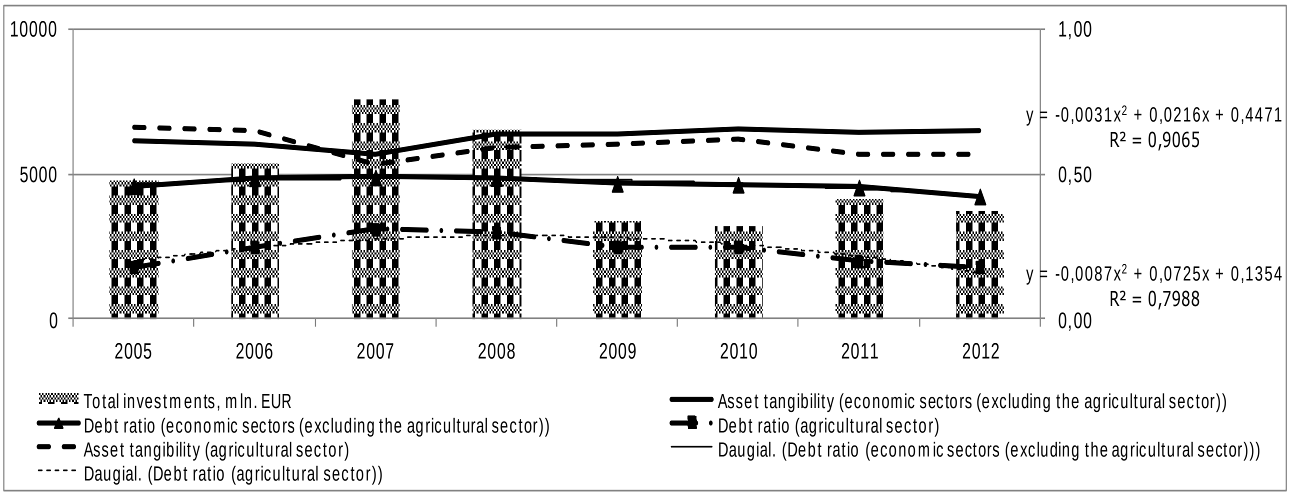

Source: author's calculations based on the data of the Department of Statistics, the FADN survey results, 2005-2012, www.laei.lt, www.stat.gov.lt

Fig. 5. **Dynamics of total investments, asset tangibility, and debt ratio**

No significant changes were found in the analysis of asset tangibility indicator explored in the scientific research, which is used to measure debt level in the business entities and determine the ratio of business entity debt. Besides, this indicator was similar both in economic sectors, excluding the agricultural sector and in the agricultural sector (fixed asset amounts almost 60 percent of total asset). In 2005-2006, the agricultural sector had higher asset tangibility compared with economic sectors, excluding the agricultural sector but after 2007, this indicator was already higher for economic sectors, excluding the agricultural sector.

Although, asset tangibility indicators are similar in the analysed business entities, the average debt ratios are significantly different. In economic sectors, excluding the agricultural sector, 47% of total assets are acquired with the help of borrowed capital; meanwhile the agricultural sector uses borrowed finances to acquire only 24% of total assets. In this case, it is necessary to remember that in the agricultural sector, the subsidies related with assets are attributed to equity capital and it artificially increases the financial stability of a company.

During the economic peak period, assets tangibility was inversely proportional to the debt level in all economic sectors. A direct correlation between asset tangibility and debt ratio was found (both indicators had decreasing trend) once the economy reached its trough and during the first years of economic recovery.

Based on a research conducted by other scientists and analysis of the data received about Lithuanian economic sectors, the author of this article has concluded that financial crisis did not lead to large and significant changes of debt level in Lithuanian business entities; and during the first years of recession the financial leverage remained stable and high.

Conclusions

1. The scientific research has shown that the main indicators influencing business entities debt level include fixed assets, asset tangibility, profitability, company size, and ratio of the market and the

book value. Business entities' debt level can be evaluated measuring total debt ratio, debt-to-equity ratio, capital multiplier, long-term debt ratio and interest coverage ratio.

2. The economy cycle is comprised of four phases which follow one another in a cyclic manner. A shift from one phase to another is mostly influenced by an increase or decrease of demand and supply which lead to significant fluctuations of the economy. In 2005-2012, the Lithuanian economy had shifted through all the four phases of the economy cycle – economy peak, recession, "trough", and recovery.
3. It was stated that the impact of external factors (investors) for business entities' funding decisions is favourable for economy growth, i.e. Lithuanian bank sector is mitigating credit conditions for business entities several years in a row, unusually low interest rates can become the crucial factor for borrowing, once the business shifts from recession to growth.
4. The results of the research indicate that during the first years of Lithuanian economy recession the financial leverage in the business entities remained stable and high; and only after the economy reached its recession trough, it decreased. This can be explained by several reasons: 1) the business entities have been more willing to lend or use its own capital; 2) the study required a longer period, because the business entities do not change rates so fast; 3) uncertainty and decreased level of business entities' growth opportunities. Debt capital in food products and drinks production, retail trade and construction sector exceeds equity capital, and the highest financial leverage (2.07-3.00) was noticed in 2008-2010.
5. The research has shown that profitability has negative effects on the debt level in Lithuanian economic sectors. According to the research, the author of this article agrees with the other researcher's opinion that between financial leverage and profitability there is an inverse relationship, e.g. especially low or especially big financial leverage decrease the profitability of business entities.
6. The research has shown that the debt level in Lithuanian economic sectors increases with growing fixed assets purchase, and vice versa. Purchases of fixed assets directly correlated with the business entity's growth opportunities which decrease during the economic recession period. The biggest decrease of fixed assets purchase and debt ratio is characteristic to construction sector business entities.
7. Asset tangibility indicator was similar both in economic sectors, excluding the agricultural sector and in the agricultural sector and there were no significant variations during the analyzed period. However, those business entities showed big differences of average debt ratios (average debt ratio in economic sectors, excluding the agricultural sector, amounted for 0.47, meanwhile in agricultural sector it was 0.24). During the period of economy peak, the asset tangibility was inversely proportional to the debt level in all the business entities. A direct correlation between the asset tangibility and the debt ratio was observed once the economy trough was reached and in the first years of economy recovery.

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POSSIBILITIES FOR REALLOCATION OF CORPORATE INCOME TAX TO LOCAL GOVERNMENT BUDGETS

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Abstract. Tax revenues constituting the majority of total local government basic budgets describe the level of financial autonomy, stability and legal capacity of every local government. In Latvia, all taxes fall under the category of state taxes, since no tax is determined as a local government tax. State and local government transfers constitute a large proportion of local government budget revenues. Reallocation of resources through the Equalisation Fund of Finances implemented for several years has not promoted the financial stability of local governments in the depressed regions, and it has also to a certain extent hindered the development of donor local governments, since the currently prescribed financial sources restrict free legal capacity of these local governments to act with their resources. The achievement of budgetary independence is essential for the increase of financial stability of local governments. Insufficiency of sources of revenue to cover the expenditure of local governments and their dependency on the state aid leads local governments to become financially unstable. To diversify the sources of budgetary revenue for local governments, it might be efficient to increase local government budgets with revenues from the taxes where local governments themselves are interested to increase the tax base. It may be ensured by corporate income tax (CIT) which is directly related with the business performance result not indirectly as it is in case of personal income tax (PIT). Therefore, the authors suggest including part of the CIT revenues into local government budgets. It is recommended to compensate the decrease of the state budget with the PIT revenue for the non-transferred part of CIT to avoid the reduction of either the state general budget or the local government general budget caused by the reallocation, thus, proportionally decreasing the share of PIT which is transferred to the budgets of local governments. The research includes the calculation of the most appropriate tax reallocation proportion and the analysis of possible benefits and losses of local governments due to such tax reallocation between the state and local government budgets.

Key words: corporate income tax, tax revenue, local government budget, regional economic development.
JEL code: H23, H25, H71

Introduction

Business promotion and support through the tax system may strengthen the competitiveness and balanced development of the national economy in the regions of Latvia. It may be ensured by means of a multi-level tax system in territorially large countries (Germany, Portugal), since it is easier to monitor small territories and, thus, to assess faster changes in the situation. There is no need for a multi-level system in Latvia, as its territory is small and it is possible to administer efficiently the taxation system. However, inconsiderate policy centralisation leads to the reduction of local governments' initiative. To enhance local governments to promote business in their administrative territories, their budget should depend on business to be promoted (Orehova, 2001; Pukis, Zacesta, 2003; Fatejevs, 1994, 2004;

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Smith, 2004). The independence of local governments is expressed through their decentralisation (Pukis, 2010). Dynamic business being the source for tax revenues is an essential factor for the financial autonomy, stability and legal capacity of every local government. In Latvia, no tax is determined as a local government tax; however, the majority of personal income tax revenues, part of lottery and gambling tax, and natural resources tax revenues as well as immovable property tax revenues in full are transferred to the budgets of local governments. The expansion of financial stability of local governments requires the achievement of feasible autonomy and budgetary independence of local governments by increasing their sources of revenues with corporate income tax.

The research aim is to assess the possibilities for reallocation of corporate income tax to the budgets of local governments.

The tasks of the research: 1) to ascertain problems hindering allocation of the CIT revenues to local governments; 2) to calculate the reallocation proportion of CIT and PIT revenues between the state budget and the budgets of local governments; and 3) to clarify budget changes of every local government caused by the reallocation of CIT and PIT.

The research object: taxes as source of revenues for local government budgets.

The research subject: CIT as efficient source of tax revenues for local governments.

Research hypothesis: it is possible to determine such distribution proportion of the CIT and PIT revenues between the state and local government budgets which does not reduce tax revenues of these budgets but ensures that **the budget of local government is increased by a tax impacting the development of local government directly through the business performance result.**

The method of data grouping, calculation constructive method, and statistically graphical method have been applied for processing and analysis of statistical data. The mathematical method of statistics (t-test for related samples) using Microsoft Excel and IBM SPSS Statistics and PAST software for data processing, and the clustering method for assessing the results were applied to determine the probable distribution of the CIT and PIT revenues satisfying the budgets of state and local governments.

Research results and discussion

1. Arguments for the inclusion of corporate income tax into the budgets of local governments

Historically, the revenues from profit have already been twice reassigned to the budgets of local governments in Latvia. The first time dates back to the period of 1922-1940 when companies paid income tax in three ways: as basic levy through buying out sales and industry notes (permits), as tax on capital, and as ad valorem income tax. The sales and industry tax was a significant direct tax in the revenue formation of state and local government budgets. Annually, it provided for 5-10% on average of total tax revenues collected by local governments (Balodis, 1991). The second reassignment of corporate profit to the budgets of local governments occurred between 1941 and 1943. The guidelines for budget revenue formation and expenditure adopted by the German occupation authorities greatly differed from the guidelines implemented by the Soviet authorities, and they prescribed gradual rearrangements in the budgetary revenues of land authority and local governments by raising total revenues up to the amount sufficient for covering all the necessary expenses (Aizsilnieks, 1968). The financial situation of local governments considerably improved in terms of revenues, since they received the amount of own revenues sufficient for covering 65% or even 100% of all annual expenditure under an economical management (Straumens, 1999).

Taxation policy implemented in the territory of Latvia from the end of World War II does not any more envisage the reallocation of corporate income tax to the budgets of local governments. The authors believe that the historical experience in Latvia has not been studied sufficiently accurately, and the denial to allocate revenues from the corporate income tax to the budgets of local governments does not encourage local governments to develop business in their administrative territories. The positive impact of decentralisation of local powers on the stabilisation of financial system of regions is demonstrated by Flamanda, a researcher from the University of Barcelona, simultaneously indicating on the risks caused by the centralised power of local governments for financial independence of the state economically less developed territories (Flamand, 2013). The authors of the present research analyse one of the most frequently mentioned risks due to which the reallocation of corporate income tax revenues to local governments is not supported by the taxation policy of Latvia. This risk relates with the reduction risk of the state budget revenue part due to the reallocation of corporate income tax revenues to local government budgets. **No changes in the taxation policy may negatively impact the revenues of the state basic budget.**

2. Evaluation of reallocation of corporate income tax to the budgets of local governments

The authors primarily determined the proportion between the PIT and CIT contributions to the state basic budget (Table 1) within the previous nine taxation periods to identify the potential part for reallocation of the CIT revenues to the budgets of local governments.

Table 1

Ratio between the revenues from personal income tax and corporate income tax in the state budgetary revenues in Latvia between 2004 and 2012

Indicators	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**Average**
PIT, mln LVL	123.6	137.4	164.0	186.5	204.7	124.5	155.6	142.8	174.4	157.1
CIT, mln LVL	127.8	180.7	253.8	399.8	503.1	197.2	112.2	196.4	243.9	246.1
k=	0.97	0.76	0.65	0.47	0.41	0.63	1.39	0.73	0.72	0.64

PIT – personal income tax, CIT – corporate income tax, K – ratio PIT/CIT

Source: authors' calculations based on the data of Finansu ministrija, 2013

The largest fluctuations of the coefficient k are observed for the period of 2007-2010 due to the unstable economic situation in Latvia, yet this ratio is close to the average indicator (k avr. = 0.64) during the period of economic stability. Hence, partial substitution of the PIT revenues in the budget of local governments by the part of CIT revenues should be determined based on this proportion.

After summarising the data on transferred CIT and PIT revenues to the state and local government budgets from 2004 to 2012, the current tax distribution (Variant 1) was compared with other revenue reallocation variants depending on the percentage distribution of CIT and PIT in these budgets (Table 2).

The analysed variants include:

1) calculations on the revenues from CIT and PIT (mln LVL) in the state and local government budgets for each modelled variant;
2) cost-benefit calculations from the modelled changes for each analysed year;
3) the distribution of CIT and PIT meeting the needs of both budgets (state and local governments) has been determined by means of the t-test for related samples.

Table 2

Variants for the reallocation of corporate income tax and personal income tax between the state and local government budgets, %

Variants	CIT		PIT	
	State	Local government	State	Local government
Variant 1 (current distribution)	100	0	20	80
Variant 2	80	20	20.5	79.5
Variant 3	50	50	30	70
Variant 4	0	100	40	60

Source: authors' calculations

The actual CIT and PIT revenues were initially summarised for the period of 2004-2012 to compare the fiscal result of the analysed variants with the existing data (Table 3).

Table 3

Corporate income tax and personal income tax revenues in the state and local government budgets between 2004 and 2012, mln LVL

Budget	2004	2005	2006	2007	2008	2009	2010	2011	2012
State	215	283	385	577	708	343	268	354	418
Local government	348	407	526	710	818	583	622	632	698

1. ***Source: authors' calculations based on the data of Finansu ministrija, 2013***

The calculations for the distribution of the CIT and PIT revenues in the state and local government budgets lead the authors to obtain the probable CIT and PIT revenue indicators in each tax allocation variant in their selected percentage distributions (Table 4).

Table 4

Corporate income tax and personal income tax revenues in the state and local government budgets after the reallocation for the years 2004-2012, mln LVL

Year	Variant 1		Variant 2		Variant 3		Variant 4	
	State	Local government	State	Local government	State	Local government	State	Local government
2004	215	348	256	346	195	369	174	389
2005	283	407	361	405	243	447	204	486
2006	385	526	508	523	324	587	263	648
2007	577	710	800	706	466	821	355	932
2008	708	818	1006	813	558	967	409	1117
2009	343	583	394	580	317	609	292	635
2010	268	622	224	618	289	600	311	579
2011	354	632	392	628	335	651	316	670
2012	418	698	427	693	384	732	349	767

Source: authors' calculations

The actual tax revenues gained between 2004 and 2012 and the calculated data show that **the state budget fiscal interests** in the reallocation result of the CIT and PIT revenues display a large range of

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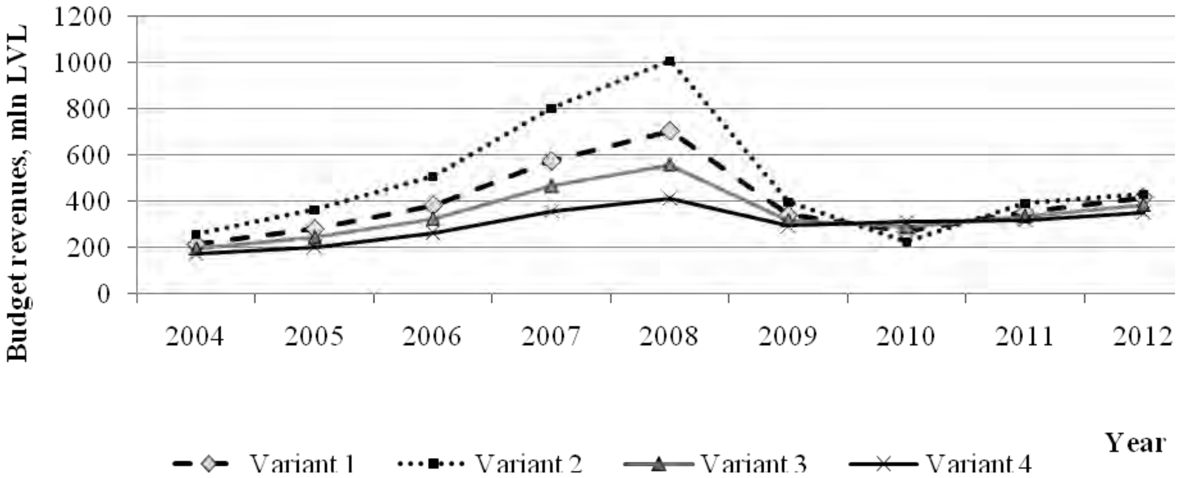
differences for the period of economic instability, while such data redistribution maintains the level of previous revenues within the period of economic stability.

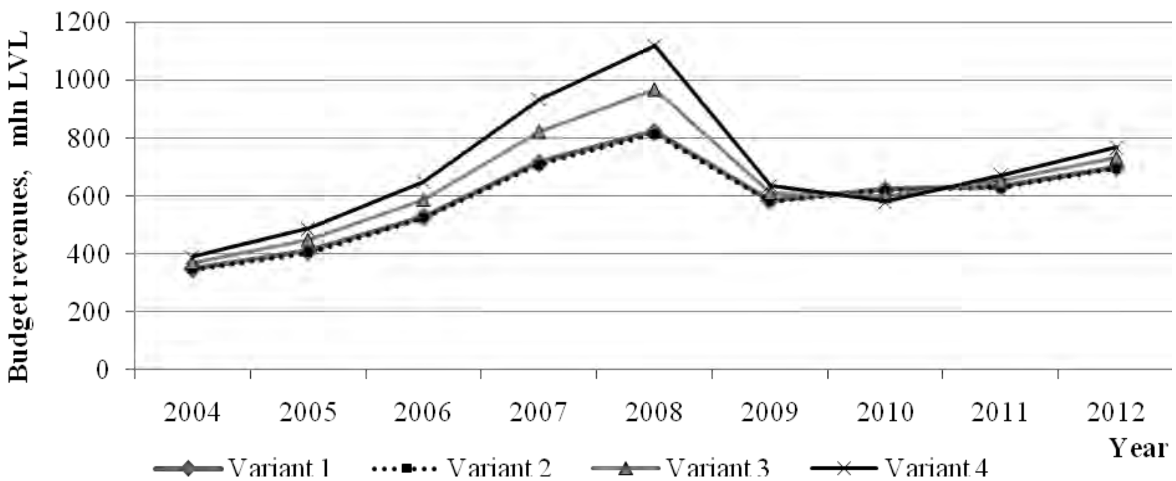


Source: authors' construction

Fig. 1. **Changes of corporate income tax and personal income tax revenues in the state budget for the period of 2004-2012 by determining alternative proportions for the reallocation of resources**

The revenues in the state budget calculated in the reallocation Variant 2 even exceed the revenues gained in the present tax distribution (Variant 1) (Fig. 1).

The **revenues in the local government budget**, in turn, after the reallocation of resources by the proportion of Variant 2 are equal to the present tax distribution (Variant 1) (Fig. 2). Such reallocation is **fiscally** also profitable **for the local government budget** (Variant 2).

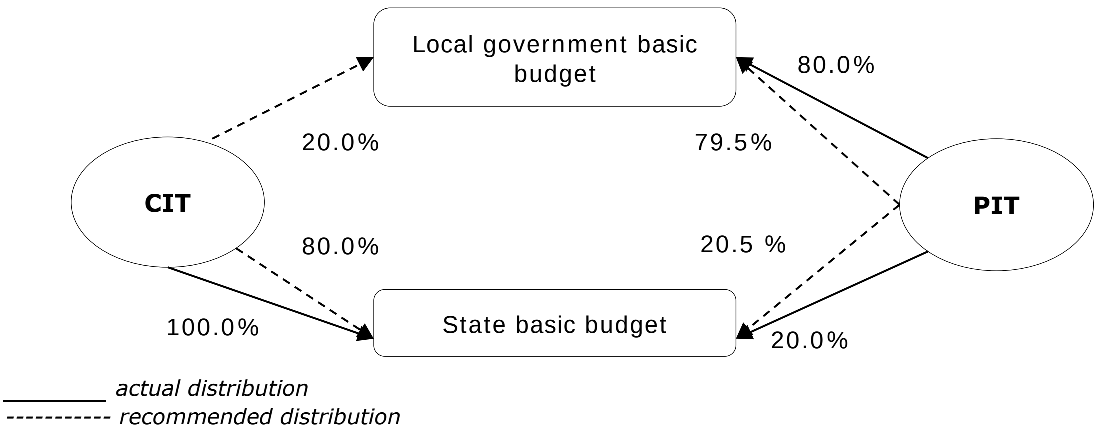


Source: authors' construction

Fig. 2. **Changes of corporate income tax and personal income tax revenues in the local government budgets for the period of 2004-2012 by determining alternative proportions for the reallocation of resources**

Since the aim is to establish tax distribution reducing neither budgetary revenues of the state nor local governments, then the authors by means of the t-test for related samples determined the proportion the results of which comply both with the interests of the state and local governments. The reallocation proportion of revenues acquired as the result of calculations show that the substitution of 20% of the CIT revenues by 0.5% of the PIT revenues in the state basic budget in addition to the present

PIT revenues in the amount of 20% (20.5% in total) (Fig. 3) earns the proportion essentially reducing the budgetary revenues neither of the state nor local governments (Variant 2, the decrease in the state budget is less than 0.0002%). In return, **the budgetary revenues of local governments are increased by a tax impacting the development of local government directly through the business performance result.**



Source: authors' construction

Fig.3. **The recommended distribution of corporate income tax and personal income tax revenues by budgets, %**

Inclusion of the CIT revenues into the budgets of local governments might completely or partially replace the settlements of transfers in long-term, thus, leaving only the possibility to make the necessary adjustments (within the range of increase or decrease for the difference of resources necessary for the local government). Respectively, in case the amount of transfers increases in a particular local government then the budget is revised only for the amount of increase; in case of decrease, it would show the efficiency of the implementable tax policy.

Interbudgetary transfers alone without looking for solutions to strengthen local government budgets through the tax policy would not solve the socio-economic problems of those local governments where the territorial development index (hereinafter - TDI) indicates on low level of development (TDI < 0). In addition, the increase in the proportion of transfers in the revenue structure of local government budgets with a simultaneous decrease of tax and non-tax revenues in these budgets reduces the possibilities of local governments to select priorities in the budget expenditure part as well as negatively affects the amount of local government budget deficit and the debt amount of local governments. At the same time, it is necessary to minimise the amount of subsidies paid to local governments shifting the emphasis from earmarked transfers to the sources allowing local governments to use freely the revenues from these sources to solve their socio-economic needs. This would increase the independence and financial mobility of local governments which is extremely significant under the deficit of these resources as well as reduce the administrative expenses and considerably reduce the scope of financial documents related with the claiming for earmarked financial resources and reporting on the spending of resources. Certainly, it is connected with delegating of certain powers (to determine allowances) to local governments which would promote higher competiveness among local governments.

3. Benefits and losses of local governments from the reallocation of corporate income tax

The authors have calculated the budgetary changes in every local government to evaluate benefits and losses caused by a partial reallocation of the CIT revenues to local government budgets. The use of the tax revenues for 2011 as the basis has allowed: 1) to determine interconnections between actually collected PIT revenues by every local government and forecasted revenues after the reallocation of the CIT and PIT revenues; 2) to calculate and to analyse the changes in income tax revenues per capita of every local government.

All local governments are divided into four clusters according to the in-fact collected amount of personal income tax in 2011. Cluster 1 encompasses only one city – Riga which shows the largest PIT revenues. Cluster 4 composes local governments having the least PIT revenues and it includes the majority or 79.8% of total number of local governments (Fig. 4). Cluster 2 unites 5 cities: Daugavpils, Jelgava, Jurmala, Liepaja, and Ventspils, while Cluster 3 unites the rest of local governments not included into the previous clusters.

The analysis of the data characterising local governments by the collected amount of PIT per capita outlines that Cluster 1 comprises 7 local governments (Adazi, Babite, Garkalne, Ikskile, Kekava, Marupe, and Stopini) located around Riga and producing the largest tax revenues per capita. Also in this case, the largest cluster (Cluster 4) is composed by local governments having the smallest tax revenues per capita. This cluster encompasses slightly more than a half of local governments.

Source: authors' construction

Fig. 4. **Grouping of local governments into clusters by the personal income tax revenues in local government budgets in 2011**

Especially explicit changes in clusters may be observed when analysing the data on tax revenues per capita acquired due to the reallocation, since the changes refer to both the proportion and the division of local governments in clusters (Fig. 5).

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local governments the division of which differs from the actual data

Source: authors' construction

Fig. 5. **Grouping of local governments into clusters after the reallocation of corporate income tax and personal income tax revenues**

Out of 7 local governments, only one local government of Marupe remains in Cluster 1; out of 10 local governments previously forming Cluster 2, now 14 local governments move to Cluster 3 after the reallocation of taxes. The number of local governments encompassed by Cluster 4 increases considerably, i.e. by 19.4 percentage points; however, after the reallocation this cluster unites those local governments the minimum indicators (LVL 131 per capita) of which exceed their indicators displayed before the reallocation by 24.8%. This growth is due to the increase of tax revenue amount per capita.

local governments which produced the decrease in revenues after the tax reallocation

Source: authors' construction

Fig. 6. **Local governments which produced the decrease in revenues after the tax reallocation**

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The comparison of data before and after the tax revenue reallocation outlines that all local governments are grouped into two clusters. Local governments which produced the decrease in revenues from the income taxes were included into Cluster 1, while those local governments which produced the increase of revenues were included into Cluster 2 (Fig. 6). The statistical analysis of the data and data grouping, and the calculation of difference between the actual revenues from income taxes in 2011 and the reallocated data allow concluding that the revenues after their reallocation are higher both in terms of total amount and per capita in almost all local governments.

Table 5

Local governments which produce the decrease in tax revenues after the reallocation of corporate income tax and personal income tax

Riga	Kurzeme	Zemgale	Vidzeme	Latgale
Jaunpils	Alsunga Vainode	Nereta Skriveri	Mazsalaca	Baltinava Dagda Vilaka

Source: authors' construction

The reallocation of income taxes recommended by the research authors would lead to the budgetary revenue decrease in nine local governments; moreover - in one up to three local governments in every planning region (Table 5). The data obtained during the research outline the possibilities to apply the CIT as instrument for the development of regions.

Conclusions, proposals, recommendations

1. The reassignment of profit revenues to local government budgets has historically existed in Latvia, this issue has again recently become topical; however, there are no detailed studies done on the possible reallocation of the corporate income tax to local governments.
2. It is possible to compensate the decrease of the state budget revenues by the reallocation of part of the CIT to local government budgets by changing the distribution proportion of the PIT revenues between the budgets.
3. The budgetary revenues of local governments may be increased by a tax impacting the development of local government directly through the business performance result by changing the revenue proportion between the CIT and PIT in the state and local government budgets.
4. The recommended proportion for reallocation of revenues which maintains the previous fiscal level of both budgets is as follows: 80% of the CIT and 20.5% of the PIT revenues shall be included into the state budget, while 20% of the CIT and 79.5% of the PIT revenues shall be included into the local government budget.
5. The decrease in resources from tax revenues due to the reallocation of revenues is expected in nine out of 119 local governments in Latvia, moreover - in one up to three local governments in every planning region. This outlines the possibilities to apply the CIT as instrument for the balanced development of regions.

Acknowledgements

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INCOME TAXATION DEVELOPMENT TRENDS IN THE BALTIC STATES

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Abstract. The three Baltic States were the first to adopt flat tax systems in 1994 and 1995, thus, becoming the first modern countries to apply flat tax structures. The idea of a flat tax, i.e. a tax levied at a single rate, has become an increasingly discussed and implemented fiscal strategy across Europe and the rest of the world afterwards. However, despite some general similarities, the taxation system differs across the Baltic States which has led to the aim of the present research to study the income taxation trends in the Baltic States. The research leads to the conclusion that the Estonian tax system is one of the most liberal and simplest systems even in the world. The most rational income taxes among the Baltic States are observed in Lithuania (15% both CIT and PIT). Estonia and Lithuania have the same PIT and CIT rates, while Latvia applies the most severe PIT rate (24%). Changes in tax revenues and government expenditure occur automatically with a change in the economic situation. This means that the application of fiscal policy instruments may either hinder or promote the tax system development and respectively the development of income taxation. Hence, the basic difference in the taxation systems of the Baltic States include the calculation and application of the tax-exempt minimum, tax reliefs, and flexibility of the system to the changing economic conditions.

Key words: income, personal income tax, corporate income tax, economics, Baltic States.
JEL code: G30,H24,H60

Introduction

Despite some general similarities like flat rates and low tax burdens, the taxation system differs across the Baltic States. Generally there are two income taxes in the Baltic States – personal income tax (PIT) and corporate income tax (CIT) which constitute a single income taxation system. Any person gaining income is a personal income tax or corporate income tax payer, unless statutory provided otherwise. The income taxation system is based on the equity principle which is the main taxation principle resulting from imposition of income taxes calculated on taxpayers' solvency. Equity signifies equal treatment of equals. Horizontal equity in taxation means that persons under similar circumstances should bear equal tax burdens. It follows that individuals with the same income or the same increases in income or wealth should be taxed equally. There would be no preferential treatment for various sources of income – labour, investment, entrepreneurship, gifts, prizes, scholarships, inheritances etc.

The majority of states impose a progressive income tax, while the Baltic States apply a horizontal equity principle, i.e. income is taxed proportionally using a flat tax rate. Different tax reliefs and tax allowances are a special issue of the income taxation and they are aimed at the achievement of either social or economic targets. The standard theory of optimal taxation posits that a tax system should be

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chosen to maximise a social welfare function subject to a set of constraints. The literature on optimal taxation typically treats the social planner as a utilitarian: that is, the social welfare function is based on the utilities of individuals in the society (Mankiw et al., s.y.). Economic allowances usually coincide with the willingness to support business development. One exceptions and tax reliefs help guarantee a more equitable taxation system, while the others create derogations from the equity principle observation; however, they complicate the taxation system and raise the costs of its administration in any case. Therefore, general tax imposition principles are naturally competitive and their simultaneous and equal degree application is impossible even on the condition of an ideal taxation system. No country can be absolutely independent in the taxation policy formation, since it shall consider the international competitiveness in attraction of capital and investment. Hence, there is at least a minimum necessity to introduce such tax reliefs which would promote prerequisites for the attraction of investments in the competition of other countries (Andrejeva, Ketners, 2008).

Different researchers (Andrejeva, Ketners, 2008; Feith, Majak-Knöbl, s.y.; Jakusonoka, 2013; Joppe, 2010; Ketners, 2009; Mankiw, Weinzierl, Yagan, s.y.; Maslauskaite, Zorgenfreija, 2013; Masso, Krillo, 2014; Skapars, Sumilo, Dunska, 2010; Stucere, Mazure 2012, 2013; Vitola, 2010; Woolery, 1989) have studied and discussed various tax and taxation aspects. The present research advances the **hypothesis** that the taxation systems differ among the Baltic States. Consequently, the research **aim** is to study the income taxation trends in the Baltic States. The following research **tasks** are set to achieve the research aim:

1) to characterise the income taxation systems in the Baltic States;
2) to analyse the income tax rates and the total tax-of-GDP burden;
3) to draw comparative assessment on the development of income taxation systems in the Baltic States.

The monographic descriptive method, methods of analysis and synthesis as well as the logical and constructive methods are used in the research. The authors have used legal enactments, statistical data, and working papers and research done by local and foreign scientists for the needs of the present study.

Research results and discussion

Characteristics of the income taxation systems in the Baltic States

Estonian income taxation system

The Estonian tax system is one of the most liberal and simplest systems in the world. Estonia is a European pioneer in income taxation having introduced flat income tax rates. The main reasons for introducing flat rate were as follows: there is no need of frequent adjustment of tax brackets and it is easier to administer a flat tax system for both taxpayers and tax administrators, besides a flat tax system provides more transparency (Estonian Taxes and ..., 2012). There is no corporate income tax on reinvested profits. The resident companies and permanent establishments have to pay tax only on dividends and other distributed profits, fringe benefits; gifts, donations and representation expenses; and expenses and payments not related with business.

As there is no need, the corporate entities are not subject to tax depreciation rules. All distributions are subject to income tax at the grossed-up rate of 21/79 of the amount of taxable payment. The transfer of assets of the permanent establishment to its head office or to other companies is also treated like a distribution. As of January 1, 2009 dividends paid to non-residents are no longer subject to withholding tax at the general rate of 21%, irrespective of participation in the share capital of the distributing Estonian company. Only capital gains derived by non-residents from the sale of Estonian real estate or shares and liquidation proceeds of real estate companies are subject to a 21% tax. No traditional thin capitalization rules apply, i.e. substantial debt financing at market interest rate is tax neutral (Estonian Taxes and ..., 2012).

Residents pay tax on their worldwide income. Taxable income includes, in particular, income from employment (salaries, wages, bonuses and other remuneration); business income; interest, royalties, rental income; capital gains; pensions and scholarships and alimony payments received. Taxable income does not include dividends paid by Estonian or foreign companies when the underlying profits have already been taxed.

Non-residents pay income tax on their income from Estonian sources. Income taxable in Estonia includes income from employment or government services provided in Estonia; income from business carried out in Estonia; part of interest received from Estonian sources that is above market rates; royalties arising in Estonia; certain types of capital gains; gains from disposal of assets located in Estonia; directors' fees paid by Estonian enterprises; and income of a sportsman or an artist from his activities in Estonia, pensions, insurance payments. The tax rate is 21% of taxable income. The withholding tax rate on royalties, payments to non-residents for services provided in Estonia, and on payments to non-resident artist and sportsmen is 10%. Estonia has double taxation avoidance treaties with 48 countries (Estonian Taxes and ..., 2012).

Latvian income taxation system

The Latvian tax system is not the simplest one; however, it cannot be described as very complicated as compared with the old EU Member States. The tax system in Latvia is still changing. In Latvia, the personal income tax consists of salary tax calculated from the income acquired by the employee and paid by the employer; fixed income tax regarding income from economic activity; tax for income from economic activity where it is not the object of the enterprise income tax, and tax from other sources of income; tax for income from capital, including tax from an increase in capital; license fees for the performance of separate types of economic activities; and the parts of the micro-enterprise tax in accordance with the Micro-enterprise Tax law (Par iedzivotaju ..., 1994).

Resident companies are subject to 15% income tax. As of 2011, a reduced rate of 9% applies to micro-enterprises (annual income below LVL 70,000 = approximately EUR 100 000, up to 5 employees and shareholders are individuals) (Feith et al., s.y.).

Dividends are subject to income tax of 10%, interest payments are subject to 10% tax if paid to related parties (one company holds 25% of capital or voting rights in another company), 10% withholding tax also applies to management and consulting fees, 5-15% to royalties and 15% on the payments to off shore jurisdictions), 0% for all payments to Lithuania. With certain exceptions, the taxation of a non-resident company's permanent establishment in Latvia is similar to the taxation of resident companies.

Currently non-resident companies being residents in the EU and EEA states are not subject to withholding tax on dividends, while in general dividends paid to non-residents are subject to 10% withholding tax. Interest payments to non-resident companies are subject to 10% withholding tax if the payer and the recipient are related parties (5% for the EU and EAA entities) (Feith et al., s.y.).

Latvian residents are subject to taxation on their worldwide income. General flat rate of the income tax is 24%, and also includes self-employed. 10% tax rate applies to dividends, interest and rental income and insurance payments. Income from capital gains is taxed at 15%. The standard personal income tax also applies to non-residents. Taxation of non-resident individuals is limited to their activities in Latvia. The income taxed in Latvia includes, among others, dividends paid by resident corporations, interest payments and income from the disposal of capital assets. By way of exception, income of non-residents from the disposal of financial instruments is not subject to personal income tax in Latvia. Latvia has double taxation avoidance treaties with 50 countries (Feith et al., s.y.).

Lithuanian income taxation system

The **Lithuanian** tax system has undergone several changes in the last few years. In 2009, a tax reform was introduced, aimed at collecting more revenue. The rates of major taxes - VAT, CIT, and social tax were raised. However, the heavier tax burden had negative effect, especially on small and medium sized businesses; several amendments into the laws were made in 2010-2011 to pursue more business friendly policies.

The profit of Lithuanian companies is subject to an income tax of 15%. A reduced rate of 5% applies to small businesses (annual income below LTL 1 million ~ EUR approximately 290 000 and up to 10 employees). Thin capitalization rules: debt to equity ratio 1:4 applies; interest-free loans are not included in controlled debt. Generally, dividends received by a resident company are subject to corporate income tax at a rate of 15%. A participation exemption applies to dividends paid to a parent company holding more than 10% of the voting shares in the distributing company continuously for at least 12 months, provided the distributing company is not established or otherwise organized in a tax country. Interest payments and royalties are taxed with a 10% rate. Capital gains, also from sale and lease of real estate, income from performing and sports activities and management fees, all are taxed at a 15% rate. All payments to Latvia are not taxed. There are a few differences in taxation of non-resident companies as compared with resident companies. A participation exemption in taxing dividends applies here as well; non-residents from the EU and EEA countries pay no tax on interest and royalties (Feith et al., s.y.).

Residents are subject to personal income tax on their worldwide income. The general flat rate is 15%. A reduced, 5% rate applies to certain activities carried out by self-employed. Noticeably, dividends received in Lithuania are taxed with a higher 20% rate. Interest income is taxed with a 15% rate. Capital gains are tax-exempt if derived from the sale of shares acquired before 1999, otherwise taxed as ordinary income (15%). Non-residents pay income tax on their income sourced in Lithuania. Basically the same rates apply as to residents unless reduced under double taxation treaties. Similarly to Latvia, the sale of shares by non-resident is not taxed in Lithuania. Lithuania has tax treaties with 48 countries (Feith et al., s.y.).

Statutory income tax rates and general tax burden

In the period of 2011–2012, many EU Member States increased personal income tax, mainly by increasing statutory rates. This was often done on a temporary basis in the form of general surcharges or solidarity contributions for high-income earners. Measures to reduce tax on labour aimed mainly to increase work incentives for specific groups. Social security contributions were also increased in many countries, by increasing the standard rate and the rates applicable to specific groups. Several Member

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States reduced their headline tax rate on corporate income; while in a few others marginal tax rates were increased by means of surcharges or levies applicable only to the largest companies. Changes in corporate tax bases were slightly more common. They consisted mostly of generous tax relief on investment in physical capital or R&D, whilst restricting the deductibility of other items (e.g. operating losses). These reforms resulted in a slight change in the composition of total tax revenues for 2011 and 2012 compared with 2010, with the share of indirect taxes forecast to rise by almost one percentage point of GDP (Tax Reforms ..., 2012). Therefore, in 2012, the average statutory tax rates on personal income in the EU-27 and the EA-17 countries rose by 0.3 and 1 percentage points respectively compared with 2009. Smaller differences were observed in the tax rates on corporate income, i.e. 0.5 percentage points in both cases. No changes were introduced in Estonia and Latvia, while Lithuania decreased the PIT rate by 9 percentage points and the CIT rate – by 5 percentage points (Table 1).

Table 1

Statutory income tax rates in the EU-27, the EA-17 and the Baltic States in 2000, 2009, 2012 and 2013, %

	Tax on personal income				Tax on corporate income			
	2000	**2009**	**2012**	**2013**	**2000**	**2009**	**2012**	**2013**
EU-27	44.8	37.8	38.1	38.7	31.9	23.5	23.0	23.0
EA-17	47.1	42.1	43.1	44.3	34.4	25.9	25.4	25.7
Estonia	26.0	21.0	21.0	21.0	26.0	21.0	21.0	21.0
Latvia	25.0	23.0	25.0	24.0	25.0	15.0	15.0	15.0
Lithuania	33.0	24.0	15.0	15.0	24.0	20.0	15.0	15.0

Note: **Euro area** (EA17): Belgium, Germany, Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Luxembourg, Malta, the Netherlands, Austria, Portugal, Slovenia, Slovakia and Finland

Source: Eurostat, 2013

In 2013, the average highest personal income tax rate in the EU-27 was 38.7%, up from 38.1% in 2012, while quite lower the level of 2000 at 44.8%. The highest top rates on the 2013 personal income are observed in Sweden (56.6%), Denmark (55.6%), Belgium (53.7%), Portugal (53.0%), Spain, and the Netherlands (both 52.0%), and the lowest in Bulgaria (10.0%), **Lithuania** (15.0%), Hungary, and Romania (both 16.0%) (Eurostat, 2013).

In 2013, the average highest corporate tax rate in the EU-27 was 23.0%, stable compared with 2012, while quite lower its level in 2000. The highest statutory tax rates on the 2013 corporate income are recorded in France (36.1%), Malta (35.0%), and Belgium (34.0%), and the lowest in Bulgaria and Cyprus (both 10.0%), and Ireland (12.5%) (Eurostat, 2013).

The most liberal income taxes among the Baltic States are observed in Lithuania (15% both CIT and PIT). Estonia and Lithuania have the same PIT and CIT rates, while Latvia applies the most severe PIT rate (24%).

In 2012, the overall tax ratio, i.e. the sum of taxes and social contributions in the EU Member States (EU-27) amounted to an equivalent of 40.6% of the EU-27 GDP, which is the second highest indicator in the analysed period; similar ratio was observed in 2006. The EA-17 countries produced almost identical figures, i.e. 41.7% and 41.2% in 2012 and 2006 respectively (Figure 1).

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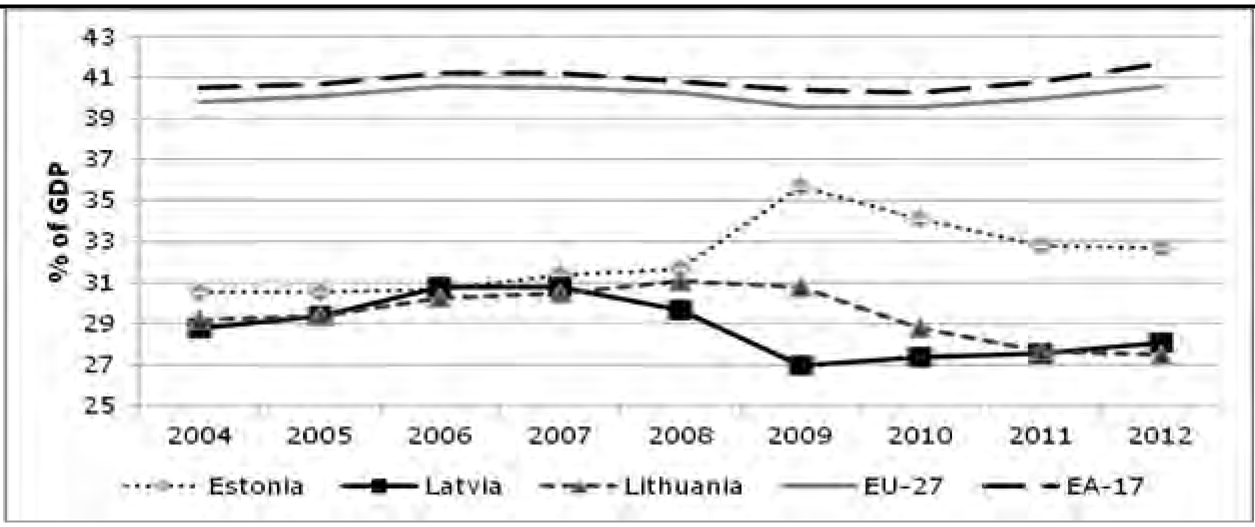

Source: authors' construction based on Main National ..., 2014

Fig.1. **Total tax burden as percentage of the Gross Domestic Product in the Baltic States, the EU-27 and the EA-17 for the period of 2004-2012**

The data of Figure 1 outline that the tax burden has been quite similar in the Baltic States until 2007 when it ranged between 28.8% and 30.8% of GDP. More vivid differences are earmarked in 2008 with the deterioration of the worldwide economic situation. The year 2009 generates very explicit tax burden scissors, i.e. 8.7 percentage points with the highest tax burden in Estonia (35.7%) and the lowest one – in Latvia (27%). Latvia was the most severely hit by the financial and economic crisis – salaries and wages were dramatically cut followed by the PIT increase from 23% in 2008 and 2009 to 26% in 2010. Yet, at the same time, it maintained the lowest tax-to-GDP ratio among the Baltic States in 2009.

The development of income tax revenues as a percentage of GDP coincides with the general economic development of the country and produces similar tendencies with the general tax burden versus GDP (Table 2).

Table 2

Income taxes as a percentage of GDP in the Baltic States for the period of 2004-2011

	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
PIT								
Estonia	6.3	5.6	5.6	5.8	6.2	5.7	5.4	5.2
Latvia	6.0	5.7	6.1	6.1	6.4	5.4	6.1	5.6
Lithuania	6.8	6.8	6.8	6.6	6.5	4.1	3.6	3.5
CIT								
Estonia	1.7	1.4	1.5	1.6	1.6	1.9	1.4	1.3
Latvia	1.8	2.0	2.3	2.7	3.2	1.6	1.0	1.4
Lithuania	1.9	2.1	2.8	2.6	2.7	1.8	1.0	0.8

Source: authors' construction based on Taxation Trends ..., 2013

Before the economic recession, the highest income tax–to-GDP ratio was observed in Lithuania with a slight exception of the corporate income tax in 2008 when Latvia produced the highest indicator of 3.2%. The growth in the corporate income tax revenues mainly explains the increase of the ratio. The CIT share of total GDP in Latvia exceeds the respective ratios of Estonia and Lithuania by 1.6 (twice) and 0.5 percentage points. Small differences are seen in the PIT-to-GDP ratio in 2008. The share of income taxes of total GDP declines in the following years, basically it is related with the decrease of income tax revenues and increase of the share of other taxes in the GDP volume.

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Table 3 provides the summary on budgetary adjustments made by the governments of the Baltic States; these adjustments were targeted to overcome the financial crisis and inter alia included the changes related with the income taxes, basically the revenue part.

Table 3

Budgetary adjustments in the Baltic States during the financial-economic crisis

Country	Expenditure	Revenue
Latvia	• Cuts of public sector operating expenses by 18% in 2009 and later. Central government officials saw cuts of 30% between 2009-2011, while public wages were cut by 25%. • Sickness benefits exceeding a threshold were cut by 50%; old-age pensions cut; the part of the social insurance contributions to the compulsory private funded pension pillar were reduced from 6% to 2%. Increase in retirement age to 65 (2012).	• Increase in the rate of **PIT** 23-26% (2010); employee social contribution rate 9-11% (2011); VAT increase from 18-21% (2009) and then to 22% (2011); increase of the excise duties on alcohol, tobacco and energy; increase in vehicle taxes. • Broadening of the base for the **PIT** and VAT. • Introduction of a progressive real-estate tax in 2009 that was doubled in 2011.
Lithuania	• Cuts of public sector operating expenses by 10% in 2009. The cuts were progressive (8-36%), and highest earners took larger hits. • Sickness benefits curtailed; old-age pensions cut; the part of the social insurance contributions to the compulsory private funded pension pillar were reduced from 5.5% to 2%.	• VAT increase from 18 to 21% (2009); **CIT** tax rate 15-20% (2009); increase in excise duties. • Broadening of the base for VAT, by reducing the number of goods with favourable rates, and increasing the favourable rates. • Introduction of a real-estate tax.
Estonia	• Cuts to public sector operating expenses by 8% in 2009. Some groups, like teachers, were subjected to a lower pay cut than others. • Sickness benefits for the first days of leave were cut; pensions were not indexed by the planned 14%, but rather by 5%; state-financed contributions to the second pillar were stopped (July 2009 – December 2011). Retirement age to be raised from 2017.	• Planned **income tax** rate reduction was postponed; unemployment insurance contributions increased from 0.9 to 4.2% of gross wages; VAT increase from 18 to 20%; • Broadening of the base for VAT, by reducing the number of goods with favourable rates, and increasing the favourable rates. • No new taxes introduced

Source: Maslauskaite, Zorgenfreija, 2013

The implemented measures have been effective in stabilising the Latvian budgetary situation. Latvia increased the **PIT** rate 23-26% (2010) and the employee social contribution rate 9-11% (2011) as well as it broadened the base for the **PIT** and VAT, and introduced a progressive real estate (immovable property) tax. Lithuania introduced comparatively more stimulus measures than the other two Baltic States, for example, the personal income tax was reduced by 9 percentage points to 15% and exemptions were added to excise duties. The measures granted the needed credibility and put the economy on a more sustainable path. Estonia introduced several one-off measures aimed at improving the budget balance in order to qualify for the introduction of euro. In addition to the consolidation measures, the Estonian government attempted to further liberalise the economy (Maslauskaite, Zorgenfreija, 2013).

A partial impact of the implemented crisis aversion measures on the income tax revenues in the Baltic States is outlined in Figures 2 and 3.

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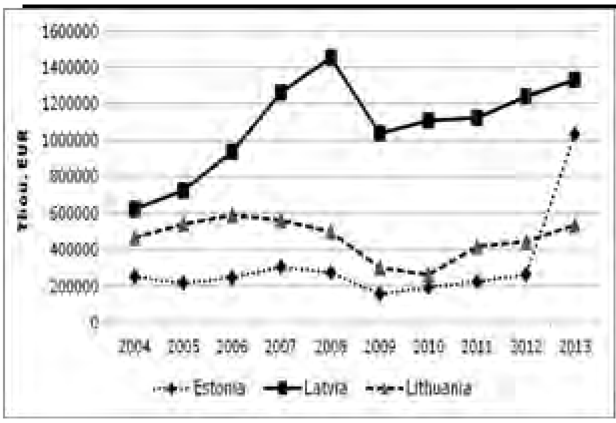
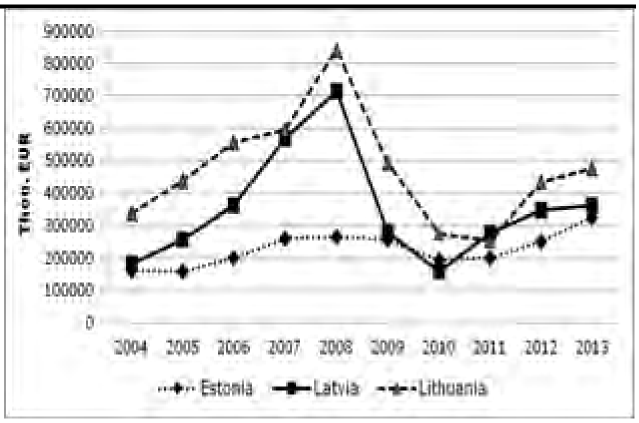


Source: authors' construction based on Valstybes ..., s.y.; Statistics Estonia, 2014; Kopsavilkums ..., 2013
Fig. 2. **Personal income tax revenues in the state budgets of the Baltic States for the period of 2004-2013**



Source: authors' construction based on Valstybes ..., s.y.; Statistics Estonia, 2014; Kopsavilkums ..., 2013
Fig. 3. **Corporate income tax revenues in the state budgets of the Baltic States for the period of 2004-2013**

According to Figures 2 and 3, Latvia experiences a very rapid growth of income tax revenues in the state budget among the Baltic States between 2004 and 2008. Hence, in 2008, the revenues collected from the personal income tax in Latvia exceed the respective revenues of Estonia and Lithuania 5.2 and 2.9 times. Estonia and Lithuania had moderate growth in the PIT revenues and, thus, the decline was comparatively slight compared with the decrease in the PIT revenues in Latvia (almost 30%) in 2009. In general, the decrease relates with the dramatic reduction of wages and salaries consequently reducing the amounts paid to the budget. Even, the reduction of tax-exempt minimum in Latvia could not limit this decline. In 2013, Estonia shows a very radical increase in the PIT revenues, i.e. 3.8 times compared with 2012. The CIT revenues show that Latvia and Lithuania experienced a rather similar increase in corporate profits simultaneously producing high CIT revenues in the state budget. In 2009, the CIT revenues decreased by 45% in Lithuania, 44% in Latvia, and 25% in Estonia. All Baltic States demonstrate an increase in the PIT and CIT revenues starting from 2011 which coincides with the stabilisation of the economic situation. The expansion of the tax base for items taxed by the CIT also explain the increase in the CIT revenues to the state budgets.

Comparative assessment on the development of income taxation systems in the Baltic States

The personal income tax is one of the basic tax revenues in the state budgets of the Baltic States, so the tax-exempt minimum is one of the most significant indicators underlying the differences in the development of income taxation systems (Table 4).

Table 4

Tax-exempt minimum in the Baltic States for the period of 2004-2013, EUR per year

	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
Estonia	1074	1304	1534	1534	1726	1726	1726	1728	1728	1728
Latvia	358	444	546	854	1366	1067	598	768	768	768
Lithuania	1007	1007	1007	1112	1112	1632	1632	1632	1632	1632

Source: authors' construction based on Valstybes ..., s.y.; Statistics Estonia, 2014; Kopsavilkums ..., 2013

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The tax-exempt minimum is closely related with the subsistence minimum, i.e. life expensiveness, resources necessary to cover daily expenses and necessity to ensure the national development. However, the analysis of items taxable by the PIT shows that the tax-exempt minimum cannot be regarded as efficient tax relief instrument. The comparison of the changes in the tax-exempt minimum of Latvia and Estonia reveals that Estonia has not reduced the tax-exempt minimum in 2009. The basic reason is a stable economic system and development of the country. Latvia, in its turn, dramatically reduced the tax-exempt minimum from July 2009 when it decreased from EUR 128 to EUR 50 per month. This was done to increase the tax revenues in the state budget. The tax-exempt minimum has almost not changed in Estonia outlining that Estonia has a simple and stable, and progressivity-based direct tax policy. From 2014, Latvia has increased the tax-exempt minimum to EUR 900 per year. Seeking to increase budget revenues and also to protect the lowest-income population, from 2009 Lithuania applies a tax-exempt minimum (TEM) to each person individually, depending on its work-related income (before taxes). The higher the income, the TEM is proportionately reduced. At present, an individual whose monthly income incidental to employment relations or relations in their essence corresponding to employment relations does not exceed EUR 2780 per year is subject to the TEM of EUR 1632 per year. No TEM is applicable to work-related income exceeding EUR 10 948 per year (before taxes). The TEM applied in 2008 did not depend on the amount of income and the basic TEM was EUR 1112 per year. If employment related income exceeded EUR 232 per month, monthly TEM was calculated according to the following formula: monthly TEM = 136 − 0.2*(an individual's employment related income per month − 232). From 1 January 2014, if the monthly employment income does not exceed EUR 290, the monthly allowance is EUR 165.

Corporate income tax in Latvia is one of the lowest in the EU, i.e. 15% that presently is one of cornerstones for attracting investments. From September 2010 Latvia introduced a new tax − a micro-enterprise tax which prescribes payment of 9% from a micro-enterprise turnover. From 1 January 2013 the corporate income tax is not be assessed on dividends paid to non-resident corporations and on dividends received from non-residents. Starting from 1 January 2014 the corporate income tax is not assessed on interest paid to non-residents and on payments for the use of intellectual property. In 2011, Latvia reinstated the corporate tax credit for large investment projects of EUR 4.3 million. From 1 January 2013, corporate income tax is not assessed on dividends paid to non-resident corporations and on dividends received from non-residents. Starting from 1 January 2014, corporate income tax is not assessed on interest paid to non-residents and on payments for the use of intellectual property. This rule will not apply to payments from low tax countries or countries charging no tax.

Estonian Income Tax Act does not envisage the CIT reliefs, and non-taxation of reinvested profit is mentioned as the basic tax incentive. Lithuania and Latvia apply CIT incentives for R&D, investment projects, industry and possibility of carrying forward losses.

Conclusions, proposals, recommendations

1. The Estonian tax system is one of the most liberal and simplest systems in the world, Estonia being a European pioneer in income taxation having introduced flat income tax rates. The most liberal income taxes among the Baltic States are observed in Lithuania (15% both CIT and PIT). Estonia and Lithuania have the same PIT and CIT rates, while Latvia applies the most severe PIT rate (24%).

