

THE EU FINANCIAL INSTRUMENTS SUPPORT AND RETURN ON INVESTMENTS OF FISH PROCESSING IN LATVIA

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Abstract

The purpose of the research is to assess the support provided for the sector of Latvia's fish processing in the framework of the EU funding instruments, its use and return of investments, providing recommendations for the development and perfection of further policy of the sector. The author evaluated the return of investments, considering the analysis of the made investments and financial indicators of fish processing companies, using several significant indicators (the number of employees, value of fixed assets, net turnover, net added value, value of production and productivity). As a result of analysis, the author discovered that investments' availability and their use have a significant influence on the development of Latvia's fish processing sector. In further planning of the sector's development it is advisable to take into account changes in the amounts of caught fish, availability of raw materials, as well as social, economic and political changes in markets. The formed combinations of indicators may be used in scientific researches evaluating the return of investments; they may facilitate researches on its calculation and importance, as well as may assist the institutions involved in the fisheries' policy formation to work more successful and improve the common policy in the branch.

Key words: Cohesion policy, European Union financial instruments, fish processing sector, return on investment.

Introduction

In the planning periods 2004 – 2006 and 2007 – 2013, Latvia's fish processing sector received a support in amount of EUR 130.12 million from several financial instruments of the European Union (hereinafter – the EU): European Fisheries Fund (hereinafter – EFF), European Agricultural Fund for Rural Development (hereinafter – EAFRD), Cohesion Fund (hereinafter – CF), European Regional Development Fund (hereinafter – ERDF), European Social Fund (hereinafter – ESF), Climate Change Financial Instrument (hereinafter – CCFI), European Agricultural Guidance and Guarantee Fund (hereinafter – EAGGF), Financial Instrument for Fisheries Guidance (hereinafter – FIFG), including Latvian Guarantee Agency (hereinafter – LGA), state and private co-funding (Central Statistical Bureau, 2014; *Food and Veterinary Service*, 2014; Ministry of Agriculture, 2014; Ministry of Finance, 2014; Rural Support Service, 2014; Latvian Environmental Investment Fund, 2014). Kinds of economic activity and specialization of fish processing sector's participants, as well as their needs and opportunities, defined the use of different EU financial instruments.

Latvia's fish processing sector has been receiving the support for its development for 10 years, which is a sufficient period of time to evaluate the use of the provided support and return of investments, offering recommendations for further development of the sector.

Research object was Latvia's fish processing sector.

Research subject was the use of support and return of investments.

Research aim was to evaluate the support provided to the Latvia's fish processing sector by the EU financial instruments, its use and return of investments, aimed at elaboration of further support measures for the development of the sector.

Research tasks are as follow:

- 1) to define the participants of Latvia's fish processing sector, which are/are not the recipients of support in the framework of the EU financial instruments in the planning periods of 2004-2006 and 2007-2013;
- 2) to evaluate the support channelled to the Latvia's fish processing sector in the framework of the EU financial instruments and its use;
- 3) to assess the return of investments;
- 4) to provide suggestions and recommendations for further development of Latvia's fish processing sector.

Research hypothesis – investments' availability and their use have a significant influence on the development of Latvia's fish processing sector.

In the article the author reflects on the main results of the research, yet a more detailed analysis is provided in the research called 'Ražošanas tehnoloģiju pieejamība zivsaimniecības nozares attīstībai Latvijā' (Availability of Production Technologies for Fisheries Development in Latvia) funded by the Latvijas Republikas Zemkopības ministrija (Ministry of Agriculture of the Republic of Latvia).

Materials and Methods

Carrying out the research, the author used the descriptive method, methods of document and statistic analysis.

The author used data of the Ministry of Agriculture, Food and Veterinary Service and Central Statistical Bureau of Latvia to define the participants of fish processing sector.

The analysis comprises the support (public funding and private co-funding, including compensations), provided in the framework of the EU financial instruments in the 2004 – 2006 and 2007 – 2013 planning period (from May, 2004 until April, 2014).

The return of investments in the Latvia's fish processing sector was calculated according to several indicators describing the development and growth of national economy; several well-known researchers have researched and analysed the indicators in their works.