2. The corporate income tax reliefs may not be evaluated unequivocally – they increase the state competitiveness in the sphere of taxes, though, at the same time they distort the market and they are not socially equal to all taxpayers.
3. The tax-exempt minimum is closely related with the subsistence minimum, i.e. life expensiveness, resources necessary to cover daily expenses and necessity to ensure the national development. The calculation of the tax-exempt amount greatly differs in Lithuania where it is calculated depending on a person's income before taxes.
4. Estonian Income Tax Act does not envisage the CIT reliefs, and non-taxation of reinvested profit is mentioned as the basic tax incentive, while Lithuania and Latvia apply CIT incentives for R&D, investment projects, industry and possibility of carrying forward losses.
5. The basic difference in the taxation systems of the Baltic States include the calculation and application of the tax-exempt minimum, tax reliefs, and flexibility of the system to the changing economic conditions. The comparison shows that the Baltic States develop their taxation systems and gradually adjust them to facilitate business, attract investment and promote competitiveness.

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ASSESSMENT AND POSSIBLE EXPANSION OF TAXES TRANSFERRED TO LOCAL GOVERNMENT BUDGETS IN LATVIA

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Abstract. The research aim is to assess taxes transferred to the budgets of local governments and to discuss possibilities for the expansion of tax revenues to be transferred to local government budgets. The research leads to the conclusion that the part of personal income tax deductions in local government budgets should be gradually increased up to 100% determining the personal income tax as local government tax thereafter. This could enhance the possibility to increase the financial independency and to strengthen the income base of local governments. The issue on the distribution of personal income tax by a place of work and not by a place of residence shall be solved in the future, thus, prescribing that the personal income tax is transferred to the budget of that local government in which territory the workplace is located. The immovable property tax should be determined as local government tax and the tax autonomy of local governments should be expanded through the possibilities to define taxable items and rates, and to plan the immovable property tax revenues. Since the promotion of economic performance in its administrative territory is one of the autonomous functions of local governments, it could be reasonable to link the local government budget with some of taxes (for example, corporate income tax), which are closely related with the economic performance. The expansion and diversification of taxes transferable to local government budgets would increase the level of financial autonomy, stability, and legal capacity of every local government.

Key words: local government budget, personal income tax, immovable property tax.

JEL code: H71; H72

Introduction

Tax attribution to a particular budget is a significant state activity which ensures transparency and purposefulness of the taxation policy. The tax distribution policy between the budgets in Latvia might be characterised as typically centralised, since the majority of taxes are transferred to the state budget. Only a small part forms the revenue source of local governments. Deductions from personal income tax, immovable property tax, lottery and gambling tax, and natural resources tax are transferred to the budgets of local governments.

The amount of financial resources being at disposal of local governments is one of the most debatable financial issues of local governments. The general opinion held by the local authorities is that the financial resources of local governments are insufficient for the implementation of functions delegated to local governments and prescribed by the legal and regulatory enactments.

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The research topicality and choice grounds on the wish to describe the taxes to be transferred to local government budgets and to analyse the possibilities to increase and diversify tax revenues transferred to local government budgets.

The research is based on the **hypothesis** that the increase and diversification of taxes transferred to local government budgets would maximise the level of financial autonomy, stability, and legal capacity for every local government.

The following research **aim** is defined to verify the hypothesis: to assess taxes transferred to the budgets of local governments and to discuss possibilities for the expansion of tax revenues to be transferred to local government budgets.

The following **tasks** are advanced to achieve the research aim:

1) to characterise the revenues and structure of personal income tax, immovable property tax, lottery and gambling tax, and natural resources tax;
2) to analyse the possibilities for the expansion of tax revenues to be transferred to local government budgets.

The monographic descriptive method, the methods of economic analysis and statistical data analysis are used for the research purposes. The research is based on the application of data on tax revenues of local governments from the Ministry of Finance of the Republic of Latvia and the State Regional Development Agency as well as the report on the increase and diversification of financial resources of local governments by the Ministry of Regional Development and Local Government Affairs (2010).

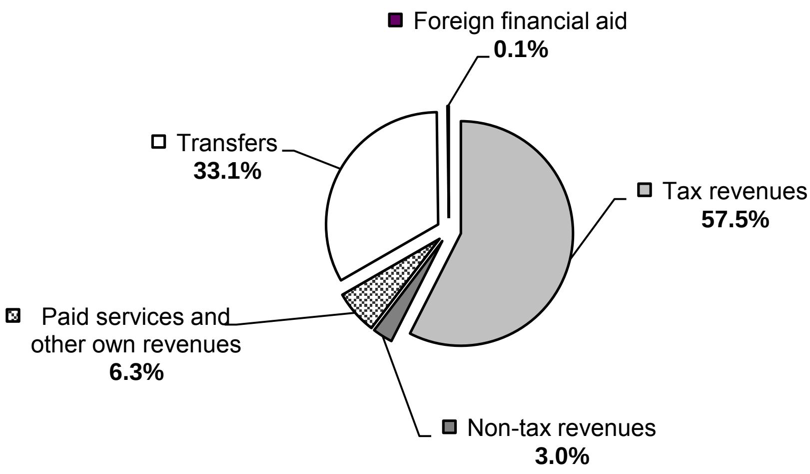
Research results and discussion

The budget volume of local governments is related with the sphere of competence delegated to local governments or functions, tasks and duties entrusted to them.

The reports of local government budgets on the basic groups of revenues consistent with the budget revenue classification comprise tax revenues, non-tax revenues, received payments, paid services and other own revenues, foreign financial aid, and transfers.

Figure 1 reflects the structure of local government basic budgets by the basic groups of reporting.

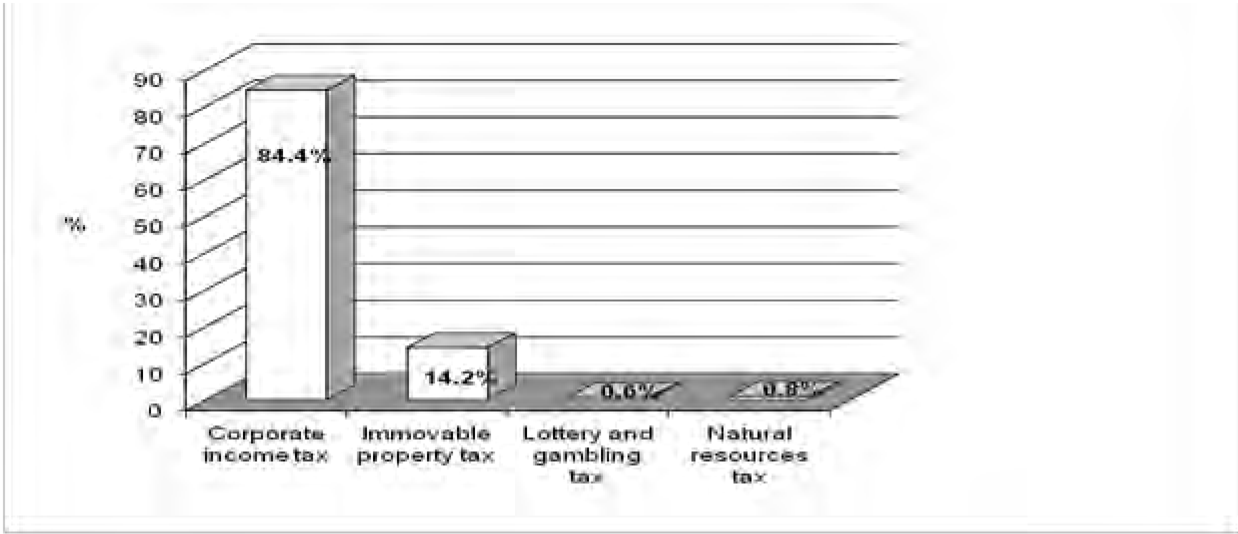
In 2012, the revenues of local government basic budgets amounted to LVL 1426.6 million. The largest volume of revenues was comprised by tax revenues - 57.5%, followed by transfers - 33.1%. Paid services and other own revenues amounted to 6.3%, non-tax revenues - 3.0%, and foreign financial aid – only 0.1% (Skaidrojums par pasvaldibu..., 2013).



Source: authors' construction based on Skaidrojums par pasvaldibu…, 2013

Fig.1. **Revenue structure of local government basic budgets in 2012**

In 2012, total tax revenues of local governments amounted to LVL 825.9 million (Kopsavilkums par pasvaldibu…, 2012).



Source: authors' construction based on Skaidrojums par pasvaldibu…, 2013

Fig.2. **Structure of tax revenues in 2012, %**

The data of Figure 2 outline that the personal income tax revenues formed proportionally the largest part of tax revenues in 2012. Personal income tax is the main source of tax revenues (and at the same time it is also the main source of total revenues) for local governments, as it constitutes 84.4% of tax revenues and 48.9% of basic budget revenues. Immovable property tax accounts for 14.2% of tax revenues and 8.2% of basic budget revenues. The amount of lottery and gambling tax (0.6%) and natural resources tax (0.8%) revenues in the budgets of local governments is relatively small (Skaidrojums par pasvaldibu…, 2013).

Characteristics of personal income tax

The amounts of personal income tax are transferred to the local government budget of a taxpayer's place of residence and the state budget consistent with the breakdown prescribed by the annual law on the state budget.

According to the data of Table 1, the part of deductions from the personal income tax revenues for local governments has annually changed since 2005, when it reached the highest indicator of 83% in 2009. However, the share has been reduced to 80% from 2012.

Table 1

The breakdown of personal income tax revenues by budgets for the period of 2005-2014, % of total revenues

Year	State budget	Local government budget
2005	27%	73%
2006	25%	75%
2007	21%	79%
2008	20%	80%
2009	17%	83%
2010	20%	80%
2011	18%	82%
2012	20%	80%
2013	20%	80%
2014	20%	80%

Source: Nodoklu ienemumu sadalijums ..., 2012; Informativais zinojums "Par...", 2009

The number of persons employed at the national economy sectors, wages/salaries, the non-taxable minimum and the amount of tax reliefs as well as the minimum wage are the main factors impacting the revenues from personal income tax.

Table 2

Personal income tax revenues for the period of 2007-2012

Indicators	2007	2008	2009	2010	2011	2012
Personal income tax, total, mln LVL	888.0	1035.4	729.4	778.8	792.2	868.1
of which in the state budget	186.9	231.8	124.5	155.6	142.8	170.9
of which in the local government budget	**701.1**	**830.6**	**604.9**	**623.3**	**649.4**	**697.2**

Source: Pasvaldibu finansu raksturojums..., 2012; Nodoklu ienemumu analize..., 2013; Skaidrojums par pasvaldibu..., 2013

The data of Table 2 reveal that the revenues from personal income tax in local government budgets were LVL 604.9 million at the beginning of the economic downturn (decline in wages and employment rates) in 2009, while in 2008, the corresponding amount was LVL 830.6 million. This means that the personal income tax revenues in 2009 were respectively 27.2% smaller compared with 2008; the particular decline was also due to the reduction of the personal income tax rate from 25% to 23%. Even the reduction of non-taxable minimum from LVL 90 to LVL 35 per month (from 1 July 2009) could not compensate the essential decline in the personal income tax revenues. Regardless the adjustments made in the personal income tax administration in 2010 (reduction of the non-taxable minimum and increase of the tax rate from 23% to 26%) and 2011 (reduction of the tax rate from 26% to 25%), the increase of personal income tax revenues in local government budgets was relatively small. In 2011, the revenues from personal income tax amounted to LVL 649.4 million which is LVL 181.2 million or 21.8% less compared with 2008 (Nodoklu politikas aktualitates, 2013).

In 2012, the personal income tax revenues in local government budgets were LVL 697.2 million or 7.4% more compared with 2011. Faster recovery of the labour market – the increase of employment, and wages and salaries - as well as the undertaken measures for the abatement of shadow economy explain the growth in personal income tax revenues.

Personal income tax revenues greatly differ by local governments. In 2012, the absolute volume of tax revenues in the territory of 119 local governments ranged between LVL 196 thousand (Baltinava county) and LVL 263.81 million (Riga). Though, the personal income tax revenues per capita ranged between LVL 121 (Riebini county) and LVL 526 (Marupe county) (Regionu attistiba Latvija ..., 2013).

Since the deductions from the personal income tax are transferred to the local government of a taxpayer's place of residence, and a situation observed within the years of economic growth that a significant number of population decided to change their place of residence for living outside Riga and working in Riga led to the result that the local governments of Pieriga where the economic activity was lower than in Riga produced the largest personal income tax revenues per capita simultaneously being the richest local governments (Skaidrojums par pasvaldibu..., 2013).

Revenues from personal income tax are considered in the financial equalisation calculations of local governments. Even after the equalisation, the tax revenues per capita of Pieriga local governments whose economy is based on the working places in Riga exceed the personal tax revenues per capita of Riga.

Frequent changes of the personal income tax revenue rate and uncertainty in the determination of the amount of tax deduction part to be transferred to local government budgets complicate the budget planning and development process of local governments which determine and substantiate the necessary amount of resources for the performance of their autonomous functions, tasks and voluntary initiatives. Therefore, the part of deductions from the personal income tax revenues in local government budgets should be gradually increased up to 100% and afterwards the personal income tax should be determined as local government tax to increase the financial autonomy of local governments and to strengthen their base of revenues.

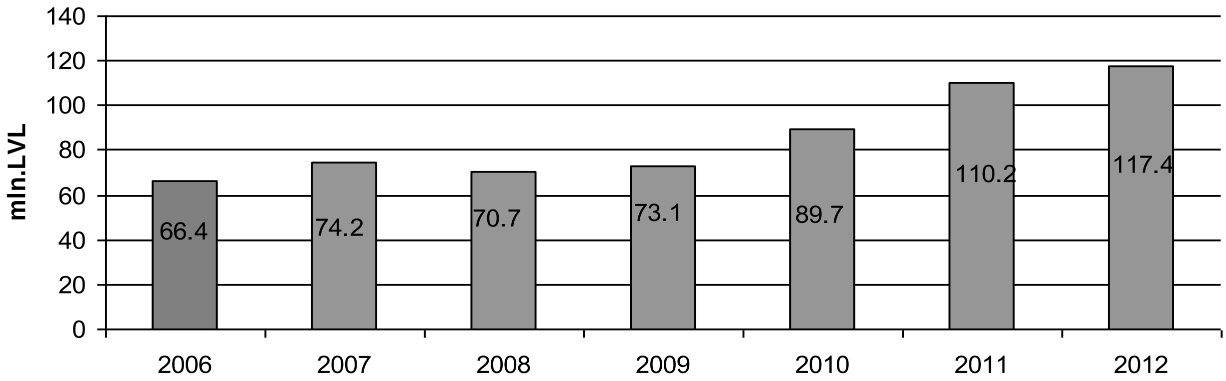
In future, the solution of an issue on the distribution of personal income tax by the place of work and not the place of residence is very significant, thus, determining that the personal income tax is transferred to the budget of local government which locates the taxpayer's place of work. The implementation of this recommendation and increase of the part of deductions from the personal income tax (without other changes) in favour of local governments may lead to the increase of contradiction on the promotion of economic activity and the discrepancies in the financial capacity of local governments. The increase of the part of deductions from the personal income tax in favour of local governments would not ensure the reduction of unfavourable differences which is the aim of regional policy. It would require also the change of tax equalisation mechanism.

Characteristics of immovable property tax

Immovable property tax is the only tax in Latvia, the revenues of which for 100% are transferred to the budget of the particular local government which administers the tax.

In Latvia, immovable property tax as instrument of the state fiscal policy underwent stagnation period up to the moment of crisis in the national economy (Vanags, 2011). In 2008, the general economic recession led to a considerable lack of financial resources and the financial crisis in Latvia.

In order to attract financial resources, the immovable property tax system was adjusted to the existing economic and political situation, and it underwent reforms.



Source: authors' construction based on Pasvaldibu finansu raksturojums..., 2012; Nodoklu ienemumu analize..., 2013; Skaidrojums par pasvaldibu..., 2013

Fig.3. **Immovable property tax revenues for the period of 2006-2012**

The data of Figure 3 outline that the immovable property tax revenues in absolute figures produce an annual growing tendency. The decrease of the immovable property tax revenues in absolute figures was observed only in 2008. The change of immovable property tax rate for land from 1.5% to 1% of the cadastral value and the introduction of limitation for the tax increase in the amount of 25% explain the decrease in immovable property tax revenues. A significant growth in the share of immovable property tax in total tax revenues of Latvia is observed starting from 2010. In Latvia, the set of items taxable by the immovable property tax was broaden from 2010 – immovable property tax was levied upon residential buildings and engineering structures, and it also meant the introduction of a minimum payment of immovable property tax (LVL 5) as well as the immovable property tax rate for land was increased by 0.5% and an additional rate of 1.5% was introduced for unfarmed agricultural land. Reforms in the system of immovable property tax continued also in the following years. Immovable property tax rate for residential buildings was doubled to 0.2-0.6% of the immovable property cadastral value from 2011. An essential novelty in the administration process of immovable property tax has been introduced in Latvia from 2012. Under Section 46 of the law "On Local Governments", local governments had the rights to issue Binding Regulations which prescribed the rights to apply the increase of tax rate limitation in 2012 for land or retain the amount of tax for land at the rate of 2011 as well as to state whether the immovable property tax was imposed on auxiliary buildings and environment degrading constructions (Stucere, Mazure, 2012).

Starting from 2013, local governments are eligible to issue Binding Regulations for setting and administration of immovable property tax and to determine immovable property tax rates within the government set range from 0.2% to 3% consistent with the targets and needs of each local government. A limit of 1.5% is set for the tax rate fluctuations (from 0.2% to 3%) up to which local governments may voluntarily determine tax rates. The rate exceeding 1.5% may be levied only upon immovable property

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which is not managed consistent with the procedure prescribed by the regulatory enactments, for example, hovels located in the territory of a local government and degrading the environment and endangering the population safety as well as unutilised agricultural area (Likums par…, 2012).

A range of the implemented changes in the immovable property tax system numerically outlines a 40% increase in immovable property tax revenues in 2012 compared with 2008. However, immovable property tax revenues in 2012 compose only 0.9% of GDP (Taxes in Europe, 2013). Therefore, an issue on the expansion of items taxable by the immovable property tax and the increase of tax rates should be solved in the future.

Generally, the immovable property tax is, to a great extent, a local government tax already now, since the immovable property tax is transferred to local government budgets (part of deductions - 100%). Local governments administer immovable property tax, they have the rights to set tax reliefs (this option is not characteristic of a state tax) and starting from 2013 local governments are eligible to determine tax rates within the limits set by the central government. Therefore, the immovable property tax should be determined as local government tax and the tax autonomy of local governments should be expanded through the possibilities to define taxable items and rates, and to plan the immovable property tax revenues.

Characteristics of lottery and gambling tax

The lottery and gambling tax is paid by companies which have received a special permit to organise and maintain lotteries and gambling consistent with the law "On Lottery and Gambling Duties and Tax". Revenues from the lottery and gambling tax in the amount of 75% are transferred to the state basic budget and 25% of the revenues are transferred to the budget of a local government which territory locates the place for organisation gambling. Revenues from the state scale lottery tax are transferred to the state basic budget, while the revenues from the local scale lottery tax are transferred to the budget of a local government which territory locates the place for organisation the lottery.

Table 3

Lottery and gambling tax revenues for the period of 2007-2012

Indicators	2007	2008	2009	2010	2011	2012
Lottery and gambling tax, total, mln LVL	29.7	29.9	25.1	15.3	16.1	19.4
of which in the state budget	22.4	22.8	20.1	11.6	12.2	14.8
of which in the local government budget	**7.3**	**7.1**	**5.0**	**3.7**	**3.8**	**4.6**

Source: Pasvaldibu finansu raksturojums…, 2012; Nodoklu ienemumu analize…, 2013; Skaidrojums par pasvaldibu…, 2013

The amount of revenues from the lottery and gambling tax is relatively small, and it accounts for 0.6% (in 2012) of all tax revenues. In addition, this tax is more characteristic to urban local governments, and there is a set of local governments producing no revenues from the lottery and gambling tax.

According to Table 3, the largest lottery and gambling tax revenues were observed in 2007 and 2008. Revenues from the lottery and gambling tax significantly decreased between 2009 and 2011. In 2010, the lottery and gambling tax revenues reached the lowest figure of LVL 3.7 million which is by 97% less compared with 2007. The impact of the general economic situation on the sector of lotteries and

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gambling and the effectiveness of requirements for the certification of slot machines explain the decline in these revenues.

In 2012, the lottery and gambling tax revenues increased by LVL 0.8 million or 21% compared with 2011. This increase coincides with the general recovery of the state economic activity.

It would be necessary to increase the lottery and gambling tax rates to maximise the budgetary revenues of local governments. These changes would be favourable to the society, since they reduce dependency risk on gambling and limit the development of gambling in the country.

Characteristics of natural resources tax

Payments of the natural resources tax are directly related with the economic activities of Latvian companies and the environmental load caused by them. Therefore, the natural resources tax revenues increase with the increase of the general economic activity and decrease with the slowing down of the activities of companies and local governments undertaking environmental protection measures. Revenues from the natural resources tax are transferred to the state basic budget and the special budget of local governments (Nodoklu politikas aktualitates, 2013).

Tax payments for the extraction or use of natural resources or environmental pollution within the amounts specified by the limits are transferred in the amount of 60% to the special environmental protection budget of such local government in the territory of which the relevant activity is performed. Tax payments for: the utilisation of useful characteristics of the subterranean depths by pumping natural gas or greenhouse gases into geological structures are paid into the special environmental protection budget of such local government in the territory of which the relevant activity is performed (if the activity takes place in the territory of several local governments − proportionally to the territory utilised); the use of radioactive substances to the amount of 100% are paid into the special environmental protection budget of such local government in the territory of which the radioactive waste disposal site is located (Dabas resursu nodokla..., 2013).

Revenues from the natural resources tax are relatively small in local government budgets, they account for less than 1% of all tax revenues.

Table 4

Natural resources tax revenues for the period of 2007-2012

Indicators	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Natural resources tax, total, mln LVL	10.4	11.1	10.8	8.7	10.4	13.6
of which in the state budget	7.6	8.0	8.4	5.4	5.6	6.9
of which in the local government budget	**2.8**	**3.1**	**2.4**	**3.4**	**4.7**	**6.7**

***Source:** Pasvaldibu finansu raksturojums..., 2012; Nodoklu ienemumu analize..., 2013; Skaidrojums par pasvaldibu..., 2013*

The data of Table 4 reveal that the revenues from the natural resources tax had a tendency to increase every year. Decline in the particular tax revenues was observed only in 2009 when the tax revenues amounted to LVL 2.4 million or 29% less compared with 2008. The decrease in the natural resources tax revenues might be explained by the decline of the economic activity and measures of local governments undertaken in the sphere of environmental protection.

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The highest peak of the particular tax revenues, i.e. LVL 6.7 million, was reached in 2012 which was by LVL 2.0 million or 42% more compared with 2011. The increase in the natural resources tax revenues is related with the growth of the general economic activity.

It is recommended to increase the share of the natural resources tax revenues paid to local government budgets on the extraction (use) of natural resources or environmental pollution. This would enhance more efficient activities of local governments for the limitation of environmental pollution in their territories and ensure financial assistance in undertaking environmental protection measures.

Possibilities for the expansion of taxes transferred to local government budgets

Since the promotion of economic activities in the territory of particular local government is one of the autonomy functions of local governments, it would be reasonable to link the local government budget of any of taxes which are directly related with the economic activity and to determine a certain part of tax revenues as deductions for local governments. In Latvia, this could be the corporate income tax.

Corporate income tax as direct tax is more related with the territory; though, this relation is not unequivocal. The inquiry of information on taxpayers regarding the attribution of tax to the territory of economic activity may cause certain difficulties and additional burden to those companies which have several places of activity (main office, structural subdivisions) and mobile activity. In addition, a direct linking of this tax to the territory of a particular local government would increase regional disparities in the country, as, for example, 55% of all individual merchants and commercial societies of Latvia operate in Riga (Regionu attistiba Latvija..., 2012).

At the same time, it would be essential for the entire municipal sector to consider the changes of economic activity indicators in their revenues. Therefore, the payment of a certain part (for example, 1-5%) of the corporate income tax into the financial equalisation fund of local governments could be an optimal solution. Hence, the economic activity in the local government, for example, the number of registered companies and structural subdivisions, is considered for the money redistribution purpose.

An independent budget and rights to determine local taxes and duties is one of the features characterising the essence of local governments. Also, the European Charter on Local Self-government envisages that at least part of financial resources of local authorities shall be gained from the local taxes and charges which rates the local government is eligible to determine within the limits prescribed by the law. Local government taxes ensure the possibility to adjust the level of expenditure to the local needs and choice. The responsibility of local authorities on the spending of financial resources is larger if they determine tax amount paid by the population or legal entities. The expansion and diversification of taxes transferred to local government budgets would increase the level of financial autonomy, stability and legal capacity of every local government.

Conclusions, proposals, recommendations

1. To increase the financial independency and to strengthen the income base of local governments, the part of personal income tax deductions in local government budgets should be gradually increased up to 100% determining it as local government tax thereafter.

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2. The increase of the part of deductions from the personal income tax in favour of local governments would not ensure the reduction of unfavourable differences which is the aim of regional policy. It would require also the change of tax equalisation mechanism.
3. The issue on the distribution of personal income tax by a place of work and not by a place of residence shall be solved in the future, thus, prescribing that the personal income tax is transferred to the budget of that local government which territory locates the workplace.
4. Generally, the immovable property tax is, to a great extent, a local government tax already now, since the immovable property tax is transferred to local government budgets (part of deductions - 100%). Local governments administer immovable property tax and they have the rights to set tax reliefs (this option is not characteristic of a state tax) as well as starting from 2013 local governments are eligible to determine tax rates within the limits set by the central government. Therefore, the immovable property tax should be determined as local government tax and the tax autonomy of local governments should be expanded through the possibilities to define taxable items and rates, and to plan the immovable property tax revenues.
5. It would be necessary to increase the lottery and gambling tax rates to reduce dependency risk on gambling, limit the development of gambling in the country and enlarge budgetary revenues from taxes.
6. It is recommended to increase the share of the natural resources tax revenues paid to local government budgets on the extraction (use) of natural resources or environmental pollution. This would enhance more efficient activities of local governments for the limitation of environmental pollution in their territories and ensure financial assistance in undertaking environmental protection measures.
7. Since the promotion of economic activities in the territory of particular local government is one of the autonomy functions of local governments, it would be reasonable to link the local government budget of any of taxes which are directly related with the economic activity and to determine a certain part of tax revenues as deductions for local governments. The corporate income tax could be one of such taxes, part of which could be deducted and paid into the budgets of local governments simultaneously prescribing that the corporate income tax revenues are included into the financial equalisation calculations of local governments.
8. An independent budget and rights to determine local taxes and duties is one of the features characterising the essence of local governments. Therefore, local government taxes should be introduced in Latvia. Local government taxes ensure the possibility to adjust the level of expenditure to the local needs and choice. The responsibility of local authorities on the spending of financial resources is larger if they determine tax amount paid by the population or legal entities.
9. The expansion and diversification of taxes transferred to local government budgets would increase the level of financial autonomy, stability, and legal capacity of every local government.

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GOVERNMENT DEBT AND LONG-TERM ECONOMIC GROWTH IN THE WORLD'S REGIONS

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Abstract. Various researchers have indicated that government debt may both stimulate and inhibit state's economic development; although, Ricardian economists argue that debt does not affect economics at all. The aim of the present research is to explore correlations between the debt and long-term economic growth as well as estimate the world tendencies in the accumulation of government debt. The paper is based on the analysis of public data on 178 countries, extracted from the IMF and the World Bank databases. The findings demonstrate that the values of the government debt, expressed as percentage of GDP, decrease for the whole world but increase for the developed countries. The value of debt does not correlate with the growth rate worldwide, besides in the Western Europe higher debt levels are associated with lower growth, while in the South and East Asia region, higher debt is related with higher growth.

Key words: government debt, GDP growth.

JEL code: H63, H68

Introduction

At the present moment, around 96% of the world countries intensively use foreign financing. Estimated total value of the world state debt already exceeds USD 57 trillion. The influence of the government debt on the economic growth and development is still under discussion (Ludvigson S., 1996). Ricardian economists state that the debt has no influence on the growth at all (Barro R.J., 1987). On the contrary, recent research works revealed some kind of the "growth threshold": the government debt that is less than 60%-70% of GDP stimulates growth, while the debt that exceeds this threshold, has a negative impact (Checherita-Westphal C., Rother Ph., 2012, Afonso A., Jalles J. T., 2013). Unfortunately, these research works have either been concentrated on "the old EU countries" (Checherita-Westphal C., Rother Ph., 2012), or do not account for the 2008–2010 recession (Afonso A., Jalles J. T., 2013). In attempt to overcome this recession, a number of countries - Greece, Portugal, Spain etc., had increased borrowing, and due to this fact, their debt rose up at a fast rate (Ancans S., 2013). Besides, the question persists whether it has helped those countries re-gain economic growth.

Additional interest to pay attention to the beginning of the century is that in the period from 2003 to 2011 government debt of some countries was "written off" in the framework of the International Monetary Fund (IMF) and the World Bank's poverty reducing Heavily Indebted Poor Countries (HIPC) initiative. This altered the total world picture and position of the countries in a "debtor list".

The aim of the research is to evaluate the correlation between the value of the debt and long-term changes in GDP over the recession period. The corresponding tasks are: 1) to analyse worldwide tendencies in the accumulation of the government debt; 2) to determine the long-term growth indicator;

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and 3) to explore the correlation between the growth indicator and the debt before and after the recession period.

Data and methodology

The object of the research is the world countries' economies. The research is based on public available data on 176 world countries from the IMF and the Bank databases (World Economic Outlook Databases, 2013, World Bank Open Data, 2013). The selection of these 176 countries was governed entirely by data availability: countries with no data were censored out. The analysis covered the period from 2003 to 2011. The beginning of the period was chosen to coincide with the start of HIPC initiative. As to the end of the period, in 2011 the economic indicators started to improve after the recession but the data for 2012 still were not fully available, thus, the year 2011 was chosen.

In the present paper, the following indicators that characterise the current economic situation and allow evaluation of long-term growth tendencies were analysed:

- GDP in 2003 and 2011, measured in billion of USD, current prices;
- government debt to GDP ratio in 2003 and 2011;
- long – term GDP growth indicator, calculated as

$$GDP\ growth = \frac{GDP_{2011} - GDP_{2003}}{GDP_{2003}} \times 100\%. \quad \textbf{(1)}$$

For analysis, all 176 countries of the word were broken down into six regions and two categories. Six regions were based on geographic and cultural closeness: Western Europe; Eastern Europe and Central Asia (former CIS countries); South and East Asia and Pacific; Middle East and North Africa; Sub-Saharan Africa; Latin America and Caribbean. The greatest world economies (the USA, Canada, Germany, France, Italy, the UK, Spain, Japan, and Korea) were grouped in G9 category. The last category was comprised by most significant players on the international debt market whose debt is indicated by the "Debt Clock" service: G9 plus Argentina, Australia, Brazil, China, Greece, India, Ireland, Mexico, Portugal, Russia, and Saudi Arabia (World Debt Clock, 2013).

The distribution of states by the value of the government debt in 2003 and 2011 was analysed for each group. The distribution was built on intervals, constructed in such a manner that each next interval is two times wider than the previous one.

The correlation between the value of state debt and the long-term growth indicator was evaluated both graphically, by the corresponding scatter diagram, and by means of Pearson correlation coefficient. The statistical significance of the correlation coefficient was tested using Student's criterion with the level of significance α =0.05.

Research results and discussion

Tables 1 and 2 list the countries with the smallest and highest debt to GDP ratios to analyse a range of the world debt figures. Generally, both tables demonstrate the decrease of the maximal debt level within the corresponding group and in the world in total. Among the eight states with the smallest debt,

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the maximal level decreased from 13.23% in 2003 to 9.09% in 2011. Only three states have kept their position in this "list of fame": Brunei, Estonia, and Equatorial Guinea.

Table 1

States with the smallest debt/GDP ratio

2003		2011	
Country	%	Country	%
Brunei Darussalam	0.00	Libya	0.00
United Arab Emirates	4.40	Brunei Darussalam	2.36
Estonia	5.62	Saudi Arabia	5.40
Luxembourg	6.22	Oman	5.46
Botswana	11.69	Estonia	6.01
Chile	12.64	Kuwait	8.20
Equatorial Guinea	12.89	Equatorial Guinea	8.98
Australia	13.23	Uzbekistan	9.09

Source: the World Bank data

Table 2, in turn, shows that the maximum debt among the eight "worst" countries decreased from 931.66% of GDP in 2003 to 230.31% in 2011. Reduction of the maximum debt level may be certainly related with the debt relief programme that dramatically reduced the debt burden in many African countries (see below). As a result, the leading positions in the "list of shame" in 2011 belong to the developed countries and generally, from eight "worst" countries four, or 50%, are the developed ones. This may imply that the indebtedness of the developed countries is growing up.

This tendency clearly appears in the difference in government debt distributions for the beginning and the end of the studied period for each group of countries (Figure 1). For the G9 countries, the number of countries with the debt higher than 60% doubled in 2011 in comparison with 2003. The South Korea is the only country in the group that has debt less than 60% of GDP. Median value of the debt increased from 63.29% to 84.29% but maximum debt - from 169.57% to 230.31% (Japan). It is remarkable that five out of the nine countries in G9 are the EU members. All of them have debt over 60% that exceed the level, established by the Maastricht criteria for newly accessed members.

Table 2

States with the largest debt/GDP ratio

2003		2011	
Country	%	Country	%
Democratic Republic of Congo	180.42	Portugal	108.35
Eritrea	192.03	Italy	120.80
Republic of Congo	204.37	Eritrea	133.02
Mauritania	216.42	Lebanon	137.53
Guinea-Bissau	252.54	Jamaica	141.64
São Tomé and Príncipe	307.05	St. Kitts and Nevis	153.58
Iraq	493.70	Greece	170.32
Liberia	931.66	Japan	230.31

Source: the World Bank data

For the leading world economies ("Debt Clock" countries) the situation is quite similar: the number of countries with high debt increases; although, not so dramatically, as in the case of the G9. Median value of the debt has increased from 60.88% to 75.39% (Table 3). Maximum debt in this group is one of

Japan, thus, it coincides with the G9 data. Besides, from the 20 countries six (Argentina, Brazil, India, Mexico, Russia, and Saudi Arabia) reduced their government debt. Saudi Arabia reduced its debt from 79.48% in 2013 to 5.40% in 2011, and now is in the list of the countries with the smallest debt (Table 1). The other 14 countries in the group are those of OECD, except China.

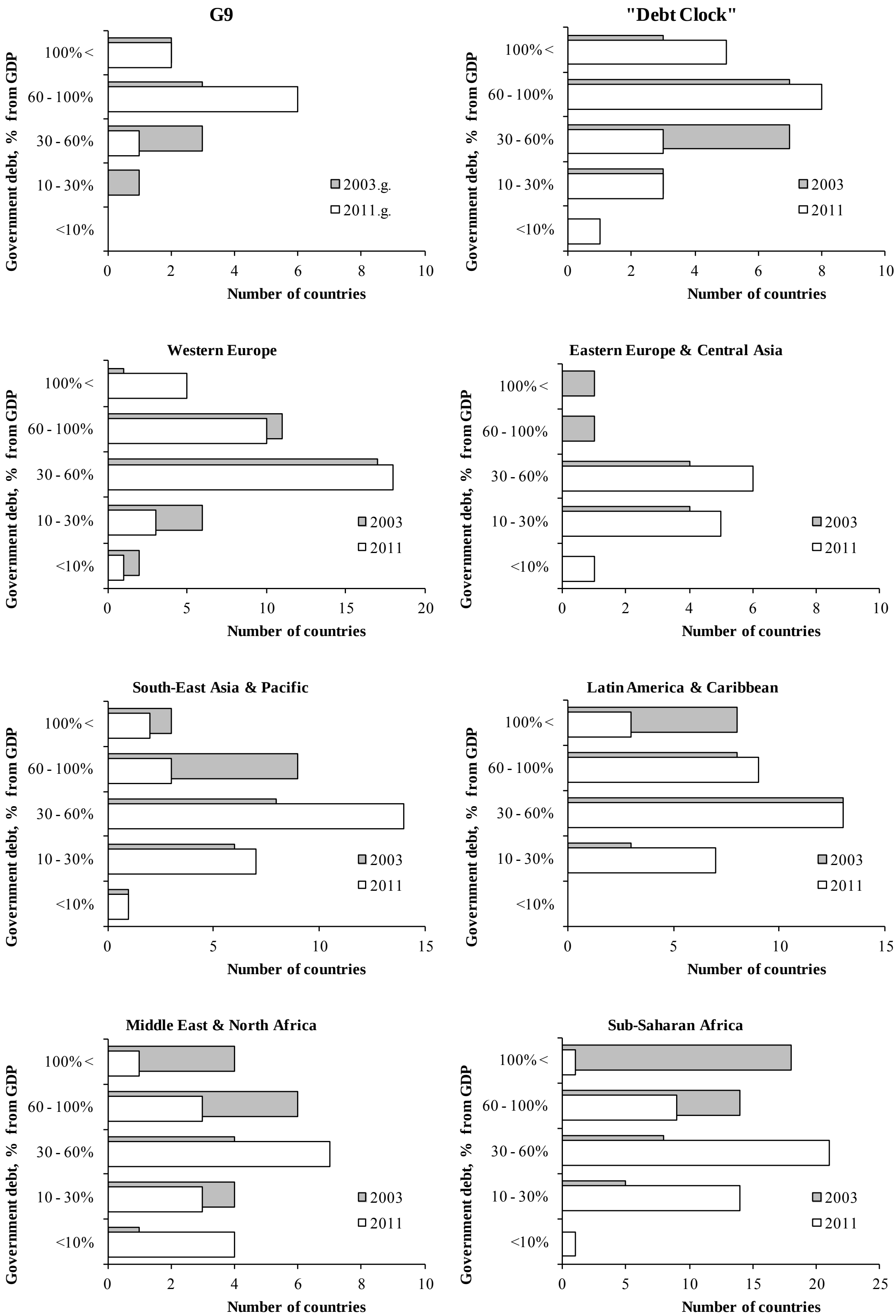
Table 3

Debt distribution statistics in the world regions (% of GDP)

Group of countries	Median debt		Maximum debt		Minimum debt	
	2003	2011	2003	2011	2003	2011
G9	63.29	84.29	169.57	230.31	21.62	34.23
"Debt Clock" countries	60.88	75.39	169.57	230.31	13.23	5.40
Western Europe	47.21	49.21	104.14	170.32	5.62	6.01
Eastern Europe and Central Asia	31.62	28.44	106.90	50.08	13.35	9.09
South and East Asia and Pacific	47.58	42.03	169.57	230.31	0	2.36
Middle East and North Africa	64.38	38.63	493.70	137.53	4.40	0
Sub – Saharan Africa	85.95	37.57	931.66	133.02	11.69	8.98
Latin America and Caribbean	59.90	44.37	155.17	153.58	12.64	11.14
Total in the world	59.02	43.79	931.66	230.31	0	0

Source: author's calculations based on the World Bank data

The same tendency exists for the Western Europe, too. Median value of the debt increased from 47.21% to 49.21%. Maximal debt has grown up from 104.14% (Italy) in 2003 to 170.32% (Greece) in 2011. The lower level of the debt in the group remains practically the same: 5.62% vs. 6.01% (Estonia). Seven out of 37 countries within the group reduced their indebtedness by more than 9%; from these countries, two were the EU members (Sweden and Bulgaria). For 20 countries, debt has increased by more than 9%. For ten countries, the debt altered slightly from small decrease (-1.29% for Albania) to moderate increase (+7.54% for Austria). Analysing the value of debt, one has to note that 14 out of 15 countries with debt level higher than 60% of GDP are the EU countries, form them only three - Malta, Cyprus and Hungary - have accessed to the EU after the year 2000, the others are the "old" EU States (integrated before the year 2000). From 22 countries with debt less than 60%, 14 are the EU Member States, from them only four - Sweden, Finland, Denmark, and Luxembourg are the "old" ones. The tendencies for the Western Europe, in general, correspond to those observed for the EU countries on the base of Eurostat (Government deficit and debt, 2013) data (Semjonova N., in press).



Source: author's construction based on the World Bank data

Fig.1. **Government debt distributions for different groups of the countries**

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In contrast, the situation in the rest of the world is more optimistic. All the other analysed regions demonstrate general decrease in the level of indebtedness. In the Eastern European and Central Asia region (CIS and bordering countries), median debt value decreased from 31.62% to 28.44%. Maximum debt in this group shrank twice from 106.90% to 50.08%. In Latin America and Caribbean region, a number of highly indebted countries decreased, correspondingly median value decreased, too; while maximal value of the debt in this group remains nearly the same. Similar moderate changes in median debt values were observed in the Middle East, North Africa, South and East Asia and Pacific. Significant decrement in maximum debt value in the Middle East is related to the reduction of extremely high Iraq's debt.

The most dramatic reduction of debt took place in the Sub-Saharan Africa region. The median value of the debt reduced more than twice. The maximum value of the debt dropped from 931% in 2003 (Eritrea) to 133.03% in 2011 (Eritrea). Such a decrease is undoubtedly related to the joint IMF and World Bank's HIPC initiative to "write – off" debts of the poorest countries. To date, the debt reduction packages under the HIPC Initiative have been approved for 36 countries, providing USD 75 billion in debt-service relief over time (Debt Relief Under..., 2013). From these 36 countries, 30 are from Sub-Saharan Africa region, the other six are Afghanistan and five Latin America and Caribbean region countries: Bolivia, Guyana, Haiti, Honduras, and Nicaragua. Nevertheless, the debt reduction in Latin America and Caribbean region could not be explained entirely by HIPC initiative: from the six region countries that reduced their debt from over 100% to less than 100% of GDP, only two (Guyana and Nicaragua) participated in the HIPC initiative.

The world as the whole demonstrates the tendency of debt decrease: both median and maximum value of the state debt reduced from 2003 to 2011. Besides, the debt of the most developed countries, the EU countries being among them, increases. This may indicate that the developed countries are more vulnerable to crisis ("more to lose"). On the contarry, this demonstrates that the government debt problem still has no appropriate solution in the developed world.

Correlation between the government debt and long-term growth

Correlations between the long-term growth indicator, defined by Equation (1) and the government debt at the beginning of the studied period are demonstrated in Figure 2. The analysis of the scattering diagrams does not show any visual correlation for all the groups, except those of the Western Europe where a slight negative correlation may be noticed, and the South and East Asia region, where, excluding Japan and China, one may observe a sound positive correlation. These findings are supported by evaluation of Pearson's correlation coefficients for each group (Table 4): only two of them are statistically significant at the level $\alpha = 0.05$.

The correlation coefficient for the Western Europe region was equal to −0.38 that corresponds to a weak negative correlation: the increment of the government debt tends to result in a smaller growth. This may indicate, for instance, that European countries do not invest the borrowed finances into the economic development.

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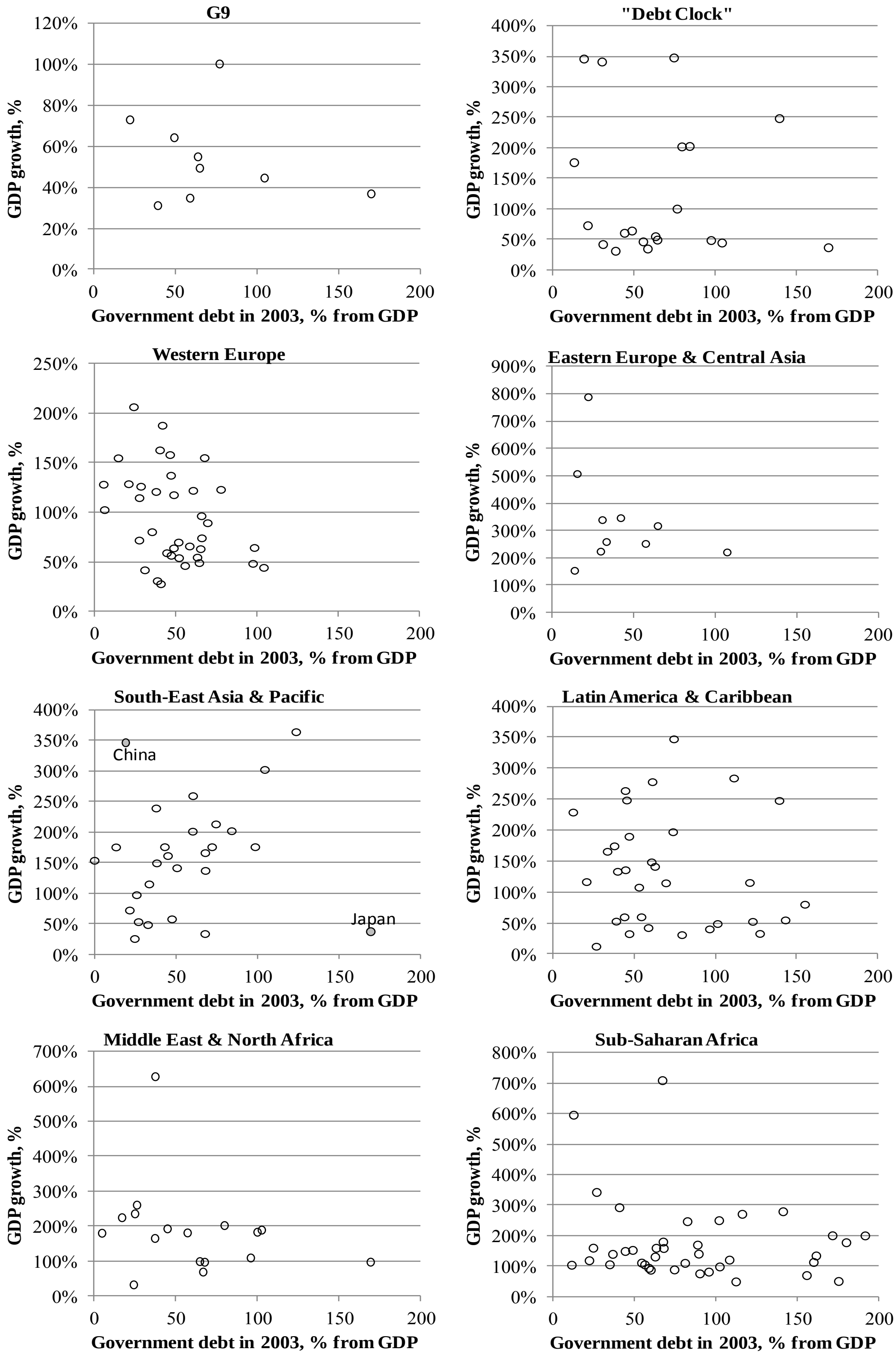

Source: author's construction based on the World Bank data

Fig.2. **Correlation between the government debt in 2003 and GDP growth for different groups of the countries**

On the contrary, the over-developed European economics have no room to grow, thus, the borrowing may be required to sustain the well-being at the level while government revenues do not grow much. In any case, the negative correlation between the growth in 2003–2011 and the value of debts in 2003 suggests that intensive borrowing does not help to recover after the crisis.

For South and East Asia, excluding over-developed Japan and unique by its human resource China, the moderate positive correlation (r=0.63) exists between the growth indicator and the government debt at the beginning of the period. This may indicate that the regions of the countries pursue a wise debt policy and invest the borrowed finances into their economic development.

The situation in the South and Eastern Asia looks even more optimistic, taking into account peculiarities of the Japan's government debt. Although this is the greatest debt in the world today, it is issued with low interest rate and, thus, does not require much service efforts. Alongside, the residents and big national banks hold 95% of the debt, and pension foundations are among them. Taking into account Japan's mentality and business – the state relation model, these debt holders will not claim their finances even in the case of severe crisis. Threfore, the volume of Japan's debt could not be used as a risk factor or region economy (Semjonova N., 2012).

For the rest of the world as well as for the world in total, there is no significant correlation between the government debt and economic growth (Figure 3a). In contrast to (Afonso A., Jalles J. T., 2013), for each group as well as for the whole world, there was no clear threshold observed for the negative impact of the initial level of the state' debt. This finding supports Ricardian point of view (Barro R.J., 1987).

Table 4

Correlation coefficients between the GDP growth and the value of the government debt

Group of countries	Correlation with debt in 2003	Correlation with debt in 2011
G9	-0.25 (*P* = 0.52)	-0.44 (*P* = 0.22)
"Debt Clock" countries	-0.12 (*P* = 0.62)	**-0.58 (*P* < 0.01)**
Western Europe	**-0.38 (*P* = 0.02)**	**-0.67 (*P* < 0.01)**
Eastern Europe and Central Asia	-0.33 (*P* = 0.35)	-0.50 (*P* = 0.09)
South and East Asia and Pacific	0.19 (*P* = 0.34)	-0.23 (*P* = 0.25)
Japan and China excluded	**0.63 (*P* < 0.01)**	
Middle East and North Africa	-0.27 (*P* = 0.28)	-0.19 (*P* = 0.47)
Sub – Saharan Africa	-0.03 (*P* = 0.87)	-0.27 (*P* = 0.07)
Latin America and Caribbean	-0.12 (*P* = 0.50)	**-0.48 (*P* < 0.01)**
Whole world	-0.02 (*P* =0.72)	**-0.39 (*P* < 0.01)**

Source: author's calculations based on the World Bank data

The analysis of correlations between the long-term growth indicator and the government debt after the growth period raises additional interest. There is a significant moderate negative correlation for the whole world, "Debt clock" group, the Western European and Latin America regions. This may imply that for these countries' borrowing is a reaction to the low growth rate that is used to keep up with the growing societal demands.

For the rest of the world, the correlation coefficients in groups are not significant (corresponding $P > 0.05$); although, they all are negative that is in accord with the whole world tendency.

The data in Figure 3b show some evidences that the countries which have got the debt less than 60%, had experienced higher growth in the previous period: 183% as compared with 94% in the group with the debt ≥ 60% of GDP. This difference, being evaluated by t-test, appeared highly significant ($P << 10^{-3}$). Although the value of this "threshold" is in favour of the previous findings (Checherita-Westphal C.,

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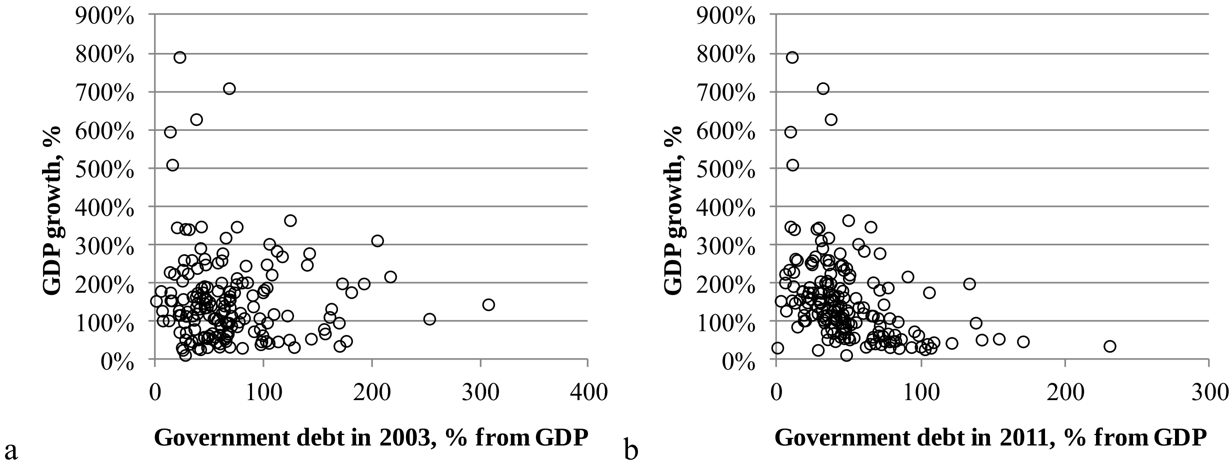
Rother Ph., 2012, Afonso A., Jalles J. T., 2013), it could not be concluded definitely from the analysed data, whether the low growth is caused by the high debt or, *vice versa*, the low growth provokes faster accumulation of the debt.



Source: author's construction based on the World Bank data

Fig.3. **Correlation between the debt and the GDP growth for the whole world**

This may imply that borrowing is a reaction to the low growth rate for these countries that is used to keep up with the growing societal demands.

Conclusions

1. There are tendencies of decrease at the level of government indebtedness all over the world; besides, the developed countries demonstrated opposite tendency and, generally, have increased their government debt.
2. On the world level, there is no correlation between the government debt and economic growth indicators at all, which supports Ricardian concept. For the Western European countries, higher debt levels are associated with slower growth. The South and Eastern Asia and Pacific region is the very ones where higher level of debt probably stimulates economic development. Therefore, the study of the government debt management policies of these countries is the issue of high interest.
3. The borrowing policy in the world seems to be a short-term response to the low GDP growth: the countries experienced low increment in GDP over particular period tend to have higher debt values at the end of the period.
4. The analysed data did not demonstrate the existence of any "safety threshold" of the debt level that is in contrast to the previously reported findings.

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THE EURO-ZONE CRISIS:
OVERVIEW AND IMPACTS ON THE AGRICULTURAL SECTOR

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Abstract. This paper presents a general overview of the ongoing euro-zone crisis. The authors have tried to show its impact on the agricultural sector from a European, particularly, Polish perspective. The authors have described selected macroeconomic indicators of the European Union economies affected by the crisis, and have identified the key economic drivers of the crisis in general and those of importance to agriculture. The authors further discuss the crisis in the context of the financial framework of the 2014-2020 Common Agricultural Policy because of its importance to agriculture in the European Union. The data from the European Commission and the European Central Bank are used in the paper. All the data are presented in a graphical form and are analysed with statistical description.

Key words: euro-zone crisis, Common Agricultural Policy (CAP), public debt, budget deficit, agricultural sector.
JEL code: H60, Q14

Introduction

The creation of the euro area was preceded by a nearly fifty-year period of deepening economic cooperation between the Western European countries. The initial goal of this process was to strengthen peace in the post-war Europe. Aside from the establishment of the common market, an important reason for European integration included the expansion of welfare programmes. A key contributor towards European integration and strengthening the Union internationally was the common currency in combination with a central monetary policy. Plans for the single currency already existed in the 1960s, though, they were only completed after the creation of the euro in 1999.

Almost ten years after the implementation of the single currency, the first signs of the crisis appeared. Starting with Greece, Ireland, Portugal, Spain, and later Italy, several euro-zone economies witnessed a downgrade of their sovereign debt rating, which led to fears about defaults and a dramatic rise in borrowing costs. This threatened other euro-zone economies and even the future of the common currency (Narodowy Bank Polski, 2013).

The tasks of the article are to:

- present a general overview of the euro-zone crisis;
- review economic factors contributing to the economic performance of the agricultural sector;
- analyse euro-zone troubles and links to agricultural conditions;
- discuss the financial framework of the 2014-2020 Common Agricultural Policy, as a crucial factor affecting the EU agricultural conditions.

The views expressed are based on recent and mostly American literature which may be more impartial than some EU sources regarding the EU crisis, because the issue directly touches the European Union.

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The data were obtained from the European Commission and the European Central Bank. All the data are presented in a graphical form and statistical description is used to analyse them.

Research results and discussion

1. General overview of the euro-zone crisis

According to the National Bank of Poland, the euro-zone crisis was caused by (Narodowy Bank Polski, 2013):

- large differences in development levels and economic structures of the euro-zone Member States;
- a minimal ability among some EU states to cope with economic shocks, linked with the lack of appropriate regulations and institutions, and low levels of competitiveness;
- a failure of the mechanisms that enforce responsible fiscal policies as well as a breakdown of market mechanisms;
- the lack of adequate supervision over the financial sector;
- the lack of crisis management mechanisms and financial support for the most vulnerable euro-zone countries.

The very difficult EU economic situation was caused by the existence of a combination of crises, not a single crisis. Shambaugh (2012) has identified:

- a banking crisis;
- a growth and competitiveness crisis;
- a sovereign debt crisis.

Kirkegaard has identified the occurrence of four crises which hit the EU economies (Van der Sluis and Parlinska, 2013):

- a crisis related with the design of euro area institutions;
- a sovereign debt crisis;
- a banking crisis initiated by real estate booms in Ireland and Spain;
- a balance of payments crisis, caused by competitiveness disparities and internal "asymmetric shocks" in the euro area.