One of the founders of the economic theory, Adam Smith, in his work 'The Wealth of Nations' (1776) pointed out that the basis of any society's welfare lies in human's work (Smith, 1776). In another work called 'The Theory of Moral Sentiments' he proposed that the social welfare of an individual can be defined as a merit or lack of individual's personal work (Smith, 1759). These two pronouncements justify the condition that the social and economic growth of states, regions and branches can be ensured, if the economic welfare of state's inhabitants is increasing in a longer period.

The economists Charles W. Cobb and Paul H. Douglas in their work 'A Theory of Production' (1928) suggested that those are the production factors, including human capital, which ensure the growth of national economy if the economic and political environment is stable. The amount of production goes up as the supply of production factors (work, capital) increases, as well as when the labour productivity grows, using technological process and innovations (Cobb and Douglas, 1928).

Walt Whitman Rostow in his work 'The Stages of Economic Growth: A Non-Communist Manifesto' (1960) continued to develop the ideas of the classical theory supporters and scholars A. Smith, T.R. Malthus, D. Ricardo and J.S. Mill, who as preconditions for development of a state's and its sectors considered to be the application of new technologies within the production process, international trade and labour productivity, which in its turn depended on the specialization and distribution of the labour. The economists believed that the greater are the savings and investments, the faster is the economic growth (Atkinson et al., 1998).

Similar views on the economic growth may be found in the work 'A Contribution to the Theory of Economic Growth' written by a Nobel laureate – an economist Robert M. Solow. He developed the neoclassical model of a national economy, which allowed analysing the interaction of savings, capital

and national economy growth and their influence on the employment and increase in the economical welfare of inhabitants (Solow, 1956).

According to the pronouncements of the researchers, it is evident that there are several important indicators for evaluation of development and growth of national economy, including return of investments, such as, a number of employees, value of fixed assets, net turnover, net added value and productivity (Krieviņa, 2009; Mozart et al., 2015; etc.).

Several methods and their combinations were applied to the assessment of the influence of investments. One of the first researches in this field was carried out by a group of researchers with A. Nipers as a leader in 2010, emphasizing the following range of applicable methods:

- quantitative analysis ("Naïve" type methods, quasi experimental methods, non-experimental design methods);
- qualitative analysis (situation analysis and case studies).

Both the European Commission and the authors of the research from the mentioned methods as prior for evaluation of influence indicators recommend the quasi experimental assessment method and non-experimental design methods (European Evaluation Network for Rural Development, 2010). However, taking into account data limitation, the mentioned methods are applicable not in all cases. In the framework of the research to evaluate the influence of investments, the author applied quantitative analysis, using "Naïve" and quasi experimental methods.

The calculations include a review of return of investments only in the fish processing companies, with available financial indicators and which have/have not received the investments by the EU financial instruments (overall 70 fish processing companies: 45 fish processing companies, which have received investments, and 25 fish processing companies, which have not received investments). The return of investments was calculated from 2005 – 2012. The analysis of the return of investments does not include the amount of compensations (EUR 7.13 million) for the carried out measures to balance the intensity of fish fleet and measures of aquatic environment in aquaculture.

The author mostly applied the methods of analysis and synthesis in elaboration of conclusions and suggestions.

Results and Discussion

The support, provided by the EU financial instruments

In 2004 – 2006 and 2007 – 2013 planning periods, the fish processing sector (57% of the total number of fish processing sector's participants) received the