These crises still affect the euro area, and dealing with any one of them in isolation would fall short of a comprehensive solution. Furthermore, while the complexity of the difficulties makes it extremely difficult to resolve the crisis, political aspects of the crisis in the euro-zone may be even more important than economic features in dealing with the crisis (Van der Sluis and Parlinska, 2013). The leaders of the EU nations are far from united on all policy directions pertaining to the euro and European people agree neither on the roots of the existing crisis nor on the path forward. The core EU nations tend to relate the euro area crisis to a lack of enforcement of rules, whereas the periphery countries see the crisis as a result of systematic flaws. While the core nations prescribe austerity measures to cure the EU's economic problems, the predominant view among the periphery countries is that austerity measures are counterproductive (Van der Sluis and Parlinska 2013).

2. Selected macroeconomic indicators of the EU economies and the United States

To gain a deeper understanding of the crisis, it is important to compare macroeconomic indicators of the countries most deeply affected by the crisis such as Spain and those of nations less affected by the crisis such as Germany, or Poland, which has its own currency.

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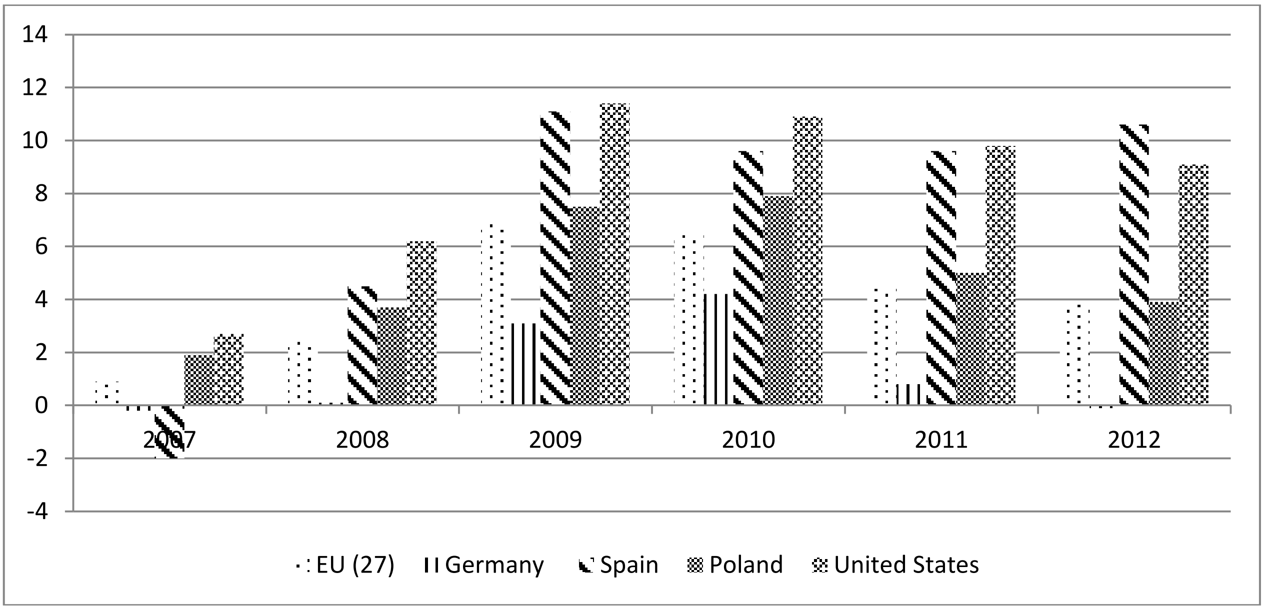
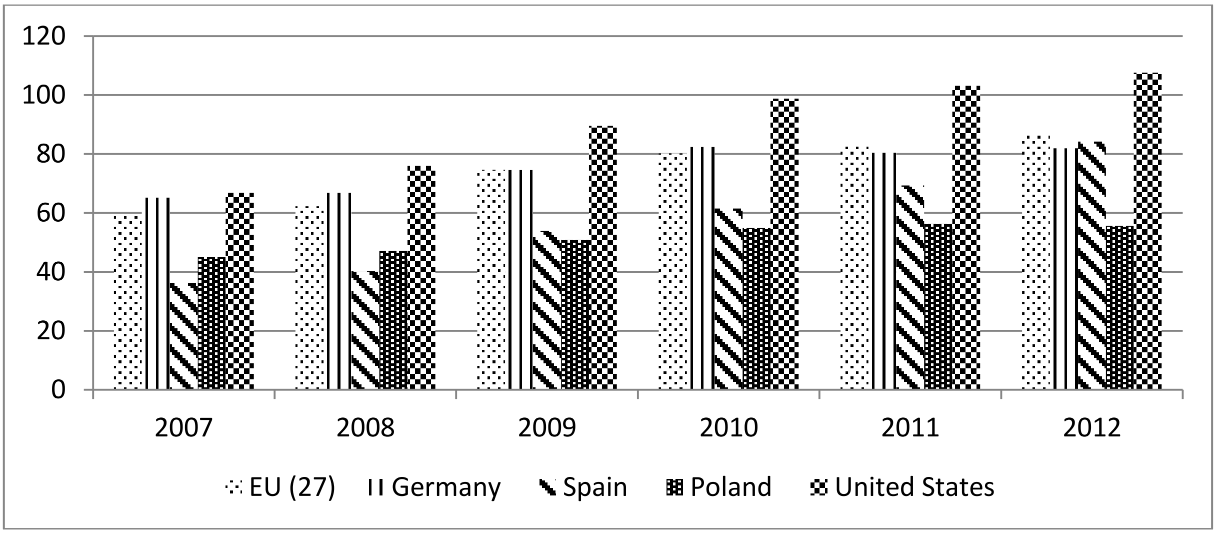
Figure 1 presents budget deficits of the selected countries. The figure shows that budget deficits peaked at the height of the crisis in 2009-2010, and since then have come down for this group of countries. However, the figure also shows that Spain's budget deficit underwent only a small decline since the crisis peak.



Source: authors' construction based on the European Commission data (AMECO database)

Fig.1. **General government deficits in selected EU countries and the USA (percentage of GDP) in the years 2007-2012**

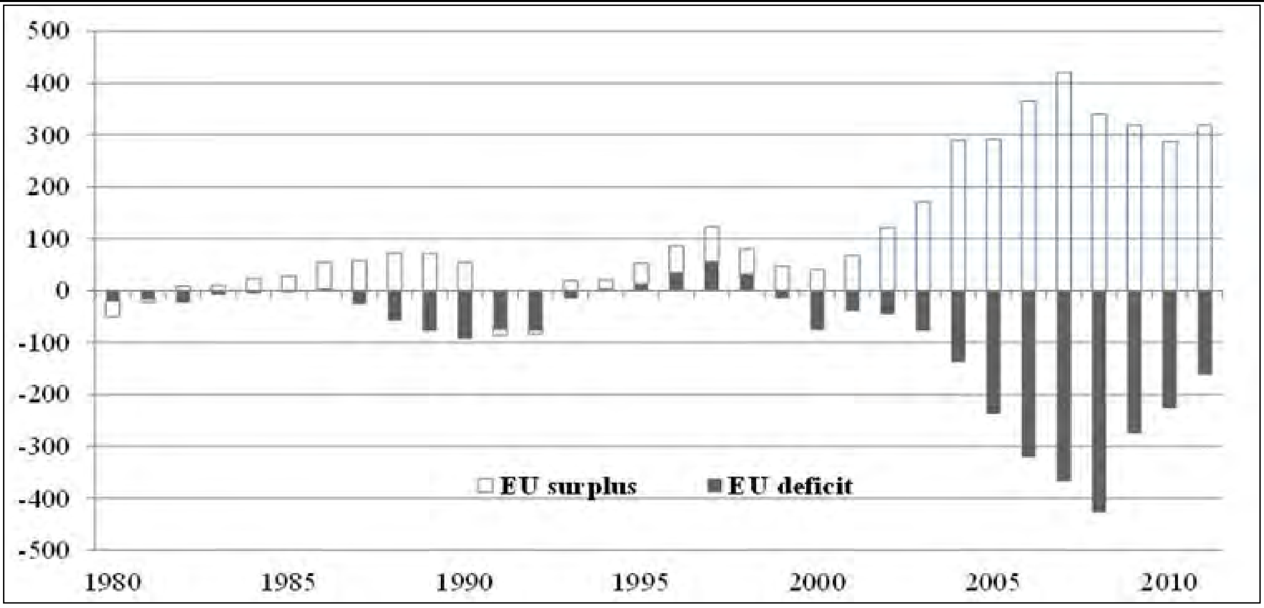
Figure 2 shows the public debt relative to GDP for the same group of countries as listed in Figure 1 over the 2007-2012 period. Overall, these nations experienced a public debt increase over this period.



Source: authors' construction based on the European Commission data (AMECO database)

Fig. 2. **Public debt in selected EU countries and the USA (as a percentage of GDP) in the years 20007-2012**

Figure 3 shows that within the EU, the combined surplus for nations with positive current accounts nearly completely offset the sum of current accounts for nations with deficits (in billion of current USA dollars) over the period between 1980 and 2010 with 5-year intervals.



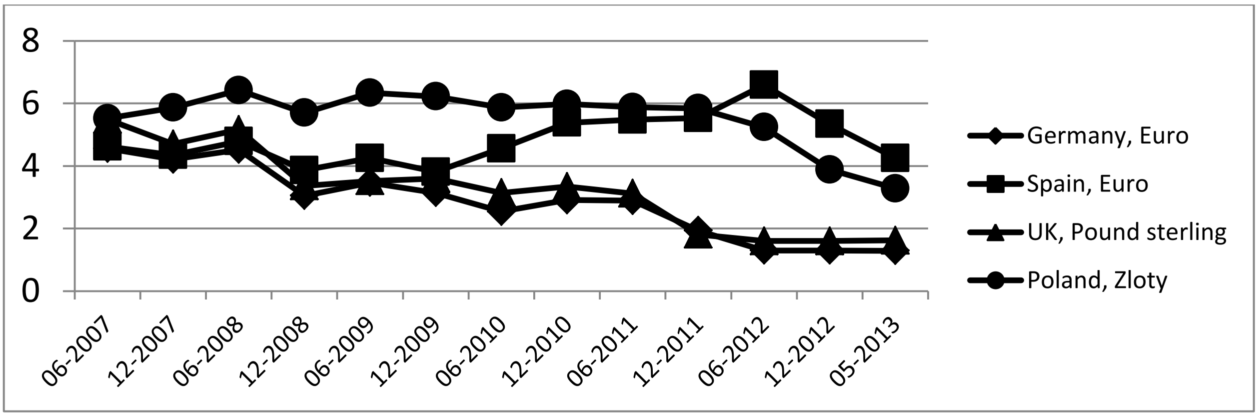
Source: Shane and Roe, 2013

Fig. 3**. European surplus countries offset deficit countries' current account imbalances (in billion of current US dollars) in the years 1980-2010**

The "Great Recession" started in the US and it continues to reverberate across the globe. It has exposed weaknesses in the global financial systems, particularly, in the EU. Some studies have looked at possible impacts of Europe's economic difficulties on agriculture in Europe, the USA, and elsewhere; and the authors of the current article previously reported on this topic in articles and conferences in Latvia (2011), the USA (2012), and Poland (2013).

Some economists (particularly, Americans) expressed scepticism about the common currency well before the beginning of the euro's existence (1999). The apprehension became more visible as some EU members failed to abide by the norms of the Growth and Stability Pact and differences between the nations remained strong (e.g. economically, culturally, and politically).

In spite of these concerns, the euro area was established (Jonung, L. and Drea, E., 2009). Figure 3 presents fast growth of current account imbalances in the European Union economies. There is a visible tendency from 1999. The peak of it was the year 2008 – time of the beginning of global economic crisis.



Source: authors' construction based on the European Central Bank data

Fig. 4. **Long-term interest rates in selected EU countries (in percent) in the years 2007-2013**

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Between 1999 and 2005, the interest rate dispersion between the euro-zone banks declined, and government bond yields converged. This contributed to a credit boom between 2003 and 2007, strongly supported by a decline in interest rates in euro-zone. However, the euro-zone interest rates diverged again by 2006, leading to a demarcation between weak and strong EU economies, with double-digit bond yields in peripheral EU economies.

3. Selected economic impacts of the euro-zone crisis on agriculture

The agricultural sector is a significant part of each EU economy, and indirectly may have been as much affected by the ongoing crisis in the euro-zone as the economy overall. Efforts to delineate the economic influence of the adverse economic conditions on agriculture require assessing factors of critical importance to conditions in the agricultural sector. In addition to economic factors, natural and climatic conditions greatly affect the quantity and quality of production. In particular, Parlinska and Wielechowski specify the following key economic factors determining agricultural conditions (Parlinska M., Wielechowski M., 2009):

- domestic and foreign economic growth rates, which influence the demand for agricultural products;
- exchange rates which determine the terms of trade of a given national economy;
- global oil prices, as a key determinant of production costs;
- the degree of openness of a nation's economy, which affects international trade in agricultural products;
- interest rates, as the main determinant for attracting foreign capital by farmers.

Petrick and Kloss (2013) have pointed out that the EU farmers may be hit by the crisis in at least three ways:

- the banking crisis may lead to a credit crunch for agricultural borrowers;
- the economic recession and the diminishing demand for income–elastic food products may cause a reduction in farm incomes;
- austerity policies may lead to spending cuts in the EU agricultural and rural policies.

Figure 5 shows the budget items of the Common Agricultural Policy over the period of 2014-2020 in comparison with the previous period between 2007 and 2013.

On 20 November 2013, the European Parliament approved four regulations related with the Common Agricultural Policy budget for 2014-2020. It was the last formal step in the European Parliament negotiation process on regulations to enforce the new financial perspective of the European Union.

The CAP reform tries to correct dimensions of operating mechanisms as well as directing it towards the new ecological dimensions. The aim was to strengthen European agricultural production potential and to preserve the qualities of the rural environment and rural communities in general.

According to the European Commission, "proposals for a reform of the CAP after 2013 aim to strengthen the competitiveness and the sustainability of agriculture and maintain its presence in all regions, in order to guarantee European citizens healthy and quality food production, to preserve the environment and to help develop rural areas" (Impact Assessment for CAP towards 2020, 2013).

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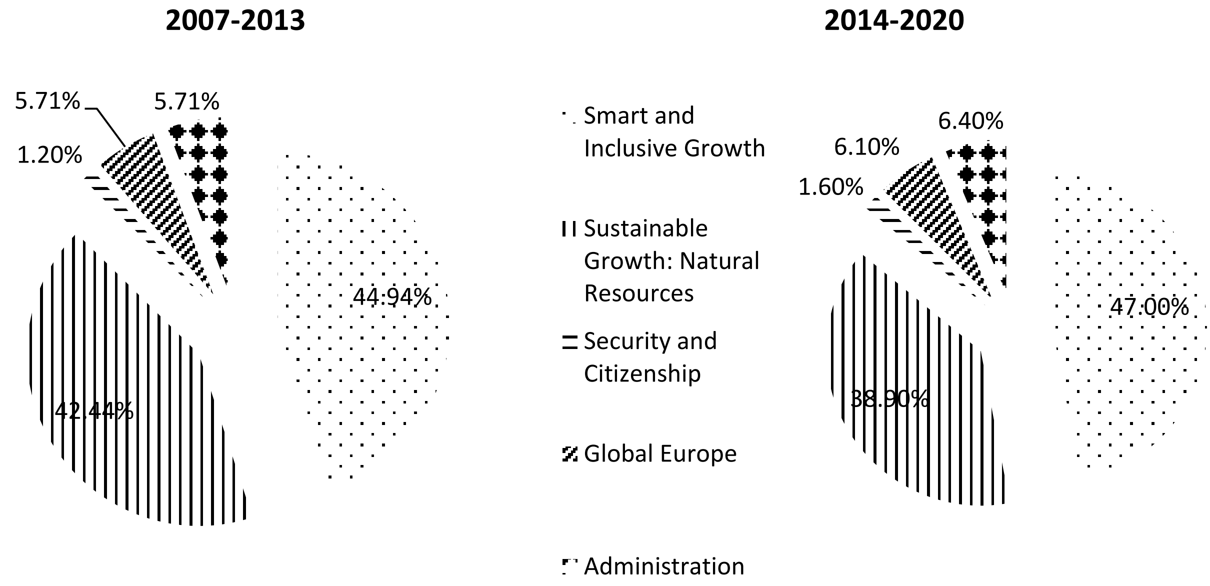
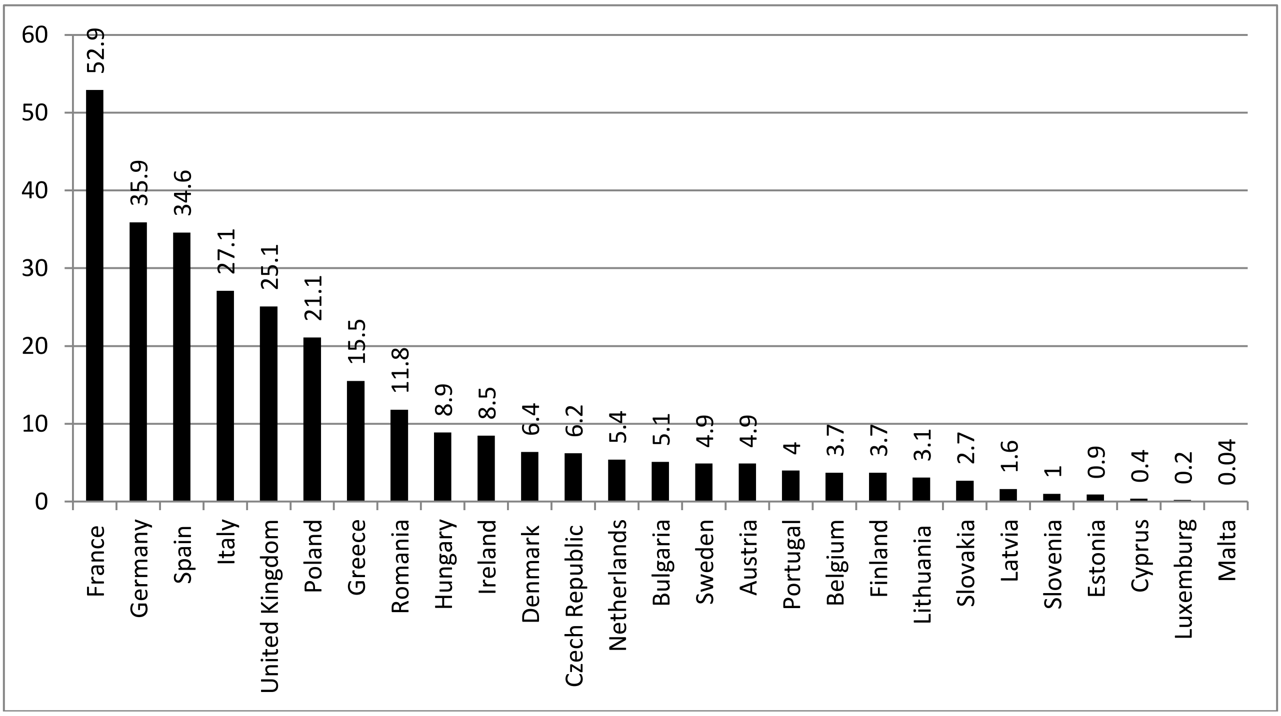


Source: authors' construction based on the European Commission data

Fig. 5. **The EU budget: multiannual financial framework – 2007-2013 vs. 2014-2020**

The European Commission's proposal for "Agriculture 2020" seeks to reduce and redistribute farm payments. Convergence of agricultural support among the Member States is critically dependent on the EU budget. The proposed distribution is expected to be beneficial for a country such as Poland.



Source: authors' construction based on the European Commission data

Fig. 6. **Estimated direct payment allocation (Pillar I), 2014-2020 (in billion EUR, current prices)**

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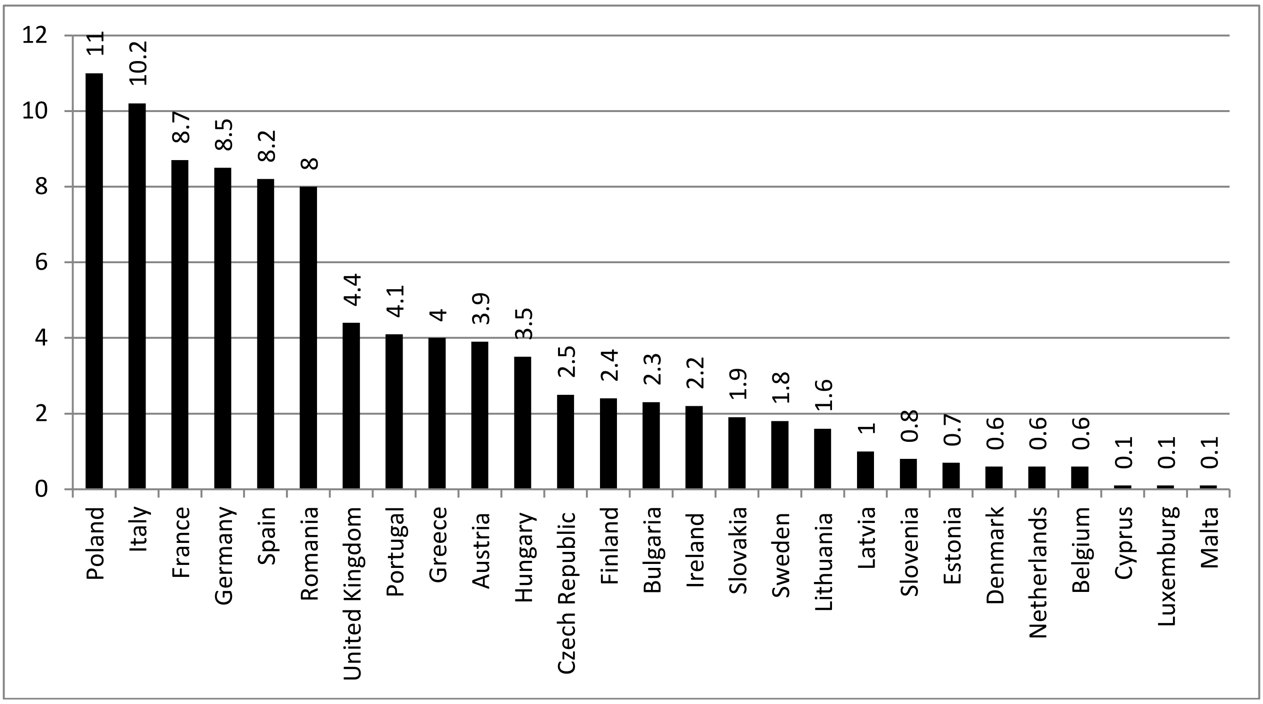
The European Commission's proposal for "Agriculture 2020" seeks to reduce and redistribute farm payments. Convergence of agricultural support among the Member States is critically dependent on the EU budget. The proposed distribution is expected to be beneficial for a country such as Poland.

Figure 6 shows the estimated direct payment allocation (Pillar I) for the 2014-2020 period (in billion EUR, current prices) and Figure 7 shows the estimated Pillar II fund allocation for the period 2014-2020 (in billion EUR, current prices).



Source: authors' construction based on the European Commission data

Fig. 7. **Estimated Pillar II fund allocation, 2014-2020 (in billion EUR, current prices)**

Poland remains the largest beneficiary of Pillar II of CAP and European cohesion funds within the EU-28 and sixth largest beneficiary of Pillar I direct payments allocation (after France, Germany, Spain, Italy, and Great Britain). The biggest three beneficiaries of the CAP in 2014-2020 perspective are France (about EUR 60 billion), Germany (close to EUR 45 billion), and Spain (more than EUR 43 billion).

Conclusions

The autumn of 2008 marked the beginning of a period of economic turmoil for many parts of the world and for the United States and the European Union in particular. Preliminary studies indicate that while the agricultural sector in the US and the EU performed reasonably well relative to many other sectors, individual sub-sectors of agriculture fared less well. Due to the close trade and financial links with the EU, the USA remains exposed to risks associated with the ongoing crisis. Broadening euro-zone membership to Poland and other nations has started to receive less enthusiasm and more realism in those countries, thus, the overall view appears to be first to deal with current difficulties before signing on to euro-zone membership. The ongoing euro-zone crisis affects agriculture through a number of pathways, including a decline in credit access, a drop in aggregate demand as a direct result of the crisis, and changes in export demand for agricultural products associated with exchange rate dynamics.

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ROLE OF REPAYABLE SOURCES OF FINANCING THE MUNICIPALITIES' EXPENDITURE IN POLAND

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Warsaw University of Live Sciences

Abstract. The article presents the role of external financing, the municipalities' expenditure, and the differences between the types of local communities in Poland. In addition, the basic theoretical and legal aspects regulating public finance in Poland was described in the study. The analysed period covers the years 2005-2012 due to availability of data. The analysis showed that during the period the municipalities' expenditure increased by 58%. Especially high increase was observed in 2010. The shares of the investment expenditure in total expenditure were at about 20% for 2005-2009 but they rose noticeably in 2010. All types of municipalities use credits, loans, and municipal bonds for financing expenditure. The municipalities' debt rose quickly but the payments of interest were not a problem in the examined years and took less than 1.78% of budget incomes.

Kay words: municipalities, credit, repayable revenues, debt, expenditure.

JEL code: E6

Introduction

The problem of a very high level of budget deficit and public debt in Poland and in the European countries has drawn the attention of societies to the dilemma of financing public expenditures at different levels – at the state level and local level.

The aim of this paper is to examine the role of repayable revenues in financing the communities' expenditure and their differences among the types of municipalities in Poland.

The following problems are examined: types of the external financing sources and their role in financing the communities' expenditure; the differences of repayable revenues among the types of municipalities; the size and consequences of indebtedness of the types of municipalities; and the communities' debt as a part of public debt.

The analysis carried out in the paper covers the period of 2005-2012. The information and data about the analysed issues are taken from the applicable Polish legislation, the Ministry of Finance and the Central Statistical Office. The data used illustrate the examined problems, show the scale of changes, their tendency and differences between the types of municipalities.

The descriptive and comparative methods were used in the research paper as well as the simple statistical method in order to analyse the problem from the economic point of view.

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Local communities are the object of the analysis. In Poland, the basic unit in territorial division of the country since 1998 is a local community – municipality called "gmina". Depending of their statutes, municipalities are divided into rural, urban, or urban-rural gminas. Among the 2 479 municipalities, 306 are urban municipalities, 597 are urban-rural municipalities, and 1 576 are rural municipalities (The List..., 2010).

Research results and discussion

The current shape of Polish public administration was created due to the decentralisation reforms initiated in 1990 which continued until 1998 when the Seym of the Republic of Poland enacted them in the legislature package. In effect, three-level territorial division of the country was introduced and some steps were taken that led to a new separation of power and responsibilities between the government and self-government administration and to changes in the public finance system based on increasing the share of the territorial self-government in the entire public spending. Municipalities as the basic unit of local government received the broadest catalogue of responsibilities related with public transport, social services, housing, environment, culture, pre-school and primary education, and other issues (Parlinska, A. 2010).

The activity of local governments generates costs. The revenues of different kinds, which can be divided into incoming revenues and repayable revenues, cover them. In Poland, the law on local governments' revenue states that the incoming revenues include the following types of sources: own source revenues; shares in the revenues from central taxes; general subsidies; and grants and others from foreign sources and the European Union budget. Within the own source revenues, it is possible to point out local taxes, fees for services, and revenues from selling or renting local governments' property. Own sources' revenues determine the financial independence and investment opportunities of the community.

Municipalities also possess shares in revenues from the central income taxes, both personal and corporate, collected in the local territory. The most important are the shares in personal income because municipalities have the largest share in this tax. During the analysed period, municipalities' shares in PIT showed an upward trend and increased from 35.41% to 39.34%, while the municipalities' share of CIT remained unchanged at 6.71%.

General subsidies and grants provide complementary revenue and allow municipalities to finance their own and contracted tasks. General subsidies are transferred from the state budget for supplementing own revenue which are used to finance municipalities' tasks among which the most important are educational tasks. Municipalities can receive grants from the state budget or appropriated funds for the government administration-related tasks, own tasks, the tasks implemented on the basis of agreements with bodies of the government administration, or other tasks on the basis of local government agreements.

Repayable revenues are necessary in the case when the planned expenditures are higher than planned incoming revenues. They can come form credits and loans or from issuing of municipal bonds. In Poland, the law on public finances states that local governments can use repayable revenues to cover the budget deficit or the repayment of debt (Parlinska A., 2012).

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Repayable revenues can help sort out the problem of the budget deficit but at the same time, they create the problem of debt. It has to be pointed out that the budget deficit and debt of local governments are subject to limitations imposed by the law on public finances. Maximal level of local governments' debt is determined at 60% of incoming revenues; whereas, interests and instalments cannot be higher than 15% of incoming revenues. Above limits are in force until the end of 2013.

At the same time, the level of public debt imposes limitations on the local government deficit. The total public debt (government and local government) cannot exceed 60% of GDP (Owsiak S., 2013).

The budget deficits influence the budgets of sub-sectors of the public sector and they change over the time. Generally, the causes of the local governments' deficit are similar to deficits of the state governments. There are many reasons for budget deficit, among which the following reasons connected with incomes and/or expenditures of local governments can be pointed out:

- recessionary fall in incomes in the economy;
- government policy can influence the income level of local governments, for example, tax cuts or impose a need to pay additional funds like wage hikes for some professional groups on local governments;
- the wars or cataclysms can undercut the budget incomes and increase the budget expenditure;
- increasing the range of tasks without ensuring their implementation by adequate financial resources;
- taking credits and loans by local governments decreases the scope of expenditure for their basic activities because of costs connected with taking credits and loans;
- and other (Danilowska A., 2011; Owsiak S., 2013).

During the period of 2005-2012, all municipalities' incoming revenues and expenditure were rising and the rate of dynamics was changing from year to year (Table 1). In the four examined years (2006, 2008, 2009, and 2010), the dynamics of expenditure was higher than that of incomes. Especially big difference in these dynamics was observed in 2009 and 2010. In 2005 and 2007, the expenditure rose slower than incomes. However, from 2011, it was possible to observe a slowdown in the dynamics of incoming revenues and downward trend in the dynamics of expenditure. The dynamics reflected the economic growth that took place in Poland and the problem of financial crisis which affected local finances as well. Consequently, in most of the mentioned years, the budget results of all municipalities were negative, while in 2007, it was positive. Only rural municipalities had closed the three analysed years (2005, 2007, and 2012) with the budget surplus. An extraordinary high budget deficit occurred in 2010 in all the types of municipalities. The relation of the budget results with the incoming revenues was at a low level in 2005-2008; however, this indicator rose sharply from 2009 because of an increase in expenditures.

The share of municipalities' incoming revenues in total local governments' revenues and municipalities' expenditure in total local governments' expenditure were on the similar levels. Until 2009, the mentioned indicators were characterised by a decreasing trend and amounted from 44.5 to 41.9 for incoming revenues and form 44.2 to 41.7 for expenditure. Rural municipalities achieved significant shares of the revenue and expenditure. Almost a half of the municipalities' share was performed by this type of municipalities.

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Table 1

The level and dynamics of municipalities' incoming revenues, expenditure and budget results in Poland in the years 2005-2012

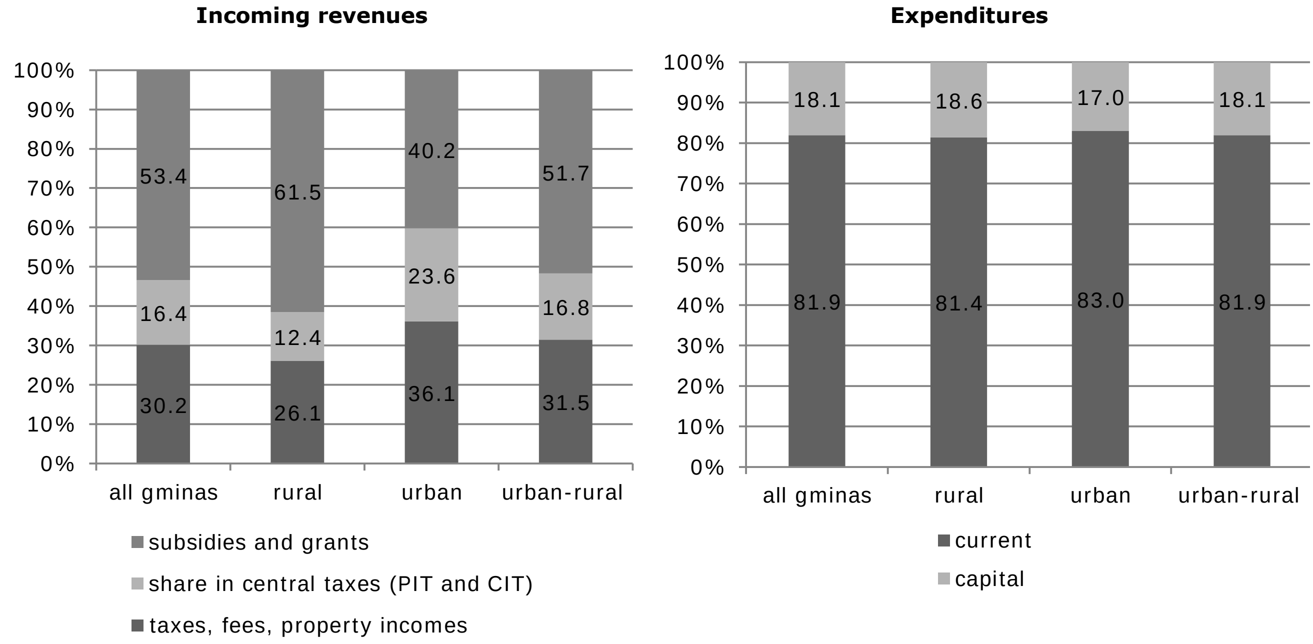
Year	Incoming revenues	Incoming revenues' dynamics	Municipalities' incoming revenues/ all local governments' incomes	Expenditure	Expenditure dynamics	Municipalities' expenditure/ total local governments' expenditure	Budget result	Budget result/ incoming revenue
	PLN million	(previous year = 100)	%	PLN million	(previous year = 100)	%	PLN million	%
2005	45813.2	-	44.5	45837.5	-	44.2	-24.3	-0.1
2006	51724.3	112.9	44.2	53179.6	116.0	44.3	-1455.4	-2.8
2007	57003.1	110.2	43.4	56074.1	105.4	43.4	929.0	1.6
2008	62317.8	109.3	43.7	62892.7	112.2	43.3	-574.9	-0.9
2009	64882.1	104.1	41.9	70002.6	111.3	41.7	-5120.5	-7.9
2010	72310.5	111.4	44.4	79740.6	113.9	44.9	-7430.1	-10.3
2011	75830.7	104.9	44.3	79686.9	99.9	43.9	-3856.2	-5.1
2012	78407.5	103.4	44.2	78491.4	98.5	43.5	-83.9	-0.1

Source: author's calculations based on the Information on Exercise Budgets of Local Government Units in the years 2005-2012

The structure of municipalities' incoming revenues and expenditures in all communities and municipalities by their type is presented in Figure 1. During the examined period, the subsidies and grants were the main sources of all municipalities' incomes. In 2012, their share was about 53.4%. The main part of the subsidies was assigned for financing the system of education. In the case of grants, the main part of them was given for social aid. However, the structure of municipalities' income varies greatly depending on the type of municipality. The greatest dependence on supplementary income was observed in rural municipalities. At the same time, urban municipalities have the greatest financial independence. The share of taxes, fees, and property incomes in the central taxes of those municipalities accounted for more than 50%.

Taxes, fees, and property incomes constituted about 1/3 of the revenues of all municipalities and they decreased during the researched period. The share of this income group varies according to the type of municipality. The largest share was observed in urban municipalities (36% in 2012). The immovable property tax was the most important source among local taxes' revenues in all types of municipalities.

The local governments are eligible for participation in the state budget incomes through personal and corporate income tax. Until 2008, the shares of personal and corporate income tax in municipalities' budgets were rising due to the economic prosperity. However, it decreased from 2009 mainly because of the reform of income tax system and partly due to the fall in the rate of economic growth. Urban municipalities constituted a significant share in central taxes.



Source: author's calculations based on the Information on Exercise Budgets of Local Government Units in the years 2005-2012

Fig.1. **The structure of municipalities' incoming revenues and expenditures, %, in 2012 by types of municipalities in Poland**

The structures of expenditures in all communities and by the types of the municipalities do not present significant differences. In all the types of municipalities, current expenditures represented a significant part of the expenses (more than 81%). From 2008, an increase in capital expenditure was observed and their highest share was recorded in 2010. The above trends were mainly caused by the growth in investment which could be connected with a massive infrastructural investment.

During the past twenty years, great progress has been achieved in the infrastructural development of Poland. However, the investments are still required in this area. A well-developed infrastructure has high importance for the quality of life of inhabitants, and it is a prerequisite for enterprises to start and perform economic activity. The infrastructural investments are costly and the problem of financing them arises. It is almost impossible to create a modern infrastructure relying only on current incomes. Before Poland joined the European Union, the grants financed from the loan granted to Poland by the World Bank and the pre-accession help from the EU under the SAPARD scheme played a significant role in building the infrastructure in local governments. Poland's accession to the EU has opened the possibilities to broaden the scope of financial help for infrastructural development. The subsidies have some positive aspects. They do not only help carry out investment but they also often strongly influence decisions about undertaking infrastructural investments. Local governments are under a constant pressure of inhabitants to improve the infrastructure. Inhabitants know about the vast range of help and expect the local governments to use it (Danilowska A., 2011; Parlinska A., 2012).

The subsidies became valuable, though the own municipalities' financial resources were necessary, too. Because of the above-mentioned fact, many municipalities decided to use repayable resources from credits, loans, and municipal bonds (Table 2). They used credits and loans every year but the differences were significant from year to year. The dynamics for all municipalities ranged from 78.7% in 2007 to nearly 170.7% in 2009. During the examined period, the highest share and dynamics of credits and loans was observed in rural municipalities. Although, the dominant form of financing investment activity is credits and loans, an increasing popularity of municipal bonds was observed among all the types of municipalities. However, their values were greatly lower than were those of credits and loans. The greatest popularity of municipal bonds was recorded among urban municipalities. In the analysed period, the share of credits for investments co-financed by the EU funds in the total value of credits was noticeable and correlated with the duration of EU's financial perspectives (2004-2006 and 2007-2013). Almost unused remained the opportunity to issue the bonds for financing investments co-financed from the EU funds.

Table 2

The level and structure of municipalities' repayable revenues in Poland in the years 2005-2012

Year	Credits and loans	Credits and loans for investments co-financed from the EU funds/credits and loans	Dynamics of credits and loans	Municipal bonds issue revenues	Bond revenues for investments co-financed from the EU funds/bond issue value	Dynamics of repayable revenues	Repayment of credits and loans / new taken credits and loans	Redemption of municipal bonds / revenue from municipal bond issue
	PLN million	%	(previous year = 100)	PLN million	%	(previous year = 100)	%	%
2005	2949.2	19.1		248.8	3.0	-	78.0	46.2
2006	3919.0	27.8	132.9	392.1	6.0	134.8	64.3	33.4
2007	3082.8	18.9	78.7	274.3	10.1	77.9	86.6	54.7
2008	3252.7	9.5	105.5	433.1	1.8	109.8	75.3	37.8
2009	5552.0	10.0	170.7	960.7	6.1	176.7	43.1	20.4
2010	8934.6	19.4	160.9	1560.2	12.4	161.1	34.1	15.4
2011	7363.2	21.2	82.4	1182.4	11.4	81.4	57.9	31.7
2012	4825.9	20.5	65.5	901.6	9.8	67.0	101.1	53.6

Source: author's calculations based on the Information on Exercise Budgets of Local Government Units in the years 2005-2012

Repayable sources of financing drew the necessity of repayment. During the examined years, a distinct part of "new" credits was used for repayment of "old" credits in all the types of municipalities. During the periods of 2005-2008 and 2011-2012, more than 55% of new credits and loans were devoted for repayment of old credit commitments. During 2009-2010, this relation was lover than 44% due to the increase in the value of new credits and loans.

The role of repayable revenues in financing municipalities' expenditure is presented in Table 3. The relation of credits and loans to investment expenditure was relatively stable and it can be said that they covered some percent of expenditure in all types of municipalities. The role of credits and loans for financing investments when taking into consideration the repayment of "old credits" differs from year to year; and in some years, it was distinctive, in some – low.

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Table 3

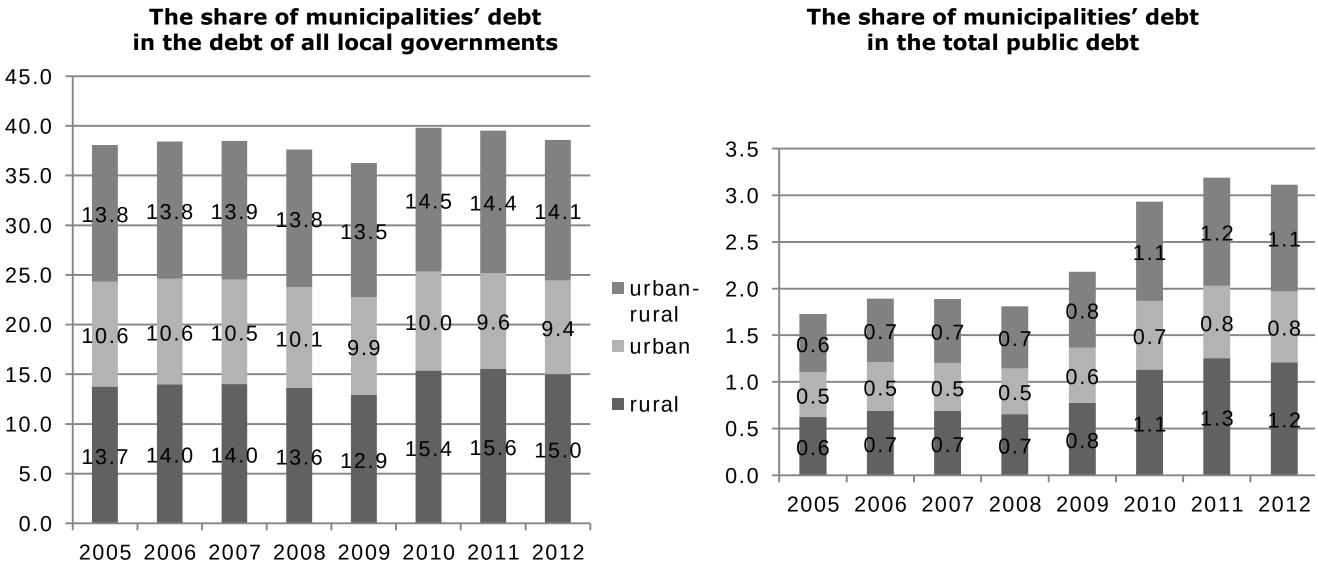
The role of repayable revenues in financing municipalities' expenditure in Poland in the years 2005-2012

Year	Credits and loans/total expenditure	Credits and loans/investment expenditure	Bond issue value/ expenditure	Net credits and loans*/investment expenditure	Net municipal bond revenues**/investment expenditure
	%				
2005	6.4	35.9	0.54	7.9	1.63
2006	7.4	36.7	0.74	13.1	2.44
2007	5.5	29.7	0.49	4.0	1.20
2008	5.2	25.9	0.69	6.4	2.15
2009	7.9	35.2	1.37	20.0	4.85
2010	11.2	45.4	1.96	29.9	6.70
2011	9.2	41.1	1.48	17.3	4.51
2012	6.1	34.8	1.15	-0.4	3.02

* taken credits and loans minus repaid credits and loans; ** revenue from bond issue minus bonds' redemption

Source: author's calculations based on the Information on Exercise Budgets of Local Government Units in the years 2005-2012

The relation of municipal bonds to expenditure varied from 0.49% in 2007 to 1.96% in 2010. The role of bonds in financing the investment evaluated by the relation of their net value to investment expenditure was very small (especially in rural municipalities). However, in all types of municipalities, the relations rose quickly which is a positive signal for the future.



Source: author's calculations based on the Information on Exercise Budgets of Local Government Units in the years 2005-2012

Fig. 2. **The share of municipalities' debt in the total public debt and in the debt of all local governments, %, 2005-2012 by types of the municipalities in Poland**

The use of repayable revenues creates a problem of debt. During the examined period, the debt was rising gradually and the rate of its dynamics differed from year to year (Table 4). Especially high dynamics was observed from 2010 due to the aforementioned higher dynamics of expenditure. This, in turn, was due to the massive investment dynamics compared with income dynamics. The relative level of debt was low in the examined period. The relation of debt to incomes was lower than 34.3% and was far from the maximal level of 60%.

During the analysed years, the share of municipalities' debt in the debt of all local governments was lower than 40%, in the total public debt it amounted to 1.7-3.2% (Figure 2). The rural and urban-rural municipalities' debts had a significant influence on the municipalities' indebtedness and their shares in the total public debt as well as in the debt of all local governments.

Table 4

The characteristics of rural municipalities' debt in Poland in the years 2005-2012

Year	Debt dynamics	Debt / incomes	Municipalities' debt/local governments' debt	Municipalities' debt/public debt	Long term debt/total debt	Debt due to credits and loans/total debt	Bank debt/ /total debt
	(previous year = 100)	%					
2005		17.6	38.1	1.7	92.8	86.9	53.7
2006	118.8	18.5	38.4	1.9	93.6	86.3	58.6
2007	103.9	17.5	38.5	1.9	95.1	85.8	62.8
2008	108.7	17.4	37.6	1.8	98.0	88.2	71.6
2009	135.0	22.5	36.3	2.2	98.4	88.4	78.3
2010	150.1	30.3	39.8	2.9	97.4	97.0	83.0
2011	118.5	34.3	39.5	3.2	97.8	98.4	84.6
2012	100.7	33.4	38.6	3.1	98.4	98.6	86.8

Source: author's calculations based on the Information on Exercise Budgets of Local Government Units in the years 2005-2012

The data presented in Table 4 allow characterising the structure of municipalities' debt. The long-term character of debt indicates a great investment activity. Credits and loans were the main element of debt and were taken mainly from banks. Local governments are creditworthy clients and banks appreciate them as clients. The share of securities (mainly municipal bonds) in the municipalities debt was very low, while it was rising quickly during the examined period.

Conclusions

Both the theory of public finance and the results of the analysis indicate the following findings.

- Municipalities' expenditures increased very quickly during 2005-2012. They rose by about 58.4% during these seven years. It was possible because of a very good prosperity in the economy and because of using the repayable revenues as well external financial support.

- Owing to Poland's membership in the European Union, the local governments received access to the EU financial support for their investment. All types of municipalities have tried to take advantage of the chance they were offered.
- It is possible to observe the trend of increasing municipalities' debt in the analysed period. The main reason of this tendency was from the increased investment activity, especially in urban and rural municipalities. The indebtedness of all types of municipalities can be expected to increase because the needs and expectations of local societies are still high and the EU support will be continued (however, its scope can change).
- Credits, loans, and bonds have mainly financed investment due to the long-term character of the debt deduction. However, in all types of municipalities, credits and loans were the main element of debt and were taken mainly from banks. The role of municipal bonds in financing the expenditure of municipalities was much lower than that of credits and loans.
- The service of debts amounted to less than 1.78% of budget expenditure. This suggests that the debt service was not a problem for municipalities but it can change in the future with the growth of debt and rise in interest rates.
- The share of municipalities' debt in the total public debt was lower than 3.2%, so any restructuring or reduction in municipalities' debt will not improve the situation of public finances noticeably. The rural and urban-rural municipalities' debts had a significant influence on the municipalities' indebtedness and their shares in both the total public debt and the debt of all local governments.

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CORPORATE TAX POLICY REFORM ISSUES IN LATVIA: LESSONS LEARNED AND FURTHER CONSIDERATIONS

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Abstract. Taxation policy is one of the main instruments which can affect some national economy sectors and ensure development of any territory by special provisions in tax laws. The current Latvian tax policy is mainly based on the continuation of the tax policy followed since the tax reform of 1995, generally the system goal was to ensure capital inflow and capital market activities, with the aim to increase foreign direct investment and promote the development of the national economy. Research of the current status of taxation policy and quality of the state budget revenue sources enabled to suggest some short run solutions. Proposals on the Introduction of special R&D tax regime, including intellectual property income (royalty) regime and Introduction of special tax-free reserves for investments are offered as main result of the paper. Research is based on traditional economic science methods, including comparative analysis and practical experience of tax policy implementation. Implementation of prepared recommendations gives a premise to ensure competitiveness of Latvian tax system.

Key words: corporate tax policy, R&D tax regime, corporate tax reform developments.

JEL code: H20, H25, O11

Introduction

The most popular and most investigated type of tax seems to be corporate income tax. As J.M.Mintz (1995) argued "the corporation tax is arguably the well-studied tax found throughout the world. Countless numbers of professionals study the impact of corporate tax law on the affairs of the corporation. Yet, despite considerable resources that are expended on compliance, the tax in many countries raises only a small portion of revenue for governments. Despite transparency arguments, that taxes should be imposed on consumption or on incomes of natural entities, different states continue to tax corporate profits. Generally, the corporate tax is a benefit tax to ensure that corporations pay for public goods and services that improve their profits, also the corporate tax captures the rents earned by owners of fixed factors, and serves as additional tax element for taxation of individuals (IFS, 2011). All developed countries and most developing countries operate a form of corporate income tax. While corporate tax rates have fallen over the last quarter-century, the sharp fall in revenues from corporate income taxes in 2008 and 2009 did not continue in 2010, yet, the share of these taxes in total revenues remains at 9%, somewhat below its 11% share in 2007, and fully corresponds with 8.8% of total tax revenues in 1965. The aim of research is to explore Latvian corporate income tax system and to evaluate the possible proposals for the improvement of Latvian tax system. The tasks of the research were set to achieve the aim of the paper – to analyse the corporate tax reform developments, and to evaluate the impact on taxpayers and efficiency of the tax system. Research is based on traditional economic science methods, including comparative analysis of literature and practical experience of tax policy implementation. Although, the global economic crisis has posed hard questions, it also offers an opportunity to accelerate structural tax reforms and restart the discussion on the design of corporate

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taxation beyond short-term policy responses. Therefore, the authors finally outline proposals for reforming the corporate taxation.

1. Corporate Tax policy

Corporate tax reform seems to be one of crucial topics for future tax reforms. One of the reasons is the relationship between tax policy and financial crisis. The International Monetary Fund (IMF) (2009) has argued that the global financial crisis was exacerbated (though not caused) by tax policies which fuelled the credit boom that preceded the economic downturn. Also, as shown in Fiscal studies (Keen M., Klemm A. and Perry V., 2010), the complexities of national tax codes, and the international interaction between them, have, moreover, encouraged the use of complicated financial instruments and international tax planning, reducing transparency. Tax distortions did not cause the crisis – in the sense that there are no obvious tax changes likely to have triggered it – but they may well have contributed by leading to higher leverage and more complexity than would otherwise have been the case. Recently researchers have also examined the relationship between corporate taxation and the companies' performance. The authors could mention as an example, analysis of the impact of the global economic and financial crisis on the effective tax burden of companies, and evaluation of the short-term measures, introduced by the German government, to support economic activity (Spengel C., Zinn B., 2012). The second reason is the necessity to improve aggregate supply and economic performance, especially for open economies. As an example in tax reform monograph (Claus I., Gemmell N., Harding M., White D., 2010) the eminent contributors (including Altshuler, Creedy, Freebairn, Gravelle, Heady, Kalb, Sørensen, and Zodrow) investigate the beneficial directions for the medium-term tax reform in the light of global developments and lessons from the latest taxation research. In addressing this issue, they review the impact of taxes on the economic performance, also international and corporate taxation. Previous studies (Heinemann F., Overesch M., Rincke J., 2010 a) done in the field of corporate taxation, also allow concluding that, despite different determinants of corporate tax rates, the behaviour of governments in setting tax rates is often best described as a discrete choice decision problem. According to the empirical model (Heinemann F., Overesch M., Rincke J., 2010b), the government's decision is related with the issue whether to cut its corporate tax rate to the country's own inherited tax and taxes in the neighbouring countries. Government position on corporate tax regime and implemented tax incentives generally will correspond with the tax burden imposed on corporate income relative to geographical neighbours and the probability of rate-cutting tax reforms is strongly affected by general trends in the neighbouring countries. Some authors argue that FDI location choices depend on an effective average tax rate and propose a precise measure of this rate (Devereux M. P., Griffith R., 2003). However, the analysis of reforms in the area of CIT reforms reveals that, while FDI represents an important variable in triggering CIT cuts, its directionality does not confirm the competitive diffusion theory (Todor A., 2013). Research results (Crabbé K., 2013) confirm the existence of tax interdependence within the Western Europe, and show that strategic interactions among the Eastern European countries are less common. The specific aspects of corporate tax reform seem to be the issue of taxation of distributed profit, instead of gross profit. The consequences of the corporate tax reform in Estonia in 2000 are investigated in the paper by Masso J., et.al. (2013). This unique reform maintained corporate income tax only on distributed profits and according to the investigation the outcome of the reform by comparing the performance of the affected firms in Estonia with that of firms from Latvia and Lithuania shows an increase in holdings of liquid assets and lower use of debt financing after the reform. A positive relationship of the reform with post-reform investment and productivity has also been found. However, the results point to a stronger effect on smaller firms. Latvian corporate tax policy and corporate tax tools have also been discussed in Latvian scientific monographs, devoted to general tax policy issues (Skapars R., et al., 2010), or detailed analysis on the corporate income tax and taxes for agricultural enterprises, and recommendations for their improvement (Vitola I., Leibus I., Joma D., Jakusonoka I., 2012).

Corporate tax policy shows corporate tax rate decrease and revenue share stability paradox. While average statutory corporate tax rate in the EU-15 has dropped from slightly below 50% in the 1980s to less than 24% in 2012 and also effective average tax rates (EATR) show a decrease from 1998, the share of corporate tax revenues in GDP percentage terms remains stable (European Commission, 2013b). One of the factors of decline in corporate tax rates is "race-to-the-bottom", i.e. a process in which competing governments successively undercut each other's tax rates in order to attract mobile investments, and thus, broaden a tax base. Such approach is eroding corporate tax revenues and imposes threat to public finances. Additional explanation on corporate income tax share in revenues is related with the broadening of the corporate tax base that has occurred, in parallel, to the lowering of tax rates. Finding that changes to the corporate tax rate are often coupled with changes to the corporate tax base, the authors re-estimate the relationship between the corporate tax rate and corporate tax revenues, taking into account changes to the corporate tax base. Corporate tax rates no longer have a statistically significant relationship with corporate tax revenues. According to the research, similar to Kawano (2012), the authors do find evidence that tax policies that broaden the tax base are associated with increases in corporate tax revenues. However, it is difficult to link particular corporate tax base changes to changes in tax revenue, perhaps in part because the short-term revenue response of increased investment is generally negative. Future, more accurate research should endeavour to estimate these mechanisms. As shown in Vitola (2008), in Latvia, the current tax policy is mainly based on the continuation of the tax policy followed since the tax reform of 1995. The recent developments in the tax system have been mainly targeted at abolishing discriminatory and restrictive provisions by extending the relevant exemptions. Essential opportunity to increase revenues from capital taxes is provided by differentiation of corporate income tax and revision of corporate tax base. According to the legal acts that are in force in the EU, the Member States are not subject to any restrictions regarding corporate income tax. The EU Member States are competent to apply different tax rates for different taxpayers, of course, taking into account the EU Code of Conduct, in the field of business taxation (Jakusonoka I., 2013). In the field of corporate income taxation, Latvian approach seems to be simple and close to classical corporate taxation system – low statutory tax rate of 15%, at the same time, tax exemption on dividends distributed to the companies and 10% tax on dividends distributed to the individual shareholders.

As shown in Feith, 2013, the three Baltic States offer different types of companies and partnerships. Companies are subject to corporate income tax with the rates between 15% and 21%. Non-distributed profits of companies are not taxed at all in Estonia. In Latvia, partnerships are treated similar to Austria, whereas, in Estonia and Lithuania, they are taxed in the same way as companies. Latvia and Lithuania offer favourable tax rates between 5% and 9% to small companies (Feith P., Majak-Knobl M., 2013.). As shown in Snucins I. 2013, the law "On Corporate Income Tax" contains 23 tax reliefs, thus, considerably decreasing an effective corporate income tax rate below 9%.

Table 1

Development in tax burden and implicit tax rates in Latvia

	1995	2000	2005	2006	2007	2008	2009	2010	2011
Total tax burden in percentage of GDP	33.1	29.7	29.2	30.6	30.6	29.2	26.6	27.2	27.6
Consumption	19.5	18.4	19.9	19.8	19.6	17.4	16.9	16.9	17.2
Labour employed	39.2	36.7	33.2	33.1	31.0	28.4	29.2	33.1	32.0
Capital	19.9	12.3	10.6	11.9	15.0	17.7	10.2	7.9	9.9
Capital and business income	10.0	6.9	7.4	8.9	10.8	14.0	6.6	3.9	5.5
Corporations	55.6	9.0	9.9	11.3	13.1	18.5	8.1	4.7	6.3

Source: European Commission, 2013b

Since 2013, improved holding regime has been introduced in corporate income tax providing tax exemption from corporate income tax in combination with exemption of capital gains for company shares and abolishment of withholding tax for dividends paid to non-residents. The low tax rate is combined with the profit-loss statement adjustments for the tax purposes. Introduction of the loss-carry-forward regime for an indefinite period of time in combination with "super deduction" method are chosen as the main measures for stimulation of investments, when the initial cost of industrial asset is multiplied by a coefficient (1.5 coefficient for the taxation years of 2013-2020). From taxpayers' point of view, the approach is simple, though, at the same time, the real amount of incentive is related with the statutory rate. However, investments in manufacturing have been increasing since the end of 2010. As stated by the Ministry of Economics, the dynamics of the investing process, to a great extent, will depend on access to financial resources, increase of the total demand and implementation of the state support measures in fostering entrepreneurship (Ministry of Economics of the Republic of Latvia, 2013). Comparing statistics on profits of companies, paid dividends and economic growth, it seems that, in the service sectors of economy, profits distributed growth was higher than the economic growth, so the favourable tax regime stimulated dividend payments. One of the tax policy problems is income shifting from the personal income tax base to corporate income tax base, because of employment related tax burden. At the same time, increase of real investments in manufacturing branches seems to be based on the available EU funds and instrument financing. As the main item of tax incentives is loss carry forward and group of companies loss compensation incentives, tax incentives do not provide significant support for profit as the investment financing source, tax system does not segregate small businesses from the large ones, manufacturing and other activities with high value added from the low ones and profit distributed from re-invested profits. According to the comparative analysis, the best results for taxpayers could be obtained by creation of tax-free reserves similar with tax relief on acquisition of buses used for passenger traffic abolished by amendments to the law "On Corporate Income Tax" of 15 December 2011. Tax exempt reserves create cognate regime to Estonian exemption on non-distributed profit. At the same time, reduction of the taxpayer's taxable profit for the multiplication of the annual weighted interest rate and undistributed profit of pre-taxation periods should be abolished, as targeting the same non-distributed profits and containing tax reduction on "deemed" expenditures.

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2. Taxation measures and further development possibilities

From the national economy growth stimulation point, the main task for revision of corporate tax policy should be the introduction of investment favourable tax regime. The main idea should be the combination of investment tax credit in the stage of accumulation of re-investable profit and the main straight line depreciation method according to effective life time of assets. From the innovation stimulation point, the main task is to maintain the R&D costs regime as it is – the R&D costs can be written in the appropriate taxation year, when occurred. In addition, the declining balance method is offered for the R&D assets. However, due to the accounting standards and deferred corporate income tax provisions on the difference between tax depreciation and financial accounting depreciation, the declining balance method seems to be burdensome for profit accumulation but suitable for the current corporate tax payment reduction. At the same time, the special tax relief for reserves for research activities can be introduced for profit accumulation. Generally, tax deductions and tax credit method are used for the needs of indirect government policies, in the field of incentives for investments and innovations. As shown in Atkinson (2007), one of the valuable government tools is the tax credit for research and engineering activities. The rationale for using a tax-based subsidy to stimulate R&D is the fact that this mechanism provides a market-oriented response, by leaving the decision of the composition of a company's R&D portfolio up to corporate decision makers. A large majority of the Member States apply tax incentives to stimulate private research and development investment. The major trend in recent years was to simplify R&D schemes and widen them, e.g. to cover innovation activities. Also, the authors can agree with Aralica (2013) that it is important to evaluate such tax incentives for research and innovation regularly to ensure that they are cost-effective and achieve their intended objectives. Investment in innovative activities and necessity of innovation encouragements are, also, a crucial problem for Latvia. In the field of corporate income tax, E.Zelgalvis, A.Joppe, and I.Sproge (2010) proposed to restore the tax credit to small enterprises that introduced innovations in their entrepreneurship and raised investments, and to enterprises that produced high technology and software products, and to award the tax credit to enterprises that worked with new technologies that were in the process of implementation and had created new jobs. However, the net effect of tax credit for the nominal rate of 15% on company's taxable income seems to be too small in order to achieve the policy goal of significantly increasing industry's R&D. For the tax year 2014, additional incentives for research and development are provided by amendments to the law "On Corporate Income Tax". Taxable income of corporate taxpayers should be decreased by high school and college revenues in the form of payment for the provision of training in vocational secondary education, vocational education, and higher education programmes, including the objectives listed in the state budget allocated (including transfers to the state budget), revenues from research and studies, and on R&D expenditure amount, multiplied by the increasing coefficient of 3. It is most important that such a tax incentive would increase all applied R&D to some extent, leaving targeted long-term, high-risk R&D support to direct funding programmes, where leakages to research already supported by industry can be kept to a minimum. The analysis shows that, if not enough investment funds are flowing into R&D, tax incentives (in the most efficient form) are required. Despite the investment incentives and exemption of royalties paid to the non-residents from the Latvian companies, the revenues from domestically created intellectual property objects will be subject to ordinary corporate income tax, thus, encouraging intellectual property import but not the export. Taking

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into consideration recently introduced Cyprus and Malta intellectual property regime, the authors recommend introducing, also, incentives on in-bound royalties and limitations on out-bound royalties. For example, by applying Cyprus's corporate tax rate of 12.5%, the maximum rate of tax on income earned from royalties is 2.5%. This is half the rate offered by the next most attractive scheme (the Netherlands). However, given the deductibility of expenses including amortisation, most Cyprus companies will suffer an actual rate of less than 2.5% (Neocleous E., Aristotelous P., 2013). Similar to Cyprus tax regime, four-fifths of the profit, earned from the use of intangible assets, should be deducted for tax purposes. Therefore, only 20% of income after deduction of the costs of earning the income (including amortisation), is taken into account. Taking into consideration that any dividend income generated out of royalty income earned by the Latvian company and paid to its non-resident shareholders, is fully exempt from the tax, it could create generous tax incentive for research and intellectual property activities.

Another significant issue is the use of corporate income tax policy for regional development. According to Pule's estimation (2013), inclusion of corporate income tax into the local government budgets would be a sustainable, efficient, and economy developing solution. It would allow municipalities to influence the formation of the tax base effectively, administer, and support it successfully. For fiscal autonomy needs, the authors suggest the introduction of the multilevel taxation of corporate income. In the European Union, corporate income is not only taxed through corporate tax but in some Member States, also through surcharges or additional taxes levied on tax bases that are similar to CIT. In Luxembourg, corporate income is subject to CIT, increased by a surcharge for the employment fund, and a municipal business tax. The employment fund surcharge has been increased from 5% to 7%. Moreover, Hungary increased sector-specific taxes by introducing new surtaxes on the utilities sectors and in Portugal, the 5% surcharge has been extended to profits above EUR 7.5 million.

The third main issue is broadening the tax base. According to the Ministry of Finance, in 2010-2012, the corporate income tax incentives were granted to the extent of around 86% of total income tax revenues. Most tax systems contain various exemptions, allowances, reduced rates, and other specific regimes, known as tax expenditures. These tax expenditures are not always justified, and they can be inefficient in achieving their intended policy objectives, often, because, they are not well targeted. This is in particular, the case with VAT exemptions and reduced rates where studies illustrate the welfare gains that could be achieved from base broadening. Overall, the broadening of the tax base and the simplification of the tax system could not only lead to more revenues but also make paying taxes easier for citizens and businesses, and managing them simpler for administrations. Removing inefficient tax expenditures could also offer an opportunity to lower the statutory rates, and thus, enhance the growth-friendliness of the tax system. Evaluation of the effectiveness of tax incentives is needed, ensuring that the benefits in short-term and long-term have no negative fiscal impact on the government revenue.

Conclusions, proposals, recommendations

Conclusions

1. A proportional and low CIT rate of 15% is set in Latvia compared with other EU Member States. In the EU Member States, the CIT rates are different, and usually are within the range of 12.5% - 33.9%.
2. In 2010-2012, corporate income tax incentives were granted to the extent of around 86% of total income tax revenues.

3. Special tax incentives for research and development activities were introduced in 2013.
4. Corporate income tax has not always served to the interests of regional development, since the tax rate is applied to the taxable income of all enterprises irrespective of the regional location and their ability to pay it.

Recommendations

1. Introduction of a special R&D tax regime, including intellectual property income (royalty) regime.
2. Introduction of special tax-free reserves for investments.
3. Creation of a multilevel corporate income tax for economic and regional development support.
4. Revision of tax incentives in the field of corporate income tax is necessary.

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REGULATORY FRAMEWORK FOR OPERATION OF LATVIAN TAX AND CUSTOMS EXPERTS AND OPPORTUNITIES FOR EDUCATION

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Abstract. In the field of customs and taxation, a well-functioning national system of taxation and customs, is not possible without specialists of the private sector. Specifics, of how tax and customs system functions, are attributed to the nature of interaction of the public and private sector, thus, linking national authorities and other stakeholders in concerted action. One of the most important aspects of education should be coordination of knowledge and qualification between the tax and customs experts, tax consultants and customs clearance agents and brokers, working in the public and private sector. The aim of the paper is to promote discussion on professional operational aspects of tax and customs clients and consultants as well as the role of the education system in these matters. The research is based on comparative analysis of literature and practical experience of custom education institutions. The main results of the paper include the development of the generalised approach for satisfaction of training needs for joint tax and customs administration and offering the proposals on the improvement of training system.

Key words: customs and tax area professions, knowledge intensive business services, interdisciplinary approach.

JEL code: H11; H53; I23; L88

Introduction

Specifics, of how tax and customs system functions, are attributed to the nature of interaction of the public and private sector, thus, linking national authorities and other stakeholders in concerted action. One of the most important aspects of education should be coordination of knowledge and qualification between the tax and customs experts, tax consultants and customs clearance agents and brokers, working in the public and private sector. By their nature, taking into account the specifics, i.e. administration and implementation of the tax laws and customs regulations and procedures, knowledge is the key resource in the field of taxation and customs.

Since the main tax and customs administration functional components are data processing and information technologies, the area of consulting expertise classically integrates into the knowledge economy. In the field of customs and taxation, a well-functioning national system of taxation and customs is not possible without specialists of the private sector. One of the main reasons for this is that the majority of taxpayers are not familiar with sufficiently difficult and complex laws and regulatory framework of these issues. The advisers can help the taxpayers tackle tax compliance issues and competently represent them in tax and customs administration. According to the State Revenue Service data, at the beginning of 2012, in Latvia, there were 1,305 taxpayers (of which 1,077 are legal entities

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and 288 individuals) who in line with the requirements of the Law on the Prevention of Money Laundering and Terrorism Financing have submitted a report to the State Revenue Service, indicating their activity, which is tax advising (Zena-Zemane, D., 2013). One of the most significant biases in training not only in Latvia but also in the world is the coordination of professional training and career development of tax and customs experts, namely, the employees, working in the public sector, and the consultants and tax and customs brokers, working in the private sector. On the one hand, the private sector representatives, advising taxpayers on the legal obligations, serve the public interests, which, in turn, would promote the public interest in ensuring the quality of consultants' work. On the other hand, the role of private sector is different from tax and customs administration roles, taking into account that their primary loyalty is the taxpayer, i.e. their customer, not the state. Therefore, an important task in the legal framework for both tax advisors and customs brokers as well as for their professional performance is to ensure the balance between loyalty to the state fiscal interests and loyalty to their clients. Legal framework and education play a major role in protecting customers from unscrupulous and incompetent employees, like in other fields of consumer protection. In addition, cross-training increases the matching of employer requirements regarding employee qualification as it promotes the compliance of professional training to labour market needs.

The aim of the paper is to promote discussion on professional operational aspects of tax and customs clients and consultants as well as the role of the education system in these matters. Main tasks of the paper are to define customs and tax administration related professions and after investigation on existing education models to provide unified approach to professional training system. Empirical methods of analysis as well as the results of interviews with the industry representatives are applied in the research.

Description of customs and tax client representative branch

A number of publications are devoted to consultancy services, considering the tax advice as one of the types of knowledge-based services. The community being a part of the modern labour market realises that not only paying taxes is in their own interest but also cooperation with the state institutions which collect taxes, should be mutually productive. Therefore, entrepreneurs are not only interested that their employees are adequately trained but also appreciate the possibility of providing high-quality services that help them optimise their tax payable. From the 1990s, researching the field of consultancies, scientists started to use such term as "knowledge intensive business services", without focusing on individual aspects of knowledge. This applies, for example, to Wood et al. (Wood, P., 2002) who performed the service business research, indicating that "the distribution of such services, offering skills and techniques which clients have never developed in-house, has acquired its own dynamic, dependent on the location of other business services as much as other sectors. The 1980s saw an emerging need not just for "information-rich" but for "expertise-rich" environments (Gadrey, J., Gallouj, F., editors, 2002)". The analysis of knowledge intensive business services is made by Gallouj F. Knowledge intensive business services: processors of knowledge and producers of innovation (Djellal, F., Gallou, F., 2013).

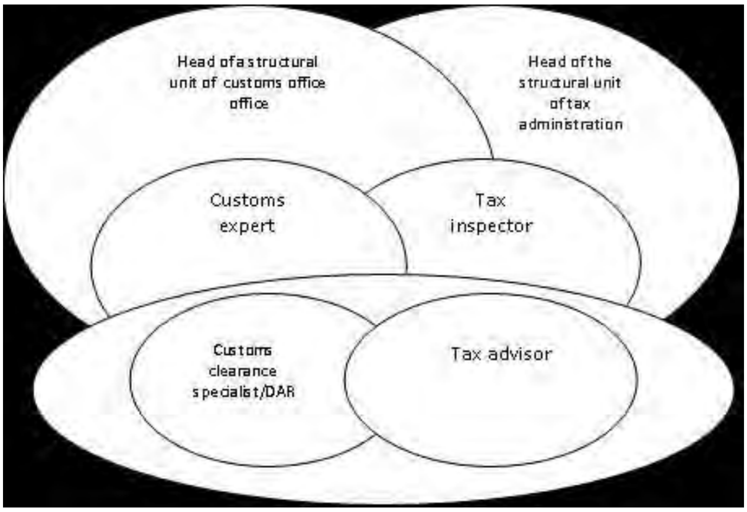
Essential publications include regulation of tax professionals by V.Thuronyi and F.Vanistendael and the book by M. Alink and V. van Kommer, which places significant emphasis on the role of tax intermediaries in tax administration and quality tax advisory role for the successful fulfilment of tax liabilities. Client representation of customs and tax administration is also important, while in different countries there are different approaches to regulation of consultants, differences in the qualifications of professionals and their activities. The significance of tax representatives cannot be viewed in isolation from the national regulatory systems, and cultural and economic relations. Taking into consideration the practical importance of the tax system regardless of the type of regulation, the authors should emphasise the need to maintain the demand and supply balance of this specific service to provide the fulfilment of the requirements of ethical and quality standards as well as resolving the conflict of loyalty that manifests in the form of dichotomy between the public interest to increase tax revenue and apply the tax laws in the most advantageous fiscal form and the private interest to reduce the tax liabilities to individuals and ensure the application of the tax laws with the lowest tax burden. From the point of view of regulations, the professional services relating with taxation may be provided through professional knowledge of accountants, lawyers and specialised tax consultants. In France, tax consultancy is a part of the legal profession, while, in Germany and Austria, there is a long-established professional tax advisor organisation. The law provides tax advice monopoly and prohibits unauthorised services (Thurony, V., Vanistendael. F., 1996b). In Italy, the Netherlands, Spain, and the UK, tax advisory services are deregulated, and tax advisors are known as accountants, consultants, attorneys and authorised representatives. Taking into account the decentralisation of state administration and the need to delegate some of the powers of the tax authorities to non-governmental sector, the representation and consultancy issues are becoming, to a great extent, the focus of public administration researchers. In addition, the matter of professionalism is worth a separate discussion. The concept of "professionalism" is often used in studying consulting (Groß, C., 2003), and the consultants themselves often use the term "professional services", denoting their services, as opposed to "amateur" services. From the scientific point of view, the term "professional" is also used through different economic approaches. A definition of professionalism which is often used in the context of consulting is a simple one and reflects mainly the functionalistic approach: A „…body of scientific knowledge, acquired through long formal education, autonomy, ethical rules, a distinct occupational culture and client orientation; it should be socially sanctioned and authorised (Alvesson, M., Johansson, A.W., 2002). From the educational point of view, the consultants will never stop their professional development process (Groß, C., Kieser, A., 2006).

According to Latvia's legislation, professional activity shall be any independent provision of professional services outside of lawful employment relations as well as scientific and literary activity, and the activity of a lecturer, actor, producer, doctor, sworn advocate, sworn auditor, sworn land surveyor, sworn assessor, artist, composer, musician, consultant, engineer, sworn bailiff, accountant, or architect (Law On Personal Income Tax, Section 11, Part 1.2). In the scientific literature (Petersone, M., 1998) and in laws and regulations, the concept of profession is generally defined in different ways, in essence meaning the same. Profession is a type of job requiring long and intensive preparation, specialised education, training, or skills and work experience; it determines the nature and goals of the job function (e.g. doctor, actor, teacher etc.) (Petersone, M., 2001). The Classification of Occupations, designed on the basis of the International Standard Classification of Occupations (ISCO - 08) (ISCO-08 Structure and Preliminary Correspondence with ISCO-88), is a systematised list of occupations (trades, professions, specialties) to ensure labour force records and provides the comparison of jobs in accordance with the international occupational standards. The authors' point of view is that this could serve as evidence that nowadays, it is difficult to draw a marked border between the terms profession, trade, occupation, or even the official status. A narrower field of the respective field form a subspeciality or professional specialisation but the field that is common to two or more specialities – a complementary speciality (Law "On Regulated Professions and Recognition of Professional Qualifications"). In its development, the profession of customs officer has undergone serious changes and from a purely fiscal one has become a profession whose mission is to protect the public safety and care for the country's economic interests. Public security challenges require the practical application of knowledge in physics, chemistry, history etc., which is associated with the core functions of customs. The profession itself is divided into levels of skills taking into account educators' point of view, or positions from the employer's point of view. Historically, the mission of the collector of taxes and duties ("tax administrator") has remained unchanged – to collect revenue for the state. This profession requires not only extensive knowledge in finance, accounting, taxation but also in any industry where taxes are levied. The need for clarification of the regulated professions is strengthened by the fact that the contract of employment shall include the trade, profession, speciality of the employee in conformity with the Classification of Occupations and the general description of the contracted work. However, in Latvia, basic requirements for tax consultants are not defined and, the regulatory framework of their professional activities is not presented either, despite the fact that tax consultants are among those taxpayers who should comply with the Law on the Prevention of Money Laundering and Terrorism Financing. In accordance with the law mentioned above, the professional conduct of tax consultants is supervised by the State Revenue Service.

Role of professional standards in coordinated approach to customs and tax area professions

Professional standards can be used not only by educators but, also, by employers. They are particularly useful for HR managers and professionals, where professional standards are used in creating job descriptions and defining requirements for applicants for the corresponding position, carrying out function and position audits in companies, evaluating positions, creating remuneration and appraisal system etc. For educators, professional standards provide an opportunity to operate in accordance with the needs of employers. Educators develop professional education programmes on the basis of information presented in the professional standards, creating and defining the programme goals and objectives as well as the course content and the expected learning outcomes. The professional standards include information about what to teach, why to teach and what development of attitudes should be promoted in order the new workforce meets the labour market requirements. The content of the professional qualification exam is developed on the basis of knowledge, skills, and professional competencies specified in the professional standard. One of the criteria for quality assurance and evaluation of professional education institutions is the compliance of the content of theoretical and practical studies, and the qualification placement to the profession, i.e. the professional standard (Petersone, M., Krastins, A., 2012).

The World Customs Organisation (WCO) within the framework of PICARD (Partnerships in Customs Academic Research and Development) (WCO PICARD Programme) programme has developed two professional standards in the field of customs: "strategic manager/leader" and "operational manager/leader" (Professional standards). "Latvian (national) professional standard – head of a structural unit of customs office complies with the WCO professional standard - operational manager/leader. Riga Technical University (RTU) has developed, jointly with the WCO (WCO certificate), the professional and Master study programmes "Administration of Customs and Taxes" that fully comply, as the first in the world, with the international standard for customs profession (Petersone, M., Ketners, K., Krastins, A., 2013). After completing the programme "Administration of Customs and Taxes" most of the graduates do not work for the State Revenue Service (SRS) but for the business sector as tax consultants, tax economists, tax (duty) administrators etc. On the contarry, in the the situation is similar customs field, most of the graduates do not work for the State Revenue Service (SRS) but for the business sector as customs broker and declarants. These occupations have no professional standards, though, in Latvia, training is provided by professional development training courses. There are no prerequisites for studying in these courses and for obtaining the certificate of "customs clearance specialist" or "declarant's authorised representative". This certificate does not mean that professional qualification is conferred. However, it is required to allow the provision of appropriate services.



Source: authors' construction

Fig. 1. **Areas of specialisation in customs and tax study programmes**

Professional (specific) and general knowledge and skills acquired to be able to work in public administration are very useful in the public sector. Therefore, the authors of the study programme "Administration of Customs and Taxes" offer to establish two more areas of specialisation (the sixth level of qualification), which are designed specifically for businesses, namely, "customs clearance specialist" and "tax advisor."

There are cases relating with the statutory special permits, certificates or licenses entitling a person to perform certain types of work. Some responsibilities not only require specific employee skills but also special permits, certificates, or licenses. For example, the Law on Regulated Professions and Recognition of Professional Qualifications sets out the general requirements for regulated professions as well as documents and procedures for recognition of professional qualifications. "Liberal professions" or "independent professions" are neither regulated nor defined by the Latvian legislation. In Latvia, an exception is the "free legal professions" (Regulations of the Ministry of Justice), e.g. bailiffs, attorneys, notaries, and attorneys. Criteria for liberal professions may be formulated as education, professionalism, being employed in an organisation, disciplinary responsibility, code of conduct, unrestricted forms of employment, independence, and business performance particularities. In Germany, as it was already mentioned above, regulation for the profession 'tax consultant' has quite a long tradition, determining duties and rights as well as the Regulation of the Profession and the Professional Self-regulation (Kaufmann, A., 1996). Taking into account that Latvian legal system belongs to Roman - Germanic legal circle, the authors believe that the professions of customs clearance specialists and tax consultants should be conferred the status of liberal profession. Accordingly, determining the educational and professional restrictions, tax consultants should have the rights to advise taxpayers and other persons for tax law enforcement, represent the taxpayers dealing with the tax administration, and other state and local government institutions. They should represent the taxpayers in all legal proceedings in matters relating with taxation and other payments specified by the state. They should also provide assistance in compiling the documents as well as become authorised representatives of the taxpayer to submit these documents to the tax authorities and make all the necessary clarifications. The authors consider that the qualification of customs clearance specialist is equivalent to the certificate of customs clearance specialist (professional training without granting qualification), which means that a permit (license) is issued along with a requirement to issue a permit for the operations of a customs broker. To change this procedure, minor changes should be made in the Customs Law, Section 28. Similar to the field of customs, the authors can model a situation, which specifies that to work as a tax consultant requires a permit (license) from the state. In order to obtain it, one of the prerequisites should be qualification or training course. So, one of the options is the tax consultant qualification and professional preparation of tax consultants (without granting qualification). However, in order to qualify for the opportunity to undergo professional training, there should be prerequisites both regarding previous education and quality assurance.

Interaction of professional training models

Personnel management is the organisation's scope which has the greatest impact on process management - job descriptions, workplace descriptions, professional standards and employment records. The more precisely these internal regulations are related with the objectives of the entire organisation, the better performance may be expected from the organisation's management and staff (Petersone, M., 2013). Staff training is also part of human resource management, and thus, process management directly influences the training development process. Latvia, according to the institutional division of customs administration, has adopted the Revenue Service (RS) model which is a "semi-independent organisation, where the administration of customs and taxes is integrated at the national level. This could have a similar structure to the revenue department but it is partially independent of the subordinate ministry (Petersone, M., Ketners, K., 2013). In order to improve the organisation's training of customs officers, the course development system, or the Systems Approach to Training (SAT) (The Systems approach to Training, 1997) has been traditionally used for training and improvement of qualification of customs officers in Latvia and customs administrations abroad, which, already in the mid-nineties, was recommended by the Organisation for Economic Cooperation and Development (OECD). However, the authors consider that a synergistic model should be formed for training staff of tax and customs representation, in particular, taking into account both the tax and customs administration model and the specifics of the branch. By its nature, the distribution of requirements and responsibilities in the tax and customs fields, determines the special nature of tax and customs representation specialist occupation as well as the interdisciplinary approach.

Identifying the study subjects of education programmes, the authors offer to take as the foundation the European Commission TAXUD Competency Framework for customs, and the individual subjects should attract one or more process management tasks and/or processes. As a result, acquiring one of the subjects, the student will be aware of the subject content, and learning outcome that in process management results in the end product of process performance and the process itself. The European Commission TAXUD is developing the EU Customs Competency Framework (Reiser, B.,2013.), the broader objectives of which are - clear common view on the different levels of skills and knowledge, required by customs professionals, raising standards through a common view of the levels of attainment and providing the foundation for organisations to assess and ensure their staff meet those standard and adaptability – adaptable for use by the individual Member States and the representatives of the private sector working in the area of training, recruitment, performance management, and evaluation. According to the authors' conducted expert interview analysis, one of the most significant biases in training is the coordination of professional training and career development of tax and customs experts, namely, the employees, working in the public sector, and the consultants and tax and customs brokers, working in the private sector. Similar opinion on integrated competency system for officials working in the field of taxes was also observed at the SRS 20th anniversary conference. The integrated competency framework will provide a clear and consensus view of the skills and knowledge required by professionals in Europe at all levels, and in technical and non-technical skill areas.

Conclusions, proposals, recommendations

Conclusions

1. Latvian taxpayer's representatives are partly regulated. They should represent the taxpayers in all legal proceedings in matters relating with taxation and other payments specified by the state.
2. In Latvia, basic requirements for tax consultants are not defined and the regulatory framework of their professional activities is not presented, despite the fact that tax consultants are among those taxpayers who should comply with the Law on the Prevention of Money Laundering and Terrorism Financing.
3. One of the prerequisites for acting in tax and customs professions should be qualification and training course.
4. Synergistic model for training staff of tax and customs representation taking into account both the tax and customs administration model and the specifics of the branch.

Recommendations

1. Adoption of amendments to the Customs Law regarding granting customs representative status.
2. Adoption of legal regulation for tax consultancy profession to ensure competence and to meet service quality standards, by determining duties and rights as well as the Regulation of the Profession and the Professional Self-regulation.
3. Creation of Competency Framework for customs and tax experts working in public and private sector through coordinated professional training on the national and European Union level.
4. Identification of the study subjects of education and training programmes, by integrating learning outcomes and process management results in the end product of process performance and the process itself.

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AGRICULTURAL TAXATION IN POLAND VS. SOLUTIONS IN SELECTED EU COUNTRIES

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Abstract. The main aim of the paper was to compare the agricultural taxation in Poland with solutions in the selected EU Member States. The paper presents the system of agricultural taxation in Poland compared with fiscal solutions in selected EU countries. It also discusses the typology of tax solutions referring to agriculture in Europe. Polish agricultural taxation is based on the so-called agricultural tax and income tax from special sections of agricultural production. A significant shift to income taxation may result in higher tax revenues from the agricultural sector. The process of implementation of recording and reporting farm income (as in other EU countries) and expenditures in Polish agriculture should be recommended in the planned reform of agricultural taxation.

Key words: agricultural taxation, farm income, agricultural policy.

JEL code: H24, Q14, Q18.

Introduction

Agriculture is commonly regarded as the sector that is very difficult to tax (Bird, 1983). This results from (i) the small scale and (ii) spatial spread of the agricultural activity, and (iii) the need for state-contingent levies (Rajaraman, 2004). Nevertheless, as Florianczyk (2012) discussed, the EU strategy underlaid role of agriculture in preservation natural environment while the national strategy pointed out the need for agricultural modernisation linked with structural transformations and concentration of agricultural production. The agricultural sector, as the part of economy, is affected by fiscal (inter alia, income and business taxes) and parafiscal (among others, social security contributions) policies (Kay et al., 2012). Moreover, the system of agricultural taxation depends on priorities of public policy of each country. Andersen et al. (2002) stated that rates of taxes and their structure might be changed or manipulated to intervene in the area of economic policy. Khan (2011) argued that the question how tax structure and administration should affect the agricultural sector had become more important problem, particularly, as the element of ongoing agricultural policy in developing states. Moreover, one of the most controversial issues of tax policy in most countries (both developing and developed) referred to the measurement of agricultural income. Khan concluded that the political and administrative considerations were regarded as the main obstacles in introducing measures of presumed farm income.

Ramajaran (2004) stated that agricultural taxation was a less important political issue in developed countries, where the agricultural sector generated a minor share of GDP; whereas, the problem of fiscal

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policy seemed to be more important in developing countries. On the contrary, Kulawik (2012) analysed that there were two opposite approaches to the impact of fiscal policy on the agricultural sector. The first group of researchers (Lewis, Matsuyama, Timmer) stated that taxes in the agricultural sector were the main source of national savings at early stages of the economic development. In contrast, according the adversaries (Betes, Mwabu, Rastø, Torbeck, Torvik), discrimination of agriculture in the economic policy should be harmful to the poorest.

The problem of agricultural taxation, the tax structure, the measurement of taxable basis (income, capital), and determining optimal (or sub-optimal) tax rate for farmers seems to be more important in the developed countries. First, according to the OECD (2006), ignoring tax concessions may lead to *an understatement of the real extent of government involvement in agriculture and can distort comparisons between countries*. Second, tax concessions to the agricultural sector, in general, often constitute an alternative to programmes incurring direct government outlay. Although, tax concessions lead to implications for, inter alia, production, incomes, trade, rural society, and other economic categories, they have been little explored (OECD, 2006).

The aim of this paper is an attempt to compare the system of agricultural taxation in Poland with solutions in the selected EU countries. The following research tasks are included: (i) analysing the system of agricultural taxation in Poland, including proposals for its reform, and (ii) presenting the typology of tax solutions referring to agriculture in the selected EU countries. Conclusions provide recommendations addressed to policymakers. The following hypothesis is verified: *the agricultural taxation in Poland rely on archaic fiscal instruments compared with the solutions in other EU countries*. The authors used the secondary data from the Central Statistics Office (GUS) and the Eurostat. The research methods used for the purpose of data analysis included economic analysis of legal acts, descriptive statistics, and comparative analysis.

Research results and discussion

1. The system of agricultural taxation in Poland

Table 1 presents a short description of the agricultural sector in Poland. Proposals of reform of the agricultural taxation should be foregone by a detailed analysis of structural changes in the agricultural sector. First, as shown in Table 1, the number of farmers' households in 2010 has decreased by 656,000, i.e. 22.4% compared with 2002. The strongest decrease in the number of farmers' households was recorded in the group of the smallest entities, i.e. households covering to 1 ha and from 1 to 5 ha of utilised agricultural area (UAA). According to the Central Statistic Office in Poland, the average income of farmers' household per "conversion hectare"[5] was PLN 2713 in 2011 and was higher by PLN 435 in 2010.

[5] "Conversion hectare" is a synthetic unit describing an ability of a farm to generate farm income. The number of "conversion hectares" might be determined on the ground of the area and the class of utilised arable areas stemming from the filling system of buildings and lands as well as the type of tax district. See: Ustawa z dnia 15 listopada 1984 r. o podatku rolnym (Dz.U. 1984 nr 52 poz. 268)

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Table 1

Farmers' households in 2002 and 2010

Description		**Years**	
		2002	2010
Farmers' households	The number, in thousand	2,933	2,278
	Utilised agricultural area, UAA, in thousand hectares	16,899	15,534
	The averaged acreage of UAA in the farmers' household, in hectares	5.78	6.82
including those involved in agricultural activities	The number, in thousand	2,172	1,891
	Utilised agricultural area, UAA, in thousand hectares	15,160	14,971
	The averaged acreage of UAA in the farmers' household, in hectares	6.98	7.92

Source: authors' calculations based on the results of Agricultural Census in 2010

Overall taxes and levies on the agricultural sector can be divided into three categories: income taxes, wealth taxes (capital levies) and indirect taxes. Nowadays, the Polish tax system directed to farmers is based on several types of levies, including:

- "agricultural" tax - as the archaic and preferential form of taxation;
- forestry tax;
- personal income tax (strictly from special sections of agriculture);
- value added tax (VAT);
- transport tax;
- other levies (connected with inheritance, donation, fiscal charges, etc.).

Agricultural tax and personal income tax (strictly from special sections of agriculture) constitute the most significant elements of agricultural taxation in Poland. Table 2 shows a detailed description of the aforementioned levies. The agricultural tax is the basic form of taxation for farmers, whereas, the special type of income tax from selected sections of agricultural production refer to a part of farms. It should be noted that this type of taxation refers to the so-called "agricultural holding". Moreover, the rate of the agricultural tax refers to the price of rye. It is worth noting that the price of rye does not reflect the current financial situation of the farms. This is mainly due to the fact that the share of this cereal in areas under crop is gradually decreasing. As a result, farm incomes are taxed differently than incomes from typical non-agricultural activities.

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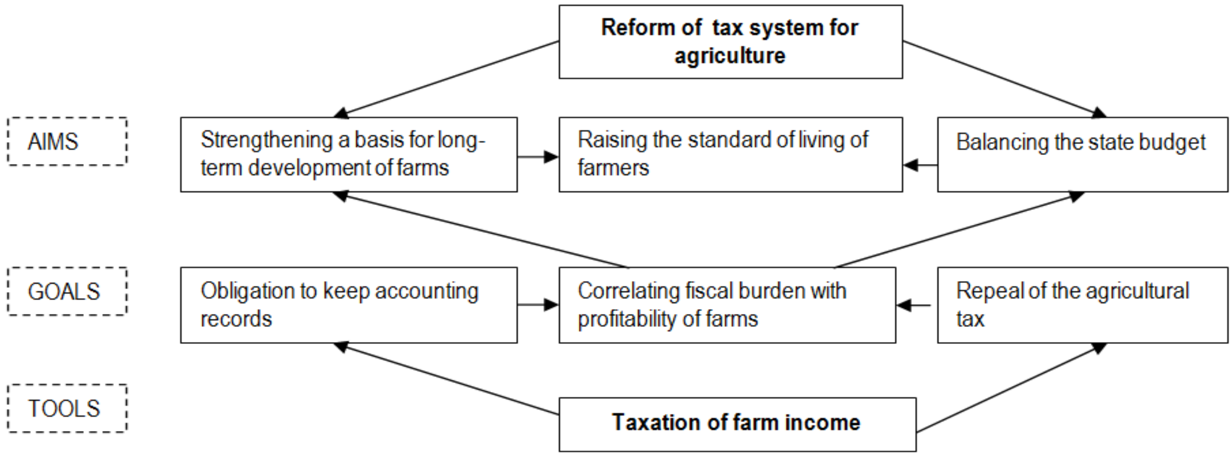
Table 2

Agricultural tax vs. PIT from special sections of agriculture in Poland

Description	Agricultural tax	Personal income tax (PIT) from special sections of agriculture
Taxpayer	Natural entities, legal entities, including companies without a legal personality, which are: landowners; holders of spontaneous land; perpetual land users; holders of land owned by the state or local government Municipalities and the Treasury are exempted from the agricultural tax.	Agricultural holdings in the form of natural entities, classified to agricultural production that cover production in greenhouses and plastic tunnels, fungi and mycelium production, plants in vitro, farmed breeding and rearing of poultry for slaughter, poultry hatcheries (avicultures), breeding and rearing of fur and laboratory animals, raising earthworms and entomophages, cocoonery, beekeeping, animal breading and rearing outside farm as well
Taxable base	Lump-sum method is used. Accrued tax = the number of „conversion hectares" of agricultural holding x rate (determined by the location of farm and the average price of rye). The term "agricultural holding" means an entity covering a total area of more than 1 physical hectare that might be owned by a natural entity, a legal entity or an organisational unit without a legal personality. A land with an area of less than 1 ha is levied by higher rate of agricultural tax. Moreover, agricultural activities in Poland cover plant and animal production, including seed production, breeding and reproduction; production of vegetables, ornamental plants, fungi, horticulture, insemination, industrial livestock production as well.	Taxable base depends on the method how taxable income is calculated. The estimated annual income is determined by standards for special sections of agriculture (determined either the area of intensive production or the number of animals). When a farm keeps ledgers (or simplified tax register), taxable income is determined as the difference between tax revenues and expenses (tax-deductible).
Exemptions	A long list of exemptions and deductions within the competence of municipalities	A long list of exemptions and deductions as the element of tax law
Taxpayer's obligations	Keeping accounting records is not obligatory	Keeping accounting records (a simplified accounting – tax register of revenues or expenses or ledgers) is optional

Source: authors' studies

Figure 1 shows how a possible reform of tax system addressed to the agricultural sector would affect economic processes in rural areas. The repeal of the agricultural tax has to be acted as the first step of possible reform. It should be noted that before introducing changes, main aims, goals and tools to achieve them ought to be defined and described. The basic premise for the introduction of the income tax is the fact that labour income constitutes the most significant part of farmers' income.



Source: authors' construction

Fig. 1. **Proposal for the reform of the agricultural taxation in Poland**

According to the principle of fair taxation, income from agricultural activities should be taxed on the basis of economic results that may be reported. The introduction of tax accounting to farms may be beneficial from the viewpoint of improving the economic/financial situation of the agricultural sector. Moreover, fiscal policy ought to take into account the different forms of taxation, including a lump-sum method based on recorded revenues.

2. Agricultural taxation in the selected EU countries

Tax systems in the EU countries have been affected by economic, social, and political processes. It should be noted that despite numerous changes those systems have been burdened with defects and still require continuous changes to their adaptation to the new economic conditions. International comparisons regarding taxes may be particularly useful on these conditions. Numerous studies show that the EU countries are characterised by very similar tax systems despite different socio-economic and political determinants[6]. Mendoga and Tesar (2006) indicated that a high share of indirect taxes in the tax system might foster an economic growth. This results from a positive impact on an increase in savings as well as a low impact on an allocation of capital. In turn, higher revenues from income levies indicate a high level of economic development. Revenues from direct and indirect taxes account for about 60% of budget revenues and 90% of all tax revenues which prove their particular fiscal sense. The exceptions are Denmark, Italy, and England where budget revenue from these taxes fluctuated from 80% to over 90%.

[6] In the EU Member States, tax systems are determined by many complex socio-economic determinants, such as the level of living standard, consumption habits, views on the role of the state in the economy, tax mentality of the society. Therefore, the group of the EU Member States may be divided into clusters of countries with a relatively small share of taxes on personal income (several percent) with the superiority of consumption taxes such as the Czech Republic, France, Greece, the Netherlands, Poland and Spain, and the countries where the taxation of personal income is high (e.g. Belgium, Denmark, Finland, England, Ireland). This situation corresponds to the classification based on "Southern" and "Northern" tax mentality (Krajewska, 2010).

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Table 3 indicates that tax revenues in some countries account for almost half of GDP (for example, Denmark); whereas, they constitute about 30% of GDP in the majority of the EU states. The share of indirect taxes in countries, such as Finland, Greece, Italy, Poland, Spain, or the UK slightly increased in the years 2009-2011. In recent years, most EU countries took actions in the direction of lowering direct taxes, especially income tax from individuals which should translate into a reduction in their share in tax revenues of the EU countries.

In most countries, there are no separate tax systems targeted at agriculture. Nevertheless, farmers are treated differently than other occupational groups. This may be treated as a kind of preferential treatment of the agricultural sector by the tax system, which is referred to the concept of agricultural tax expenditures (TEs) in literature. In substance, two main approaches (systems) to agricultural taxation may be distinguished:

- general tax system - agriculture is a subject to the same tax regulations as other professional groups;
  - there are no any instruments that may support agriculture in the tax system (e.g. Finland);
  - there are many preferential instruments, for example, investment reliefs and other exemptions (e.g. the Netherlands, Spain, Belgium, the UK, Ireland, Denmark, Sweden, Slovakia);
- special (preferential) tax system – separate tax regulations referring to farmers, aimed at reducing their tax burden (e.g. Austria, Germany, France, Italy, Poland).

The distinction between income taxes in agriculture should be based on multiple criteria but the most common criterion is a tax base on which the tax is levied. Two concepts of calculating the tax base (causal and "effect-based") are used both in theory and in practice. The first concept assumes that calculating the tax factors affecting the performance of the farm, mainly land and buildings are necessary for calculating the accrued tax. The latter concept bases on income, production or revenue results, excluding their sources. It should be noted that the method of calculating farm income diversifies tax systems of the EU Member States. Farm income may be determined on the basis of:

- entries in accounting books;
- simplified accounting records, the so-called simplified accounting;
- the size of household (the number of hectares or livestock units);
- various methods of estimation (e.g. profit as a part of turnover).

Farmers' obligations concerning keeping accounting records are very varied and depend on the type of agricultural policy. The Netherlands is one of a few countries where farmers are treated entirely on part with other entrepreneurs and are required to keep accounting records of. In other countries (e.g. France, Germany), simplified accounting is acceptable. Moreover, the part of entities is not obliged to keep accounting books (e.g. Austria, Germany).

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Table 3

The share of tax revenues in GDP in selected EU Member States by the type of taxes in the years 2009 and 2011

State	Taxes as % GDP							
	Total sum		Indirect (consumption) taxes		Direct (income) taxes		Other indirect and direct taxes	
	2009	2011	2009	2011	2009	2011	2009	2011
Austria (AT)	42.4	42.0	14.9	14.6	12.8	13.0	4.4	4.1
Belgium (BE)	43.4	44.1	13.0	13.1	15.9	16.8	3.1	3.1
Czech Republic (CZ)	33.4	34.4	11.3	11.8	7.2	7.3	0.5	0.6
Denmark (DK)	47.8	47.7	17.0	17.0	30.0	29.9	3.0	3.1
Finland (FI)	42.8	43.4	13.7	14.4	16.4	16.5	1.3	1.3
France (FR)	42.1	43.9	15.3	15.5	10.3	11.8	6.2	6.1
Germany (DE)	38.3	38.7	11.8	11.5	11.7	11.6	1.4	1.5
Greece (EL	30.5	32.4	11.6	13.0	8.5	8.8	1.5	2.5
Italy (IT)	43.0	42.5	13.8	14.4	15.5	14.8	4.3	4.0
Netherlands (NL)	38.2	38.4	12.2	12.0	12.1	11.7	2.6	2.6
Poland (PL)	31.8	32.4	13.1	14.0	7.5	7.1	2.1	2.0
Spain (ES)	30.7	31.4	9.1	10.2	10.1	9.9	2.0	2.1
United Kingdom (UK)	34.8	36.1	11.9	13.5	16.0	15.9	4.5	4.4
Ireland (IE)	33.8	35.9	14.0	14.4	16.7	17.5	4.6	4.2

Source: Eurostat Data

Non-compulsory accounting in farms in most countries results in serious problems connected with determining farm income. As a result, a estimated income is treated as a taxable basis.

Given a scope of benefits targeted at agriculture as the criterion of classification, the EU Member States may be divided into three groups:

- countries with special preferential taxation systems for agriculture,
- countries with limited preferences directed to agriculture,
- countries with systems without tax preferences for agriculture.

Table 4 presents the structure of tax systems in selected EU countries with regard to tax preferences targeted at agriculture. This table shows that fiscal preferences in agriculture are common and include: taxation of income, capital gains, and consumption taxes. In many EU countries, incomes from individual farms are taxed under two separate, special tax regimes, mainly flat-rate schemes, in which tax revenues are estimated, or simplified systems. The latter systems have a historical justification; whereas, a shift to a general tax system may result in a significant increase in the tax burden from the viewpoint of both farmers and fiscal administration. For the fiscal authorities, extra costs could exceed tax revenues. In some countries, where farmers are included in the general taxation system, agricultural activities are favourably treated solutions such as taxation of average income over several years. It should be noted that, however, this applies not only to agriculture, because these preferences are also entitled to non-agricultural entities operating as small businesses.

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Table 4

Matrix of tax preferences for agriculture in selected EU countries

Country	Income of natural entities		Profits (companies)	Contributions to social insurances	Value of assets		Products and services
	Preferential systems	Tax reliefs and exemptions			Capital gains	Heritage	Excise duty, VAT etc.
Austria	x	x					x
Belgium	x	x					x
Czech Republic		x	x				x
Denmark							x
Finland						x	
France	x	x			x	x	x
Germany	x	x		x		x	x
Hungary			x				x
Ireland		x			x	x	x
Italy	x	x	x	x		x	x
Norway		x		x	x	x	x
Poland	x	x		x	x	x	
Netherlands		x			x		x
Spain	x	x					
UK		x					x

Source: authors' construction based on the OECD data

Conclusions

1. Nowadays, in Poland, farm income is not taxable within the general taxation system. Moreover, as described in comparative analysis including selected EU countries, agricultural taxation in Poland bases on a bundle of archaic fiscal instruments. On the contrary, economists and policymakers strongly deliberate on the implementation of changes in agricultural taxation. This results from the marginal role of the agricultural tax in financing of rural communities. Moreover, contemporary fiscal solutions for farmers may be treated as the form of hidden subsidising, and agricultural taxation does not play the basic fiscal role. Therefore, taxes (parataxes or parafiscal levies as well) do not result in any direct fiscal effects (i.e. lower or higher budgetary revenues), though, they are treated as a kind of aid for development of farms[7]. Proposals how the agriculture should be taxed are arguable, given increasing farm incomes. This significant change in the agricultural taxation may result in higher tax revenues from the agricultural sector; though, policymakers should reconsider model of taxation addressed to Polish farmers, aiming at structural changes in rural areas.
2. Given the global context of economic processes, tax harmonisation of agricultural taxation in Europe may be very positive. Since it is very difficult to come to an agreement on monetary policy, this

[7] See: Dziemianowicz, 2008

seems to be very unrealistic. However, any forms of tax harmonisation are preferred from the viewpoint of improving the competitiveness of European agricultural sector.

3. The process of implementation of recording and reporting farm income and expenditures in Polish agriculture seems to be very important from the viewpoint of the planned reform of agricultural taxation (including income taxation) and a type of similarity to European solutions (e.g. Germany, Belgium, France). This may be regarded as more significant part of the aforesaid fiscal reform. Using even simplified tax registry by farmers would provide a basis for processes of production, investment, and financing.
4. Eliminating the category of special sections of agricultural production and inclusion of revenues/ income to the proposed form of income tax would be very desirable. This would indicate the practical implementation of Smith's tax principles concerning tax equity and an ability of taxpayer to pay levies.

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ASSESSING THE FINANCIAL CONDITION OF LITHUANIAN MUNICIPALITIES IN RURAL REGIONS

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Abstract. The article analyses the issue of the analysis and assessment of municipality's financial condition that is relevant theoretically and practically. The relevance and importance of the analysis of municipality's financial condition based on financial reports and other information show that regular and timely analysis can disclose strengths and weaknesses of the municipality's financial management as well as highlight fiscal problems and provide the information necessary to make corrections. The aim of the research is to assess the financial condition of Lithuanian municipalities in rural regions. Ten financial ratios, which aim to analyse and assess the financial condition of Lithuanian municipalities in rural regions, are presented referring to literature and considering the peculiarities of the accountability of Lithuania's public sector. In the research, it is possible to divide Lithuanian rural municipalities into three groups according to their level of rurality: municipalities of strong rurality, medium rurality and weak rurality. The research, which revealed the ability of Lithuanian municipalities on different level of rurality to cover their financial liabilities, their financial capacity to perform their functions, the ability to manage own assets, and financial autonomy, was performed referring to the consolidated financial reports of municipalities announced publicly and by applying the SPSS software.

Key words: financial condition, rural municipality, ratio analysis.

JEL code: R51

Introduction

During several past decades, essential changes in managing subjects of public sector relate with the application of new public management and good governance principles; this aspect has determined the need for the reform of public sector financial accounting (Brusca I., Montesinos V., 2010). The states that began this reform (Lithuania from 2005) changed their accounting systems and started to develop new standardised financial reports of public sector subjects which: 1) would provide more accurate information; 2) would allow analysing and assessing the financial condition of public sector subjects; 3) would create preconditions to compare the results on the analysis of the financial condition of public sector subjects; and 4) would create the possibility for consumers of financial reports to make more efficient decisions on resource use and management. A regular and timely analysis of the municipality's financial condition based on financial reports and other information can disclose strengths and weaknesses of the municipality's financial management as well as highlight their fiscal problems and provide the information necessary for making corrections.

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The analysis of foreign authors' works (Honadle B., LLoyd-Jones M., 1998; McKinney J.B., 2004; Chaney B.A., 2005; Finkler S.A., 2005; Cohen S., 2008; Maher C.S, Deller S.C., 2011; Cabaleiro R., Buch E., Vaamonde A., 2012; Huang Ch., Ho Y., 2013 and so on) show that there is no united viewpoint to the analysis of municipalities' financial condition. Different ratios, their combinations, methods which differ from each other in completeness of the information used for the analysis, the number of the ratios are presented thereof. Literature often relates the complexity of financial condition analysis and content of the applied information with the size of municipalities which indicator of the population is reflected. It is possible to apply most often the methods that need complex and large volume information in analysing the financial condition of large municipalities (over 100 thousand of the population). When analysing the financial condition of small municipalities (up to 100 thousand of the population), the researchers (Cabaleiro R., Buch E., Vaamonde A., 2012; Huang Ch., Ho Y., 2013) refer to the method for the analysis of municipalities' financial condition developed by K.W. Brown in 1993; it is a 10-point test of financial condition which is aimed at analysing the financial condition of small municipalities in the USA.

In Lithuania, after having implemented the reform of public sector accounting, from 2010 municipalities prepare the financial reports that allow analysing and comparing municipalities' financial condition; the works of Lithuanian authors do not pay enough attention to the analysis and assessment of municipalities' financial condition. The studies, which would analyse methodological issues of calculating the ratios of Lithuanian municipalities' financial condition and comparing them to best ratios of other municipalities, are missing. There are no performed practical studies on the financial condition of Lithuanian municipalities which would analyse, assess, and compare the financial state of municipalities at different levels of rurality.

Two questions disclose the **scientific problem** in the article: 1) What ratios of financial condition analysis is it possible to apply in assessing the financial condition of Lithuanian municipalities in rural regions? and 2) What is the financial condition of Lithuanian municipalities at the different level of rurality?

Hypothesis 1: the average values of municipalities' liquidity ratios in the strong level of rurality are lower than the average values of municipalities' liquidity ratios at the weak and medium level of rurality.

Hypothesis 2: the average values of municipalities' revenues-expenditure ratios at the strong level of rurality are higher than the average values of municipalities' revenues-expenditure ratios at the weak and medium level of rurality.

The **aim** of the article is to assess the financial condition of Lithuanian municipalities at the different rurality level. In order to achieve the aim, it is possible to formulate the following tasks: 1) to analyse theoretical issues of the assessment on municipalities' financial condition; 2) to present financial ratios which would allow analysing and assessing the financial condition of Lithuanian municipalities in rural regions; and 3) to calculate and assess financial ratios of Lithuanian municipalities of different rurality level.

The research **methods** are as follows: analysis of scientific literature; grouping, comparing, specifying and generalising of information; analysis of statistical data.

Theoretical issues of municipality's financial condition assessment

In literature, the emergence of the need for the analysis of municipalities' financial condition and the possibility to perform relates with the reform of public sector accounting. The states that have

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started reforms of public sector accounting had to switch from accounting using the cash basis to the accrual-based accounting. The works of the authors who analysed issues of public sector accounting (Patton K., Khan A., 2003; McKinney J.B, 2004; Finkler F.A, 2005 and so on) point out that in reforming the system of public sector accounting, financial reports of municipalities present more comprehensive and easier understandable financial information by referring to accrual principle. Referring to this information, it is not only possible to analyse and evaluate municipality's financial condition but also to compare it with the results of the analysis of other municipalities' financial condition. Though, the analysis of financial condition based on financial reports is performed by referring to retrospective information, its results and, especially their comparison with the results of other municipalities, are useful in planning their perspectives. It is useful for assessing the effectiveness of the use of municipality's financial resources. The analysis of financial condition is important as the form for monitoring municipality's activity (Steiss A.W., Nwagwu O.C., 2001). As the analysis of financial condition provides a lot of useful information about the municipality's activity, it is possible to incorporate this information into its decision-making process.

When analysing the municipality's financial condition, the main and the most important information source is financial reports. In Lithuania, the set of annual financial reports consists of the following financial reports on: 1) financial position; 2) financial activities; 3) cash flows; 4) changes in net assets; and 5) explanatory notes. It is purposeful for the reports' analysis to apply the methods of horizontal, vertical, and financial ratios analysis widely applied for the analysis business subjects. When applying the methods of horizontal and vertical analysis, it is possible to find out the changes in financial reports' components and their structure. Financial ratios analysis aims to evaluate the ability of a municipality to cover its short- and long-term debts, the capability to generate the revenue from operations, effectiveness of asset use, and other important fields of municipality's financial management. When performing the analysis of municipality's financial condition, it is very useful to know the best values of similar municipalities' financial ratios, with which it would be possible to compare the financial ratios of the municipality (Rivenbark W.C., Roenigk D.J., Allison G.S., 2010).

As the solid system of the ratios that should be calculated by analysing the financial condition of municipalities does not exist, the literature presents different combinations of financial ratios. The works of foreign authors (Honadle B., LLoyd-Jones M., 1998; McKinney J.B, 2004; Chaney B.A., 2005; Finkler S.A., 2005; Wang X., Dennis L., Tu Y.S., 2007; Cohen S., 2008; Casal R.C., Gomez E.B., 2011 and so on) which analyse the issues of public sector subjects' financial condition, mention different groups of financial ratios: liquidity; revenue-expenditure; asset turnover; long-term solvency; leverage and others.

Literature presents different methods, indicators used to analyse municipalities' financial condition for more than 30 years (Rivenbark W.C., Roenigh D.J., Allison G.S., 2010). J.B. McKinney (2004), referring to S.M. Groves, W.M. Godsey, M.A. Shulman (1981), presents Financial Condition Monitoring System, which aims to analyse municipalities' financial condition. When applying this system, it is possible to use internal information (budget and financial reports) and external information (economic and demographical). As Financial Condition Monitoring System involves a lot of factors, indicators and data necessary in assessing the financial condition, its implementation becomes rather complicated process for small municipalities. This burdens the use of financial analysis as regular financial management instrument. Another widely known method of municipalities' financial condition analysis – is a 10-point test of financial condition, which was constructed by K.W. Brown in 1993. This method aims to analyse the financial condition of small municipalities in the USA. The strong part of this method is the comparison of indicators with the best (target) indicators (Rivenbark W.C., Roenigh D.J., Allison G.S., 2010).

In foreign countries (the USA, Australia) the analysis of ratios is often the component of municipalities' audit. Having reviewed several audit reports, it is possible to note that each of them use similar sets of financial ratios, which are constructed by referring to different literature references. The methods and their presented modifications most frequently refer to S.M. Groves, W.M. Godsey, M.A. Shulman (1981), K.W. Brown (1993).

In Lithuania, the municipalities, having implemented the reform of public sector accounting, have been preparing the financial reports giving the possibility to analyse the financial condition since 2010; however, the methods for the analysis of municipality's financial condition has not been developed so far. There are no presented indicators, the calculation of which would allow drawing reasonable conclusions about municipality's financial condition. The empirical studies on the analysis and assessment of municipalities' financial condition are missing.

Research methods

The research aims to analyse and assess the financial condition of Lithuanian municipalities in rural regions. Referring to the research performed by M. Melnikiene, D. Vidickiene, Z. Gedminaite-Raudone, E. Ribasauskiene (2011), it is possible to divide Lithuanian municipalities in rural regions into three groups: strong rurality, medium rurality, and weak rurality. Seven municipalities out of 45 Lithuanian municipalities in rural regions belong to strong rurality, 20 – to medium rurality, and 18 – to weak rurality.

Research stages: 1) to choose the ratios to assess financial condition; 2) to calculate the ratios to assess the financial condition of every rural municipality; and 3) referring to the performed calculations of each municipality, to carry out the comparative analysis of the ratios for the assessment of the financial condition at the municipalities of different rurality level.