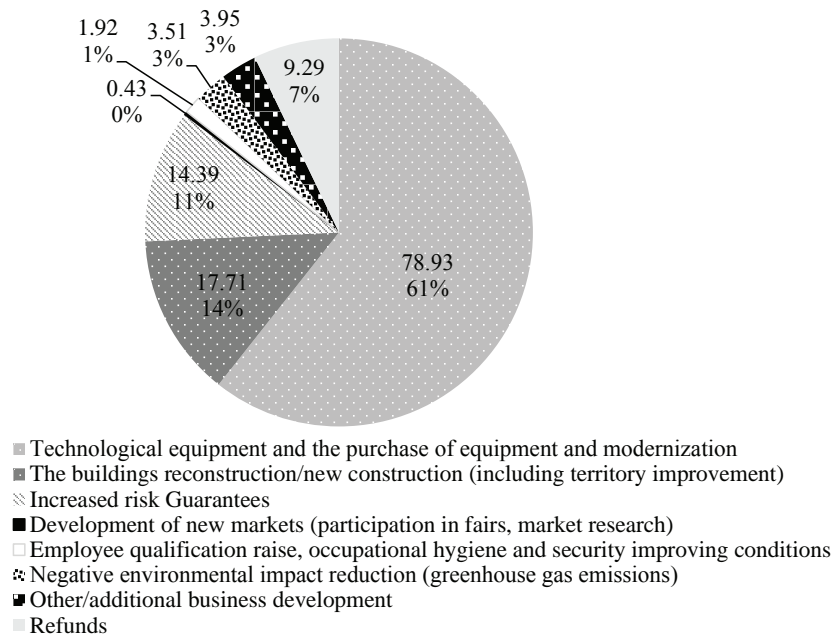


Figure 1. The funding of EU financial instruments, made available to the fish processing companies in Latvia 2004 - 2006 and 2007 - 2013 planning periods, EUR million, % (author's calculations based on Central Statistical Bureau, 2014; Ministry of Finance, 2014; Rural Support Service, 2014; Latvian Environmental Investment Fund, 2014; Food and Veterinary Service, 2014; Ministry of Agriculture, 2014).

support in amount of EUR 130.12 million from the several EU financial instruments: ERDF, ESF, CF, EAGGF, EAFRD, CCPF, FIFG and EFF, including state, LGA and private co-funding. From the total provided support 58% was the public funding, but the other 42% - private co-funding.

Various EU financial instruments were used due to the types of economic activity of the fish processing companies – separate fish processing companies work not only in the field of fish and aquaculture, but also in other fields of economic activity.

The largest support (EUR 78.93 million or 61%) was provided to the purchase of various technological facilities and equipment (Figure 1).

For modernisation and development of production much smaller support (EUR 17.71 million or 14%) was channelled to reconstruction and erection of various buildings (workshop-production units, auxiliary buildings, storing chambers, freezers, laboratories, etc.) including improvement of territories. In addition, LGA provided guarantees of a credit for funding current assets and erection of new production buildings/warehouses, as well as export guarantees to cover for losses in case of foreign debtors' insolvency or lasting default (EUR 14.39 million or 11%).

The support was channelled also for reduction of negative impact on the environment (EUR 3.51 million or 3%), raise of employees' qualifications, improvement of occupational hygiene and labour safety conditions (EUR 1.92 million or 1%), and

acquisition of new markets (EUR 0.43 million or 0.3%).

Fish processing companies working not only in the field of fish processing, but also fishing and aquaculture, received compensations for balancing the intensity of fishing (EUR 8.90 million) and compensations for measures of aquatic environment in aquaculture (EUR 0.38 million). Also, organisations of producers received compensations of administrative expenses (EUR 0.02 million). In general, the participants of the fish processing sector received compensations in amount of EUR 9.29 million or 7%.

The development of other/additional business (fishing, tourism, power industry) received the support in amount of EUR 3.95 million or 3%.

Viewing the analysis, it is evident that 89% (EUR 115.40 mil.) of the support was directed to the modernisation and development of production, as well as acquisition of new markets, whereas 4% (EUR 5.46 million) – to social and environmental activities. Remaining support in amount of 7% (EUR 9.29 million) was received as compensations.

Return of investments

The data analysis shows that in 2004 – 2012 45 fish processing companies received investments in amount of EUR 73.17 million, where the largest proportion of investments (46%) was directed to the fish processing companies, specialized in mixed fish production (Figure 2).