Referring to the ratios for the assessment of municipalities' financial condition presented in foreign literature and considering the peculiarities of financial accountability of Lithuanian public sector, the first stage discloses four groups of the ratios to be calculated in this research. In order to assess municipalities' liquidity it is possible to calculate two liquidity group ratios – Current Liquidity Ratio and Quick Liquidity Ratio. These ratios aim to assess the ability of municipalities to cover short-term liabilities by current assets (current liquidity) and liquid short-term assets (quick liquidity). When calculating the debt group ratios (Debt to Asset Ratio, Debt to Net Asset Ratio, Long-term Liability per Capita), it is possible to assess the municipality's ability to effectively use borrowed funds. The turnover group ratios (Total Asset Turnover Ratio, Long-term Asset Turnover Ratio) show the municipality's asset and long-term asset to generate revenue. When calculating revenue-expenditure ratios (Net Surplus (Deficit) to Revenue Ratio, Net Surplus (Deficit) per Capita, Revenue to Expenditure Ratio), it is possible to assess the municipality's ability to generate revenue from performed operations. The second stage presents the calculations of financial ratios of Lithuanian rural municipalities. The consolidated financial reports of the rural municipalities for 2012 (publicly available) are possible to analyse when calculating the presented ratios. As not all rural municipalities publicly announce their consolidated financial reports, there is the possibility to calculate the financial ratios of 38 municipalities out of 45 rural municipalities. It is possible to calculate the financial ratios of 6 municipalities out of 7 municipalities at the strong rurality level, out of 20 at the medium rurality level, and out of 18 at the weak rurality level – 16 municipalities in each group. Referring to the performed calculations and by applying the SPSS software, the third stage presents the calculations of the statistical indicators of the results on the financial condition of the municipalities at different rurality level (mean, median, maximum, minimum, standard deviation, skewness and standard error on skewness). The obtained results allow carrying out the comparative analysis of the financial condition of the municipalities at different rurality level.

Research results

Tables 1-4 present statistical indicators of the results on the municipalities' financial condition in a different rurality level (strong rurality – SR, medium rurality - MR, weak rurality – WR).

The calculated values of the liquidity ratios (Table 1) show the very different capacity of Lithuanian rural municipalities to cover their short-term liabilities both by short-term assets and by liquid short-term-assets.

Table 1

The results of the calculation of liquidity ratios of the municipalities at different rurality level

Statistics/Ratio	**Current Liquidity Ratio**			**Quick Liquidity Ratio**		
N	SR 6	MR 16	WR 16	SR 6	MR 16	WR 16
Mean	0.905	1.045	1.0006	0.814	0.940	0.900
Median	0.873	0.981	0.925	0.774	0.860	0.815
Minimum	0.53	0.58	0.44	0.47	0.48	0.18
Maximum	1.41	2.35	2.40	1.29	2.11	1.97
Std. Deviation	0.296	0.443	0.477	0.279	0.411	0.427
Skewness	0.841	1.829	1.801	0.857	1.690	0.949
Std. Error of Skewness	0.845	0.564	0.564	0.845	0.564	0.564

Source: authors' calculations based on the consolidated annual financial reports of the rural municipalities of the Republic of Lithuania for 2012

The medium values of the liquidity ratios show that the municipalities of the medium rurality level were the most liquid in 2012. The municipalities of the strong rurality level distinguished the least liquidity. When assessing minimum and maximum values of the liquidity ratios, it is possible to note that the municipalities' indicators of the weak rurality level fluctuated most (the standard deviation of the current liquidity was 0.48, and of the quick liquidity – 0.43). Druskininkai Municipality, which belongs to the group of the municipalities' in the weak rurality level, faced the largest liquidity problems. The short-term liabilities of this municipality exceeded the short-term assets more than twice and the liquid short-term assets more than five times. In 2012, Kaisiadorys District Municipality, which belongs to the group of the municipalities in the medium rurality level, was the most liquid. When comparing the critical liquidity values to the threshold value (equal to 1), which is applied in assessments of the financial condition of business subjects, it is possible to note that the liquid short-term assets exceeded short-term liabilities only in 12 municipalities (5 WR, 6 MR, 1 WR) out of 38 municipalities.

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The average values of the debt and asset ratio (Table 2) show that only 12.83% municipalities' asset of the strong rurality level were financed by borrowings in 2012 (of the medium rurality level - 13.25%, of the weak rurality level – 12%).

Table 2

The results of the calculation on debt ratios of the municipalities at different rurality level

Statistics/ Ratio	**Debt to Asset Ratio**			**Debt to Net Asset Ratio**			**Long-term Liability per Capita**		
N	SR 6	MR 16	WR 16	SR 6	MR 16	WR 16	SR 6	MR 16	WR 16
Mean	0.128	0.132	0.120	1.094	0.265	0.526	377.940	372.377	405.489
Median	0.012	0.120	0.120	0.305	0.293	0.225	369.719	370.432	416.946
Minimum	0.08	0.07	0.04	0.11	-0.32	0.06	142.92	19.33	22.69
Maximum	0.18	0.31	0.27	3.23	0.65	4.25	606.42	716.31	784.08
Std. Deviation	0.032	0.061	0.058	1.352	0.199	1.011	201.472	188.858	226.608
Skewness	0.328	1.962	0.807	1.124	-1.401	3.765	0.054	0.039	-0.173
Std. Error of Skewness	0.845	0.564	0.564	0.845	0.564	0.564	0.845	0.564	0.564

Source: authors' calculations based on the consolidated annual financial reports of the rural municipalities of the Republic of Lithuania for 2012

When analysing maximum and minimum values of the debt to net asset ratio, it is possible to note that the values of the ratio of the municipalities' in the weak rurality level differed most. The worst value of this indicator was in Kaunas District Municipality (4.25). Such result was determined by especially large sums of funding, which in the above-mentioned municipality amounted to almost 67% of the assets. The best result was achieved in Neringa Municipality (0.06). When assessing the average values of the above-mentioned ratio, it is obvious that most debts per one net asset litas went to the municipalities in the strong rurality level. Least debts per one net asset litas went to the municipalities in the medium rurality level. The calculated values of the long-term liability per capita in rural municipalities show that the greatest debt burden in 2012 was in the municipalities of the weak rurality level. The minimum and maximum values of this ratio disclose significant fluctuation of this ratio in all groups of the municipalities.

Table 3

The results of the calculation on turnover ratios in the municipalities at different rurality level

Statistics/Ratio	**Total Asset Turnover Ratio**			**Long-term Asset Turnover Ratio**		
N	SR 6	MR 16	WR 16	SR 6	MR 16	WR 16
Mean	0.489	0.575	0.480	0.527	0.635	0.518
Median	0.481	0.510	0.500	0.515	0.545	0.540
Minimum	0.41	0.35	0.16	0.43	0.36	0.16
Maximum	0.57	1.24	0.81	0.62	1.58	0.92
Std. Deviation	0.061	0.225	0.178	0.071	0.303	0.203
Skewness	0.115	2.111	-0.313	0.180	2.416	-0.141
Std. Error of Skewness	0.845	0.564	0.564	0.845	0.564	0.564

Source: authors' calculations based on the consolidated annual financial reports of the rural municipalities of the Republic of Lithuania for 2012

The calculated average values of turnover ratios (Table 3) show that the municipalities in the medium rurality level used most effectively the assets and long-term assets to gain the revenue. Skuodas District Municipality got most revenue per one litas of the municipality's assets and the long-term assets.
In the above-mentioned municipality the revenue exceeded the assets 1.24 times, and the long-term assets – 1.58 times.

In 2012, the revenue was less than the expenditure in most Lithuanian rural municipalities. This is disclosed by the negative values of the net surplus (deficit) to revenue ratio as well as the net surplus (deficit) per capita ratio (Table 4).

Table 4

The results on the calculation of municipalities' revenue-expenditure ratios at different rurality level

Statistics/Ratio	**Net Surplus (Deficit) to Revenue Ratio**			**Net Surplus (Deficit) per Capita**			**Revenue to Expenditure Ratio**		
N	SR 6	MR 16	WR 16	SR 6	MR 16	WR 16	SR 6	MR 16	WR 16
Mean	-0.007	-0.060	-0.035	-31.844	-175.37	-176.977	0.972	0.951	0.969
Median	-0.034	-0.031	-0.020	-142.11	-114.480	-67,921	0.968	0.977	0.970
Minimum	-0.09	-0.52	-0.210	-360.64	-1169.28	-1303,23	0.87	0.66	0.875
Maximum	0.15	0.05	0.060	603.47	175.17	230,54	1.04	0.99	1.111
Std. Deviation	0.086	0.128	0.070	342.381	295.527	379.782	0.062	0.081	0.058
Skewness	1.601	-3.435	-1.530	1.584	-2.719	-2.041	-0.805	-3.544	0.454
Std. Error of Skewness	0.845	0.564	0.564	0.845	0.564	0.564	0.845	0.564	0.564

Source: authors' calculations based on the consolidated annual financial reports of the rural municipalities of the Republic of Lithuania for 2012

When assessing average values of the surplus (deficit) per capita, it becomes obvious that most deficit went to the population from the municipalities in the weak rurality level. The worst value of this ratio was in Birstonas Municipality. Most net surplus per capita went to Lazdijai District Municipality that belonged to the group of the municipalities in the strong rurality level. The values of the revenue to expenditure ratio, which are less than one, show that the revenue generated in most rural municipalities is not enough to cover the expenditure. The revenue of only five rural municipalities (3 in the weak rurality level and 2 in the strong rurality level) was larger than the expenditure. When analysing the maximum and minimum values of the revenue-expenditure ratios, it is possible to note that the worst state was in the municipalities at the medium rurality level.

The results of the performed analysis of the financial condition in rural municipalities are useful for every municipality as they give some information on the average, best, and worst values of municipalities' ratios at the same rurality level. Referring to the information disclosing the weakest aspects of the financial management, the municipalities can make decisions on the financial condition improvement. The ratios of the financial condition should be calculated and assessed annually and such analysis should become the inseparable part of the municipality's financial management. In addition, the next stage would be beneficial to perform factorial analysis in order to assess the factors that influenced the ratios of the municipality's financial condition.

Conclusions

1. The analysis of foreign authors' works has shown that there is no one viewpoint to the analysis of municipalities' financial condition. One can find different ratios of financial condition analysis, their combinations, and methods. Having summed up the indicators on the analysis of municipalities' financial state mentioned by foreign authors and considering the peculiarities of Lithuania's public sector accountability, it is possible to identify 10 ratios to assess municipality's financial condition, which help assess the financial condition of Lithuania's rural municipalities. The research aims to assess the ability of the Lithuanian municipalities at different rurality level to cover their financial liabilities, the financial power to carry out own functions, the ability to manage their assets, and financial autonomy.
2. The results of the performed research showed that even 26 municipalities faced liquidity problems in the year in question. In these municipalities, liquid short-term assets were not enough for covering their short-term liabilities. Though, only around 13% of municipalities' assets were funded by borrowings, the calculated proportion of the liabilities and the net asset showed that in one municipality in the weak rurality level and two municipalities in the strong rurality level the liabilities exceeded the net asset of the municipalities more than twice. One of the relevant problems, which have been disclosed by the calculated ratios of the revenue-expenditure, is that the revenue generated by the rural municipalities was not enough to cover the expenditure. The revenue to expenditure ratio was higher than one only in five rural municipalities.
3. The formulated research Hypothesis 1 has verified. The municipalities at the strong rurality level had least short-term asset and liquid short-term assets to cover their short-term liabilities. The liquidity ratios of these municipalities were the lowest in comparison with the liquidity ratios of the municipalities at the medium and weak rurality levels. The Hypothesis 2 has also verified. The least deficit and net deficit went to one revenue litas and per capita in the municipalities at the strong rurality level. In these municipalities, the average values of the revenue and expenditure ratio were higher than the average values of the revenue-expenditure ratios at the weak and medium rurality levels.
4. The performed research has revealed the problems in managing municipalities' finance; it is necessary to pay more attention to this. The first problem is the insufficient liquidity of municipalities. Another relevant problem is too high expenditures; the municipalities' revenues do not cover expenditure. The municipalities need to decrease short-term liabilities, to make decisions on expenditure decrease and to pursue for revenue increase in solving these problems.

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INTERNATIONAL ACCOUNTING STANDARD NO 41 "AGRICULTURE"- ADVANTAGES AND DISADVANTAGES ON POLISH CONDITIONS

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Abstract. The main aim of this article is the presentation of the merits and drawbacks of the International Accounting Standard No 41 pertaining to agriculture. The long awaited standard allows the inclusion of the specificity of the biological character of agricultural production and is compliance with the regulations used with regard to the theory of economics and the organisation of agricultural enterprises in Poland. However, it turns out that the use of this standard causes the deviation from the "prudence principle" and the valuation of inventories (biological assets) as well as the calculation of the financial result in accordance with the "fair value". As a result of the above, one may have to deal with demonstrating a hypothetical (not performed) result in the financial statement, which, in turn, may cause additional unjustified encumbrance with a higher income tax.

Keywords: accounting, agriculture, accounting standards, financial statements.
JEL code: Z13

Introduction

In the process of adjusting Poland to the European Union, a key role is played by the introduction and dissemination of solutions and norms characteristic for a developed market economy. An important part of this process is the adaptation of the International Accounting Standards (IAS) and the International Financial Reporting Standards (IFRS), prepared and popularised under the supervision of the International Accounting Standards Committee (IASC). The aim of financial statements is the provision of information on the financial status of an entity and the results of its activity which will be useful during decision-making. It is assumed that this aim may be achieved with the use of the accrual principle and the going concern principle with preservation of the characteristics (requirements) related with quality and limitations related with the usefulness and reliability of information.

The period of designing and developing the standard pertaining to agriculture was very long. In 1996, the IASC issued a publication including the proposed standard of accounting in agriculture titled "AGRICULTURE - A Draft Statement of Principles issued for the comment by the Steering Committee on Agriculture", which was a preliminary suggestion giving the grounds for discussing the topic under consideration. It was the subject of analysis and detailed evaluations. The draft primarily points at the biological character of agricultural production. Management is not conducted by creating appropriate development conditions for living plant and animal organisms. A. Jarugowa (1996) has noticed that "the source of the specificity of agriculture is, thus, the control over biological growth, the innate ability of animals and plants to grow"[2]. A continuation of these studies was the Proposed International Accounting Standard Agriculture, Exposure Draft E65, published in 1999 by the IASC, which included among others

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[2] This fact is pointed out by many agricultural economists, among others Ryszard Menteuffel "Filozofia rolnictwa"

the suggestions of the basic financial statements for agricultural units. In the end, IAC 41 "Agriculture" has been approved by the Management Board of the IASC in December 2000 and has been utilised during the preparation of financial statements since 1 January 2003 and in the subsequent years (MSSF, 2004).

In Poland, there remains an open issue of the compliance of the accepted solutions with the Accounting Act as of 29 September 1994 and its amendment. This Act does not take into consideration the specificity of agriculture, and the form of financial statements does not allow for recognising the essential accounting categories utilised on the grounds of economics and organisation of agricultural holdings. Under these circumstances, the IAS 41 constitutes the first step to developing a basis of the terms and conditions for the functioning of agricultural accounting in Poland.

Research results and discussion

1. Accounting as the common language of business

The financial accounting (bookkeeping) system requires the creation of common grounds with regard to concepts for the purposes of generating financial reporting. This is the prerequisite of its recognition as a common language of business. What lies in the interest of each country and each economic entity and institution is to be subjected to commonly approved regulations. Otherwise, communication and cooperation will be endangered with external entities and institutions. In a situation of a dynamic increase of flows of capital, goods, services, and labour between various regions and countries in the world, it should be of paramount importance to obtain appropriate, uniform information, which would trigger mechanisms allowing for a more effective utilisation of the limited resources of our planet for the benefit of the society. This is to be effected by the flow of information and factors of production from inferior enterprises and economies to the better ones which guarantee high return rates and a more rapid multiplication of invested capital. A new challenge is the development of the public interest of global standards, which would provide the ability to prepare transparent and comparable financial statements. The process of their development gathers not only accountants but also academic centres, financial analysts, financial statement users, financial market regulating institutions, interested individual entities, and organisations from over the world.

In accordance with many authors, the progressing globalisation of the world's economy strongly incurs the necessity for adjusting the basic business communication tool, which is accounting, to its needs.

Accounting as the common language of business should be not only understandable in scope of the entire national economy, a particular trade but also for the owners of agricultural holdings. The transformation of family holdings accordant with the conditions of the market economy requires on the one hand the creation of an efficient information system for the purposes of the ongoing management of individual holdings by farmers, and on the other hand, the fulfilment of the information-related needs for creating the widely understood agricultural policy by the authorities. An example may be the "old" European Union Member States. In these countries, in order to meet the expectations of the agricultural policy, as early as in 1965 a legal regulation was approved in the EEC, pursuant to which a network for the accumulation of information in scope of agricultural holdings, accounting has been created (The Farm Accountancy Data Network - FADN). The task of this network is the accumulation of accounting information necessary in particular for the determination of the income of agricultural holdings included in the research and the analysis of the activity of agricultural holdings. A common information platform has been created for evaluating the income status of the widely understood agricultural activity. This allowed accumulating and processing data in accordance with a uniform data format which could then be uniformly interpreted in all these countries and at the same time allowed for performing mutual comparisons. The concept of developing accountancy as a "common language" for describing economic phenomena has been realised in this manner.

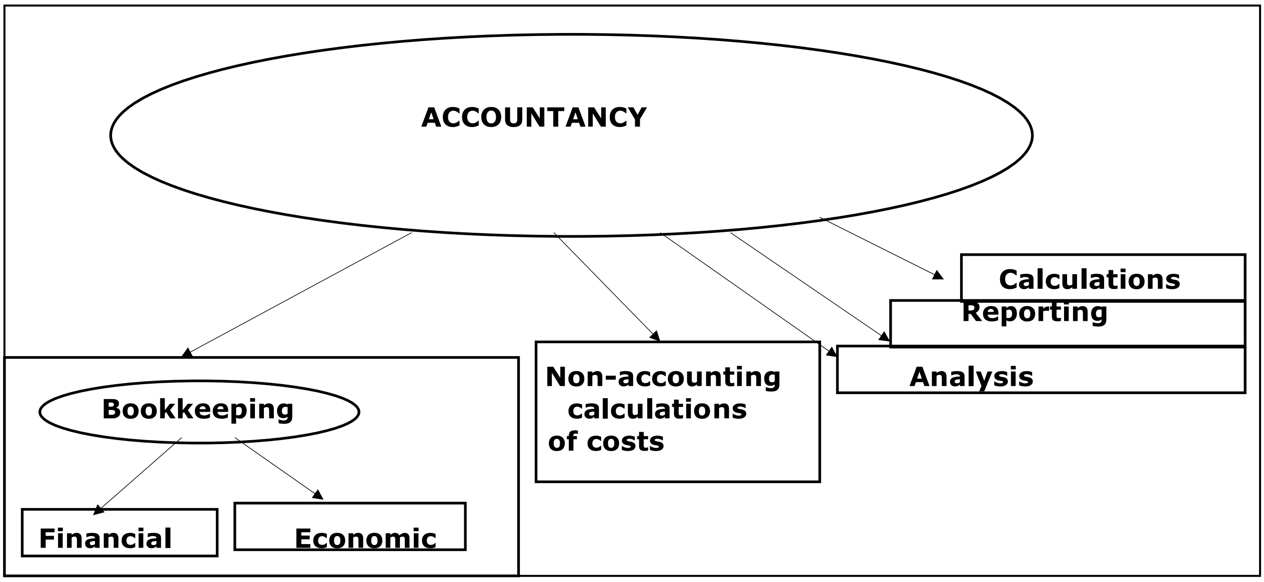
In Poland, the interest in accountancy of smaller peasant holdings can be observed from the beginning of the 20th century[3]. In the interwar period, there was a custom of organising meetings of agricultural accountancy office directors. Thirteen such meetings took place[4]. In the post-war period, there was a breakdown of the bookkeeping records conducted in peasant holdings. In the People's Republic of Poland, records in scope of the Accountancy Department of the Institute of Agricultural Economics (Zaklad Rachunkowosci Instytutu Ekonomiki Rolnej) have been retained for research purposes only. The effects of this crisis are felt to this day and have a significant influence on the existing delays in scope of implementing the accounting system in agriculture.

Agricultural economists understood the meaning of accountancy in the scope of conducting economic activity and tried to transplant theoretical and practical experiences of the Western countries to Poland. Professor Ryszard Manteuffel did great services in this field. Two volumes of the handbook "Rachunkowosc Rolnicza" (Agricultural Accountancy) were published at the turn of 1963 and 1964. The first volume was titled "ksiegowosc rolnicza (systemy, metody, technika)" (Agricultural Bookkeeping (Systems, Methods, Techniques)), while the second one described costs, valuation, calculations, and reporting. The aforementioned books constituted a very exhaustive compendium of knowledge about recording economic activity, appraising assets of holdings as well as modern methods of planning in agriculture. According to Manteuffel (1984), "accountancy includes bookkeeping, non-accounting cost calculations, reporting and calculations. Sometimes the analysis of agricultural activity of economic entities is also included in accountancy". An illustration of the division of accountancy proposed by the author is included in Figure 1.

Such a wide understanding of accountancy introduces differences in the scope and tasks for agricultural accountancy. On the conditions of an agricultural holding, one may distinguish economic bookkeeping directed at the internal needs of the entity and financial bookkeeping, which is to help prepare financial statements for external purposes. This division has essential meaning for the final form of records in agriculture. It is economic accountancy as understood by R. Manteuffel which substitutes operative records utilised for the purposes of management in an agricultural holding.

3 In 1908, a book by J. Kawecki titled "Rachunkowosc gospodarcza" (Economic Accountancy) has been published. It was written with small holdings in mind. It soon proved too difficult to maintain on such small farms. The search for other solutions continued. Studies in scope of planning were published (Surzycki, 1909) and attempts to transplant American solutions to Polish grounds were made (Pacoszynski, 1911)

4 These offices also provided their services for the benefit of large grange holdings which were obliged to pay income taxes. It is calculated that before the start of WWII the number of accounting closures in grange holdings performed by accountancy offices amounted to around 1 500. This should be supplemented with around 2 000 grange holdings conducting bookkeeping in their own scope and 800 utilising the Department of Economics of Small Agricultural Holdings (Wydzial Ekonomiki Drobnych Gospodarstw)



Source: Encyklopedia Ekonomiczno-Rolnicza, 1984

Fig. 1. **Division of accountancy according to R. Manteuffel**

It is a very important statement, which has its consequences in defining such terms as economic event, economic operation, economic function etc. According to Manteuffel (1965), "economic events are facts taking place in a holding during the production process, which cause changes, quantitative or qualitative, in the composition of means (assets) of such holding, or in scope of the sources, from which they stem". They are the subject of primary documentation and subsequently further elaborations in the scope of accountancy and bookkeeping. In reference books about industrial enterprises' accountancy, e.g. Mala Encyklopedia Rachunkowosci (Small Encyclopaedia of Accountancy) (1971), there is no definition of the economic event. It is the economic operation, understood as an economic event, which may be expressed in money that becomes the subject of interest of accountancy. This is a consequence of the assumption that accountancy uses the pecuniary measure and expresses the course of economic events only in money. Assuming such a limitation, it should be taken into consideration that one limits the scope of accountancy to the value-related measure, which is universal and quite comfortable but at the same not sufficient for information systems directed at supporting the process of management in enterprises.

The measure of profitability of holdings and cost-efficiency of individual activities should be performed not only in systematic bookkeeping records but also in the scope of the "non-accounting cost calculation" and "calculations" included in the content of the widely understood accountancy. This period bore witness to the popularisation of the category of gross margin (of gross profit, direct income) in economic and agricultural literature. This margin was calculated as the difference between the value of production in relation with activity and direct costs at the stage of recording, or variable costs at the stage of planning. Many new proposals were suggested, pertaining to dividing costs into direct and indirect at the stage of recording or into variable and constant at the stage of planning.

Information taken from economic bookkeeping is to help in planning and making decisions about the future. According to R. Manteuffel, the appropriate use of these data and the construction of tools for their processing (decision models) are parts of the science of economics and organisation of agricultural holdings (enterprises). A theory of the organic nature of agricultural holdings was created on this basis. It effected among others in the negation of calculating full unit costs of production (analytical approach).

A key issue in this case is the compatibility of terms and algorithms utilised to calculate the individual result categories on the stage of evidence and construction of decision models. The development of the IAS 41 "Agriculture" is an important step on the road to solving this problem.

2. Aims and scope of the IAS 41

The need to develop a standard pertaining to agricultural accountancy resulted from many aspects. The most important are:

a) because of the biological nature of its production, agriculture is characterised by a certain specificity which results in the requirement of a different recording and valuation than in the other sectors;
b) the essence of agricultural activity means that events related with biological transformations (growth, degeneration, production, and procreation), which change the essence of biological assets, are difficult to record in accordance with the model of accounting based on the historical cost principle and implementation principle (traditional model of accounting);
c) as a result of a rapid growth of the scale, scope and commercialisation of agricultural activity, the need to prepare financial statements in agriculture on the basis of solid and commonly approved accounting principles is becoming more pressing.

The aim of the IAS 41 was to determine manners of bookkeeping, presentation in financial statements and disclosure of information on agricultural activity. The standard imposes the requirement of valuating biological assets at fair value from the moment of the initial recognition until the moment of cropping/acquisition. The IAS 41 does not pertain to the recognition of the course of processing agricultural products after their acquisition. The regulations of IAS 2 "Inventories" or other appropriate standards should be utilised with regard to this group of products

The use of fair value for the valuation of inventories takes into consideration the objection expressed by agricultural economists, regarding the calculation of full unit costs for agricultural products (biological assets). The standard abolishes this obligation and even prohibits their valuation in accordance with unit production costs. Such an appraisal should be performed with consideration of fair value[5]. An item of biological assets is appraised at the moment of the initial recognition and per each balance sheet day at fair value decreased by the estimated costs related to sales, with exception of a situation when the fair value may not be reliably specified. In such an event either one does not make the valuation (assume the value as zero) and waits until a reliable appraisal of the item becomes possible, or alternatively appraises the item at purchase price or production cost[6] and also when it becomes possible, valuation should be performed at fair value.

[5] Fair value is the amount for which an item of assets can be exchanged on market conditions, and the liability regulated between interested and well informed parties to a transaction

[6] For example, the value of plant production in progress may be appraised as "inventories at the field" of the utilised production means (seeds, fertilisers etc.)

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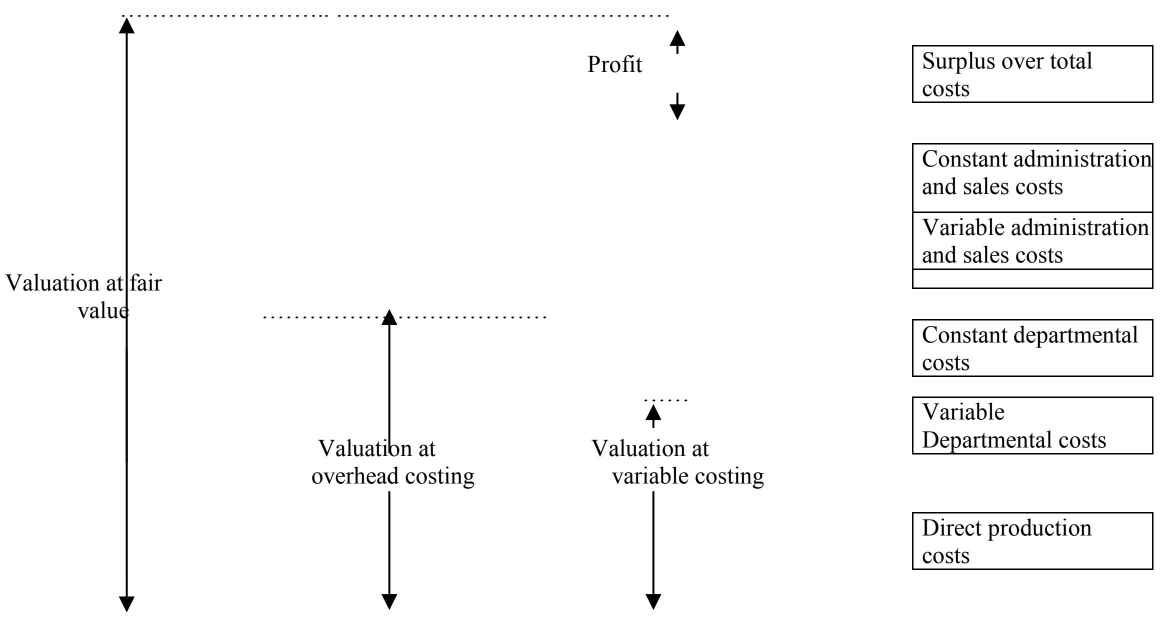
In a situation specified by Kondraszuk (2010), the determination of the value of revenues from sales for agricultural activity comes down to calculating revenues from the newly manufactured products in the financial accounting period (economic year). If the inventories are appraised at fair value, this means that while calculating revenues they will be treated as if they were already sold. Figure 2 presents the differences between the valuation of inventories at variable costing, overhead costing, and fair value.



Source: T. Kondraszuk, 2010; Uwarunkowania ustalania przychodow w rolnictwie ze szczegolnym uwzglednieniem zastosowania wartosci godziwej. (Conditions of Determining Revenues in Agriculture with Special Consideration of the Utilisation of Fair Value) ZTR 54 (110). SKwP, Warsaw

Fig. 2. **Variants of valuation of inventories and their value**

While valuating at fair value as early as at the stage of gathering crops/acquisition, one assumes the realisation of profit at a specified level, which in case of the income tax, may cause the increase of this level, i.e. negative effects. This is a deviation from the historical cost and sales principles; however, in the conditions where most economic entities conducting agricultural economic activity are small, independent family holdings acting based on cash accounting, it is fully legitimate.

Conclusion and findings

The environment of agricultural economists has awaited a document presenting the principles of preparing and submitting financial statements in agriculture with great expectations. Agricultural activity is defined as management of the biological transformation of livestock or cultivable plants (biological assets) for sale into agricultural products or other biological assets by an economic entity. The IAS 41 "Agriculture" authorised the resultant categories utilised previously on the grounds of economics and organisation of holdings and the methods of their calculation.

This definitely ended the period of "interregnum" in the scope of preparing and interpreting financial statements in agriculture, including also those pertaining to the measurement of costs and valuation of inventories. Currently, a chance emerges that the state of agricultural activity created in accordance with

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the International Financial Reporting Standards will be consistent with the theory of economics and organisation of agricultural holdings.

The introduction of the "fair value" has shown the differences in measuring and appraising the achievements of economic entities in agriculture. The use of fair value for valuating biological assets' effects in the financial result being calculated as at the moment of acquisition of agricultural products instead of their sales. In case of functioning of the active market, such an "optimistic" solution should be treated as appropriate and not endangering the execution of the principle of "continuity of operations". It should be appropriately recognised in the adopted accounting policy and related to its remaining elements. In the scope of the accounting policy, it becomes very important to adopt an appropriate accounting year minimising the effects of the "optimistic" valuation of inventories of manufactured products. Traditionally, for holdings with plant production, such a period is between 1 July and 30 June of the subsequent year.

It also seems that the adopted solutions of the IAS 41 are accordant with the principle of "economics of information" and their utility (substance over form principle).

In conclusion, the merits of the IAS 41 clearly prevail over its disadvantages and may well become the foundation on which agricultural accountancy in Poland will be reborn.

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THEORETICAL ASPECTS OF LABOUR TAXES AND THEIR EFFECTS ON THE LABOUR MARKET

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Abstract. Labour taxes compose a part of the business environment, leaving potential impact on labour costs, net wages, employment, and unemployment rate. The aim of the present paper is to ascertain the effects of changes in the burden of labour taxes on the labour market seeking the answer to the question what form it could take and what could be the scale of this effect. To assess the effects of changes in the burden of labour taxes, the scientific literature was analysed and various research findings were examined and compared in the paper. The present research found that labour taxes can affect wages, the extent of engagement of employees in the labour market, the number of hours worked and labour costs, and the rates of unemployment and employment in the country. However, research works of many authors give evidence that changes in labour taxes may have different effects depending on the particular situation. It mainly depends on the approach in what way the burden of labour taxes (the average or marginal rate) is reduced and how powerful are non-governmental agents.

Key words: labour taxes, employment, labour costs.

JEL codes: E24, E62, J21

Introduction

The European Union is an area of relatively high taxes, in which taxes as a percentage of GDP reach almost 40% (General Tax Policy, 2013), of which labour taxes compose a significant share. For the average wage earner in Latvia, labour taxes account for 44.2% of total labour cost paid by the employer, which is more than in the EU Member States on average where the burden of labour taxes is equal to 43.7% (SEB Baltic Household..., 2013). In Lithuania and Estonia, however, the burden of labour taxes is 40.7% and 40.1%, respectively. Given the fact that labour taxes can significantly affect businesses, which are the basis for the development of the national economy, the present research analysed the literature on effects of labour taxes on a country's economic indicators. Besides, employment is one of the key aspects in rural areas, thus, labour taxes directly affect the balanced development of the country.

According to the informative report "Personal Income Tax Reliefs" by the Ministry of Finance of the Republic of Latvia, labour force taxes are defined as a set of taxes and payments, which includes employee's mandatory state social insurance contributions (MSSIC) and personal income tax (PIT), taking into account the non-taxable minimum and tax exemptions for dependents (Informative Report on..., 2011). However, labour taxes are a set of taxes and payments that include both the employer's and

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the employee's MSSIC and PIT, taking into account the non-taxable minimum and tax exemptions for dependents.

The effects of changes in the labour taxes are little researched in Latvia. The Ministry of Finance has developed an informative report (2011) on the effects of personal income tax reliefs from the aspects of effectiveness and tax administration. In 2012, the Economic Forecasting Centre prepared an expert evaluation on the required changes in the labour tax policy (Changes in the Labour Tax…, 2012), whereas A. Nipers and I. Dovladbekova (2008) published a research in which they analysed economic interrelationships regarding tax effects on unemployment and wages based on the data of developed countries. Moreover, there are a few quantitative research works on the effects of labour taxes in Latvia; thereby, foreign research papers and methodologies for estimating tax effects are described as well.

A number of scientists suggest that labour taxes primarily affect labour costs and wages of employees (Brunello G. et al., 2002; Alesina A., Perotti R., 1997; Padoa-Schioppa F., 1992) and these effects may be of short- and long-term (Arpaia A., Carone G., 2004). Other researchers analyse the effects of labour taxes on incomes of individuals (The Role and…, 2011) and labour supply (Brewer M. et al., 2006; Disney R., 2000; Blundell R. W., 1995; Bovenberg L., 2003) as well as on the number of hours worked. A number of other authors analyse the effects of labour taxes on unemployment and employment (Berger T., Everaert G., 2010; The role and…, 2011; Arpaia A., Carone G., 2004; Disney R., 2000; Planas C. et al., 2007; Daveri F., Tabellini G., 1997; Boehringer C. et al., 2004; Bovenberg L., 2003; Parmentier A., 2006), which also relate with the economic growth both in a country as the whole and in individual its regions. It has to be noted that scientists' opinions of the burden of labour taxes, its extent, and relation to the unemployment rate vary.

Several studies have been conducted to identify the effects of labour tax reliefs on certain social strata, mainly socially sensitive ones – single parents, families with children (Brewer M. et al., 2006; Ribao-Cano C., McNown R., 2005; The Role and…, 2011; Blundell R. W., 1995; Fougere M. et. Al., 2012; Dolenc P., Laporsek S., 2012) – to whom labour tax reliefs most often apply.

Given the fact that labour taxes can affect the labour market, the following hypothesis is set: the labour taxes may have differentiated effects on the labour market. The research aim is to ascertain the effects of changes in the burden of labour taxes on the labour market – what form it could take and what the scale could be of its effect. To achieve the aim, the following research tasks were set:

1) to examine the effects of labour taxes on the nation's economic indicators;
2) to describe the methods and indicators for examining labour tax effects.

Research materials and methods. The present paper analysed research works of scientists to identify the effects of labour taxes on the labour market and examined methodologies for estimating tax effects. The monographic and descriptive methods were employed to make a theoretical discussion and interpret research results based on scientific findings and theories regarding labour tax effects on economic indicators.

Research results and discussion

1. Effects of the labour taxes on the nation's economic indicators

After examining the effects of labour taxes in the scientific literature, one can conclude that changes in labour taxes primarily affect labour costs (Padoa-Schioppa F., 1992) and net wages of employees

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(Arpaia A., Carone G., 2004; Alesina A., Perotti R., 1997; Brunello G. et al., 2002; Ziliak J. P., Kniesner T. J., 2005). By using statistical analysis methods, A. Alesina and R. Perotti (1997) found that a 1% increase in labour taxes raised labour costs by 0.15% on average. In her mathematical model, F. Padoa-Schioppa (1992) discovered that raising the tax wedge by 1% led to a 0.14% rise in labour costs on average. However, it has to be stressed that any tax-push differs across countries and over various periods as well as because of tax policies of the particular countries.

In this context, an approach proposed by A. Arpaia and G. Carone (2004) may be considered logical and theoretically justified, as it suggests dividing the effects of changes in labour taxes into short- and long-term effects. In a short-term, the effects are made both on labour costs and on the net wage level. In a long-term, in contrast, there are no effects of changes in labour taxes on labour costs, thus, effects become apparent through the net wage level of employees. According to the calculations made by researchers, a 1% increase in labour taxes simultaneously causes a 0.1% increase in real labour costs.

The mathematical calculations performed by Brunello et al. (2002) also reveal that labour taxes considerably affect the pre-tax wage. Besides, there are significant differences among various age groups. F. Daveri and G. Tabellini (1997) point that higher labour taxes raise gross wages; however, it takes place only in the countries of Continental Europe rather than in the UK and the USA. A research performed by E. Koskela and J. Vilmunen (1994) provides findings different from other scientific research works. Namely, an increase in labour taxes reduces wages and increases employment. This research was based on three well-known models of trade union behaviour: monopoly union, "right-to-manage", and the efficient bargain model.

Changes in labour taxes can also affect the number of hours worked and the engagement of employees into the labour market (labour supply). To identify the effect of labour taxes on these economic indicators, the scientific literature mainly focuses on socially sensitive social groups, i.e. single parents, families with children (Brewer M. et al., 2006; Ribao-Cano C., McNown R., 2005; The Role and…, 2011; BlundellR. W., 1995; Disney R., 2000) to whom labour tax reliefs most often apply. R. W. Blundell (1995) has researched married women and single parents, as married women compose a social group that significantly react on tax incentives, while special tax reliefs often apply to single parents, besides, they have limited opportunities to gain other kinds of income. Employing the method of modelling, the present research found that a few of the labour tax reforms implemented fostered the engagement of individuals into the labour market (for instance, changes in the welfare system), while other reforms lead to even more active employment (income tax reductions). A research performed by M. Breweret et al. (2006), in which the second degree polynomial expansion was employed, evidenced that a tax relief reform implemented in Great Britain (Working Families' Tax Credit – WFTC) made a positive effect on the labour supply, especially in relation to single-parent families. In the result of the reform, the employment of single mothers rose by 5.11 percentage points, compared with the previous programme (Family Credit) period. It was more difficult to identify an effect of WFTC in relation to two-parent families. The WFTC programme slightly reduced the employment of mothers from two-parent families (by 0.57 percentage points), and slightly increased the employment of fathers, by 0.75 percentage points. Given both kinds of families, the programme affected approximately 81 000 employees, of which 2/3 were women. The research also considered other kinds of tax relief that affected families with children in an opposite way – reduced the engagement of parents into the labour market. The researchers found that the overall effect caused by labour tax reliefs was as follows: the employment of single mothers rose by 3.72 percentage points and the employment of both parents (men and women) decreased (by 0.40 and 0.49 percentage points, respectively). Taken as a whole, it corresponded to an increase in employment by 22 000 individuals (1/4 of it was the effect of WFTC).

Labour taxes can also affect the rates of unemployment and employment in a country. A number of research works evidence that there is an association between the burden of labour taxes and the rates of unemployment and employment (Brunello G. et al., 2001; Berger T., Everaert G., 2010; Koskela E., Vilmunen J., 1994; Planas C. et al., 2007). Several authors point that labour taxes affect unemployment to a relatively greater extent in the countries with medium centralisation regarding negotiations on wages (Daveri F., Tabellini G., 2000). T. Berger and G. Everaert (2010) agree with this assertion, pointing that labour taxes and unemployment depend on the institutions determining wages in any given country.

It has to be emphasised that the opinions of various authors on the effects of labour taxes on the rates of unemployment and employment are controversial. M. Lehmus (2013), analysing the labour taxes in Finland in the period of 1996-2008, applied the dynamic general equilibrium model, which was adapted to Finland's economy, especially to its labour market, and used micro data. He found that the reforms of labour taxes in the period of 1996-2008 contributed to an increase in employment by 1.4% which corresponded to a 8.5% rise in the overall employment in that period. Therefore, one can conclude that although the reduction of labour taxes contributed to employment, yet, the overall contribution of tax reforms in the final result was insignificant or modest.

C. Planas et al. (2007), after analysing the effects of labour taxes on unemployment in the euro area countries by employing econometric methods (in the period from 1970 to 2002), concluded that the rates of labour taxes had increased by almost one half (40%) since 1970, which was a cause for increases in unemployment. According to the authors' calculations, the tax elasticity of unemployment was equal to 0.32, and a reduction of labour taxes might lead to a decrease in the unemployment rate in the countries of Continental Europe. The OLG growth model developed by F. Daveri and G. Tabellini (1997) showed that the burden of labour taxes was for more than 50% a cause of the rise in unemployment in the West European countries. Besides, the unemployment elasticity of labour tax burden was approximately 0.43.

The calculations performed by A. Arpaia and G. Carone (2004) reveal that the unemployment rate is not always high in the countries with a high burden of taxes, however, in most instances, it tends to be higher after an increase in labour taxes. Like in research works performed by other authors, the present research found that the burden of taxes did not affect unemployment in a long-term. T. Berger and G. Everaert (2010) also point that the effects of labour tax reductions on unemployment should not be overestimated, as other significant factors affect it as well. They believe that reducing of labour taxes for decreasing the unemployment rate may be useful in the countries with strong trade unions and decentralised wage systems, though, the effect should not be overestimated. A researcher M. Hoel (1990), who employed a mathematical model in his research that was based on the efficiency wage model with taxes, agrees that reducing of labour taxes not always leads to decreases in unemployment. The author's calculations showed that in a situation when marginal tax rates were reduced but the average rates of labour taxes remained constant, wages and the unemployment rate would increase. C. Boehringer et al. (2004) has also found that labour taxes minimally affected the unemployment rate. The reason why higher labour taxes can reduce employment according to various research works

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performed by economists is often associated with the effect of tax policies on labour supply – wages will decrease owing to higher taxes and part of employees will quit their job.

It is important to stress that some researches (Lockwood B., Manning A., 1993; Koskela E., Vilmunen J., 1994; Roed K., Strom S., 1999) highlight the positive effect of a progressive tax system on employment. It may be explained by the fact that wages are determined in negotiations rather than it is a result of equilibrium of labour supply and demand (Koskela E., Vilmunen J., 1994).

The scientific literature stresses that changes in labour taxes can contribute to employment, which leads to economic growth in a country as a whole and in individual its regions, which is best characterised by GDP. After analysing the effects of labour taxes and welfare system on employment, unemployment, and economic growth in the OECD countries, R. Disney (2000) concludes that the effects of high labour taxes on economic growth are different. In measuring the effects of tax policies by using the approach "differences of differences" and the structural labour supply estimation, he found that direct labour taxes affected employment and unemployment only if the supply of labour was inelastic or the labour market was not competitive.

In their research, F. Daveri un G. Tabellini (1997) have concluded that a rise in labour taxes is associated with a slowdown in economic growth. It is evidenced by case studies in Germany and France for the periods of 1965-1975 and 1976-1991 when the labour taxes were increased by 8% and 10% in the respective periods. It led to a decline in GDP per capita (by approximately 0.4%) and a rise in the unemployment rate by about 3-5%. In Europe as a whole, a 10% rise in labour taxes leads to a 4% increase in unemployment and a 0.4% decrease in GDP per capita.

2. Methods and indicators for assessing the effects of labour taxes

The effects of changes in the labour taxes on various indicators of labour market and national economy as well as the research methods employed are summarised in Table 1.

Table 1

Characteristics of the effects of labour taxes on economic indicators

Scientists, researchers	Research methods employed	Economic indicators affected by labour tax changes	Characteristics of effects
Universita Bocconi, Centre for Research on the Public Sector (2011)	• descriptive statistics • regression analysis	• rates of unemployment and employment, • individuals' engagement (inactivity) in the labour market, • number of hours worked, • poverty and income inequality	Effects of a labour tax policy on the rate of unemployment, the rate of employment, inactivity in the labour market, and changes in the number of hours worked per week are very weak
A. Arpaia, G. Carone (2004)	• descriptive statistics (period 1980 – 2000) • econometric methods	• labour costs • net wages of employees • rates of unemployment and employment	• a 1% increase in labour taxes leads to a 0.1% rise in real labour costs • in a long-term, the burden of taxes does not affect unemployment
R. W. Blundell (1995)	modelling (simulation)	• number of hours worked • individuals' engagement in the	Some labour tax reforms motivate individuals to engage in the labour market (changes in the welfare system), while other reforms lead to even more active employment (income tax reductions)

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		labour market	
T. Berger, G. Everaert (2010)	Maddala and Wu panel unit root tests and co-integration tests	● rates of unemployment and employment	● effects of labour taxes on unemployment are statistically significant only in European countries. ● reducing labour taxes with the purpose of decreasing the rate of unemployment may be useful in the countries with strong trade unions and decentralised wage systems, yet, the effect should not be overestimated
A. Alesina, R. Perotti (1997)	statistical analysis	● labour costs	a 1% increase in labour taxes leads to a 0.15% rise in labour costs on average
F. Padoa-Schioppa (1992)	mathematical model – a theoretical microeconomic model is created, from which a macroeconomic model for wage changes caused by changes in a labour tax is derived	● labour costs	a 1% increase in the tax wedge leads to a 0.14% rise in labour costs on average
C. Planas, W. Roeger, A. Rossi (2007)	econometric methods based on the Philips curve equation	● unemployment rate	● an increase in the labour tax rate leads to a rise in the rate of unemployment ● the tax elasticity of unemployment is equal to 0.32, and a reduction of labour taxes may lead to a decrease in the unemployment rate in the countries of Continental Europe
F. Daveri, G. Tabellini (1997)	an economic growth model in which equilibrium unemployment is affected by monopolistic trade unions	● unemployment rate ● GDP	● the unemployment elasticity of labour tax burden is approximately 0.43, and the burden is more than 50% cause of the rise in unemployment in West European countries ● higher taxes increase gross wages ● a rise in labour taxes also causes a slowdown in economic growth. In Europe, a 10% rise in labour taxes leads to a 4% increase in unemployment and a 0.4% decrease in GDP per capita a year

Source: author's calculations based on scientific literature analysis

According to the information in Table 1, the changes in labour taxes can influence the labour market by affecting such economic indicators as labour costs, wages of employees, and rates of employment and unemployment. However, the calculations performed by scientists lead to different findings, which are mainly determined by the methodology chosen in any given research; it has to be taken into consideration when performing particular calculations for Latvia.

Conclusions

1. Over the recent decades, a number of scientists have researched the effects of labour taxes on various economic indicators in countries revealing different research findings, which have mainly been determined by the applied methodology. The different effects of labour taxes in a country are determined by several factors, i.e. how the burden of labour taxes (the average or marginal rate) is reduced and how strong are the non-governmental agents.
2. Labour taxes can affect wages of employees, the extent of their engagement in the labour market, the number of hours worked, and labour costs. Besides, changes in the labour tax policy can lead to considerable corrections in the rates of employment and unemployment, which, in their turn, affect economic growth both in the country as a whole and in its regions.
3. In the scientific literature, a number of research works are available focusing on the effects of labour tax reliefs on certain social groups, mainly socially sensitive ones, i.e. single parents, families with children, and old employees, to who labour tax reliefs most often apply in the

context of labour tax policy. In research works, it has been found that changes in a labour tax can significantly affect the engagement of these social groups into the labour market as well as wages.

4. In the research on the effects of labour taxes, various methods of statistical analysis have been employed (the descriptive method, regression analysis etc.), and econometric methods as well as mathematical models have been developed, which has led to different findings on the effects of labour taxes on the labour market in any particular country.

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TAX PAYMENTS OF AGRICULTURAL SECTOR IN LATVIA

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Abstract. Enterprises of various legal forms operate in the agricultural sector of Latvia; the imposition of taxes varies for these enterprises, and consequently, their tax burden is different. An essential increase of the tax burden particularly for small agricultural enterprises was observed for the period of 2010-2012 due to the legislative amendments, thus, disregarding the equity principle of taxation system. The research is aimed at the study of taxes paid into the state budget by agricultural enterprises, the dynamics of paid taxes, and tax burden for different groups of taxpayers. Tasks to achieve the set aim: to study the dynamics of agricultural sector enterprises and different legal forms; to analyse the tendencies in tax payments made by agricultural enterprises; and to compare the income tax differences for different taxpayers. The research results allowed concluding that reimbursements of taxes and different tax reliefs in the agricultural sector considerably exceed tax payments into the budget. Tax differences for agricultural enterprises of different forms have declined since 2013; thus, aligning both the tax rates and application of tax reliefs. However, the planned amendments in relation to the imposition of the income tax on subsidies from 2017 will significantly increase the tax burden of agricultural enterprises. A timely decision on compensating tax allowances for all active farmers shall be adopted to reduce the negative impact of tax increase on agricultural enterprises.

Key words: taxes, tax reliefs in agriculture, personal income tax, corporate income tax, value added tax.
JEL code: H21, H26

Introduction

Enterprises of various legal forms operate in the agricultural sector of Latvia, of which the majority is constituted by agricultural farms, self-employed entities, limited liability companies (Ltd), and individual merchants (IM). The imposition of taxes varies for these enterprises, and consequently, their tax burden is different. An essential increase of the tax burden, particularly, for small agricultural enterprises was observed for the period of 2010-2012 due to the legislative amendments, thus, disregarding the equity principle of taxation system. This was concluded in the previous research on tax problems in agricultural sector of Latvia (Leibus, 2009, 2011; Vitola, Leibus, Joma, 2012).

The research **aim** is to study the taxes paid into the state budget by agricultural sector enterprises and the tax burden for different groups of taxpayers.

Tasks to achieve the set aim:

1) to study the dynamics of agricultural sector enterprises and different legal forms;
2) to analyse the tendencies in tax payments made by agricultural enterprises;
3) to compare the income tax differences for different taxpayers.

Research **hypothesis**: agricultural enterprises of different legal forms have different tax burden; however, these differences decrease.

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The research period covers 10 years, i.e. from 2004 to 2013; although, the data used for the comparison of several indicators are available for a shorter period. The research analyses the tax payments made by agricultural enterprises into the state budget and the tax reimbursements from the state budget. The immovable property tax which is paid into the budget of that local government which territory locates the immovable property of an enterprise is not analysed in the present research.

The research methods: monographic, abstract-logical reasoning, analysis, and synthesis.

Research results

1. Legal forms of the agricultural sector participants and their dynamics

In Latvia, the agricultural production may be implemented within the framework of several legal forms: becoming an entrepreneur, registering a commercial company (Ltd or joint stock companies (JSC)), registering as individual merchant, or performing the economic activity without becoming an entrepreneur: in the status of an agricultural farm or self-employed entity.

The Enterprise Register of the Republic of Latvia has registered 38.2 thousand agricultural farms or 12.4% of total registered companies between 1991 and 2013, of which 6.9 thousand farms have been liquidated; thereby, the Register still includes 30.6 thousand agricultural farms. Most farms have been registered in 1992 and 1993, yet, the number of newly registered agricultural farms and their proportion have essentially decreased since 2005 (Table 1).

Table 1

The number and proportion of agricultural farms registered by the Enterprise Register in Latvia for the period of 2004-2013

Indicator	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Registered agricultural farms	512	242	161	101	54	109	48	80	158	67
Agricultural farms of total companies, %	5.1	2.2	1.2	0.7	0.5	1.2	0.4	0.4	0.9	0.4

Source: Lursoft data

More profitable tax rates for the agricultural farms compared with farmers who have registered household plots or a Ltd company (for example, personal income tax on dividends) may partially explain the increase in the number of agricultural farms in 2009; while the afore-mentioned aspects and also deleting of the planned re-registration of agricultural farms explain the increase in 2012.

However, the number of economically active units in agriculture, i.e. subjects who produce for market or employ at least one employee best characterise the types of legal forms and their dynamics. Such data of the Central Statistical Bureau (CSB) are available from 2005. The number of economically active units in agriculture decreases with every year (Figure 1); at the end of 2012, they accounted for approximately 30 thousand units, of which only 11.6 thousand or 38.7% are agricultural farms. Household plots or self-employed entities still demonstrate the largest proportion – in 2012, they accounted for 50.2% of economically active units in agriculture; though, their proportion is slightly decreasing within the recent years. The proportion of commercial companies (JSC, Ltd) in agriculture is still relatively small – 9.1%, individual merchants - 2.0%; nevertheless this proportion slightly increases with every year. The increase is achieved mainly due to two factors: 1) generational renewal in agriculture, as the young farmers better choose the type of an entrepreneur; and 2) adjustments of tax legislation envisaging tax allowances

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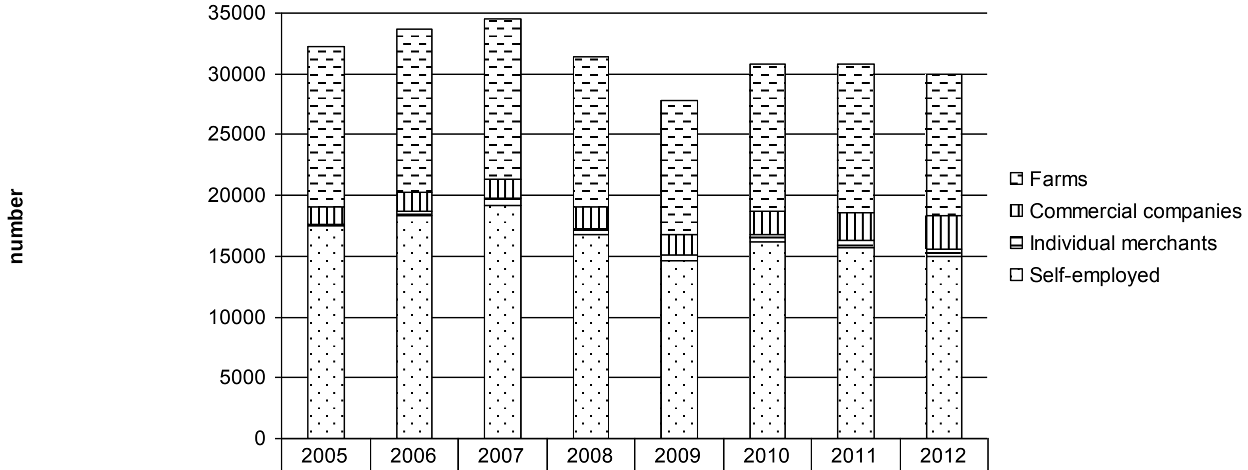
consistent with the type of occupation not with the type of business form; thus, tax allowances are provided for all farmers regardless the form of business.



	2005	2006	2007	2008	2009	2010	2011	2012
Farms	13219	13439	13180	12325	11041	12100	12163	11594
Commercial companies	1465	1565	1611	1739	1679	1957	2326	2741
Individual merchants	112	294	553	508	518	528	564	591
Self-employed	17457	18390	19201	16809	14615	16226	15714	15042

Source: the CSB data, 2013

Fig. 1. **Economically active units in the agricultural sector by their legal form in Latvia for the period of 2005-2012**

The data of the State Revenue Service (SRS), in turn, show that 43.1 thousand taxpayers working in the sector of agriculture have been registered as of 15 August 2013, of which 61.8% were legal entities (agricultural farms, Ltd, JSC), 36.9% - performers of the economic activity or self-employed, and 1.3% - individual merchants. The number of taxpayers is approximately by 10 thousand larger than the economically active units provided by the CSB data. This demonstrates that large part of agricultural sector enterprises is registered but actually they do not perform an active economic activity. These are basically agricultural farms the owners of which have not liquidated the farms, since they hoped it to happen automatically with the registration of an agricultural farm in the Commercial Register which was planned in 2012. The only possibility for farmers who do not perform any more an active economic activity is to apply themselves for the liquidation of agricultural farm in the Enterprise Register due to the cancellation of the registration of agricultural farms. The minimum annual payment of the income taxes (for personal income tax (PIT), corporate income tax (CIT)) amounting to EUR 50 is effective from 2014 to promote the liquidation of such passive enterprises. This will stimulate the liquidation of actually non-operating enterprises in 2014; thus, increasing the fairness of statistical data.

2. Tax payments done by the agricultural sector participants and their dynamics in Latvia

Agricultural enterprises mainly pay taxes into the state budget; the only exception is the immovable property tax which is paid into the budget of that local government which territory locates the immovable property of an enterprise. From 2009 the annual tax payments of agricultural sector enterprises into the state budget comprise approximately LVL 30-35 million or 0.8% of total taxes administered by the SRS (Table 2). The Table excludes the data on immovable property tax.

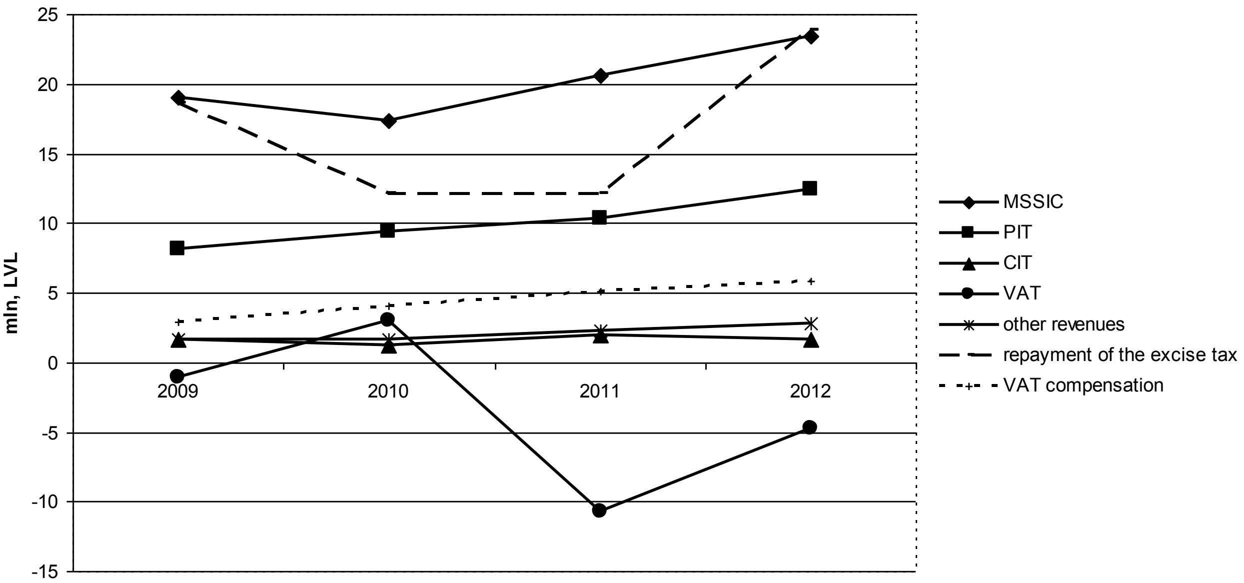
Table 2

Tax payments of agricultural enterprises into the state budget and their proportion of total taxes collected by the SRS in Latvia for the period of 2009-2012

Indicator	2009	2010	2011	2012	2012/ 2009, %
Total taxes collected, mln LVL	3935.76	3642.94	4060.16	4550.27	+ 15.61
incl., in agriculture, mln LVL	29.42	32.6	24.62	35.78	+ 21.62
proportion of agriculture, %	*0.75*	*0.89*	*0.61*	*0.79*	*+ 5.33*

Source: the SRS data, 2013

Tax decrease in 2011 may be explained by a significant increase in the repayments of the value added tax (VAT) (Figure 2), as the procedure for the VAT repayment was changed in 2011, and all the VAT overpayments accrued for the period of three years were repaid. The other tax payments of the agricultural enterprises increase with every year. The mandatory state social insurance contributions (MSSIC) outline the largest payments and the most rapid increase – LVL 23.40 million or 65.4% of the taxes paid into the state budget by farmers and the PIT – LVL 12.47 million in 2012. A slight increase in the number of employees from 2011 and the growth of the average salary in the sector may explain the increase in tax payments. Although, in general, the average salary in the sector is considerably lower than the average salary in the country, for example, LVL 245 and LVL 406 respectively in 2009, and LVL 272 and LVL 420 respectively in 2012 (VID dati, 2013).



Source: the SRS data and the data of the Ministry of Agriculture, 2013

Fig. 2. **Tax payments of agricultural enterprises into the state budget and the received tax compensations in Latvia for the period of 2009-2012, mln LVL**

Farmers pay relatively small amounts as the CIT (LVL 1.64 million in 2012), since farmers – the corporate income taxpayers have significant tax allowances: 1) the CIT is not imposed on subsidies; hence, in 2012, the income taxable by the CIT has decreased by LVL 80.66 million; and 2) producers of agricultural products are eligible for the CIT allowance in the amount of LVL 10 for each hectare of the utilised agricultural area (UAA); hence, in 2012, the allowance for the UAA was LVL 0.24 million (Table 3). The applied allowance for the UAA is relatively small, as it is applied after the reduction of the profit taxable by the CIT for subsidies, and the majority of agricultural enterprises have no taxable income afterwards.

Other tax allowances are also very essential for farmers, as they significantly reduce the prime cost of agricultural production, thereby, increasing its competitiveness. The repayment of excise tax or the possibility to purchase diesel fuel without the excise tax generated the tax reduction by LVL 23.81 million in 2012 (Figure 2). The VAT compensations, paid to farmers who are not registered as the VAT payers and who deliver their production for processing or co-operatives, also increase with every year; hence, in 2012 amounting to LVL 5.80 million.

Those agricultural enterprises that are the PIT payers also receive tax allowances, as the annual income of LVL 2000 gained from agriculture is tax exempted income. Nevertheless, the number of taxpayers using the PIT relief declines (Table 3). In 2011, the PIT relief was used by 11082 taxpayers, while in 2012, this number was 11529 entities or by 447 taxpayers less compared with the previous period; the relief amount decreased by 2%. This relates with more favourable tax allowances for farmers being the CIT payers compared with the PIT payers and, thereby, re-registration of many agricultural farms from the PIT payers to the CIT payers. This is also indirectly evidenced by the increase in the number of CIT payers who use the CIT exemption on subsidies; their number has grown by 197 taxpayers.

Table 3

The CIT and PIT allowances used by agricultural enterprises in Latvia in 2011 and 2012

Indicator	Unit of measurement	2011	2012	2012/2011	
				+ / -	%
CIT relief on subsidies	number of taxpayers	2372	2569	197	8
	mln LVL	75.15	80.66	5.51	7
CIT allowance on the utilised agricultural area, 10 LVL/ha	number of taxpayers	664	963	299	45
	mln LVL	0.11	0.24	0.13	114
PIT exempted income from agriculture, LVL 2000 per year	number of taxpayers	11529	11082	-447	-4
	mln LVL	14.69	14.40	-0.29	-2

Source: Latvijas lauksaimnieciba, 2013

The data of Table 3 allow drawing conclusions on the number of agricultural enterprises having operated with at least small profit; in 2012, they amounted to approximately 13.65 thousand (2.57 thousand – the CIT payers and 11.08 thousand – the PIT payers) and, thereby, they have used the income tax allowances.

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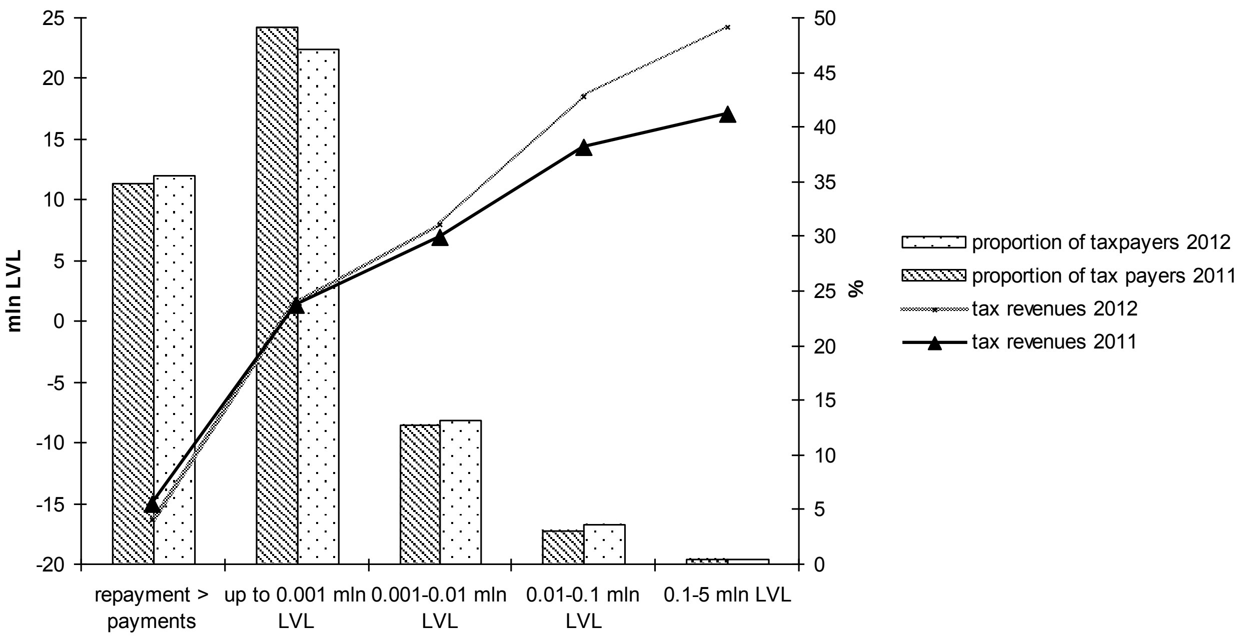

Source: the SRS data, 2013

Fig. 3. **The structure of number of agricultural enterprises by the amount of tax payments in Latvia in 2011 and 2012**

The analysis of agricultural sector taxes outlines the following tendency: in general, the tax allowance amounts increase more rapid compared with the tax payments. Though, the tax payments of agricultural sector are characterised with a very high concentration, i.e. a small part of taxpayers pay in taxes more than the entire sector, as tax repayment amounts from the state budget for a significant part of taxpayers exceed the amounts of tax payments into the budget (Figure 3). For example, 3.42% of taxpayers paid taxes amounting to LVL 31.42 million or 127.6% of tax payments of the sector into the state budget in 2011, the respective payments in 2012 made by 4.13% of taxpayers constituted LVL 42.77 million or 119.5% of tax payments of the sector. The proportion of paid taxes exceeds 100%, as tax repayment amounts from the budget for a large part or approximately 35% of taxpayers exceed their tax payments into the budget. Certainly, the concentration of tax payments is caused by a rapid concentration of agricultural production in a small number of agricultural farms, for example, 2.6% of total number of agricultural farms produced 60.8% of total standard output in 2010; these figures being the main characteristic indicators of the economic activity of agricultural farms (Latvijas lauku attistibas ..., 2013).

According to the SRS data, in 2012, the amounts of basic taxes (CIT, PIT, MSSIC, VAT) calculated for agricultural sector constitute 5.1% of turnover on average; however, there exist significant differences between the groups of taxpayers (Table 4).

In general, tax burden for natural entities (5.65%) is slightly higher than for legal entities (5.05%). Out of natural entities, the highest tax burden is experienced by those taxpayers whose annual turnover is below LVL 10 thousand (6.42%), while out of legal entities for those taxpayers whose annual turnover ranges between LVL 100 thousand and one million (5.72%). The PIT payments (5.31%), the proportion of which is the largest particularly for small farms, leave the most essential impact on the tax burden of natural entities.

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Table 4

Proportion of basic taxes to be paid into the state budget against the revenues in agricultural enterprises of different status and size in Latvia in 2012, %

Revenues, LVL	Natural entity		Legal entity, *of which*		
	total	incl. PIT	total	VAT payments	VAT repayment
1000-10000	6.42	6.06	-14.74	4.56	-27.71
10000-100000	2.27	1.98	2.3	6.87	-9.18
100000-1000000	2.54	2.44	5.72	8.03	-6.84
1000000-5000000	-	-	5.26	5.80	-5.61
> 5000000	-	-	5.08	3.05	-1.73
Total	**5.65**	**5.31**	**5.05**	**6.16**	**-5.64**

Source: the SRS data, 2013

The VAT payments into the state budget (6.16%) and the VAT repayments from the budget (-5.64%) which considerably decrease the tax burden leave the most essential impact on the tax burden of legal entities.

Table 5

State budget revenues from the producers of agricultural products by subsectors in Latvia in 2011 and 2012, thou. LVL

Subsector	Total taxes, thou. LVL	of which:							
		PIT		CIT		MSSIC		VAT	
		thou. LVL	%	thou. LVL	%	thou. LVL	%	thou. LVL	%
2011									
Annual crops	7392	3334	*45*	523	*7*	5978	*81*	-2926	*-40*
Permanent crops	481	146	*30*	36	*8*	305	*63*	-11	*-2*
Plant propagation	127	35	*27*	4	*3*	70	*55*	18	*15*
Livestock husbandry	3131	2670	*85*	563	*18*	5871	*188*	-6074	*-194*
Mixed farming	8003	3328	*42*	364	*5*	6731	*84*	-2529	*-32*
Additional activities and auxiliary works in agriculture	1354	363	*27*	89	*7*	748	*55*	116	*9*
Total	**20488**	**9875**	***48***	**1579**	***8***	**19702**	***96***	**-11405**	***-56***
2012									
Annual crops	14077	3794	*27*	593	*4*	6545	*46*	2620	*19*
Permanent crops	672	157	*23*	8	*1*	357	*53*	144	*21*
Plant propagation	169	31	*18*	-30	*-18*	76	*45*	91	*54*
Livestock husbandry	7856	3352	*43*	395	*5*	6928	*88*	-2982	*-38*
Mixed farming	7692	3811	*50*	222	*3*	7251	*94*	-3720	*-48*
Additional activities and auxiliary works in agriculture	1942	410	*21*	67	*3*	746	*38*	698	*36*
Total	**32409**	**11555**	***36***	**1255**	***4***	**21903**	***68***	**-3149**	***-10***

Source: Latvijas lauksaimnieciba, 2013

The VAT repayments from the state budget play a significant role for all size groups of legal entities. The VAT repayments for small enterprises having the annual turnover below LVL 100 thousand even exceed the VAT payments into the state budget, besides it creates a negative tax burden for the smallest enterprises, i.e. taxes are more received back from the budget in the form of VAT repayments than they are paid into the budget. This demonstrates that legal entities more use the advantage of VAT status

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compared with natural entities, i.e. registering as VAT payers; they receive back the input VAT on expenditure of economic activity, thus, considerably decreasing the enterprise expenses.

Tax payments noticeably vary also by different subsectors of producers of agricultural products (Table 5). The largest PIT and MSSIC payments are observed in labour intensive sectors – livestock husbandry and mixed farming. The VAT repayments are also the highest ones in these subsectors. This might be related with the investment made in modernisation of enterprises, as the input VAT on expenses in such cases is larger than the VAT calculated for the sales of production and the VAT rate of 0% applied to the export of production.

In Latvia, the agricultural enterprises engaged in mixed farming (LVL 8.0 mln) and growing of annual crops (LVL 7.4 mln) have made the largest tax payments in agriculture in 2011. In 2012, the tax payments of agricultural enterprises growing annual crops have almost doubled, mainly at the expense of VAT which was repaid from the state budget in 2011 (- LVL 2.9 mln) compared with the amounts paid into the budget in 2012 (LVL 2.6 mln). This tendency could continue also in the future, as mentioned above, the large VAT repayments in 2011 relate with the repayment of the accrued VAT for the previous periods. The VAT repayment declines also in livestock husbandry (from LVL 6.1 mln to LVL 3.0 mln), thereby, increasing tax payments into the budget (from LVL 3.1 mln to LVL 7.9 mln). In 2012, tax payments for agricultural enterprises engaged in mixed farming have slightly decreased with the increase of the VAT repayments from the budget.

3. Tax burden differences in agriculture depending on the status of a taxpayer

Farmers pay one of two taxes on the gained income: corporate income tax or personal income tax. The type of tax depends on the status of agricultural farm. Commercial companies pay the CIT, while individual merchants and household plots pay the PIT. Agricultural farms, in turn, may be the CIT or PIT payers. Even though, there are no statistical data on agricultural farms in this aspect, Table 3 indirectly reflects that the majority of agricultural farms are still registered as the PIT payers.

Table 6

Income tax differences depending on the legal status of agricultural enterprise in Latvia

Indicator	JSC, Ltd	Agricultural farm (CIT)	Agricultural farm (PIT), IM, household plot
Income tax and rate	CIT 15%, + on dividends PIT 10% (from 2010)	CIT 15% + on income comparable to dividends PIT 10% (from 2012)	PIT until 31.12.2007 - 25%; in 2008-2009 - 15%; in 2010 - 26%; in 2011-2012 - 25%; in 2013-2014- 24%; in 2015 - 23%; in 2016 - 22%
Tax reliefs	Tax is reduced according to the UAA size - LVL 10 per hectare, in 2014 – EUR 71.14		Income from agriculture and rural tourism was tax-exempt until 31.12.2008 in the amount of LVL 3000; in 2009 – LVL 4000; in 2010-2013 – LVL 2000; in 2014 – EUR 2846.74
Tax on subsidies	Tax-exempt income until 31.12.2016		In 2010-2012 income taxable by the PIT Tax-exempt income until 2010 and in 2013-2016
Term to cover losses	5 years; in especially supported territories – 10 years; no limit on terms – from 2008		3 years; in especially supported territories – 6 years
Advance payment of income tax	Not payable if at least 90% of income is gained from agriculture		½ of the income taxed within the previous year

Source: authors' construction based on the laws of the Republic of Latvia

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The amounts of income taxes payable into the budget substantially differ depending on the status of a taxpayer due to different tax rates and tax exemptions for agricultural enterprises (Table 6). This was especially expressive in the period of 2010-2012, thereby, many agricultural enterprises changed their status of a taxpayer to reduce the tax burden.

The situation has changed from 2013, and the tax rates are equal for all taxpayers in agriculture. It is possible to choose the most favourable status for every farm basically considering the size of farmed land. The calculations allow concluding that the status of the PIT payer from the point of tax costs is more favourable for agricultural farms having small UAA. The respective UAA by years ranges between 30 and 50 hectares depending on the year, as the PIT rates have been fundamentally changed for several times during the analysed period: rate, taxable income from agriculture etc.

Different tax exemption on subsidies existed also in Latvia for two years (2010-2012), the CIT payers did not pay CIT on them, while the PIT payers had to pay PIT on subsidies. This rate is aligned from 2013 and currently it is planned that starting from 2017 subsidies will not be exempted from the payment of income tax for all farmers; thus, in 2018, substantially increasing tax payments of the sector and tax burden of agricultural enterprises. A timely decision on compensating tax allowances for farmers shall be adopted to avoid a dramatic tax increase. There is no need to introduce new allowances; it is necessary to increase the existing tax allowances which constitute EUR 71.14 per farmed hectare of the UAA for the CIT payers in 2014, while the annual tax-exempt income from agriculture for the PIT payers is EUR 2846.74. In addition, the tax allowance for the PIT payers was halved in 2010 due to the impact of the economic crisis; thus, it should be increased at least up to the pre-crisis level, i.e. EUR 5693 per year. The Ministry of Agriculture of the Republic of Latvia has specified that farmers have a very large dependency on subsidies and Latvia is among those countries which cover their costs only with the help of support (Latvijas lauku attistibas ..., 2013). Though, the taxation of subsidies will sharply increase tax burden for individual producers, especially, intensively operating agricultural enterprises; this increase should be avoided. Agricultural production is related with large investments which pay back slowly; hence, a stable taxation policy is very important. This is significant for the producers of agricultural products in Latvia, so they can strengthen their competitiveness on the Single European Market and increase their abilities to export also requiring stability and projectability of the taxation policy.

Conclusions, proposals, recommendations

1. Agricultural farms account for more than half of taxpayers registered by the SRS in the agricultural sector. Although, the number and proportion of merchants increase with every year with a simultaneous decrease in the number of agricultural farms. The decision of new farmers to choose the status of an entrepreneur is based on the imperfections of the legal status of an agricultural farm and lately improved norms regarding tax allowances for agricultural enterprises having different legal forms. It may be forecasted that a large part of farm owners who are at the pre-retirement age and have ceased an active economic activity could apply for the liquidation of their farms in 2014; thus, enabling to obtain more objective statistics on the number of actually operating agricultural farms.
2. The annual tax payments of agricultural sector enterprises into the state budget comprise approximately LVL 30-35 million or 0.8% of total taxes administered by the State Revenue Service; however, tax repayments (overpayment of VAT, VAT compensation, excise tax exemption on diesel fuel) and different tax allowances (on subsidies, utilised agricultural area, tax-exempt income from

agriculture) significantly exceed tax payments into the budget consequently decreasing the costs of agricultural enterprises and increasing their competitiveness.

3. The introduction of equal tax rates and tax allowances for different agricultural enterprises depending on their legal form (Ltd, individual merchant, agricultural farm, self-employed) and the taxpayer status (payer of PIT or CIT) done by the Ministries of Finance and Agriculture is very positive.
4. The planned amendments in relation to the imposition of the income tax on subsidies from 2017 will significantly increase the tax payments of agricultural enterprises, thus, increasing their tax burden. A timely decision on compensating tax allowances for all active farmers both the PIT payers and the CIT payers shall be adopted to reduce the negative impact of tax increase on agricultural enterprises.

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REFORM OF THE COMMON AGRICULTURAL POLICY 2014-2020. ASSESSMENT OF THE NEGOTIATIONS RESULTS FROM THE POLISH POINT OF VIEW

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Abstract. The aim of the paper is to present the results of negotiations on the Common Agricultural Policy (CAP) reform for the next financial perspective 2014-2020. The authors indicate the steps for establishing the budget and chosen solutions for the EU agricultural policy, from the proposal of the European Commission presented in 2011, ending with the draft of EU budget agreed at the meeting of the European Council on February 2013 and the meeting of the AGRIFISH on March 2013 and then approved by the political agreement of the European Commission, European Parliament, and European Council on June 2013. Taking into account the most important changes in agricultural support, the authors focus on three issues: direct payment scheme, rural development, and market intervention. In this context, there will be an assessment of the new CAP from the point of view of Polish agricultural sector. General conclusion is that, in terms of the amount of support, Poland has received slightly higher budget than in the current perspective but which is far from the expectations of Polish farmers. However, there are some solutions that could be beneficial for Polish agricultural producers.

Key words: Common Agricultural Policy, reform, results, Polish agriculture.

JEL code: E02, E61, F51, F55, Q18

Introduction

It took the European Council and the European Parliament two years to reach a compromise after the European Commission presented a proposal of the EU budget and the Common Agricultural Policy (CAP) reform. Negotiations between Member States were very difficult, since there was no agreement on some of the proposed solutions. As far as the general direction of changes is concerned, one can distinguish three parties. The first one voted for maintaining the current level of budgetary expenditures; the second one opted for strengthening the budget, like it was done in previous budgets; and the third one, which is seen as the most far-reaching, assumed reduction of support and re-nationalisation of some measures (European Commission – DG Agri, 2011a). From the perspective of the last few months, it can be concluded that the EU budget and the CAP budget for 2014-2020 reform project combines elements of the first and the second option, and it definitely rejects the idea of re-nationalisation of the EU policy. The latter would be difficult to accept especially by poorer EU Member States, not only because they are now a net beneficiary of financial flows related with the CAP but also because of the possibility of

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diversification of the agricultural support level within the single market, and thus, distorting competition (Czyzewski A., Stepien S., 2009). Finally, it was agreed that the CAP would remain a common policy, however, with reduced budget. Reductions affected also Poland, especially in terms of rural development funds.

The aim of the paper is to present the proposal of the CAP budget for Poland for the next financial perspective as well as to describe some important solutions of the reform, which have been agreed at the meeting of the European Council on 7-8 February 2013 and the meeting of the AGRIFISH on 18-19 March 2013 and approved by the political agreement of the European Commission, European Parliament, and European Council on 27 June 2013[15]. The voting on the legal regulation, which is the final legislative version of the new EU budget, took place in November 2013. This publication compares also the CAP reform proposal with the current mechanism of agricultural support and the European Commission reform proposal from 2011. Taking into account the most important changes in agricultural support, the authors focus on three issues: direct payment scheme, rural development, and market intervention. The assessment of the new CAP from the interest of Polish agriculture sector was made on the basis of the information contained in the paper. The article is a review of the official EU and Polish Ministry of Agriculture documents and other references as well as set of authors' opinions. The article uses the methods of descriptive and deductive reasoning.

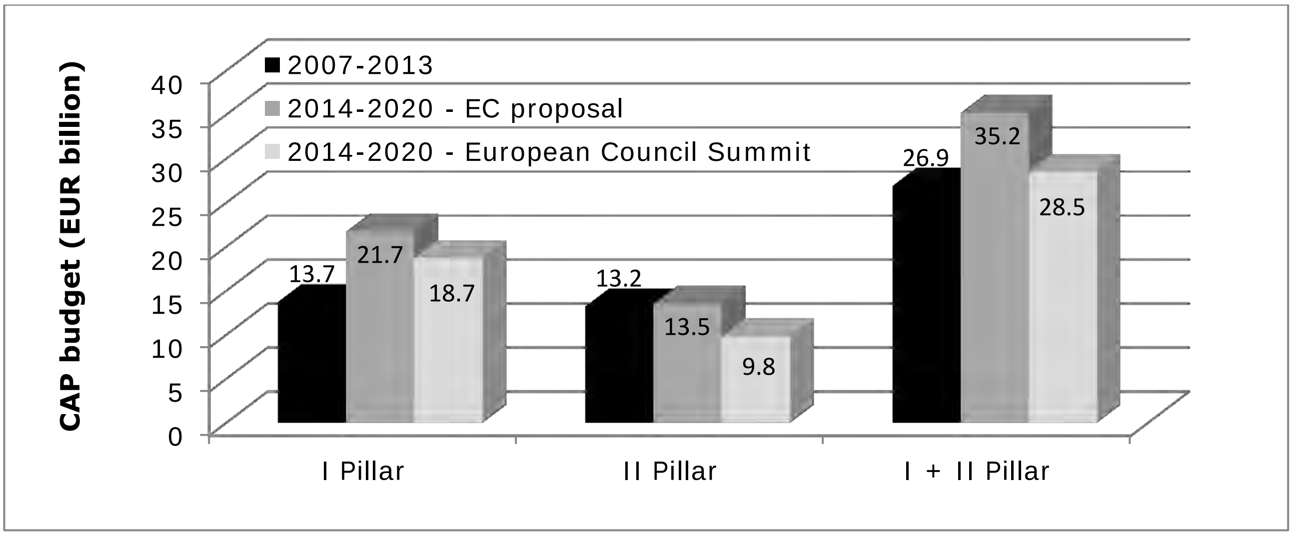
Common Agricultural Policy budget for Poland

In the case of the Common Agricultural Policy in the next financial perspective, Poland can count on EUR 28.5 billion at constant prices. This is an increase compared with the current financial perspective of EUR 1.6 billion. It is worth to remember that the total EU CAP budget is to be reduced by more than 11%, of which Pillar I (direct payments and market measures) of 17.5%. The increase of the funds for Poland is a result of higher amount of direct payments. In 2007-2013 Poland received for this purpose EUR 13.7 billion and it will be EUR 18.74 billion in the next budget (increase of 37%). At the same time, significantly decline the money for rural development, from 13.2 to less than 9.8 billion (a decrease of over 25%). In terms of the CAP budget for the period of 2014-2020, Poland was ranked the 5th among all EU countries (after France, Germany, Spain, and Italy). However taking into account the measures for rural development (Pillar II), Poland, despite the cuts, will receive the most. The following positions are Italy, France, Germany, Spain, and Romania (in terms of the Pillar I Poland is in the 6th place). This "ranking" of countries looks the same as in 2013. As far as the participation of Poland in agricultural funds in the new financial perspective, in the case of direct payments it increases from 6.8% in 2013 to 7.1% on average in the coming years and in case of rural development falls from 8.4% to 7.6% (Guba W., 2013).

Comparing the amount of the CAP funds for Poland in the period of 2007-2013 and the proposal of the European Council, one cannot ignore the fact that the amount allocated for direct payments in the

[15] On 3 July, the European Parliament passed the resolution in which it supported a political compromise with governments, which concerned the EU budget for 2014-2020. 474 MEP supported the budgetary compromise, 193 were against and 42 abstained from voting

current financial perspective was lower due to the process of achieving full subsidies (so-called phasing-in).



Source: European Council, 2013a

Fig. 1**. Common Agricultural Policy (CAP) budget for Poland for the years 2007-2013 and 2014-2020**

Let's recall that negotiated at the Summit in Athens compromise (2003) admitted the new Member States in the first year of accession only 25% of the payments, increasing it subsequent in the next years. In 2007 (the first year of the current financial perspective), the level of funding amounted to 40%, and first in 2013, the new Member States were given 100% of payment. At the same time, the European Commission has left governments of the new Member States the opportunity to complete payment rates from the national budget (only in the period of 2007-2013, the Polish government has allocated for this purpose approximately 6 billion). In 2014, the provision of co-financing from national funds was no longer to apply due to the completion of the process of reaching the full direct payments level. Therefore, the basis for calculating the amount of money for the period of 2014-2020 was to be the year 2013. For Poland, this amounts to 3.045 billion, which when multiplied by seven years gives a total of 21.315 billion. This amount or even a little bit more (EUR 21.7 billion), was included in the initial proposal of the European Commission in 2011. In addition, the European Commission proposed 13.5 billion for Pillar II of the CAP. The amount of funds was, thus, more than EUR 35 billion. However, further negotiations proved to be much less favourable from the point of view of Polish agriculture and rural areas. Proposal of the European Council President, Herman Van Rompuy, in November 2012 involved a reduction in funding for Poland by 2 billion and the European Council Summit in February 2013 by further EUR 4.5 billion (Zagorski M., 2013). Overall, compared with the initial proposal of the Commission, Poland has lost 6.5 billion, i.e. almost 20% (while the reduction for the EU amounted to 14%). In return, the possibility of co-financing of direct payments after 2013 from the national budget has been renewed (Przywodcy panstw UE wynegocjowali…, 2013).

In the context of the above-mentioned changes, particularly worrisome is much less money for rural development (27% less than in the period of 2007-2013). Measures to improve the competitiveness of

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the agricultural sector, such as the modernisation of farms, entrepreneurship, and infrastructure are threatened and the process of reproduction in Polish farms could be slowed down (Grzelak A., 2013). For the purposes of the agri-environment schemes, a country must book a minimum of 30% of Pillar II (less than EUR 3 billion). If one also takes into account that the obligations arising from the agreements signed in the period of 2007-2013 amount to EUR 1.36 billion, the reserve for the "Investment for growth and jobs" 0.7 billion (i.e. 7% of the EAFRD[16] in accordance with guidelines of the Common Strategic Framework), measures for Leader 0.5 billion (5% RDP), then slightly more than EUR 4 billion remain in the budget of Pillar II (Ministry of Agriculture and Rural Development, 2013a). If one also includes the possibility to offset some of the money from the second to Pillar I (see later in this paper), the amount for the other purposes of the rural development policy is about EUR 3 billion, which is not enough to continue hitherto activities[17]. Although there is a possibility to use some of the Cohesion Funds for the purposes of the RDP, especially in the field of technical infrastructure, construction of roads and broadband Internet, yet, such transfers of money are limited. On the one hand, there are doubts whether the objectives of the rural development programmes are consistent with the Cohesion Fund rules (e.g. funding of local roads form the Cohesion Fund), on the other hand - 25% of the Cohesion Fund is designated for the so-called green technologies. In addition, one needs to keep in mind that this is still the same money, which means that you have to take it from other areas, which may raise an objection of local governments.

Research results and discussion

The new direct payment scheme

One of the decisions of leaders and ministers for agriculture of the European Union Member States is the continuation of the direct payments system on the principles of 2007-2013 strategic plan. It means that instead of a Basic Payment Scheme (BPS), as it was earlier suggested by the European Commission (EC), there still will be two schemes – the Single Payment Scheme (SPS) (it concerns the "old" Member States EU-15 plus Slovenia and Malta) and the Single Area Payment Scheme (SAPS) (10 new Member States including Poland) (Krzyzanowska Z., 2013). Poland has strived for such a solution since the beginning of negotiations. It is due to the fact that prolongation of the scheme presently in force was desirable. In comparison with the new scheme, the SAPS is simpler to administrate, comprehensible for the farmer and it binds the payment with the basic factor of agricultural production – land (Czyzewski B., 2013). However, a possibility of connecting the production with up to 15% of national direct payment envelope[18] for the so-called sensitive sectors (characterised by a high risk of the production cessation) is

[16] EAFRD - European Agricultural Fund for Rural Development
[17] The summary report on the implementation of the RDP 2007-2013 (May 2013) shows that the agreements related with the programmes of modernisation and investments in farms and business development account for approximately EUR 3.5 billion. One should also consider programmes such as support for "young farmers", food quality schemes, agricultural producer groups, and programmes for small farms. Taking into account that these programs cannot be financed from the Cohesion Fund, the support is actually lower than in 2007-2013 (Ministry of Agriculture and Rural Development, 2013b)
[18] For those countries in which the level of production aid exceeded 5% (but was not higher than 10%) of national direct payment envelope in the timeframe of 2007-2013. The countries which implemented the threshold up to 5%, in the new budgetary perspective can bind only 10% of payments maximum

left open. Implementation of a scheme with the payment eligibility, as it is within the SPS, would make the mechanism complicated and it would be unfavourable for Poland.

However, a proposed by the EC scheme for young agricultural producers (compulsory) and Small-Scale Farmers' Scheme (optional for the EU Member States), have remained. It should be regarded as a positive decision. The first scheme concerns an increase up to 25% of direct payments during the first five years for young farmers (under 40 years-of-age) who will be strongly encouraged to set up an agricultural business. Up to 2% of national direct payment envelope should be designed for that purpose (the limit of aid concerns 25 ha arable lands). The Small-Scale Farmers' Scheme is designed to help farms smaller than 5 ha (former proposals mentioned 3 ha of arable lands) for which a flat rate is established. This rate is to be in force throughout the whole budgetary timeframe starting from 2015. Those small farms are also supposed to be exempted from the greening obligations and some of the cross-compliance requirements[19]. Two ways of the flat-rate calculations are assumed. The first one is the payment of 25% of national average payment per beneficiary in 2019 (it is after the phasing period). The other one is based on an amount corresponding to the national average payment per hectare multiplied by 5 (maximum). In each of these cases, the flat-rate must be in the range of EUR 500-1250 per annum per farm and a Member State can design for it up to 10% of its national direct payment envelope. Also, a calculation method for small farms on the basis of aid they received formerly (e.g. in 2013) can be implemented. In that case, the 10% limit of the national direct payment envelope does not apply (European Commission, 2013). Poland is most likely to choose the latter option in view of a potentially big number of applicants in this system and a possibility of exceeding the above mentioned limit.

One of key issues which is reflected in the conclusions of the European Council and AGRI-FISH is the convergence of direct payments among the Member States. Leaders of the EU Member States agreed with a previous proposal of the EC involving equalising the payments rates. Thereby, in those countries in which the direct payment per ha of the arable land is less than 90% of the EU average payment, the gap between the present level and 90% of the EU average will be reduced by 1/3 and also the average for the whole EU is to be lowered. However, this process will be implemented progressively over the financial years 2015-2020 (in 2014, the direct payments system it the presently existing one of the year 2013, though with the new CAP budget).

In the long term, the lowest rate of direct payments is to reach the level of 196 EUR/ha by 2020 (75% of the EU average). The convergence will be financed by those Member States who receive above average amounts accordingly (e.g. France, Germany, the Netherlands, Denmark, and Italy). At the same time, the European Council stipulates that, although, the direct support will be equitably distributed but still one need to take into account the differences in wage levels, purchasing power, or input costs.

In Poland's case, the amendment of direct payments redistribution system, along with the reduced CAP budget, in practise means the continuity of 2013 direct support, while in the first years of the new financial perspective, the direct payments (from the EU funds) will be lower compared with those in 2013 because of the extension of the convergence process to following years. And so, in 2014, one can count on 210 EUR/ha of arable land, while in 2013, it was EUR 215. In 2020, the level of support per the land unit will be merely higher by EUR 1.5. In 2014-2020, the rate of direct payments in Poland will be EUR

[19] Requirements of animals identification and registration, natural environment protection, animals and plants health, animals welfare

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214 on average (from the EU budget). It means that it will be by EUR 1 lower than in 2013. There are also other countries who lose due to the budget reduction. Only in case of Lithuania, Latvia, and Estonia, the division of the payments proposed by the European Council, is more beneficiary.

Table 1

The rates of direct payments in selected EU countries in 2013 and in the years 2014-2020

Country	Rate of direct payment (EUR/ha)				
	Base of 2013	**2014-2020 average according to the EC**	**Change to 2013**	**2014-2020 average according to the Council**	**Change to 2013**
Denmark	363	348	-4,0%	342	-5.9%
Estonia	117	141	+20.7%	154	+31.3%
France	296	289	-2.2%	284	-4.2%
Spain	233	233	-0.2%	228	-2.3%
Netherlands	457	431	-5.6%	423	-7.4%
Lithuania	144	162	+12.7%	167	+16.1%
Germany	319	310	-2.9%	303	-4.9%
Latvia	95	124	+30.7%	143	+50.6%
Poland	215	218	+1.2%	214	-1.0%
Romania	183	194	+5.9%	188	2.6%
Great Britain	229	229	-0.2%	223	-2.5%
Italy	405	386	-4.8%	379	-6.5%

Source: authors' calculations based on the European Commission, 2011 and European Council, 2013b

Another important issue in the area of payments is the greening (the new rules will enter into force from the beginning of 2015). It is assumed that 30% of direct payments that farmers receive according to the farms' area is made dependent on the fact of satisfying particular environmental requirements under threat of diminishing the aid by that share. From the start that change was highly controversial because of the additional burden on farms of the costs of fulfilling compulsory norms, especially, that there provisions in force with regard to actions to the benefit of natural environment (cross compliance principles). According to critics of such a solution, further restrictions may lead to the decrease of the EU producers' competitiveness in relation to the non-EU countries in which the rules are much more lenient (Majchrzak A., 2010). Another criticism that arises is due to the fact that implementing new requirements will double the targets already existing within Pillar II (Czyzewski A., Stepien S., 2012).

Evaluating the above solutions in the area of ecology from the point of view of Polish farms, one can assume that they will not influence the structure change and production costs significantly. Firstly, because the arable land limits, above which an obligation of particular action arises, were set relatively high. For instance, the obligation of running the ecological area, which pertains the farms above 15 ha, does not apply to 85% of Polish farms. Secondly, the opportunity was left open to classify schemes of Pillar II as those which satisfy the greening requirements.

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Table 2

Criteria for the greening of direct payments system by the proposal of the European Commission and the European Council

Criteria for the greening	Preliminary proposal of the European Commission	Final proposal of the European Council
New structure of direct payment scheme	30% of direct payment envelope for meeting the criteria of greening	30% of direct payment envelope for meeting the criteria of greening
Diversification of crops	A minimum of 3 crops for farms over 3 ha; one crop maximum 70% of total farm area	A minimum of 2 crops for farms over 10 ha; 3 crops for farms over 30 ha; one crop maximum 75% of total farm area
Ecological areas	7% of total farm area; obligatory for farms over 3 ha	5% of total farm area; obligatory for farms over 15 ha; possible growth from 5 to 7% after 2017
Permanent grassland	Transforming max. 5% of permanent grassland as compared with 2013; criterion met at the farm level	Transforming max. 5% of permanent grassland as compared with 2013; criterion met at the regional or national level

Source: authors' construction based on the Ministry of Agriculture and Rural Development, 2013b

For example, there are over 900 000 farms in Poland (more than 40% of total number of farms) which implement agri-environmental schemes (Ministry of Agriculture and Rural Development, 2013c) and these are mostly big farms – those which the new rules would apply to (Stepien S., 2013). The assumption on regional (or national) settlement with the criteria of permanent grasslands is also beneficial.

Rural development and market intervention

The next area of negotiations, besides the direct payments, is the issue of rural development. The budget for those schemes was mentioned earlier in this paper. Let's remind that along with the general reduction of the CAP resources in the EU budget, the expenditures in Pillar II increase in new financial perspective. It results from a fact that the EU agricultural policy is now more oriented towards issues connected with agricultural sector modernisation, rural enterprise development, and environment protection (Brelik A., Matuszczak A., 2013). Priorities in Pillar II are to be as follows (Ministry of Agriculture and Rural Development, 2013a):

- fostering knowledge transfer and innovation;
- enhancing of farm's competitiveness and profitability;
- efficient functioning of the food chain and risk management;
- restoring, protecting, and preserving ecosystems;
- resource efficiency, the shift towards a low-carbon and climate-resilient economy;
- poverty and social inclusion reduction, economic development in rural areas.

Table 3

The list of activities under the Rural Development Programme for 2014-2020

Priorities	Activities
1. Transfer of knowledge	Presenting demonstration farms, consulting, training, cooperation with subjects implementing technological progress
2. Competitiveness increase	Modernisation and restructuring of farms, grants for young farmers
3. Food chain and risk management	Grants for groups implementing quality systems, support for processors, the creation of agricultural producer groups, support for basic services and restoration of agricultural potential
4. Support of ecosystems	Support for environmental programs, support for organic farms, support for less favoured areas
5. Management of resources	Foresting
6. Poverty reduction and social inclusion	Money to start a non-agricultural activities, support for enterprise development, support for programme LEADER, support for small farmers

Source: Ministry of Agriculture and Rural Development, 2013d

At the same time, a formula of long-term schemes co-financed out of national budgets is maintained along with a bigger flexibility of particular regions in the area of priorities choice (European Commission – DG-Agri, 2011b). Local authorities will decide on the aid division to a bigger extent than it is at present.

In Poland, the Rural Development Programme (RDP) in practice is to be a continuation of the current activities, however, with a much smaller budget, compared with 2007-2013 perspective. It can significantly limit the efficiency of RDP. The scheduled tasks are supposed to cover all six priorities mentioned above. It must be emphasised that within Priority No 4 – "Ecosystem Support" the tasks will have to exceed the greening standards of Pillar II. It is necessary to avoid the situation in which a farmer receives the "green" aid as well as Pillar II support.

The last issue that is brought up in that point is a common organisation of agricultural markets. According to the European Commission, approved by the European Council and AGRIFISH, the "safety net" will be continued (intervention purchases, storage aid), the range and flexibility of extraordinary measures will be increased (which will be activated in crisis situations) and there will be actions to the benefit of farmers' situation in a food-chain (easier procedures of registration for agricultural and brand producers, clearer procedures, the access to the RDP funds). Milk quotas will expire by 2015, however, in the sugar sector, the quotas will be abolished by 2017 (not like the European Commission proposed by 2015). In Poland's case, the most important change seems to be the issue of liberalisation of the milk market. The risk of the milk supply increase alongside with prices decrease can arouse fears (Kulyk P, 2010; Smigla M., 2013). However, if recent years are analysed, it appears that in the economic year 2010/2011 the level of unused quotas in the EU reached 7% on average, and in the economic year 2014/2015, according to the EC evaluations, it is to increase up to 9% (European Commission – DG-Agri, 2011c). It means that the proposed changes are going to have a limited impact on the situation on the milk market after 2015 (the more so since a further increase of the resource demand should be expected on a global scale). In Poland alone, the level of milk quotas use for the quotas year April 2012 – March 2013 reached 100.1%, which indicates that quotas balance the supply level of the resource (Uwaga! Agencja Rynku Rolnego…, 2013).

Conclusions

This paper presented the results of the negotiations on the EU budget for the period of 2014-2020 in the area of the Common Agricultural Policy and some proposals of the CAP reform. Agreed solutions have been assessed from the point of interests of Polish agriculture. Based on the analysis and reviewed material, one can draw two key conclusions:

- the Common Agricultural Policy budget 2014-2020 for Poland is a minimum budget. It is higher by EUR 1.6 billion compared with the period of 2007-2013, which is, however, a result of direct payments phasing-in process. There has been a significant decrease in funds for rural development, which can result in delays in the process of modernisation of the Polish rural areas. Poland should regret that the Commission's proposal could not be maintained, which, in the light of the European Council solutions, was extremely beneficial for Poland;
- under the proposed solutions of the CAP reform after 2013 preferably from the point of view of Polish agriculture are: continuation of the simplified system for direct payments to new Member States (SAPS), special support programmes for small farms and young farmers, greater flexibility in defining the objectives of the RDP, increased support for strengthening the position of farmers in the food chain as well as destination more resources to the integration processes in agriculture and risk management.

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VENTURE CAPITAL AS A SOURCE OF FINANCE FOR ENTERPRISES

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Abstract. Among the sources of finance, private venture capital investment is an important element creating a venture capital industry in the process of its development. While examining and assessing the possibilities for attracting venture capital, the authors focused on examining the affecting factors.
The research aim was to examine the trends and problems in and opportunities for the venture capital industry in Latvia. Based on the aim, the following tasks were set: to ascertain the increase in Latvia's competiveness among the Baltic States in the context of the Global Competitiveness Index and to analyse the attraction of venture capital investments; and to analyse the factors affecting the venture capital industry based on the findings of an expert survey.
The authors of the paper examined the environment and factors influencing innovation, which can affect private venture capital investment in this segment. The following qualitative and quantitative methods of economic analysis were employed: the monographic, logical and constructive methods, the SWOT analysis, a survey of experts, analysis and synthesis.
Key words: innovation, Latvia, venture capital investments, competitiveness.

JEL code: G24, G28, G32

Introduction

Sources of finance for innovation can form several patterns, depending on the national innovation policy, its priorities, and the extent of national support. One of the sources of finance for innovation is private venture capital. The aim of the present research was to examine the trends and problems in and opportunities for the venture capital industry in Latvia. Based on the aim, the following tasks were set: to ascertain the increase in Latvia's competiveness among the Baltic States in the context of the Global Competitiveness Index and to analyse the attraction of venture capital investments as well as to analyse the factors affecting the venture capital industry based on the findings of an expert survey.

Data sources and research methods: the following qualitative and quantitative methods of economic analysis were employed: the monographic, logical and constructive methods, the SWOT analysis, a survey of experts, analysis and synthesis. The research analysed data of the Global Competitiveness Report, opinions of the members of the Latvian Association of Private Investors as well as published opinions and forecasts of several experts on venture capital investments.

Research results and discussion

Based on the Global Competitiveness Report 2013–2014, Latvia is ranked the 52nd (a rise by 12 places in two years). Latvia is still behind Estonia that holds the 32nd place and Lithuania ranking in the 48th place (a fall by 4 places in two years) (Figure 1). Switzerland (1st place), Singapore (2nd), and Finland

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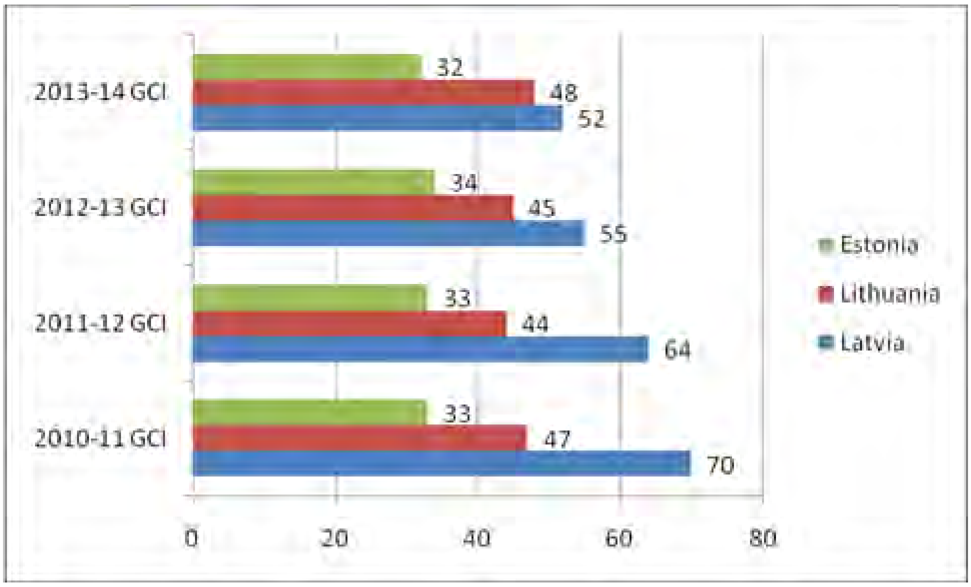
(3rd) retain their leader positions. Estonia remains the best performer within the Eastern Europe, up two places this year to the 32nd. The country has an excellent education system and highly efficient and well-developed goods and financial markets as well as a strong commitment to advancing technological readiness. In addition, Estonia's 22nd rank in macroeconomic stability reflects its relatively well managed public finances. The country's margin ahead of the rest of the region also reflects its more flexible and efficient labour markets (the 12th), which continue to be rigid in other countries throughout much of Europe as a whole (the Global Competitiveness Report 2013–2014).



Source: authors' construction based on the Global Competitiveness Report 2012–2013 and Global Competitiveness Report 2013–2014

Fig.1. **Latvia's rank in the Global Competitiveness Index among the Baltic States**

In the ranking, the place of Latvia's macroeconomic environment showed the greatest rise, climbing to the 29th place compared with the 93rd place in 2011. The efficiency of Latvia's goods market is ranked the 40th. The market size has the lowest score, ranking Latvia in the 95th place in the world.

As regards innovation capacity, Latvia is ranked the 68th, Estonia – the 35th and Lithuania – the 44th (the Global Competitiveness Report 2013–2014).

Venture capital is intended for innovative projects in industrial sectors. The key purpose of investments made by venture capital funds is to foster faster growth and development of an enterprise as well as to make profit. Therefore, enterprises with fast growth potential or projects which, if implemented, may generate considerable profit relative to the capital invested in the project are chosen as objects of venture investment (Venture Capital Funds, 2013). The involvement of a venture capital fund is especially useful in situations when: an enterprise has to be modernised or increase its output capacity; there is a new business idea and own resources are insufficient to implement this idea; a business partner is needed, which would help make a management team by attracting new customers, to tackle accounting and legal problems and to assist in acquiring the EU Structural Funds (Tamuzs, 2011).

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An investor's motivations are determined by various opportunities for rewards: shares, ownership, a job position in the board etc.

Venture capital investments may be attracted at any stage of development of an enterprise. For instance, if a unique business idea is generated and sufficient financial resources are lacked to implement it, and even there is no collateral for a loan, one can attract venture capital. One can make one step further, for instance, in cases if the ratio of equity to liabilities prevents a stable enterprise from getting an additional loan, a venture capital investment might be a good solution (Da Rin M. et al., 2011).

For various enterprises, the basic principles of venture capital mainly differ in investment size, source of finance, and investor engagement in the enterprise's management. The earlier is the stage of development of an enterprise, the smaller any individual investment is required and, accordingly, the greater is engagement of the venture capital partner in the enterprise's management (Groh A. et al., 2011.).

The amount of venture capital investments, as a percentage of GDP, has continued increasing in Europe since 2009: it comprised 0.20% in 2009, 0.33% in 2010, 0.34% in 2011, while in 2012 it accounted for 0.26% of GDP (European Private Equity & Venture Capital Association, 2013:43).

The Latvian Venture Capital Association unites 28 members that may be classified as follows: investment enterprises, institutional investors, legal consultants, and financial consultants.

Presently five investment funds may be regarded as active:

- Imprimatur Capital Seed Fund (in total, EUR 3 mln); JEREMIE Programme Fund, 100% funded by the Latvian Guarantee Agency;
- Imprimatur Capital Technology Venture Fund (in total, EUR 7 mln); JEREMIE Programme Fund, 67% funded by the Latvian Guarantee Agency;
- BaltCap Latvian Venture Capital Fund (EUR 30 mln); JEREMIE Programme Fund, 67% funded by the Latvian Guarantee Agency;
- Private Capital Fund managed by BaltCap (EUR 63 mln), a fund created by BaltCap for business development and for redemption of current shareholders;
- AB.LV Private Capital Fund (EUR 15 mln), a fund created by AB.LV Bank for business development and for redemption of current shareholders;
- several funds manage investment portfolios, planning to sell the assets until 2013: Second Eco Fund, Invento, Green Light Investments.

In the period of 2002-2012, the Latvian Venture Capital Association's most active members made investments worth EUR 51 million in 30 enterprises. Of the 30 enterprises, eight were newly established enterprises, 18 attracted investments for expansion, while in four cases investments were attracted for redemption deals. In the result of investments, the turnover of the enterprises rose almost by three times from EUR 127 million to EUR 377 million. Consequently, the enterprises were able to create 1741 new jobs (an increase from 2593 to 4334) (Dreimanis D., 2012).

The authors of the paper examined the environment and factors influencing innovation, which can affect private venture capital investment in this segment.

It is important to mention the quantitative and qualitative indicators that characterise the development of private venture capital, for instance, the number of private venture capital funds, the number of PVC companies and the number of business angels which have a certain activity strategy in Latvia's market; active operation of intermediaries and support to them provided by national institutions as well as availability of information on their activity and specialisation, possibilities for implementing projects; availability of start-up managers and professionals in the field of private venture capital investments; a developed business culture and the introduction of "good practices" in entrepreneurship, which would make potential investors confident to invest in enterprises without acquiring the control package of their shares; lack of information and practice regarding the opportunities for attracting services of managers and lawyers for new growing enterprises (the services are free of charge for a certain period, yet, the enterprise's shares are granted to them), for successful structuring of projects and for attracting investors; the overall investment climate in the country, Europe and the world; openness of the economy and internationalisation of innovations, which allows attracting start-up investors from other countries; insufficient activity of the associations uniting private venture capital market participants; the small number of projects appropriate for private venture capital investments; and insufficient knowledge of professionals of new growing enterprises on the operational principles of private venture capital and the process of financing (Jakusonoka, Prohorovs, 2012).

Given the recent global financial crisis, which was very severe in Latvia, Latvia's macroeconomic situation is presently relatively stable. Its gross domestic product steadily grows, exports increase and inflation is low – which are the indicators of a healthy economy. Latvia is mentioned as a success story for overcoming a financial crisis.

On 20 May 2012, the introduction of a new national venture capital support programme – growth capital funds – was approved to continue providing the availability of venture capital for entrepreneurship start-up and development to Latvia's small and medium enterprises as well as to contribute to the competitiveness and growth of entrepreneurs. Growth capital funds allow getting venture capital in situations when the equity of the enterprise is not sufficient and the risk of the enterprise's investment is too high to get a loan from a credit institution in the necessary amount.

The development of venture capital investment legislation would be an opportunity for popularising and making "clear" the venture capital industry in Latvia. In the public arena, information about a fraudulent use of the resources intended for venture capital investments to support the enterprises being closely associated with one's own business has been regularly announced. The development of specific legislation would be able to eliminate such discussions and instances.

On 2 August 2012, the Latvian Guarantee Agency (LGA), in cooperation with the Ministry of Economics, within the national support programme, announced a tender for selecting management teams for new venture capital funds to facilitate the access of innovative micro-, small and medium enterprises to capital and to foster the emergence of new venture capital funds in Latvia. On a competitive basis, several teams were selected, which would manage the newly established venture capital funds and make investments in Latvia's enterprises.

The new funds will make investments in micro-, small and medium enterprises with high growth potential, the place of economic activity of which is Latvia. Investments of up to one million euro in a single enterprise will be made to finance the enterprise's product or to explore, evaluate, and develop the initial concept of a business idea; to develop products and conduct initial marketing; and to expand the enterprise's activities by increasing its production capacity, penetrating into markets and developing its products (LGA Announced a Tender…, 2012).

The number of scientists and engineers is relatively small in Latvia. This is a well-known problem, yet, the situation cannot be changed in one or two years. The challenges of Latvia's higher education are to increase the international role of its higher education as well as a greater focus has to be placed on science education programmes.

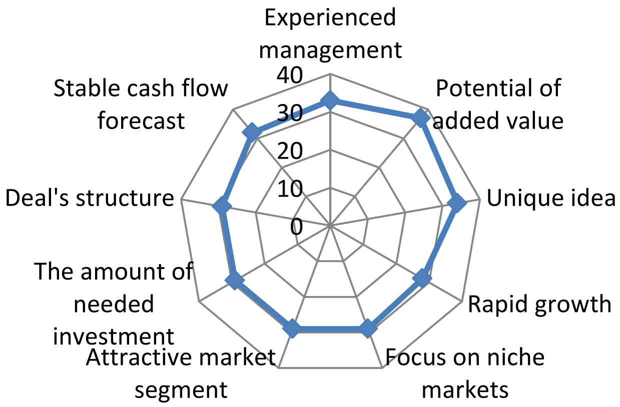
Venture capital as an industry is historically poorly developed in Latvia, which is evidenced by the amount of venture capital investment – EUR 51 million – in Latvia in the period of 2002-2012. It is a relatively low amount compared with the countries where the venture capital industry is more developed.

Among the Baltic States, Latvia is unique, as more than 80% of its economic activity is concentrated in one city – the capital city of Riga. Such a situation may not be regarded as successful, as large regional differences emerge. If the situation does not change, the smallest regional towns will become underpopulated and, thus, economic activity in these towns will be critically low.

The situation in the venture capital industry may be best explained by the people who are daily engaged in it, who deal with it. To identify the opinions of these individuals, the authors conducted a survey of professionals dealing with venture capital investors, of financial experts, experts in education, entrepreneurs and business incubator specialists. In total, 20 experts were questioned. The survey was anonymous.

Next, the findings of the survey are set out and presented graphically.

Question: **In your opinion, what are the necessary qualities/factors of the company to attract venture capital investors?**



Source: authors' construction based on data of the survey of experts, 2012

Fig.2. **Expert opinions on the factors needed for attracting venture capital investors to Latvia**

As regards the necessary qualities/factors of the company to attract venture capital investors, according to the experts, all the reply options were considered to be essential. However, the experts referred to "potential of value added" as the most essential. Based on venture capital theory, venture capital investment transactions – investments in an enterprise with high potential of value added, which would be able to generate high returns on investment within a relatively short period – are best characterised by this reply.

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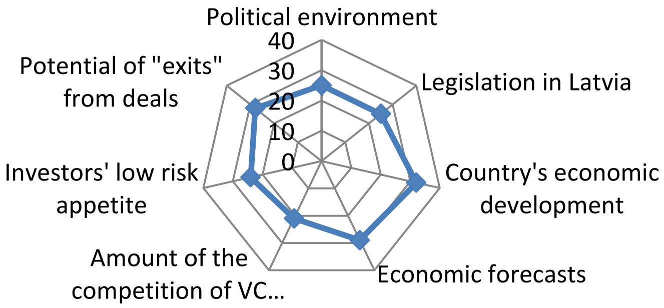
Question: **What are the obstacles for venture capital development in Latvia?**

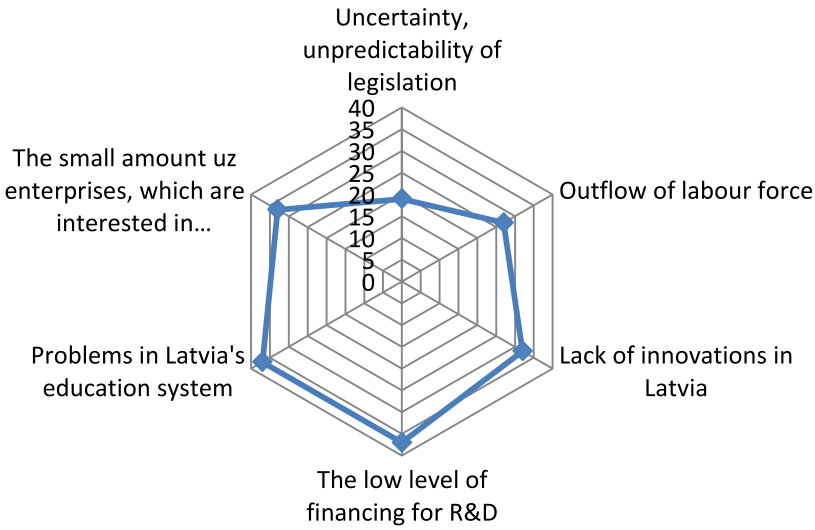


Source: authors' construction based on data of the survey of experts, 2012

Fig.3. **Expert opinions on the factors and conditions hindering the development of venture capital in Latvia**

According to the experts, the country's economic development was the main one from among the factors and conditions hindering the development of the venture capital industry in Latvia. Economic forecasts and the potential of "exits" from deals were also considered essential conditions. The authors believe that these conditions are adequate to the current situation in Latvia. The legislation in Latvia and the competition of venture capital investors were mentioned as the least hindering factors of the development of the venture capital industry. The authors think that the legislation considerably affects the entry of foreign investors, including venture capital investors, into Latvia.

Question: **What are the main obstacles for the foundation and development of new, innovative companies?**



Source: authors' construction based on data of the survey of experts, 2012

Fig.4. **Expert opinions on the factors hindering the emergence of new, innovative enterprises**

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The authors believe that within the context of venture capital investment, it is important to focus on the emergence and development of new, innovative enterprises. The experts recognised problems in Latvia's education system and the low level of financing for research and development (R&D) as the two most essential factors. The authors believe that this is a very reasonable rating. The funding allocated for research and development compared with other countries, is low. Besides, calls for reforming Latvia's higher education system and, especially, the vocational education system have been often made in Latvia's public arena. The lack in innovations in Latvia, the small number of enterprises that introduce innovative solutions and the outflow of labour force were recognised as relatively insignificant factors. The uncertainty, unpredictability of Latvia's legislation, according to the experts, was the least significant factor. As mentioned before, this factor mainly relates with investments made by foreign investors in Latvia.

The experts' free comments on the processes necessary for developing the venture capital industry reveal the real situation and confirm the above-mentioned problems and drawbacks.

Analysing the respondents' replies, the authors identified an interesting fact that indicates a "gap" between entrepreneurs and venture capital investors. An entrepreneur who is engaged in import/export transactions noted in his replies that the trust of venture capital investors in entrepreneurs is important. On the contrary, some entrepreneurs who work in the banking industry admitted that venture capital investors have to be trusted to a greater extent.

Several respondents admitted that a significant increase in confidence in the economic environment and trust in its participants is needed. Entrepreneurs with a long-term vision, instead of "one day businessmen", are necessary, who can create internationally competitive and profitable projects.

Significantly greater activities of investment bankers, competences and abilities to attract investors for the projects initiated by domestic entrepreneurs are also needed. In parallel with raising the competences of investment bankers, according to the respondents, it is necessary to educate entrepreneurs on the availability of venture capital because entrepreneurs lack education and an understanding of how to cooperate with venture capital investors, thereby, benefiting one's own enterprise.

In Latvia, technology-based investments are small and fragmented, which prevents venture capitalists from making investments. It is complicated to ensure that venture capitalists have adequate competences for evaluating such investments. This situation might be alleviated and solved by concentrating research directions and setting priorities in the national education system. It would ease the comprehension by and work for venture capital investors.

Given the above-mentioned, the result would be easier to achieve if entrepreneurs, investors and national institutions cooperated. In Latvia as a post-socialism country and in its society, many areas are underdeveloped and are some kind of "deformed" ones. It is a poor situation that many opportunities are missed because of insufficient interest and incompetence. Positive results would be easier to achieve by taking over the experience of more developed countries, cooperating, uniting all the interested parties, and initiating active discussions.

Conclusions, proposals, recommendations

1. In the period of 2002-2012, the members of the Latvian Venture Capital Association made investments worth EUR 51 million in 30 enterprises. In the result of investments, the turnover of the enterprises rose from EUR 127 million to EUR 377 million, and additionally 1741 new jobs were

created. Presently, five venture capital funds are regarded as active in Latvia. These funds manage assets worth approximately LVL 82.93 million.

2. The strengths of the venture capital industry, compared with other European countries, are the stable macroeconomic situation as well as the functioning of the JEREMIE programme in Latvia.
3. There are many factors that hinder the development of the venture capital industry in Latvia – the size of the economy and market, its historical background, an imperfect tax system, bureaucracy etc. At the same time, there are many opportunities to be implemented – research and innovative development, development of competences, improvement of the legislation, availability of LGA assistance, education reforms etc.
4. The development of the venture capital industry depends on demand and supply – the demand creates the supply and vice versa. Additional support is necessary for the foundation of small and medium enterprises that specialise in developing innovative goods or services with high value added. More funding is needed for science and research. Supporting this industry would result in greater interest in sciences and in developing innovative solutions and goods or services with high value added. By attracting venture capital investments, such projects would lead to establishing successful enterprises.
5. Venture capital investors are reluctant to invest in enterprises at their early or start-up stage of development, which, in many cases, might be crucial in the enterprise's development. In such cases, greater activity and higher risk "appetite" from investors is desirable as well as government support is needed.

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PROBLEMATIC ASPECTS OF CORPORATE INCOME TAX CALCULATION IN THE PRINTING INDUSTRY OF LATVIA

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Abstract. A corporate income tax (CIT) calculation is one of the most complicated tax calculations in Latvia. The research aim is to examine the accounting process for the CIT in the printing industry and reveal problems in its calculation. The authors found that the CIT paid could not be forecasted for a long-term, as it was corrected by many financial accounting items and did not directly depend on turnover but was closely associated with the profit or loss account and the balance sheet. The authors came to a conclusion that the decision makers of the Republic of Latvia had to change the procedure of paying the corporate income tax – the tax has to be paid for the taxation period rather than, as now, in advance for the next accounting period. The authors analysed the accounting process for the CIT at "Jelgavas tipografija" Ltd, which, as a benchmark, represents accounting operations in the entire industry in general.

The following general research methods were employed to carry out the research: the monographic method, analysis and synthesis, induction and deduction, statistical analysis, comparative analysis, the logical and constructive methods, and the graphic method.

Key words: corporate income tax, printing industry, profit.

JEL code: H2, H3

Introduction

Taxes affect such processes as investing, revenue distribution, and tackling social and economic problems. Tax evasion negatively reflects in the economy, the social sphere, and the government's budget; thus, when making a tax policy, measures have to be taken cautiously in order not to create tensions in the society and economy, and a negative attitude to the tax policy. From the economic perspective, taxes are a tool for distributing economic resources, redistributing national income, and macroeconomic stabilisation, which reflects financial relations in the real economy (Pavluts D., 2013).

In accordance with the legislation of the Republic of Latvia, any enterprise performing economic activity has to pay various taxes. Often, the extent to which an enterprise exploits the rights granted to it as a taxpayer to get tax reliefs, allowances as well as reimbursements depends on the competence of accountants. A corporate income tax calculation is one of the most complicated tax calculations in Latvia. In financial accounting, filling in a tax declaration requires good knowledge on legal enactments and accounting process.

The authors believe that a corporate income tax calculation and preparatory work for filling in a CIT declaration is a lengthy and work-intensive process – beginning with a calculation of the depreciation of fixed assets for taxation purposes and ending with an extensive analysis of debtors, classifying them into doubtful and bad debtors. A corporate income tax declaration has to be assigned a large role in financial

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reports and in the accounting for tax expenses. An estimated corporate income tax is directly associated with the profit or loss account and the balance sheet.

The printing and publishing industry deals with typographic reproduction of printed materials and post-processing and publishing of these printed materials.

The development stage of printing industry and related industries in any country in the world indicates not only the country's scientific and technological but also, to a great extent, economic, social, cultural, and intellectual development level and its society's ability to accumulate the cultural and intellectual heritages of other countries and societies and to integrate in mutual developments. A very important prerequisite for normal development of publishing activities in such a small country, in terms of population, as Latvia is a reduced value added tax (VAT) rate on books, which represents both economic and political support.

The research aim is to examine the accounting process for the CIT in the printing industry and reveal problems in its calculation.

Research tasks to achieve the aim:

1) to examine and describe the printing industry;
2) to examine and analyse the corporate income tax paid by an enterprise of the printing industry and the accounting process for the tax and to reveal problems in its calculation (in the period of 2005-2012).

The following general research methods were employed to carry out the research: the monographic method, analysis and synthesis, induction and deduction, statistical analysis, comparative analysis, the logical and constructive methods, and the graphic method.

The present research is based on data of the Central Statistical Bureau, special theoretical and methodological literature, research papers by scientists, and newspaper articles.

Research results and discussion

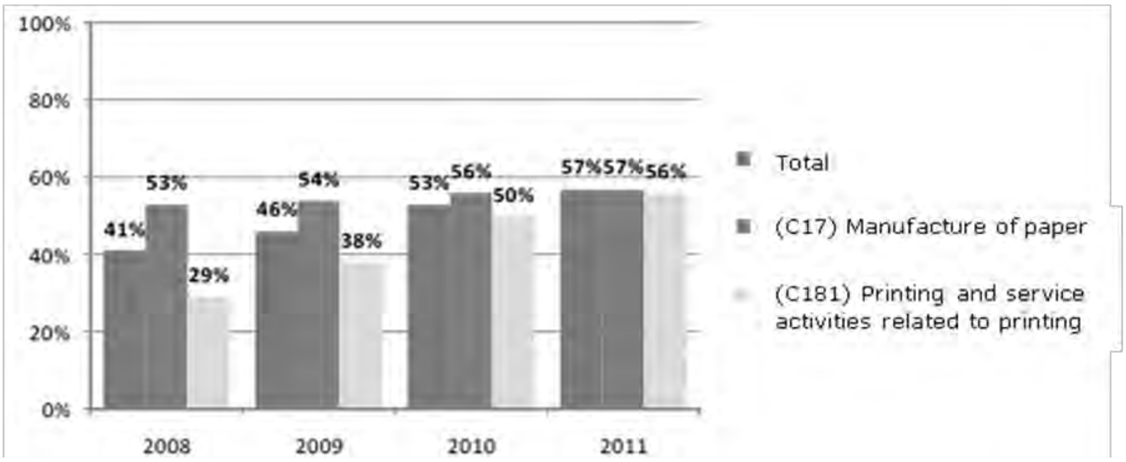
1. Economic characteristics of the printing industry

In the 1990s after Latvia regained its independence, the country's polygraphic enterprises were privatised quite fast. The new owners invested a lot of funds to buy new and modern equipment and to reconstruct buildings useful for production and, later, to construct new ones. In the period from 2005 to the beginning of 2012, investments amounting to more than LVL 90 million were made by the industry's enterprises. These investments contributed to an increase in output – the industry's turnover has risen four times since 1997.

In the period of 2005-2007, total turnover of this industry considerably rose (Statistical Yearbook…, 2005-2011) mainly owing to an increase in the turnover of printing and service activities related with printing and publishing; a decrease was observed for related service activities of the industry. After analysing the sub-industries, one can find that a recovery from the economic recession relates only with the industry of manufacture of paper and paper products, whereas, the publishing industry's turnover continued declining in 2010 as well.

On the whole, the industry of printing and publishing, and manufacture of paper and paper products of Latvia may be characterised by high value added, modern equipment, a strong exports potential, prestigious products, and a qualified labour force.

The mentioned advantages determine the high exports potential of Latvia's publishing industry.



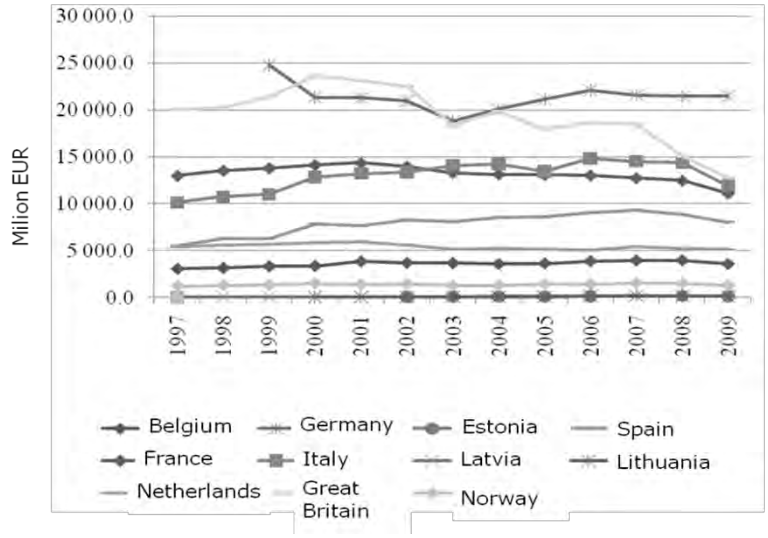
Source: authors' construction based on the Central Statistical Bureau data, 2011

Fig.1. **Changes in the turnover of the industry of manufacture of paper and printing in Latvia in the period of 2008-2011, %**

Before the economic recession, the printing industry mainly focused on the domestic market, while its exports accounted for approximately 40% of its output. Yet, the industry's exports were mainly shipped to Lithuania and Estonia, where 60% of its exports were sold in 2008. The economic recession contributed to seeking new export markets and to an increase in the printing industry's exports. Consequently, Latvia exported 55% of this industry's products in 2010, and in 2011 it was 57% (Figure 1).

A very important prerequisite for the normal development of publishing activities in such a small country, in terms of population, as Latvia is a reduced value added tax (VAT) rate on books. Raising the VAT rate from 5 to 21% in 2009 led to the bankruptcy of several publishing houses, which reduced the supply of books to the domestic market by approximately 60%. The decision made in 2010 to reduce the VAT rate again (to 12%) considerably improved the situation, and the industry started stabilising, yet, it has not fully recovered even now. It convincingly proves that in order to maintain the publishing of books in the Latvian language without any support (funding of the State Culture Capital Fund, purchases by libraries etc.), the government support in terms of reduced tax rate is necessary. An essential prerequisite for normal competition and, thus, successful development of the industry in the future, according to this industry's enterprises, is the combating of the grey economy. For this reason, the Association of Latvian Printing Enterprises has signed a cooperation agreement with the State Revenue Service on promoting fair competition and the payment of taxes in the industry.

Based on the statistical information (Statistical Yearbook..., 2005-2011), the authors conclude that a decrease in the number of printed publications (including books) and the number of copies printed was observed in the publishing industry of Latvia, which reached 44% in 2009 compared with 2008; it was caused by two processes: mainly the economic recession in the country and the use of free-of-charge information due to the recession and the development of electronic technologies. The effects of the two processes on the number of printed publications (books, magazines, and newspapers) were observed to a lesser extent, as the value added of manufacture of paper and paper products, and printing and service activities related with printing rose by 16% in the period of 2009-2011, while publishing activities declined at a rate of 9% on average, and continued declining in 2010 and 2011.



Source: authors' construction based on the Eurostat data, 2013

Fig.2. **Turnover of the largest enterprises of the industry of printing and service activities related with printing in the European Union Member States, Norway, and the Baltic States in the period of 1997-2009 (million EUR)**

After analysing the changes in the turnover of the printing industry (Figure 2), one can conclude that the greatest decrease in turnover was observed in Poland - 37%, followed by the Baltic States: 31% in Lithuania and 30% in Latvia. The printing industry in Latvia depends on the overall financial situation in the European Union. It leads to a conclusion that the printing industry in Latvia is poorly developed; thus, it ranks in lower positions among the EU Member States.

In 2011, the turnover of 10 largest printing enterprises of Latvia, including "Livonia Print" Ltd, "Poligrafijas grupa Mukusala" Ltd, "Prese nams Baltic" Ltd, "Jelgavas tipografija" Ltd, and "Liepajas papirs" Ltd, accounted for 38% of the printing industry's total turnover. "Jelgavas tipografija" Ltd ranked in the 9th position in the list of the largest printing enterprises of Latvia, and its turnover comprised 1.56% of total turnover in the printing industry. Its turnover was not large but significant among Latvia's printing enterprises in 2011.

The spare production capacity is large in the country, and there are 20 large printing enterprises in the printing industry, which intensively produce and export their products, maximally penetrating into new markets, whereas, small enterprises are not able to enter a new market, as the cost of penetrating into a new market is relatively high. The government has to contribute to the development of the printing industry's enterprises through providing both an educated labour force and investments for increasing their market share.

2. Accounting of income tax expenses and its analysis at a printing industry enterprise

The tax policy implemented by the government is and will be important for sustainable growth in the economy of Latvia. It not only shapes the business environment and climate but also affects the wellbeing of any individual in Latvia (Pavluts D., 2013).

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The corporate income tax revenue accounts for only 6% of total tax revenue in the general government consolidated budget but on certain conditions it plays a considerable role in forming the government budget. The greatest share of revenues from direct taxes is made up of state social insurance contributions and personal income tax and corporate income tax revenues. Yet, of the indirect taxes, the greatest share was composed of the value added tax revenue (Summary on Tax Collection, 2013).

The total tax revenue collected by the government in 2011 was equal LVL 3881.1 million, which was LVL 438.9 million or 12.8% more than in 2010. The increase in tax revenues was mainly determined both by the rise in the economic activity of individuals and enterprises, and by the positive effects from changes in the tax policy and from administrative measures.

The share of corporate income tax in the total tax revenue in the world's developed countries is significant. In some developed countries, this share even exceeds a third of all tax revenues. As mentioned before, the share of corporate income tax revenue in the total tax revenue in Latvia was only slightly greater than 6% over the recent years. It means that some specific hindering factors affect the development of enterprises in Latvia. The high tax burden, bureaucratic procedures in business, the complicated calculation and accounting of CIT can be mentioned as the key hindering factors.

As regards the calculation of the corporate income tax, several tax incentives for stimulating economic activity and opportunities for reducing the tax have been introduced in the country. For example, losses may be transferred to next taxation periods, which may be done in an eight-year period from 2010 onwards. Consequently, for example, businessmen may use the losses incurred in 2009 to reduce their future profits up to 2017 (On Enterprise Income Tax, 1995).

The authors analysed the accounting for the CIT at "Jelgavas tipografija" Ltd, which, as a benchmark, represents accounting operations in the entire industry in general.

Even though various changes could be observed in the markets of printing products both in Latvia and in Europe, the enterprise continued developing, reaching a turnover increase of 9.2% in 2011. The enterprise achieved a positive result by actively working in both the domestic and export markets where its exports rose by 42.4% compared with 2010. It successfully penetrated into the markets of both the European Union and Russia.

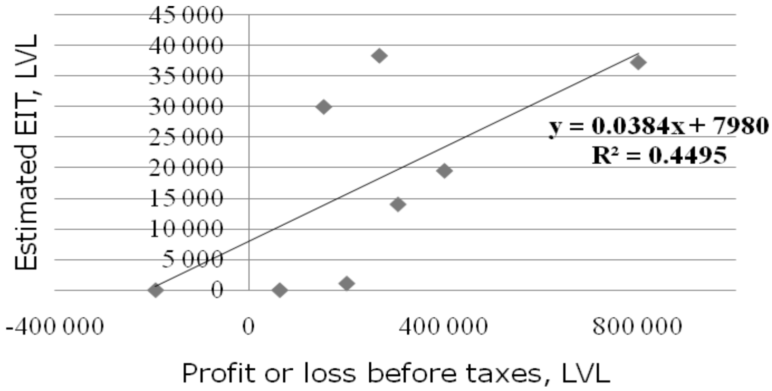
In 2011, "Jelgavas tipografija" Ltd paid in taxes LVL 436535, while it was LVL 372872 in 2010. The amount of paid taxes changes according to the enterprise's financial situation. The CIT paid by "Jelgavas tipografija" Ltd rose by 14% in 2011 compared with 2010. The share of corporate income tax in the total amount of taxes paid by this publisher comprises 3%, and the burden of this tax is not high in Latvia (in the percentage distribution of tax revenues in Latvia in 2011, the CIT accounted for 6% of total tax revenue). The highest tax burden for "Jelgavas tipografija" Ltd is caused by taxes on labour: mandatory state social insurance contributions and the personal income tax with a share of 59% and 34%, respectively.

The corporate income tax paid by "Jelgavas tipografija" Ltd accounts for the greatest proportion of the tax paid by the enterprises belonging to the publisher's group. The estimated CIT paid by "Jelgavas tipografija" Ltd in 2008 was equal to 0, as the tax deductions were greater than the enterprise's profit before taxes and interest payments, while in 2009, the enterprise suffered losses, and its estimated tax was 0. In 2010, the economic situation in Latvia's economy stabilised and the enterprise's turnover rose, resulting in a profit to be taxed. In 2012, its turnover increased compared with 2011, yet, the CIT paid decreased, as the enterprise purchased new equipment. In accordance with Section 13 of the Law on Enterprise Income Tax, the depreciation of its fixed assets might be increased twofold, which reduced the taxable income.

A corporate income tax econometric model for "Jelgavas tipografija" Ltd is presented in Figure 3 (Arhipova I., Balina S., 2006).

In the analysis of the estimated CIT, depending on the profit or loss, the authors employed a regression equation with the dependent variable Y – estimated CIT (LVL) – and the independent variable X – profit or loss before taxes (LVL).

The econometric model's regression function is as follows: Yi=7980+0.0384*Xi+ei. This function shows that in the period of 2005-2012, an increase of LVL 1 in the profit or loss of "Jelgavas tipografija" Ltd led, to an increase of LVL 0.0384 in the estimated CIT on average. The regression determination coefficient R2 = 0.4495, which indicates that 44.95% of the changes in the estimated CIT for "Jelgavas tipografija" Ltd may be explained by a linear regression model which integrates profit or loss before taxes as a factor. It means that the model is sufficiently instable to be exploited for forecasting.



Source: authors' construction based on the annual reports of "Jelgavas tipografija" Ltd, 2012

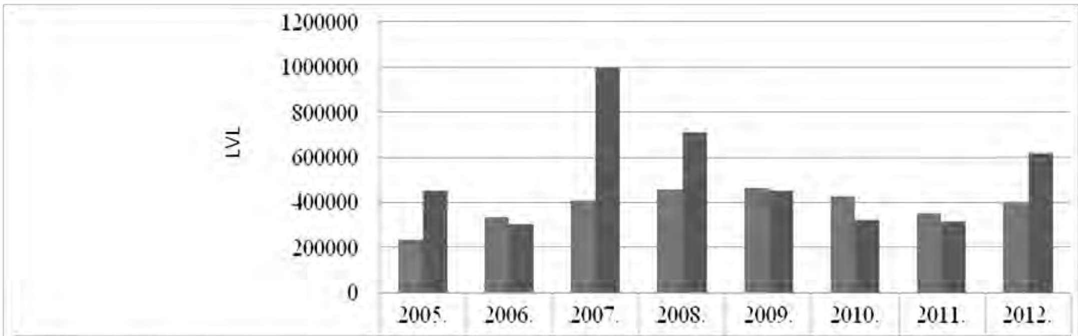
Fig.3. **The estimated CIT for "Jelgavas tipografija" Ltd, depending on the profit or loss before taxes for the period of 2005-2012, LVL**

The authors conclude that the corporate income tax paid cannot be forecasted for a long-term, as it is corrected by many financial accounting items and does not directly depend on turnover. In the calculation of corporate income tax for "Jelgavas tipografija" Ltd for 2011, the greatest proportion, 91%, contributing to an increase in taxable income, according to financial accounting rules, is composed of the depreciation of fixed assets; whereas, the greatest proportion, 88%, contributing to a decrease in taxable income is comprised of the depreciation of fixed assets for taxation purposes, in accordance with Section 13 of the Law on Enterprise Income Tax.

One can conclude that calculating the depreciation of the enterprise's fixed assets for taxation purposes is a long process, as a Microsoft Excel file has to be filled in, which is done manually. Accordingly, there is a risk of making an error or a formula may disappear as well as it is possible that the file could be deleted. The authors recommend the enterprise that distributes the accounting application Horizon to develop a new module for calculating fixed asset depreciation for taxation purposes.

The results of a calculation of the annual depreciation of fixed assets according to financial accounting rules and for taxation purposes are shown in Figure 4.

According to Figure 4, the depreciation of fixed assets calculated according to financial accounting rules gradually rises and, at the same rate, decreases relative to the purchase value of fixed assets. Yet, for taxation purposes, a great proportion of the initial value of fixed assets is written off already in the first year of their exploitation, for instance, in the case of production equipment, the proportion is 40%. In 2007, the enterprise moved to new premises and new equipment was purchased; thereby, the depreciation deduction of fixed assets for taxation purposes, rose by 226% or by 2.3 times compared with 2006 but then sharply decreased for the period until 2010. In 2007, the depreciation deduction calculated according to financial accounting rules rose by 21% compared with 2006 and continued gradually increasing until 2009. The same trend was observed after 2012, as the enterprise invested in new production equipment in that year, thus, expanding its business. The depreciation deduction for taxation purposes (CIT) both sharply increased and decreased, as it was calculated at a double depreciation rate, while the depreciation deduction calculated according to financial accounting rules increased and decreased smoothly. For this reason, a deferred tax liability is entered in accounts.



	2005.	2006.	2007.	2008.	2009.	2010.	2011.	2012.
Annual depreciation according to financial accounting rules	237985	337525	406795	455747	464585	429460	350617	398678
Annual depreciation for taxation purposes in accordance with Section 13 of the Law on EIT	451650	304803	992507	713482	454702	322955	314134	619915

Source: authors' construction based on the corporate income tax declaration data of "Jelgavas tipografija" Ltd, *2012*

Fig.4. **Results of a calculation of the annual depreciation of fixed assets according to financial accounting rules and for taxation purposes for "Jelgavas tipografija" Ltd for the period of 2005-2012, LVL**

If no deferred corporate income tax liability is entered in annual reports, the profit that is intended for distribution among shareholders can be increased by the extent of deferred corporate income tax, which negatively affects the enterprise's financial stability (Annual Accounts Law, 2013).

The analysed enterprise has disclosed all its expected risky sums and losses incurred in the reporting year or in the previous years, calculating deferred tax liabilities and incomes; thus, the enterprise's profit and loss account reveals its correct net income.

Conclusions

1. The economic activity of printing enterprises depends on exogenous economic and political factors as well as on the tax policy implemented in the country.

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2. In general, the industry of publishing and manufacture of paper and paper products is characterised by high value-added, prestigious products, a strong exports potential, as 55% of the industry's products were exported from Latvia in 2010, while it was 57% in 2011.
3. The spare production capacity is large in the country, and there are 20 large printing enterprises in the printing industry, which intensively produce and export their products, maximally penetrating into new markets, whereas, small enterprises are not able to enter a new market.
4. The value added of the industry of printing and publishing, and paper and paper products fell by 44%, which was caused by the economic recession and the use of free-of-charge information due to the development of electronic technologies.
5. Selected as a benchmark, "Jelgavas tipografija" Ltd represents the accounting process in the printing industry, including the calculation of and accounting for the CIT, and reveals their problems.
6. A corporate income tax declaration has to be assigned a large role in financial reports and in the accounting for tax expenses. An estimated corporate income tax is directly associated with the profit or loss account and the balance sheet.
7. The corporate income tax has to be paid in advance before it is calculated, which results in the overpayment of the CIT, especially if the enterprise suffers losses in the next year; thereby, finances are allocated inefficiently.
8. The CIT paid cannot be forecasted for a long-term, as it is corrected by many financial accounting items and does not directly depend on turnover.
9. To improve the way of calculating the corporate income tax, the government has introduced several tax incentives for stimulating economic activity and profit tax reduction opportunities, for example, losses may be transferred to next taxation periods, which may be done in an eight-year period from 2010 onwards until 2017.
10. "Jelgavas tipografija" Ltd (which ranks among 10 largest enterprises of the printing industry) owns equipment, technologies, and buildings that account for 60% of its assets in the balance sheet. Accordingly, the depreciation of its fixed assets significantly affects the amount of its estimated corporate income tax.
11. The enterprise has disclosed all its expected risky sums and losses incurred in the reporting year or in the previous years, calculating deferred tax liabilities and incomes; thus, the enterprise's profit or loss account reveals its correct net income.

Proposals

1. The enterprise's management has to plan its income as well as its purchases of equipment and other fixed assets needed for economic activity in those taxation periods when the enterprise expects a large net income, thus, reducing the corporate income tax to be paid.
2. The enterprise's Accounting Department should analyse its debts of debtors at the end of every month to facilitate an audit of debtors for the preparation of annual reports and to make sure the data filled in corporate income tax declarations are correct and credible.
3. The enterprise distributing the accounting application Horizon has to develop a new module "Calculating Fixed Asset Depreciation for Taxation Purposes". The module has to be associated

with fixed asset data cards (in which information on double depreciation rates, the type of fixed assets, and other necessary data when purchasing fixed assets is entered), which would make date for corporate income tax declarations to be obtained faster and the data would be of higher quality.

4. The decision makers of the Republic of Latvia have to change the procedure of paying the corporate income tax − the tax has to be paid for the taxation period rather than, as now, in advance for the next accounting period.
5. When calculating their deferred tax liabilities and incomes, printing enterprises have to disclose all their expected risky sums and losses incurred in the reporting year or in the previous years, so that their profit or loss accounts show (reveal) their correct net income.

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NATIONAL INNOVATION POLICIES AND INSTRUMENTS TO PROMOTE ENTREPRENEURSHIP IN THE REGIONS

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Abstract. The current European Union's growth strategy until 2020 ("Europe 2020") has been based on the scientific research, alongside the new technologies. In particular, innovation has been identified as a significant key driver for the economic growth.

Sustainable economy requires strengthening the competitiveness of the regions. The fact is that Latvian regions pose a high innovative potential. However, there are currently only a very few established innovative companies on the market. As such, they are representing relatively low proportion of the total high-tech exports. Therefore, the government institutions and local authorities could play an important role in promoting innovation, as they have the immense authority, leadership, data information, experience, and knowledge on how to provide and share with the regions all important commercial data timely. The established government's networking structure with some of the existing resources could provide the regions with a strong supporting platform for national economic development. Hence, it could create important tools as an essential element and crucial part that can be utilised to encourage innovation and development.

Key words: tax incentive, tax tools, tax relief, innovation, resources and development.

JEL code: R5, A19

Introduction

Despite the current continuing economic crisis in the EU the innovation sector has indicated an improvement in the most recent years. On the contrary, the innovation gap between the Member States is rapidly expanding, creating the further difficulties for some of the EU countries reflecting in slower economic growth. Leading innovation countries have further improved their performances, where others may have failed to demonstrate any lack of progress (DEA BALTICA …, 2012).

Overall, the EU continues to place Sweden first on the ranking table, closely followed by Germany, Denmark, and Finland. Estonia, Lithuania and Latvia have made an improvement since the past year but not as much as potentially they could have achieved to make significant change in the current EU rating.

Latvia can potentially try to learn more from the countries that are regarded as leaders in the economic development and efficient use of the capacity for innovation. In some parts of the world, awareness amongst the progressive youth is that there are numerous worldwide countries that are feeling a huge pressure to give up their natural resources, limited to offering world economic markets only with competitive but essentially cheap labour. For instance, in the countries like Japan, South Korea, and Taiwan, the latest generation is learning the importance of technologies and biotechnologies, automation, global IT sector and the introduction of progressive industries with developed production systems. They are realising potential advantages and gains to be made with over role with greater results in adopting new directions and strategies by introducing government incentives for innovation and

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development into their national economies. They have successfully managed to use a variety of monetary and fiscal instruments to promote innovation as well as working in cooperation with clusters of research institutes. In the near future, investigative research and development will be seen as tax instruments in promoting the national long term economic growth. Latvian regions are currently looking for the new ideas, potential opportunities, and regional cooperation in order to promote youth employment through the creation, growth and participation in the emerging new markets by providing new products and technologies. They will inevitably strengthen competitiveness and innovation in the existing Latvian regions, shifting the economic growth and development in line with expansion and establishment of the new emerging new world markets.

The hypothesis of the research: the process of innovation activities in the regions is not just dependent on the current available EU funds but also on all other available initiatives. Especially, it relies heavily on the gravity of the state's fiscal aid instruments and all other available incentives supporting the growth. This could potentially encourage and stimulate the launch of the new innovative business areas and promote the economic development and reduce the national current unemployment rate. This could also reduce the number of people leaving the country in search for employment and inspire them to stay and live at home promoting and preserving rural way of living, local environment, and wild life.

The aim of research is to explore the development of innovative entrepreneurship in Latvian planning regions and to find new solutions for using tax instruments and regulatory problems that prevent new modern technologies.

The tasks of the research to achieve the aim analyse the Latvian financial resources in the planning regions and opportunities for innovative business development.

Research methods used in the paper: monographic, statistical, questionnaire survey, the logical and constructive methods.

Research results and discussion

Latvian planning regional development opportunities

The steady expansion of innovative manufacturing is a prerequisite to handle crisis situations, economic and social security. This results in higher employer earnings, the number of workers and their earnings. The end result is increased tax base and budget revenues. That is the truth, which is understood by operators, scientists, educators, and other stakeholders as well as various state-level programme developers. Programmes devoted to the development of innovative activities are underpinned by a range. Only the result is very sad: Latvia, in terms of innovation, is in the last place in the European Union. All programming documents have the same shortcomings: general formulation of goals and objectives, no specific instrument, maturity, responsibility. For example, Business Competitiveness and Innovation Promotion Programme for the period of 2007-2013 (Cabinet Order No 406 of 28 June 2007), one of the most important strategic documents designed for innovation, states: to promote national innovation system capacity and efficiency, creating an innovation-friendly regulatory, financial and informative environment. This task starts with the words to stimulate, promote, enhance, support and so on. How to encourage, stimulate and support when will a concrete result be achieved? There are no answers, unfortunately. As a result, innovation is a very slow introduction of new innovative industries, new jobs are created. It appears that the programme developers do not know how to address innovative economic development problems.

Latvia has used the assessment of territory development index to assess the development of different territorial units for more than ten years. The current development level of the territory and territorial development index level have changed the index calculation as determined by the Cabinet Regulations No 482 "Procedure for the Calculation of the Territory Development Index and Its Values." Standardised indicators are calculated for each of the development of core indicators for each area. Evaluation of the regional development planning in Latvia is set below by ranks provided in Table 1.

Table 1

The regional territorial development index (2009-2011)

No	Planning region	Territorial Development Index level (data for 2009 compared with 2009, average)	Rank	Territorial Development Index level (data for 2010 compared with 2010, average)	Rank	Territorial Development Index level (data for 2011 compared with 2011 average)	Rank
1	Riga	0.956	1	0.786	1	0.839	1
2	Vidzeme	-0.803	4	-0.724	4	-0.432	4
3	Kurzeme	-0.701	3	-0.577	3	-0.500	2
4	Zemgale	-0.508	2	-0.454	2	-0.605	3
5	Latgale	-1.164	5	-0.838	5	-1.203	5

Source: authors' calculations based on the Financial Indicators…, 2012

The table provided above shows that the Company 2011 for Riga planning region territory development index level was positive, while the result for other four regional indexes was negative. Planning between the regions has been consistently positive since 1999 as regards the territory development level only for the region of Riga, while the performance of other four regions is consistently negative. Latgale region has experienced the decline in value of the index in number of variables and an increasing difference from the national average; while the high unemployment rate is an important factor. It confirms that there is a fairly large regional difference.

The EU funds programmes and initiatives is one of the main regional support instruments. The following sections will examine the period from 2007 to 2011, the available EU Structural Funds (the European Regional Development Fund, the Cohesion Fund, and the European Social Fund), the Rural Development Programme, climate change, the financial instrument of the EEA, the Norwegian Financial Mechanism, and the Latvian-Lithuanian border cooperation programme and their impact on the planning regions.

Table 2

The EU fund contribution for the planning regions of Latvia by the funds (2007-2011)

	Kurzeme	Latgale	Riga	Vidzeme	Zemgale	Latvia	Total
European Social Fund	209.25	190.91	308.73	162.25	161.71	162.25	1195.09
Rural Development Programme	54.51	41.68	31.95	48.85	78.02	-	255.00
Climate change instrument	18.19	13.04	56.78	18.02	9.98	-	116.01
Latvian-Lithuanian border cooperation programme	3.15	6.50	1.02	-	4.31	-	14.98
Financial instrument of the EEA and Norwegian Financial Mechanism	3.79	3.85	20.55	3.98	3.41	0.37	35.94
Total, million LVL	288.89	255.97	419.03	233.09	257.44	162.62	1617.02

Source: authors' calculations based on DEA BALTIKA …, 2012

The current regional development of Latvia largely depends on the ability of the local governments to attract EU funding.

Table 3

The EU funds investment in the planning regions of Latvia (2007-2011)

	Kurzeme	Latgale	Riga	Vidzeme	Zemgale	Latvia	TOTAL
European Social Fund	772	626	299	765	634	78	576
Rural Development Programme	201	137	31	230	306	-	123
Climate change instrument	67	43	55	85	39	-	56
Latvian-Lithuanian border cooperation programme	12	21	1	-	17	-	7
Financial instrument of the EEA and Norwegian Financial Mechanism	14	13	20	19	13	0,2	17
TOTAL, LVL per capita	1 065.44	839.29	406.28	1 099.49	1 009.12	78.38	779.44

Source: authors' calculations based on DEA BALTIKA …, 2012

In absolute terms, the most external financing for regional activities are uptaken by Riga planning region (Riga and regions near Riga) – 419.03 million or 26%. The other four planning regions have obtained external financing similar in size, ranging from 233.09 million in Vidzeme region to 288.89 million in Kurzeme region (Zemgale region - 257.44 million and Latgale - 255.97 million).

Table 4

The EU fund contribution to the planning regions of Latvia by sector (2007-2011)

Scope of support	**Kurzeme**	**Latgale**	**Riga**	**Vidzeme**	**Zemgale**	**All total**	**Total**
Science and research	4.06	4.69	44.99	0.88	3.16	2.44	60.22
Business	50.25	18.30	76.82	27.95	33.82	0.47	207.61
Transport infrastructure	39.49	38.84	9.71	35.83	44.89	22.27	191.04
Information and communication technologies	1.51	1.28	5.63	1.32	1.40	-	11.14
Community amenities	54.26	42.72	71.42	66.87	49.89	-	285.16
Energy performance of buildings	13.22	12.20	29.82	13.63	8.01	-	76.88
Energetic	10.00	3.64	29.57	5.32	5.84	0.02	54.39
Environmental protection and mitigation	11.35	1.01	8.49	0.55	22.30	1.75	45.45
Culture and tourism	9.71	16.83	3.70	9.32	9.39	0.16	49.11
Education	20.75	34.94	47.18	8.40	7.38	60.42	179.07
Health care	13.45	18.44	37.30	9.74	9.04	-	87.97
Employment and social services (included)	16.27	21.82	21.14	10.22	13.40	73.45	156.30
Public administration (including specific sector measures)	12.80	13.49	15.59	15.02	11.60	1.62	70.13
Agriculture and forestry	31.76	27.16	17.64	28.05	37.31	-	141.91
Total, million LVL	288.89	255.97	419.03	233.09	257.44	162.62	1617.02

Source: authors' calculations based on DEA BALTIKA …, 2012

The total contribution of the EU funds to the population of the country is LVL 1 779.44. The EU fund contribution per capita in the regions differs more than two times – the highest values in Vidzeme - LVL 1 099.49 per capita, Kurzeme region - LVL 1 065,44 per capita, while the lowest in Riga region – LVL 406.28 per capita. Zemgale - LVL 1009.12 and Latgale - LVL 839.29 per capita.

Business is directed to the development - LVL 207.61 million or 13% of total EU investment. The most of financing has been absorbed by Riga and Kurzeme regions – LVL 76.82 million and LVL 50.25 million, the smallest part of Latgale region – LVL 18.30 million. Business of Zemgale has invested LVL 33.82 million. The smallest amount of the EU funds – LVL 11.14 million or 1% is allocated to the development of information and communication technologies. The authors believe that a breakthrough is the latest generation of IT technology developed by their own production.

Vidzeme planning region is the only planning region of Latvia which actively participates in industry cluster development initiatives in the region. It also cooperates with other health cluster participants from other countries, mainly, from the Baltic Sea region. It also participates in the development of joint projects and exchange of good practice and experience (Parskati …, 2011).

Topical question is whether the investment is made in order of priority. Studies have shown that the EU funds programmes are often seen as unpredictable not as co-ordinating activities, in addition, some specific set of the criteria of the programme is applied, where local governments cannot always attract and/or choose to raise funds according to their priority sequences. In order to uptake the additional funds, many municipalities implement projects that are necessary, yet, not necessarily on the top of the list of their priorities. Other governments choose to make investment of their own funds, because the performance of non-priority order is often uneconomic and inefficient. The EU funds are not differentiated for the regions. They largely depend on the capacity of the country and its ability to write the project.

In case of business, the research data indicate that the 2012 regional group has registered 5,040 new businesses and eliminated 1.495 companies. The new business registration rate has fallen compared with the past year – less than 248 companies have been registered. The economic activity in the country group launches 3,545 companies showing the difference between the registered and liquidated companies. Higher economic start-up activity has been observed in Riga planning region.

Table 5

Economically active market sector statistical units in 2009-2011

Planning region	2009	2010	2011
Riga	69346	73139	77662
Vidzeme	13905	14588	14826
Kurzeme	16236	17119	17298
Zemgale	12590	14049	14315
Latgale	16532	17072	17677
Latvia	128609	135967	141778

Source: authors' calculations based on DEA BALTIKA …, 2012

The turnover was less successful for Latgale, where the average turnover reached LVL 148 230, while the smallest turnover of micro-enterprises was Vidzeme – LVL 17 793 (SIA Baltijas …, 2012).

Latgale region stands out with the highest proportion of self-employed and micro-enterprises, which could have insufficient financial capacities for the population. In Latgale region, the personal income tax

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per capita in 2012 was almost twice less than in Riga planning region and less than half of the national average.

Table 6

Economically active market sector statistical units in the planning regions by business forms

Planning region	Total	Self-employed	Individual merchant	Commercial society	Agricultural and fishery farms
Riga	77662	18900	3214	53598	1950
Vidzeme	14826	6473	855	4443	3055
Kurzeme	17298	7600	1388	5634	2676
Zemgale	14315	5679	1190	4725	2721
Latgale	17677	9226	1353	4308	2790
Latvia	141778	47878	8000	72708	13192

Source: authors' calculations based on DEA BALTIKA …, 2012

The largest (2001) economically active market sector units per 1000 inhabitants are registered in Riga planning region (71.0), while the smallest – Zemgale region (51.9). In turn, individual entrepreneurs and companies with the highest number per 1000 inhabitants were in Riga planning region (51.9), the lowest – in Latgale.

Table 7

Micro and small enterprises in the regions of Latvia in 2012

Planning region	Small businesses	Micro-enterprise	Total
Riga	13082	28555	41637
Vidzeme	1467	2648	4115
Kurzeme	1645	3219	4864
Zemgale	1598	2807	4405
Latgale	1499	2752	4251
Latvia	19291	39981	59272

Source: authors' calculations based on DEA BALTIKA …, 2012

According to the table, the largest proportion of micro and small business are seen in Riga region - more than 70%. Kurzeme region ranks in the second place. The Lursoft research (Izvertejuma …, 2013) indicates that the majority of companies were in the construction sector, concentrated in Riga and directly close to the national capital of Riga. It is important to find out how many of these companies are actually innovative.

Table 8

Active enterprises based on innovation and their proportion in 2008-2010, LVL

Sector	Total number		Innovative companies		Non-innovative companies	
	Number	%	Number	%	Number	%
Across the industry	1892	100	599	31.7	1293	68.3
Manufacturing	1652	100	539	32.6	1113	67.4
Services	2240	100	635	28.3	1605	71.7

Source: authors' calculations based on OECD …, 2013

According to Table 7, out of 4132 active businesses operating in Latvia in 2010 - 30% were innovative. Little more than half of all innovative enterprises (635) operated in service sector, 599 – in processing industry.

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The majority are small companies (where the number of employees was between 10 and 50); 28% of them were considered innovative and related with industrial production, of which 26% of companies related with the service areas.

The two-thirds of large industrial enterprises have had a redundancy in excess of 250 employees, despite the fact that they were using innovative technology or producing innovative products. The turnover of these companies represent 93% of total group turnover.

The average industrial group of companies where the number of employees was between 50 and 250 were innovative companies with significantly lower turnover. In fact, just over a third of innovative enterprises represented a turnover of 52.5% related with the group's total turnover.

During the industrial sector crisis, the total turnover of small and medium-sized innovative companies decreased, while large innovative companies managed to maintain their position thanks to the demand in mining industry. The trend in the service segment has been reversed – the total turnover of small and medium-size innovative companies increased. However, the share of large companies has decreased from 79% to 67% (SIA Baltijas …, 2012).

The investigation found that there are a lot more of non-innovative companies compared with the innovative companies. The planning region development regarding innovation is hampered by several obstacles. The main one related with inhabitants are regarded education, skills and professions supply mismatches on the labour market and structural requirements for high quality, and the lack of qualified specialists. There are elementary occupations and agricultural workers, surplus of outdated manufacturing technology and physical infrastructure, inadequate high-tech industrial development of the poor quality of streets, roads and bridge infrastructure hindering the development of human settlements, lack of business competitive institutional environment, poor public-private cooperation, weak financial base of local governments, insufficient information and marketing activities to attract investors, business insufficiently competitive institutional environment, poor public-private cooperation with currently weak financial base of local government, lack of cooperation within the regions, low entrepreneurship and innovation, and low levels of production of high value-added share of basic sectors and low competitiveness (Petijums "Regionu …, 2012; SIA Baltijas …, 2012).

The result of investigation shows the current lack of incentives to encourage innovation in the region. Perhaps, one of the incentives could be implementation of the tax instruments.

Fiscal instruments for innovative business

The authors believe that the experience would facilitate foreign investment inflows into Latvian companies. The Western analysis of the experience showed that the tax incentives are widely used to promote research work. At the same time, it recognises that today´s tax credit system has its own drawbacks. The system gives significant advantages only to those companies which are large enough for advanced research. In contrast to that, companies that initiate a wide range of research programmes, though, the research tax credit gain no significant relief during the first years. Research in the initial financing from its own resources can lead to a rapid decline in profit or even incur a loss.

In developed countries, basic research has focused mainly on the university laboratories: Japan-61%, Germany and France - 67%, the UK - 55%, Sweden - 88%. American university centres performed 57% of all basic research, while industrial laboratories of the company – 10%, and non-commercial private research centres – 8% (SIA Baltijas …, 2012).

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In order to stimulate interested corporations to increase investment in basic research, the government has expanded the range of incentives to investors who made investments in the theoretical studies. For example, in the US they have tried to promote comprehensive cooperation between universities and industrial companies, expanded tax incentives related with investments in universities in order private companies invest in them. In 1986, the Tax Reform Act provided incentives for wider industrial companies, which closed contracts with outside performers due to the research work carried out. There has been an increased number of companies which received tax reliefs and financed the research in the universities and allowed the use of their facilities and research equipment.

The survey data show that many national laws do not provide any tax incentives in the field of R&D (Sweden, Germany, and Estonia). In other countries, the R&D costs as well as other operating expenses are deductible from corporate taxable income.

Conclusions, proposals, recommendations

States provide a variety of tax incentives to stimulate private investment in R&D which can be divided into six broad categories:

- reduction of taxable income as a percentage of increased R&D costs (the United Kingdom, the Netherlands, Greece, Lithuania, Latvia);
- tax credit or the amount of income tax decrease for R&D costs (France, Italy, Spain);
- tax incentives for R&D in-servants (the Netherlands, Italy, Spain);
- reduced income tax rate on income from patented inventions (the United Kingdom, the Netherlands, France, Spain, Greece);
- accelerated depreciation for R&D activities used in fixed assets (France, Greece, Lithuania);
- other specific tax incentives (Britain, France, Italy, Spain, Lithuania).

These tax incentives relate with investment, innovation, and the environment.

The design of special field policies and national support instruments for the local development should take into account a number of criteria such as the specificities and problems in certain areas, an area of national interest (Latvia 2030) and the specific characteristics of the specific potential of the perspective of population structure, regional and local development priorities.

From the foregoing, the authors put forward the following proposals.

1. Innovative policy has to promote basic skills and innovation capacity at the local level as well as the instruments of cooperation in promoting European cooperation in the region targeted innovation process, organisation, and coordination at national level.
2. Regional innovation process support policies for sustained innovation process, organisation and co-ordination at national level, with the use of fiscal instruments such as tax credits, taxable income reduction in the percentage of increased R&D costs, tax incentives for R&D in-staff salaries as well as other supporting tools.
3. Regions need to promote cluster activities, the importance of cooperation of all European scale, the implementation of international cooperation projects between regions based on support for innovation and smart specialisation strategies.
4. Tax incentives are an important factor in promoting innovation. However, the rapid development of the innovation needed to start other economic and social leverage.

Tax incentives are necessary to encourage foreign investment and inflow of the national economy, thus, enhancing means for further economic growth and an improvement of the lifting to promote steady economic development in the country and stimulating economic development in areas with higher unemployment and poorer infrastructure and bridging the social gap between major cities and rural areas.

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2.NEW DIMENSIONS IN THE DEVELOPMENT OF SOCIETY

COMMUNICATION COMPETENCE OF THE INHABITANTS OF RURAL AREAS

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Abstract. Communication competence is an important determinant of the effectiveness of each legal entity and natural person in socio-economic environment. This also refers to rural residents and businesses in rural areas. In order to characterise one of the dimensions of communication competence of this social environment, the paper presents the results of a survey study that explored media reception and use of their content which is one of the dimensions of communication competence of the receiver. Although television is the most commonly used medium, the respondents see the Internet as the most valuable and useful medium in improving communication competence. Mainly the representatives of the age group 36-65 years declared the need for wider access to information. Additionally, an attempt has been made to define the term communication competence with regard to social skills and factors determining performance effectiveness in communication situations.

Key words: media, social competence, receiver's communication competence, rural areas.
JEL code: Z13

Introduction

In information society, public, professional, and private life largely depends on communication competence which is, generally speaking, the ability to send and receive information in order to achieve authentic and effective agreement. Having communication skills is essential especially for those professions involving continuous interaction with others such as managers, consultants, or traders.

Communication competence is a measure of the effectiveness of both natural persons and legal entities in socio-economic environment. This also refers to rural residents and businesses entities in those areas.

One of the dimensions of communicative competence of this social environment is characterised by the results of a survey study which was conducted in the Mazovia Province in 2012 and included 154 residents of rural areas and explored media reception**.** The research question was raised about the status of various media and media content most sought by rural residents.

Means of mass communication are classified as instruments of social power, social management tools, control tools, and instruments stimulating innovation and providing a forum for presentation and discussion on matters of public interest (Goban-Klas T., 2000). Therefore, decoding and understanding the content of media messages consistently with the intentions of the sender is an important measure of communication competence of the receiver.

Communication competence in the perspective of social competence

Communication competence is undoubtedly a part of social competence. In 1959, R. White introduced the concept of competence in psychology and defined it as the ability to interact effectively with the environment. Social psychology distinguishes social and interpersonal competence. Both

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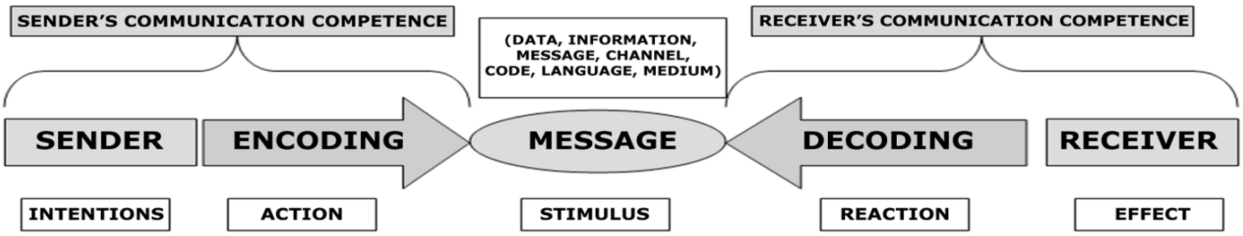
categories of competence involve the ability to achieve social and individual objectives while maintaining good interpersonal relations. As the formulation of a clear definition of this concept proves to be difficult and, thus, there are also such terms as social intelligence, emotional intelligence, social abilities and social skills in the literature.

The concept of social competence, including communication competence is most often equated with social and communication skills, although, the two terms can also be differentiated in the literature. Social skills are defined as a person's performance in a particular social situation; while social competence values the performance with regard to its relevance to the situation. Social competence is a broader, generic term, referring to the cognitive, emotional, and social skills and behaviours that are necessary for an individual to adapt to the social environment. In turn, the effectiveness in getting others to behave in line with our expectations and goals is the foundation of yet another definition of social competence, namely, "the ability, the possession of the necessary skills, to produce the desired effects on other people in social situations. These desired effects may be to persuade the others to buy, learn, recover from neurosis, like or admire the actor and so on" (Argyle M., 2002). On the contrary, the concept of S. Kowalik narrows the definition of social competence to the adaptive ability limited to the verbal means of communication between people. By using the term "communication competence", he states that a person competent in communication is the one who has the ability to adapt depending on the social context of the interaction. The example would be the sender - receiver relation in any communication situation, including the area of mass communication (Figure 1).



Source: author's construction based on M. Sokolowski, 2008

Fig. 1. **Communication model by M. Mrozowski**

Effective communication is, thus, determined by both the sender's and the receiver's competence. Each message, including the one conveyed by mass media, is encoded in a certain way and transmitted to the receiver who is required to decode and process the received symbols into thoughts. The process of decoding requires appropriate interpretation of the received message consistent with the intensions and goals of the sender.

In turn, A. Sillars and J. Weisberg (Jakubowska U., 1996), defining the socially competent behaviour emphasise the ability to generate such strategies that ensure to maintain and develop interpersonal relations in the communication process.

In addition, M. Argyle points to communication skills as part of social competence, namely, verbal and non-verbal communication and self-presentation skills, especially in professional context (Terelak J., Buldys J., 2003).

Competence determining effective performance in communication situations

An important element of social competence is the ability to reach an agreement. In a communication process, people take the roles of a sender and a receiver. Messages and signals carry particular meaning. Hence, the form and content of the message, including the media content, should be understandable to all participants in the communication process which seemingly simple proves to be one of the most complicated ones. Various difficulties can often be observed in the process of communication. Many people are able to cope with these difficulties because they have a well-developed sphere of communicative competence. The main communication barriers include:

• subjective perception of reality - every person has an individual way of perceiving oneself (self-image) and interpreting received messages, including the media content;

• subjective attribution of responsibility - in a conflict situation, participants attribute responsibility for the problem to one another;

• erroneous form of expression - when one of the participants imposes a certain kind of relationship which is not accepted by the other;

• excessive concentration on only one aspect of communication, such as the content of the message or the conversation partner;

• adopting certain attitudes towards the conversation partner - a particular mindset generates erroneous and unfounded expectations in the communication process;

• parallel communication – the communication situation in which participants do not respond to the partner's message but only try make them share their opinions;

• paradoxical communication – when verbal message contradicts the non-verbal message (Starostka E., 2013).

The awareness of communication barriers determines, to a large extent, communication competence. Developing communication competence requires both observation and active participation and creating conditions that facilitate the exchange of information and, consequently, help develop and improve communication skills.

Adequate competence is a prerequisite for the use of media content. The basic levels of information competence include (Skarzynska K, 2009):

- identification of the information needs of the receiver in order to define the information gap;
- choice of information sources that can meet the information needs;
- ability to develop and improve information search strategies;
- access to sources of information and the ability to obtain the necessary information;
- comparison and evaluation of the obtained information;
- the use and transfer of information to fill existing gaps;
- ability to combine the already known and new information.

Research results and discussion

A survey study was conducted in the Mazovia Province in order to characterise the competence of media content consumers in rural areas. The empirical material was collected by I. Malinowska in 2012. The study included 154 residents of rural areas of the Mazovia Province. The majority of the respondents were women (58%) and young people aged 18-25 years (45%), almost one third of the respondents belonged to the age group 36-50 years. More than half of the respondents (55%) had secondary education. Despite the wide access to information, more than half of the respondents (53%) still expect more comprehensive and detailed information. The development of information society stimulates the growing expectations that access to reliable sources of information will become easier. Among the

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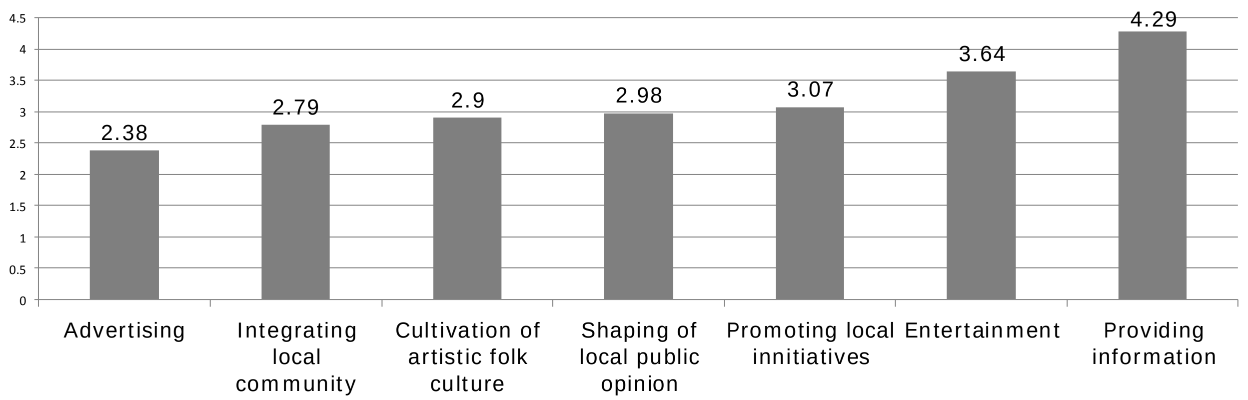
respondents, broader and fuller information was awaited mainly by people aged from 36 to 65 years. It seems justified to assume that younger people meet their information needs using the Internet sources while older people rely on the offer of traditional media. The mass media are undoubtedly among the most important sources of information. They serve a variety of functions. The most important of them are those that have effect directly on the receiver. It is primarily the informative function. Media gather and transmit information about cultural, economic, and political events mainly in news services. Other important functions performed by the media include entertainment, opinion shaping and control functions. Figure 2 presents the mass media function ranking based on the respondents' opinions expressed on Likert scale.



Source: author's construction

Fig. 2. **Ranking of the mass media functions**

The most important function of the media is providing information (4.29) for the respondents living in rural areas. The recipients of media content want to receive reliable information in a fast and simple form. The entertainment function is in the second position (3.64) followed by promotion of local initiatives, shaping local public opinion, cultivating artistic folk culture, and the integration of local communities. Additionally, the study aimed to assess the practical value of various media on a Likert scale. The respondents pointed to the Internet as the most useful medium (3.71), probably because of its reach and information resources. Their second choice was satellite television (3.25) and third - nationwide radio (3.23). A smaller proportion of respondents see regional and local newspapers (2.94) and local radio (2.95) as valuable media. While the poor audience share of local radio is confirmed by radiometric surveys, the analysis of readership shows that the local press has a greater share of readers than the one declared by the respondents from rural areas of Mazovia Province. The survey study also aimed to find out the purpose of the Internet use (Figure 3).

Three in four respondents use the Internet for communication purposes, to send and receive e-mail. Almost two thirds of respondents search for information about goods and services, and more than half (56%) use the Internet for entertainment (playing games, downloading games, music, and films). The crucial value of information and entertainment functions of the media has thus been confirmed.

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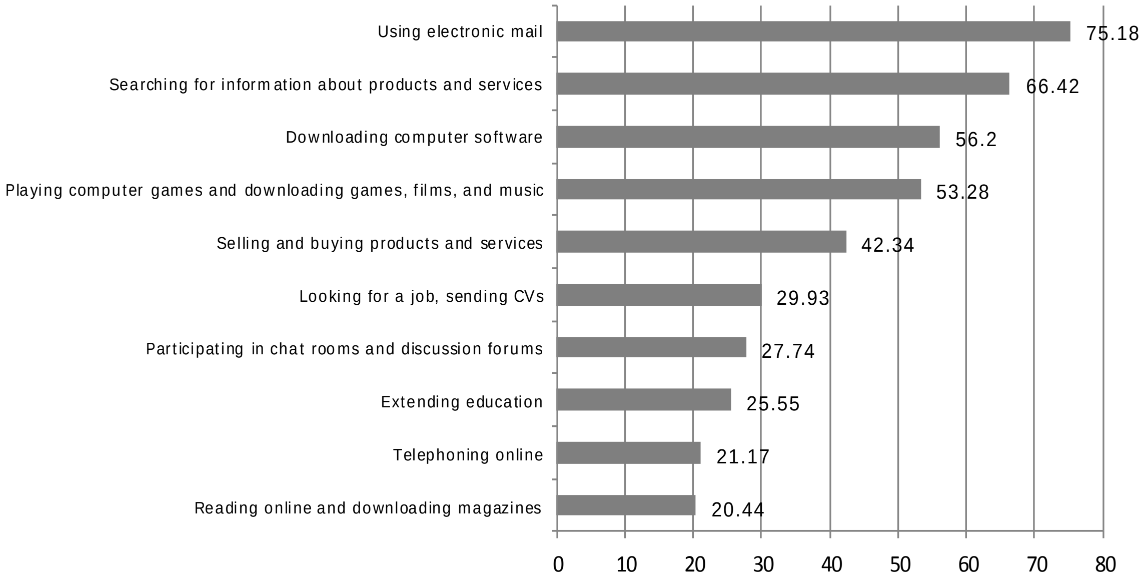
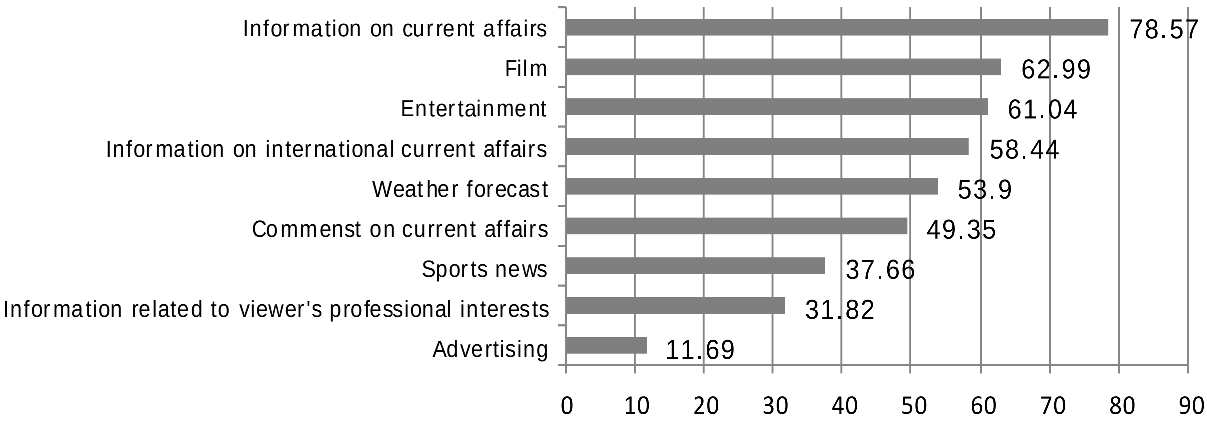


*respondents could give more than one answer

Source: author's construction

Fig. 3. **Purpose of the internet use, %**

Residents of rural areas primarily expect information on current national affairs (79%). Additionally, they want to watch films (63%), entertainment shows (61%), and international news (58%).



*respondents could give more than one answer

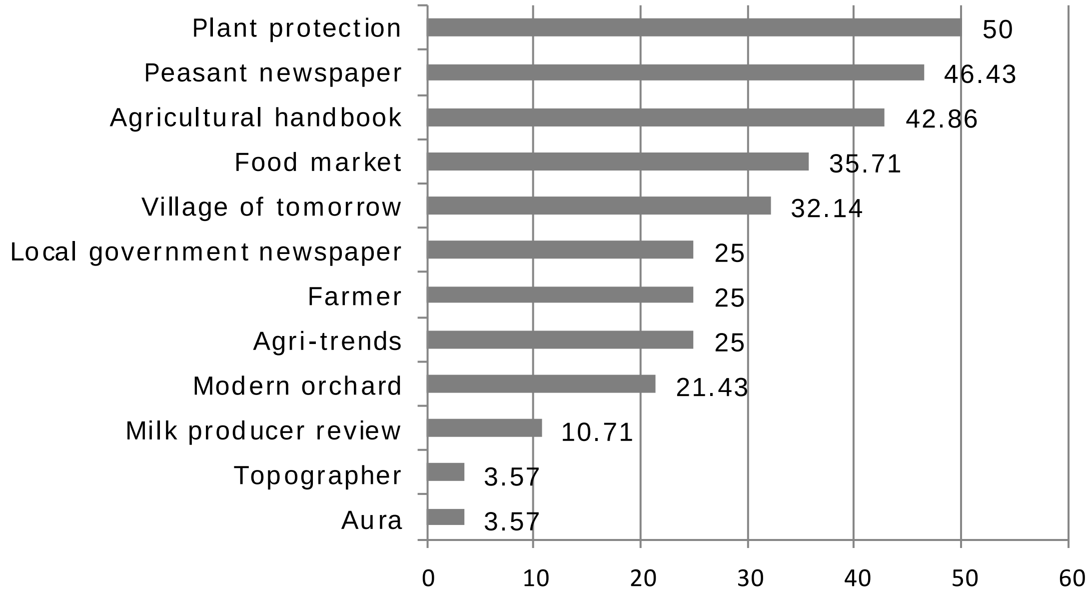
Source: author's construction

Fig. 4. **Expected content in the media programme offer, %**

More than 30% of the respondents expected information related with their job/profession, comments on current affairs, sports news, and weather forecast. Only 12% of the respondents expect advertising content which is not surprising since the advertising function of the media is also perceived as insignificant (Figure 4).

The study also provided an insight into the respondent's interest in media content regarding agricultural and rural issues. Thirty-none per cent of respondents do not watch TV programmes on agriculture. Respondents who watch programmes on rural issues prefer "Agrobiznes" ("Agribusines") (37%). Subsequently, "Rok w ogrodzie" ("A Year in the Garden") is watched by 19% of the respondents, "Tydzien" ("Week") by 13%, and "Smaki Polskie" ("Polish Flavors") by 8%. All of the abovementioned programmes are broadcasted by public television. When asked about the reasons for not watching agricultural programs, the respondents said that they were broadcasted on channels to which they did not have access or they were at inconvenient time. The most listened on the radio programmes on agricultural and rural issues include "Poranne Rozmaitosci Rolnicze" ("Morning Agricultural Variety") (23%) and "Ekoradio" ("EcoRadio") (18%). These two programmes are also broadcasted by a public broadcaster.

As for print media, magazines enjoy the highest popularity with 66% share of respondents followed by national newspapers (49%). Local newspapers occupy the third position (47%), while the trade press specialising in agriculture is read by 18% of the respondents. The readers of the trade are the youngest people taking part in the study (18-25 years). This age group declared the highest interest in each category of print media readership. However, this group included a 5% fraction that admitted that they do not read any print at all, in contrast to other age groups, in which all respondents declared reading newspapers. The reasons for low readership of trade press in rural areas given by the respondents included limited access to trade titles in rural outlets. It is easy to buy local or nationwide newspapers, while trade press must be subscribed. There are more titles of agricultural magazines on a shelf in a city supermarket than in a village shop.



***** respondents could give more than one answer

Source: author's construction

Fig. 5. **Preferred titles of agricultural press (%)**

The most popular titles of the trade press include "Ochrona Roslin" ("Plant Protection"), "Gazeta Chlopska" ("Peasant Newspaper"), "Poradnik Rolniczy" ("Agricultural Handbook"), "Rynek Spozywczy"

("Food Market") and "Wies Jutra" ("Village of Tomorrow"). Such a distribution of responses results from the fact that not all titles were available for the respondents (Figure 5).

Conclusions

Media, and especially new media, force improvement and development of communication competence which is essential in the process of creating new social relations and maintaining the existing ones. People who do not have the relevant competence are vulnerable to social exclusion, including information exclusion.

The conducted research study shows that the use of media is very important in building their communication competence for the inhabitants of rural areas of Mazovia Province. Although television is the most commonly used medium, the respondents see the Internet as the most valuable and useful medium in improving communication competence. Residents of rural areas primarily expect information on current national affairs.

The need for wider access to information was declared mainly by the representatives of the age group of 36-65 years. Largely, the need referred to the accessibility of industry information and, thus, it would be good to improve the availability of trade press and expand the range of trade programmes in the traditional electronic media locating them in adequate time slots.

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ENVIRONMENTAL PROTECTION AS A NEW PERSPECTIVE IN SOCIAL DEVELOPMENT

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Abstract. The aim of the study is to evaluate the importance of environmental protection as a perspective of social development. The attention is drawn to the environmental indicators as well as public awareness in this regard. The study deals with the aspect ratio of environmental protection which is municipal waste collected from private households, including conversion per capita. The need to reduce the amount of waste deposited in landfills and the importance of public awareness of waste recycling are also mentioned in the study. Attention is drawn to the fact that environmental awareness of inhabitants connected with the necessity of selection of municipal waste is increasing in Poland but there are many difficulties associated with environmental education.

Key words: environmental protection, municipal waste, social development.

JEL code: Q5

Introduction

Social development can be understood as directed social process as a result of which there is a continuous increase in certain important issues, variable for the society (Sztompka, P., 2005). Sen claimed that this is the growth of human freedom and the possibility of life in a way that was valuable to them (Sen, A., 2002). Social development can be determined by analysing the basic needs considered as universal to ensure human well-being. The freedom of choice regarding aspirations, values, goals that do not necessarily mean commonly understood prosperity are also emphasised in the paper. Individual perception of what is "value" or "prosperity" by each of us makes it difficult to grasp the importance of the various factors relevant to the level of human life. Economic indicators such as gross domestic product per capita are most frequently used to assess the level of development of the country. According to Alkire (Alkire, S., 2002) in the neoclassical approach, income was a measure of utility or value, that is why the economic development strategy assumed maximisation of the national income per capita, with certain adjustments for externalities. Leszczynska has also stressed it stating that the process of social development had to be viewed from a wider perspective. Particularly significant here is the importance of interdisciplinary approach to research and holistic point of view, because social problems shall not be reliably analysed only from the point of view of the economic processes and quantitative data. Reflections on these issues should also take into account social, ethical, sociological, psychological, environmental, and political aspects (Leszczynska, 2013). It is said, thus, that the use of only economic indicators is insufficient measure of the Human Development Index. Therefore, the method taking into account some

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social indicators, basis for creation of the HDI has been applied since 1990. Introduction of the HDI drew attention to the importance of non-economic data in the assessment of sustainable development. HDI allows for a more complete assessment of the development level than, for example, GDP per capita, especially if it is read in conjunction with other indicators relating to specific economic, social and demographic areas as well as data illustrating the pollution of the environment, the degree of personal safety and other aspects of life in the country (UNDP PL ..., 2004).

Poland, as one of the first countries, has been included by the UNDP (United Nations Development ..., 2012) in the novel study on measuring social development at local and regional level. LHDI has been created stating that at the local level there are no perspectives of social development. The HDI limited definition of social development to three perspectives: wealth, education, and health. In Poland, it was suggested to use such perspectives as human capital, the environment, poverty, labour, active citizenship, digital activity, and empowerment of women position in the analysis (Table 1).

Table 1

Perspectives and indicators of social development context*

Perspective	Human capital	Labour Market	Poverty	Active citizenship	Digital activity	Empowerment of women	Environmental protection
Index	Average number of years needed to get the level of education attained by people over 25 years old	Recorded unemployment rate	Percentage of people supported by social welfare in the households to the total number of inhabitants	Turnout in the elections to self-government (Council of Municipality)	Percent age of tax returns filed via the Internet	Mandates held by women in local government	Mixed municipal waste collected from private households per capita
Context of local development index							
Social development at district and province level							

***these are indicators that potentially could become complementary perspectives of LHDI in the future**
Source: United Nations Development Programme, National Human Development Report Poland, 2012, Regional and Local Development, the UNDP Project Office in Poland, (2004), Warsaw

The aim of the study is to evaluate the importance of environmental protection as a perspective of social development. The importance and role of environment in the development policy is beyond dispute. Turning attention to the environmental indicators as well as public awareness in this regard may indicate the possibility of action in the assessment of the problems associated with environmental protection. In the present study, there is an aspect ratio representing the environmental protection from a social development perspective which is municipal waste collected from private households, including conversion per capita.

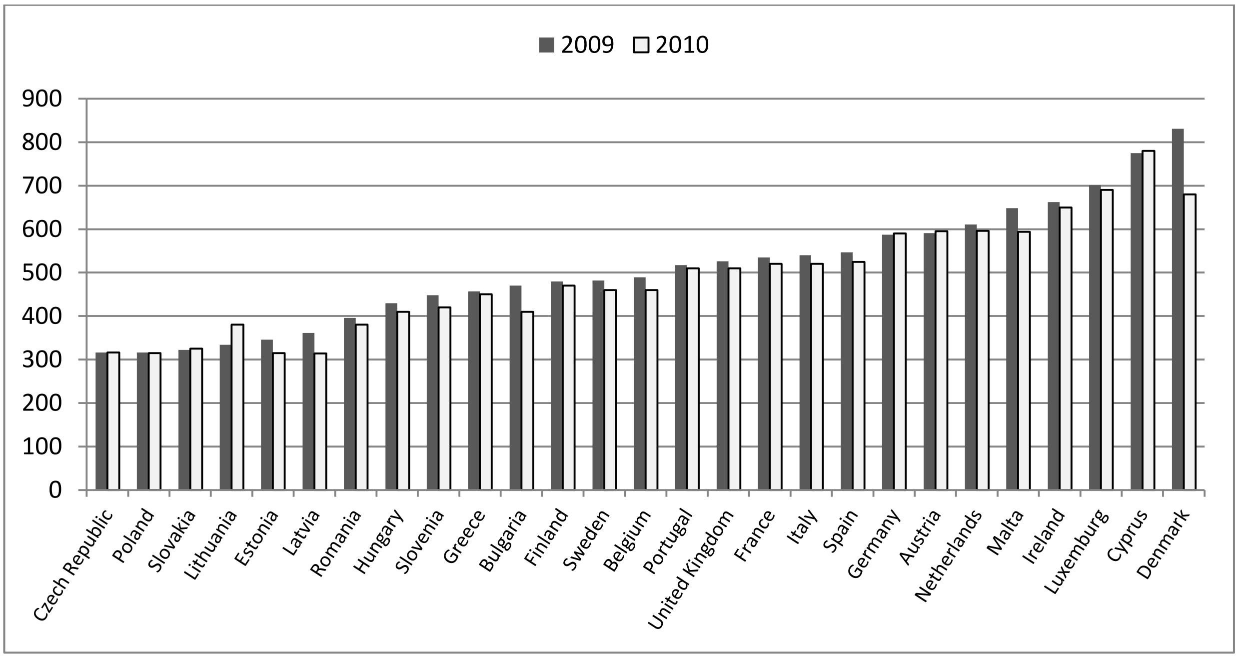
Research results and discussion

Environmental perspective of social development

Environmental protection issue in social development is not raising doubts now. The civilization progress causes the situation that the economy is not indifferent to the natural environment. The need for proper management of environmental resources, so that they can be used by future generations, is now undeniable. Environmental protection must, thus, become one of the perspectives of social development. As indicated by Kling, Segerson and Shogren (2010) understanding and solving the most urgent environmental challenges today and in the future requires recognition that there is inseparable relationship between man and nature, and humanity draws countless environmental benefits in the form of goods and services. Experience shows that a higher level of socio-economic development is associated with intensive use of the natural environment. Most of the environmental resources are public goods beneficial for the entire community but used together (Stiglitz, J.E., 2004). The need for state intervention is really important due to the market failure in regulating and shaping the environment. Protection and rational use of natural resources is one of the strategic challenges for the Poland given in the National Strategy for Regional Development (United Nations Development ..., 2012).

As it has been already mentioned, one of the perspectives of social development is to protect the environment, and one of its indicators is mixed municipal waste collected from private households. The indicator lets one assess how much waste produced by households has been collected and otherwise disposed of indiscriminately. Realistically not sorted waste prevent efficient recycle of waste materials. If they go to landfills, it contributes to the pollution of air, soil, and water as well as is an evidence of ineffective management of resources and space (Keating, M., 1994: for the United Nations Development ..., 2012).

In 2010, the total amount of waste generated in the EU-27 amounted to about 2.570 million tonnes. In individual countries, the situation was much different. Every inhabitant of the EU-27 accounted for an average of 503 kg of waste (Figure 1), including 188 kg of hazardous waste (Statistics ..., 2012).



Source: Statistics on Waste, 2012, Eurostat. Retrieved: http://epp.eurostat.ec.europa.eu/statistics_explained/Waste_statistics/en. Access: 03.01.2014

Fig. 1. **Municipal waste generated in kg per capita in 2009-2010 in the EU**

In relation to the population of the EU Member States, the least of municipal waste per capita in 2010 was generated in Latvia and Estonia (below 320 kg); although, relatively low levels were also

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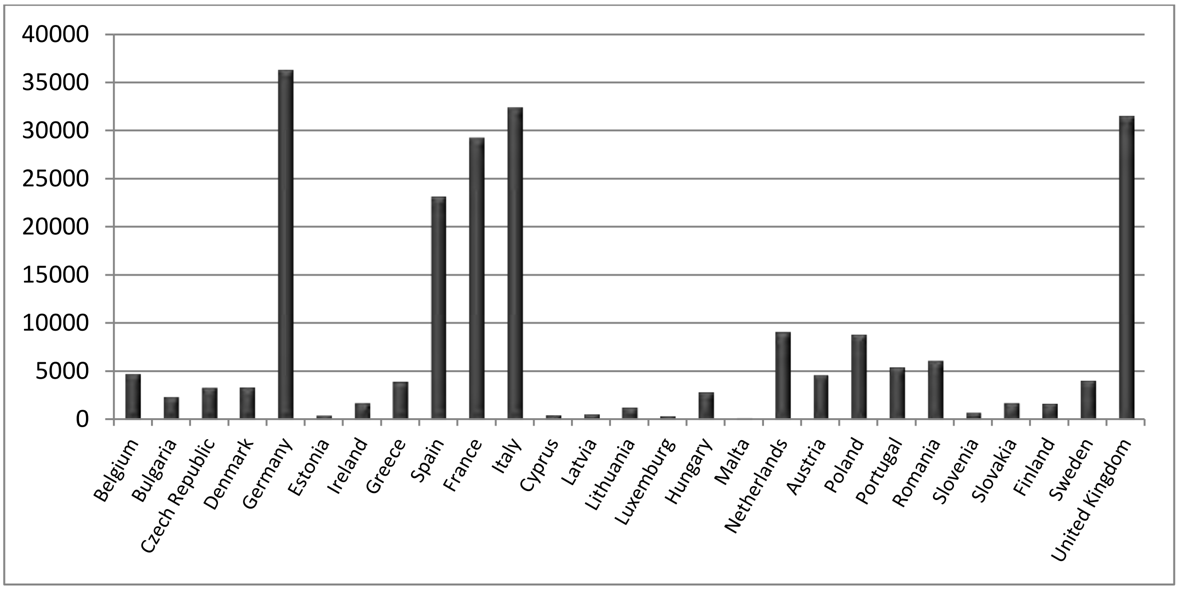
observed in the Czech Republic and Poland. In most other EU Member States, the quantity of waste generated ranged from 320 to more than 700 kg (in 2009 in Denmark, even over 800 kg) per capita. Waste generated in households in the EU in 2010, in thousand of tonnes in total is presented in Figure 2.



Source: Statistics on Waste, 2012, Eurostat. Retrieved: http://epp.eurostat.ec.europa.eu/statistics_explained/Waste_statistics/en. Access: 03.01.2014

Fig. 2. **Waste generated in households in the EU in 2010, thousand of tonnes**

In 2010, the EU households generated 221 million of tonnes, representing 8.6% of the total waste (Statistics ..., 2012). In the countries, for which data are shown in Figure 2, there was a significant difference in terms of the amount of generated waste. The largest share in the total amount of waste in the EU -27 fell to Germany (14.1%) which was slightly ahead of France and the United Kingdom. Some significant differences between the countries may be associated with differences in economic structures. For example, large quantities of mineral waste from mining activities had a significant impact on high level of waste produced in Bulgaria, Finland, Estonia, Sweden, and Romania, while in Luxembourg mainly mineral waste from construction corresponded to high levels of generated waste (Statistics …, 2012).

In Poland, only part of the population was covered by municipal waste collection until the end of 2012. This is indicated by the CSO estimates even where the amount of municipal waste generated in 2012 amounted to 12084.5 thousand of tonnes and 9580.9 thousand of tonnes gathered (Table 2). In the years 2005-2010, the number of people covered by the collection of municipal waste has increased significantly, from about 69 to about 80% (Central Statistical ...., 2012). It seems that the introduction of the Act of 1 July 2011 on amending the Act on maintaining cleanliness and order in municipalities (Act of 1st July 2011, Journal of Laws No. 152, item 897) should significantly increase this percentage; as a result, the municipality included collection of all property owners in their area.

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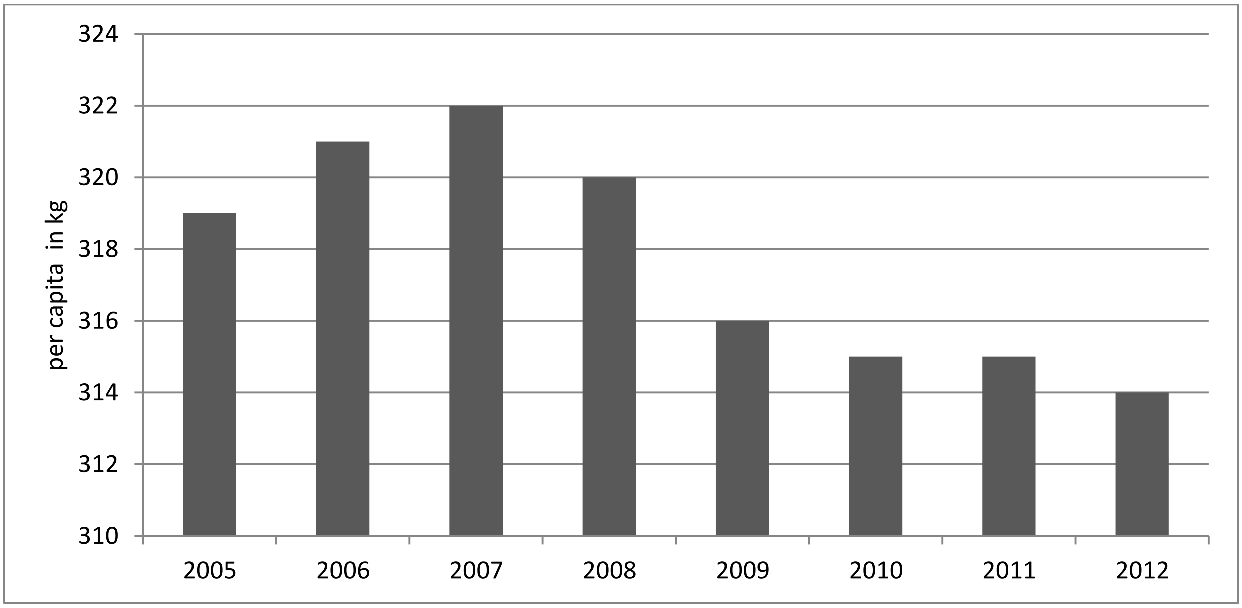
Table 2

Municipal waste generated and collected in Poland in 2005-2012

Specification	Municipal waste in							
	2005	2006	2007	2008	2009	2010	2011	2012
Generated in thousand of tonnes	12169.0	12235.1	12264.0	12194.4	12052.5	12038.4	12129.0	12085.5
Population covered by municipal waste collection in %	68.9	73.9	76.3	78.1	79.1	79.8	80.8	80.4
Collected in thousand of tonnes	9352.0	9877.0	10083.2	10036.4	10053.5	10044.2	9827.6	9580.9
Collected per capita in kg	245.0	259.1	265.0	263.6	263.5	263.0	257.3	248.6

Source: Central Statistical Office, (2006-2013), Environmental Protection. Statistical Information and Elaboration. Warsaw. Retrieved: http://www.stat.gov.pl. Access: 19.12.2013

In Poland, despite an initial increase in the amount of municipal waste generated per capita, one could observe a slow decline (from 322 kg in 2007 to 314 in 2012) in 2005-2012 (Figure 3).



Source: Central Statistical Office, (2006-2013), Environmental Protection. Statistical Information and Elaboration. Warsaw. Retrieved: http://www.stat.gov.pl. Access: 19.12.2013

Fig. 3. **Municipal waste generated in Poland per capita in 2005-2012**

One of the basic conditions for reducing the negative impact on the environment is taking action to reduce waste generation and efficient use of natural resources by promoting recycling of raw materials. The share of municipal waste deposited in landfills in Poland was very high (Figure 4).

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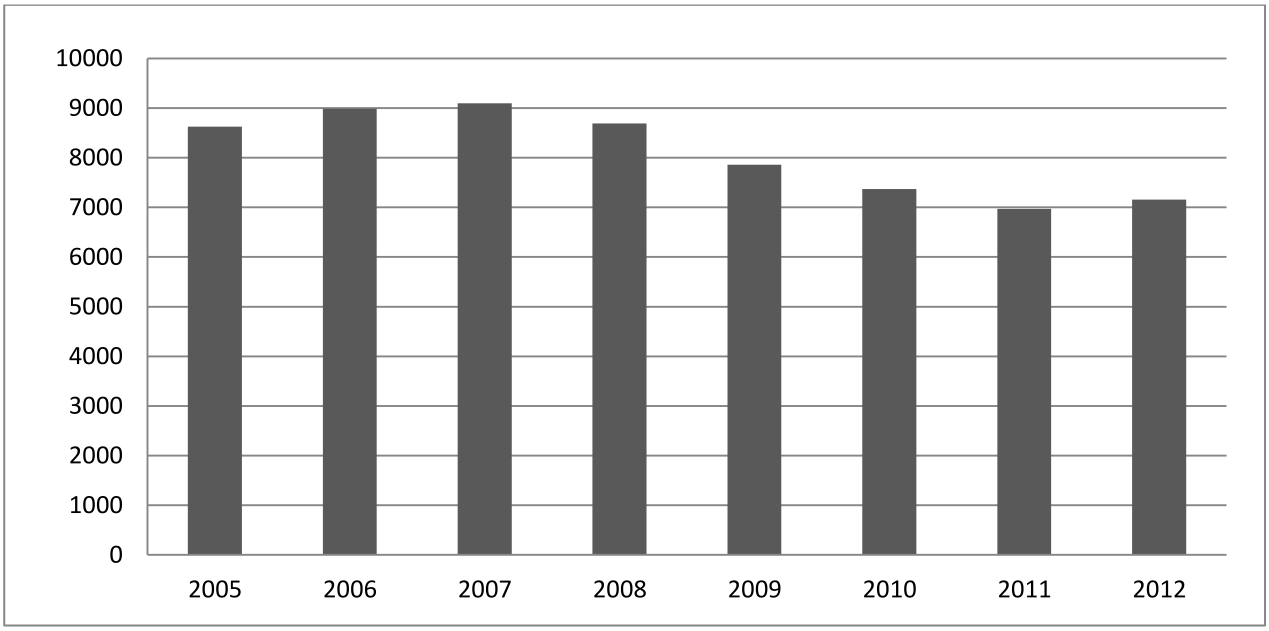

Source: Central Statistical Office, (2006-2013), Environmental Protection. Statistical Information and Elaboration. Warsaw. Retrieved: http://www.stat.gov.pl. Access: 19.12.2013

Fig. 4. **Municipal waste in Poland deposited in landfills (thousand of tonnes) in 2005-2012**

In 2009, the amount of waste disposed in landfills per capita amounted to 206 kg, the EU average was 192 kg. In the years 2004-2009, the indicator of waste disposal by landfilling per capita decreased by 14.5% in Poland (Wskazniki ..., 2011). there has been a positive trend of decrease in the amount of waste disposed in landfills (in landfills, dumps, tailing ponds) since 2008.

The issue of awareness of residents in this area should be mentioned analysing the environmental perspective in social development. Approach to conservation has now a wider scope. According to Machowski, it includes social, economic or historical, and scientific reasons (Machowski, J., 2004).

As shown in many studies, Poles, as a society, put greater hope in terms of the conservation of natural resources, which are the basis of economic development, in the technological changes than in changing consumption habits and education. Consumer lifestyle of Polish society has been also strengthening (cf. Witek, L., 2008, Hlobil, A., 2009, Boltromiuk, A., 2009, Zbaraszewski, W., 2011, Grzegory, E., 2012).

At present, it is indicated that the recipient of various activities in the field of environmental education should be students at all levels of education. There are many organised actions and programmes, encouraging being activate for the environment protection to raise awareness of young people. The main objective of these programmes is to convince students to take action in their immediate environment (Godlewska, J., 2009, Kowal, E., 2014). One example is the collection and segregation of waste. The analysis indicates that the situation in the case of waste segregation in Poland has slightly improved. The share of waste collected selectively in the amount of municipal waste collected from households from 2005 to 2012 increased by several percentage points (Figure 5).

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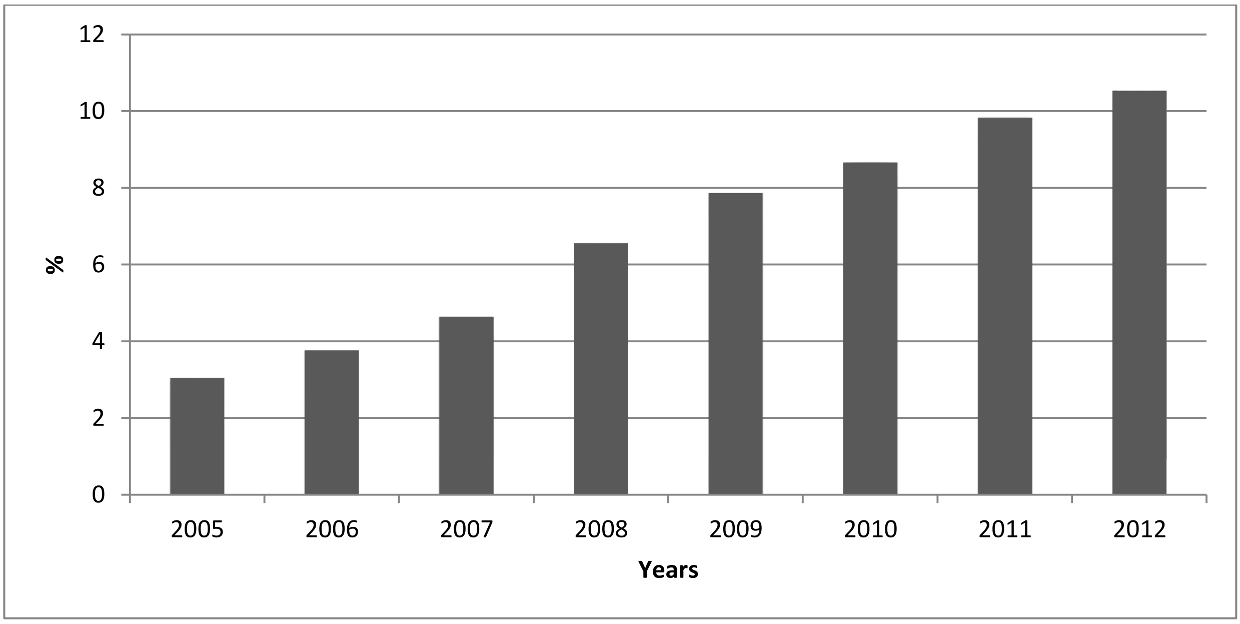

Source: author's calculations based on Central Statistical Office, (2006-2013), Environmental Protection. Statistical Information and Elaboration. Warsaw. Retrieved: http://www.stat.gov.pl. Access: 19.12.2013

Fig. 5. **The share of waste collected selectively in the amount of municipal waste collected from households**

This may indicate increased awareness of the positive aspects of growth in the population's awareness in terms of environmental protection. Kowal indicates that there are many difficulties associated with environmental education, and one of them is shaped consumption attitude to things and natural resources (Kowal, E., 2014).

Conclusions

One should also agree with the statement that social problems should not be analysed only from the point of view of economic processes and quantitative data. Non-economic information is more and more often taken into account. Environmental perspective, as one of the variables included in the characteristics of social development, is becoming increasingly important among them. One of the indicators representing the aspect of environmental protection is the municipal waste collected from private households. The data indicate that in Poland environmental awareness of inhabitants connected with the necessity of selection of municipal waste has been increasing so far. The share of waste collected selectively in the amount of municipal waste collected from households in recent years has increased as well. However, it is still a very small share (in 2012, about 10% of the entire mass of collected waste). Therefore, it seems that one of the most important tasks that are currently facing public authorities at all levels is to create a system of environmental education, both formal (from kindergartens to universities) and informal.

It is also important that in addition to raising awareness of the need to protect the environment economic activities associated with the use of instruments such as subsidies, such things as penalties and taxes as well as tax exemptions were implemented at the same time. Of course, changes in the environmental activities concern not only Poland but also problems in the European Union.

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LATVIAN URBAN YOUTH PERCEPTIONS AND STEREOTYPES OF FARMER AND AGRICULTURE

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Abstract. The article examines the theoretical approach of the terms stereotypes and occupational stereotyping. The term "stereotype" is seldom encountered in the sociological or economic papers dealing with farmer, farming, and agriculture. There are existing differences of characteristics of stereotypes; thus, the article will try to detect features described by Lipmann W., Dyer R., Oskamp S., Schultz R.W., and others. Some of the definitions offer a thought that stereotypes are oversimplifications or generalisations, while they are more complicated as it seems from the first sight.

The current article will discover sociological concern of how stereotypes function in social thought and the specific concerns how stereotypes function in urban youth thoughts. The article will distinguish negative, neutral, and positive stereotypes. The article will include both qualitative and qualitative research methods in order to reveal Latvian urban youth perceptions and stereotypes of farmer and agriculture.

Key words: stereotype, occupational stereotype, urban youth.

JEL code: Q18

Introduction

Agriculture in Europe is expected to fulfil a variety of functions. It contributes to the supply of European citizens with safe and high quality food on a competitive market to maintain valuable cultural landscapes across Europe through sustainable land management and to help rural areas remain attractive. At the same time, agriculture is undergoing fundamental changes which require farmers to adapt to new conditions and seize new opportunities (European Commission, 2009). In the context of the importance of the agriculture, it is essential to raise understanding within the society that agriculture is particularly significant for economic development. Almost half of all agricultural workers are 55 years old or older. At the EU-27 level, there is approximately one farmer of less than 35 years old for each nine farmers of more than 55 years old (Young Farmers Statistics). Therefore, it is essential to raise awareness and popularity within youth as regards farming and agriculture.

The aim of the article is to discover sociological concern of stereotypes' function (by Lipmann W., Dyer R., Oskamp S., Schultz R.W.) in social thought and the specific concerns how stereotypes function in urban youth thoughts. The tasks of the article are:

1) to discover theoretical aspects of sociological stereotype backgrounds;
2) to reveal Latvian urban youth perceptions of farmer and agriculture;

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3) to analyse expert views of youth perceptions and agriculture sector issues.

Both qualitative and quantitative research methods where applied to identify Latvian urban youth perceptions of farmer and agriculture. Quantitative research approach was based on the urban youth survey to define and analyse the first phase of the research findings - identification of the Latvian urban youth perceptions of farmer and agriculture. Qualitative research methods where applied to identify the opinions of the EU Member States' agricultural policy expert of youth perceptions and agriculture sector issues.

Research results and discussion

In their way of expression, stereotypes vary in their nature and significance, while it also creates stamps and they concern tolerance of the society. In accordance with Dyer R., a professor at the Edinburgh University, the term "stereotype" is today usually a term of abuse. This stems from the wholly justified objections of various groups in recent years, blacks, women and gays, in particular, to the ways in which they find themselves stereotyped in the mass media and in everyday speech (Dyer, 1999). Stereotypes are characteristics ascribed to groups of people involving occupation, gender, national origin, and other factors. These characteristics tend to be oversimplifications of the groups involved.

The American journalist Walter Lippmann first introduced the term stereotype to the social sciences in 1922. According to Lippmann, stereotypes are employed to help impose order onto a complex world. They present a shortcut in the processing of data, which, in his words, "precedes the use of reason". Stereotypes are seen as dependent on cultural traditions, group interests, and the differentiation of the *in-group* from outsiders. As Dyer concludes, even schoolchildren hold stereotypes about ethnic groups, perhaps largely because of the effect of mass media (Seiter, 2006).

It is a commonplace that the mass media are populated with stereotypes. They are readily documented in various research works and data. Nevertheless, some of the society members strongly support and widely distribute them. Lipmann noted four characteristics that can bring a detailed explanation of stereotypes.

There are four characteristics of stereotypes.

1. Simple: They are far simpler than reality and often expressed in two to three sentences.
2. Acquired second hand: one acquires (and absorbs) stereotypes from cultural mediators (like the mass media) rather than from own direct experience with the stereotyped groups. The culture "distils" reality and then expresses its beliefs and values in stereotypical images that convince audiences of the "truth" of the stereotype by placing it in a carefully controlled context in which there is a measure of truth to the image, for example, "Of course women can and should be thin and beautiful: Look at Julia Roberts!"
3. Erroneous: All stereotypes are false – although some are less false than others are, and some are less harmful than others are. Because they claim that each individual human being in a certain group shares a set of common qualities, stereotypes are a logical impossibility. Even countertypes presented as the "new" truth about a group are false unless presented as possibilities rather than actualities.
4. Resistant to change: Even through race and sex inequalities have alerted most of us to the tragic consequences of stereotypes; nevertheless, old stereotypes still colour our perceptions.

> Fortunately, stereotypes can change when one decides to break the mould and recast those pictures in our heads (Analysis and criticism, 2013).

There are various explanations of the term "stereotypes", while one of the most commonly used is a thought or assumption that may be adopted about specific types of individuals while these thoughts or beliefs may or may not accurately reflect reality (Lipmann, Dyer, Oskamp, Schultz).

In accordance with the Dyer term "stereotypes", there have been developed particularly stressing stereotypes as (i) an ordering process, (ii) a "short cut", (iii) referring to "the world", and (iv) expressing values and beliefs (Dyer, 1999).

Lippmann also observed a social function of stereotyping, namely, as a "projection upon the world of our own sense of our own value, our own position and our own rights" (Lipmann, 1998). Some other theoreticians Oskamp and Schultz have described a stereotype as "picture in our heads" about various racial, national, or social groups – that is a perception of members of a given group as all being identical copies of each other, all having the same characteristics and traits (Oskamp, 2009).

The inherent problem is that a general stereotype influences the way one thinks and talks about individual members of a group. One related problem in an assessment of a stereotype as a centrality of the supposed characteristics – ambitious. As Lipmann is stating "… a great deal of confusion arises when people decline to classify themselves as we have classified them. Prophecy would be so much easier if only they would stay where we put them. However, actually, a phase like the working class will cover only some of the truth for a part of the time. When you take all the people, below a certain level of income, and call them the working class, you cannot help assuming that the people so classified will behave in accordance with your stereotype. Just who those people and mine workers fit in more or less, but farms hands, small farmers, peddlers, little shop keepers, clerks, servants, soldiers, policemen, firemen slip out of the net." (Lipmann, 1998).

The current paper will discover sociological concern of Lippmann how stereotypes function in social thought and the specific concerns how stereotypes function in urban youth thoughts. The position behind all these considerations is that stereotypes are not as an aspect of human thought and representation; thus, it is important to discover how they are served in accordance with the occupational stereotyping of farmer's portrait.

Stereotypes and occupational stereotyping

When individuals interact in formal or informal groups with people from diverse social categories, their differences are more likely to be salient and, thus, more likely to activate social stereotypes associated with that category. For example, people from urbanised environment and people from periphery.

When stereotypes are well known but individuals are not known personally to each other, those stereotypes may affect both how individuals treat one another and how they view themselves. Many stereotypes exist about particular occupations. Occupational stereotypes are often activated in situations where people from multiple occupations come together to work on a shared task, such as architects, engineers, and contractors on construction sites. However, within a particular occupation, occupational stereotypes can be activated when group members come from different environments (Leonardi, 2013). It could be linked with environment that is characterised as an office or clerical work in the building and agriculture or fieldwork that is work in the open space.

Partly, persons acquire stereotypes through personal experience. However, because these stereotypes are a part of the beliefs and shared assumptions that societies have about different types of people and

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groups, they are also a part of the society's collective knowledge. In order to socialise the members of society, these stereotypes must be explicitly, even if subtlety, taught. Whether stereotypes are individual or cultural in origin, the emphasis on explicit beliefs is not surprising considering that the content of stereotypes has great intrinsic interest to both the person using the stereotype and the person targeted by it. Even when objectively wrong, stereotypes simplify social perception and serve as guidelines for social interaction (White, 2006).

A stereotype described previously in the article is used to categorise a group of people. For example, urban youth do not understand farmers, so they put them into classifications, thinking that everyone who belongs to this group needs to be or act accordingly. Therefore, simplified social perceptions are used in this respect.

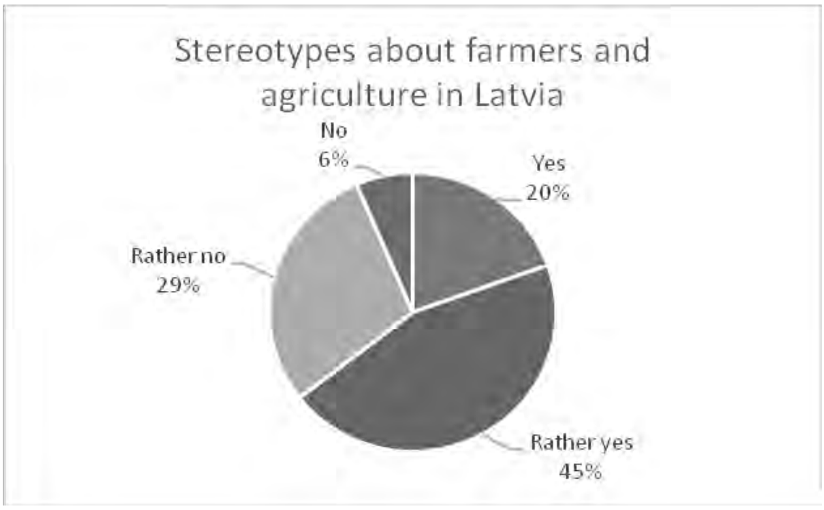
Urban youth stereotypes of farmer and agriculture

The observation behind the research on urban youth perception of the farmer is based on the theoretical approach of the term "stereotypes". Lippmann's notion of stereotypes as a short cut points to the manner which stereotypes are a very simple, striking, easily grasped form of representation but none the less capable of condensing a great deal of complex information and a host of connotations.

It is interesting to reveal stereotypes of Latvian urban youth perception to find out different assumptions of what farmer's role is in accordance with occupational context.

According to the United Nations concept, "youth" is best understood as a period of transition from the dependence of childhood to adulthood's independence and awareness of our interdependence as members of a community (UN, 2013). Keeping in mind that there are specificities between urban and rural communities, it has been essential to find out urban youth perceptions regarding farmer and agriculture. An urban community refers to a community that is mostly composed of residents in cities or towns and is referred to as a residential community.

In 2013, there was a research conducted where 950 urban youth from Latvia participated in to share their views and thoughts in survey regarding perceptions on farmer's portrait (Urban Youth Perceptions, 2013). They indicated existing stereotypes about farmers and agriculture in Latvia. Overall, youth pointed that stereotypes existed while there were differences in evaluation of dissemination level. In the survey, 45% of respondents rather agreed that there existed stereotypes and 20% strongly agreed with this statement, while 6% of the youth did not agree with the statement and 29% rather disagreed.



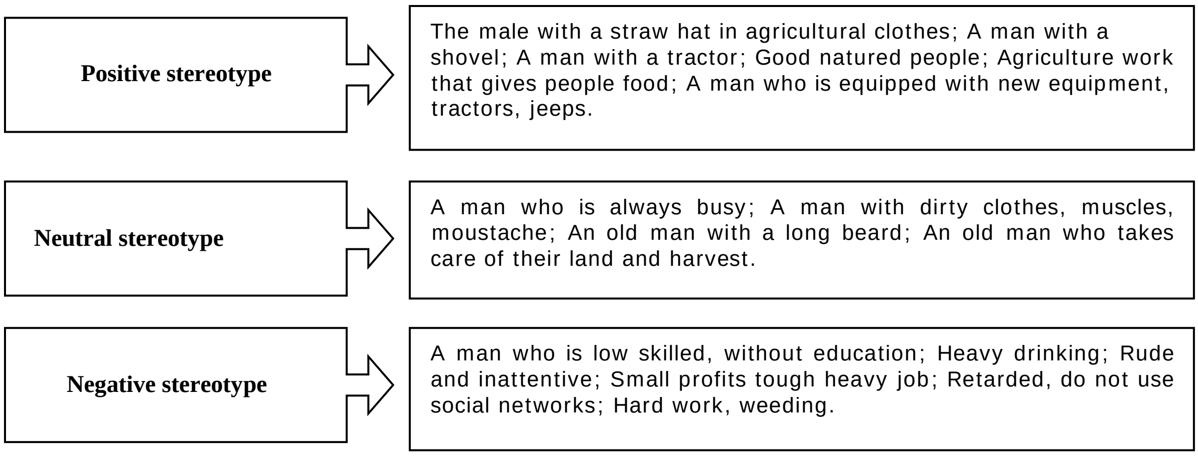
Source: Urban youth perceptions, 2013

Fig. 1. **Stereotypes about farmers and agriculture in Latvia**

As it was described by Lipmann, the term "stereotypes" holds thoughts or beliefs that may or may not accurately reflect reality. Youth reflect reality from the perspective of life in the city they are living and creating "picture in their heads" keeping in mind urban environment. Nevertheless, youth are influenced by the personal experience. Overall, youth think that farming is hard physical labour and stressful because of machinery breakage, weather uncertainties, and price variances. While there were also some little described advantages that agriculture might associate with, i.e. research, engineering, financial management, or international commodity markets.

Apart from the quantitative approach, respondents described their observations regarding specificity of the farmer and farming. The descriptions were diverse while the common part revealed occupational stereotype perspective.

Stereotypic categorisation helps the human psyche deal with uncertainties, generalise from limited data, and define the oneself and others. At the same time, stereotypes can be positive, neutral, or negative. There can be positive or negative characterisations and categorisations of a group of people based only on expectations or assumptions about the group rather than on individual who composes the group (Analysis and criticism, 2013).



Source: Urban Youth Perceptions, 2013

Fig. 2. **Stereotypic categorisation**

In accordance with the research (Urban Youth Perceptions, 2013), it was possible to divide the most prevailing categories into three stereotype categories – positive stereotypes, negative stereotypes, and neutral ones.

Overall, people use stereotypes as a simplification tool, which helps them in their everyday life make decisions faster. Stereotypes can never illustrate the objective variation that exists but doubtlessly they contain a grain of truth.

In accordance with the experts view on the urban youth perceptions on Farmer's Portrait, there were more fundamental views that arose of stereotypes and might have been influenced by the mass media. "*Media and advertising are creating a flavour or backdrop for drama and advertising, they hold outdated or misconceived ideas"* (Urban Youth Perceptions, 2013).

There is an opinion that the role of journalists might affect youth perceptions. *"I think if journalists have to report about farmers and agriculture they start consciously or unconsciously from those stereotypes and although they try to describe an objective picture, in some respect the stereotype will be a part of it. Unfortunately, a special case is the very successful TV series called "Bauer sucht Frau" (farmer seeks woman); in which trough the special selection of participants I fear the first stereotype is encouraged"* (Urban Youth Perceptions, 2013).

In accordance with the research (Urban Youth Perceptions, 2013), the experts pointed that youth were thinking of an old stereotype about farmers that was not linked with modern life of a farmer. In addition, there was a statement that the youth stereotypes held one sight, only a bit of a truth and completely did not fit "the farmers".

In accordance with Lipmann, the term "stereotype" has journalistic origins. First, a stereotype was a type of printing stamp to make multiple copies from a single model. Lipmann used the term metaphorically in his book *Public Opinion* to describe the way as a society and as individuals categorise people – "stamping" human beings with a set of characteristics and creating a "picture" inside our heads. However, these pictures do not necessarily correspond to the world outside our head (Analysis and criticism, 2013). The summary at some point could be applied to the youth perception of the farmers and agriculture covering all four characteristics of stereotypes stated by Lipmann. This is because they are simple (they are formulated in a simple manner and can be identified in some sentences); they are absorbed from cultural mediators like mass media (work of journalists, TV shows, advertisements etc.); since stereotypes are described as possibilities, they are more of less false; and stereotypes are resistant to change (like stereotype about farmer in rubbery boots or unskilled and uneducated farmers).

Conclusions

1. Although, stereotypes are described as simplification tool that helps people in their everyday life make decisions faster, still the consequences of stereotype's dissemination can raise a wrong picture and opinion of farmers and their work, thus, leading to misunderstandings at a political, economic, and social basis. For decades, agriculture has been associated with the production of basic food. Agriculture plays a crucial role in the life of an economy. It is the backbone of the economic system. Agriculture not only provides food and raw materials but also employment opportunities to a very large proportion of population.
2. Based on theory, stereotypic categorisation helps the human psyche deal with uncertainties, generalise from limited data, and define the oneself and others. While problem is that a general stereotype influences the way, one thinks and talks about individual members of a social group.
3. Overall, stereotypical views of agriculture prevail among youth. Youth equated agriculture with farming, with old stereotypes that, in some cases, do not exist or do not correspond to the situation in modern farming. Some youth representatives have associations with technical or research aspects of agriculture; nevertheless, youth do not see large potential that agriculture could bring (research, engineering, financial management etc.).
4. Based on the research data, it can be concluded that Latvian urban youth have a stereotyped view of the countryside and farming sector. Since changing the stereotypes is a difficult and time

consuming process, it is advisable to disseminate not only information campaigns like "Back to Countryside" but also organise trips for school children to farms, arrange "green lessons" to discover work and main tasks in the organic farms to involve youth in the farm works.

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