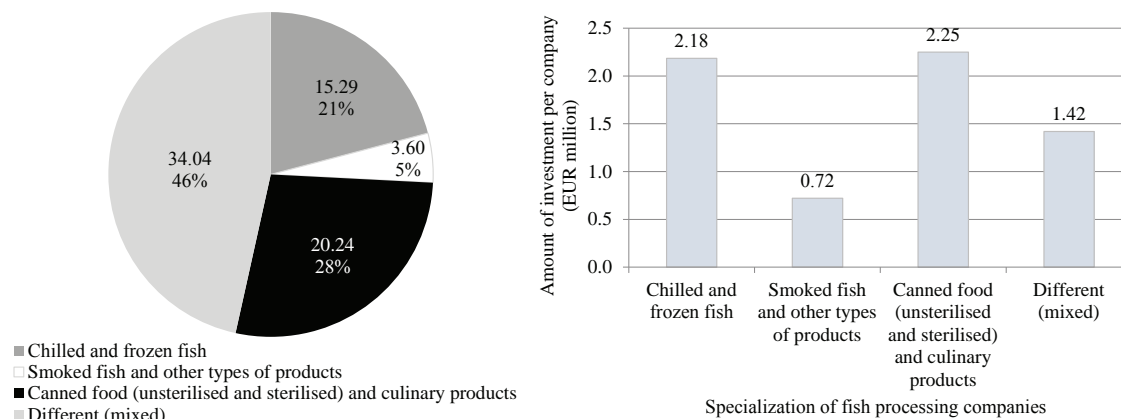


Figure 2. The means invested in 45 fish processing companies in Latvia the framework of the EU financial instruments from 2004 – 2012, EUR million, % (author’s calculations based on Central Statistical Bureau, 2014; Ministry of Finance, 2014; Rural Support Service, 2014; Latvian Environmental Investment Fund, 2014; Food and Veterinary Service, 2014; Ministry of Agriculture, 2014).

However, the biggest amount of investments per one company is for fish processing companies, mostly specialized in production of canned fish (sterilized and unsterilized) and culinary products (EUR 2.25 million, accordingly).

The total number of employees in fish processing companies, which have received investments, in the period from 2005 – 2012 decreased by 17%, whereas in the companies which have not received investments the total number of employees decreased by 26%, which is 9 percent points more than in the companies, which have received the investments (Figure 3).

The number of employees has decreased in the fish processing companies, specialized in production of canned fish (sterilized and unsterilized) and culinary products, as well as production of smoked

fish and other kinds of good (including repackaging) (accordingly by -26%, -10% and -2%). The number of employees increased by 121% only in the fish processing companies which are specialized in production of chilled and frozen fish production.

Similar situation is with the changes of fixed assets’ value: the value of fixed assets of the companies, which have received investments, within this period increased by 53%, in its turn the value of fixed assets of the companies, which have not received investments, increased only by 33% (Figure 3).

Latvia joined the EU, and various EU financing instruments became available, what facilitated a rapid increase in the value of fixed assets in 2005 – 2007; moreover, this positive impact on fish processing companies continued in terms of a regular renewal of their fixed assets in 2007 – 2012.

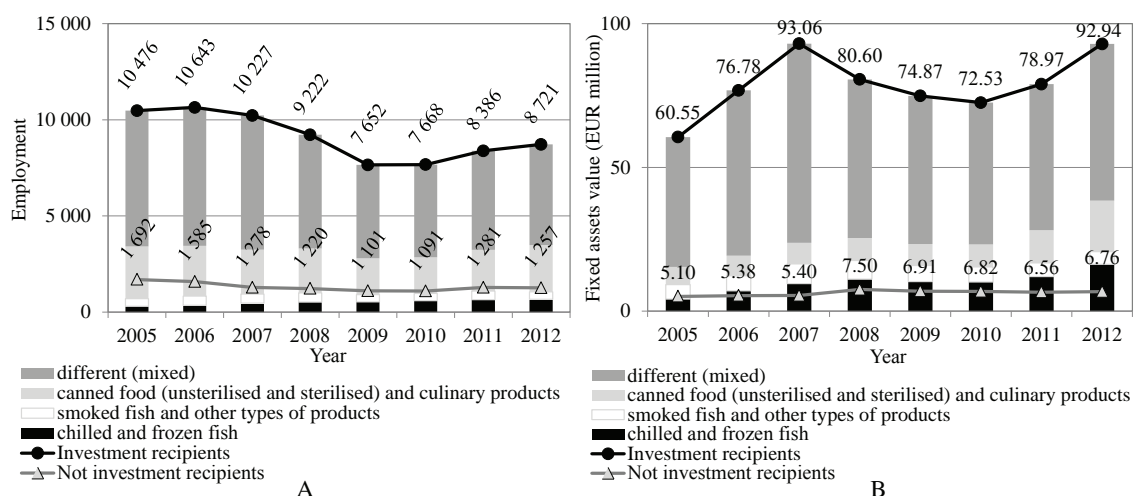


Figure 3. Changes in employment (A) and value of fixed assets (B) in fish processing companies in Latvia from 2005 – 2012, volume, EUR million (author’s calculations based on Central Statistical Bureau, 2014; Food and Veterinary Service, 2014; State Revenue Service, 2014; Ministry of Agriculture, 2014).

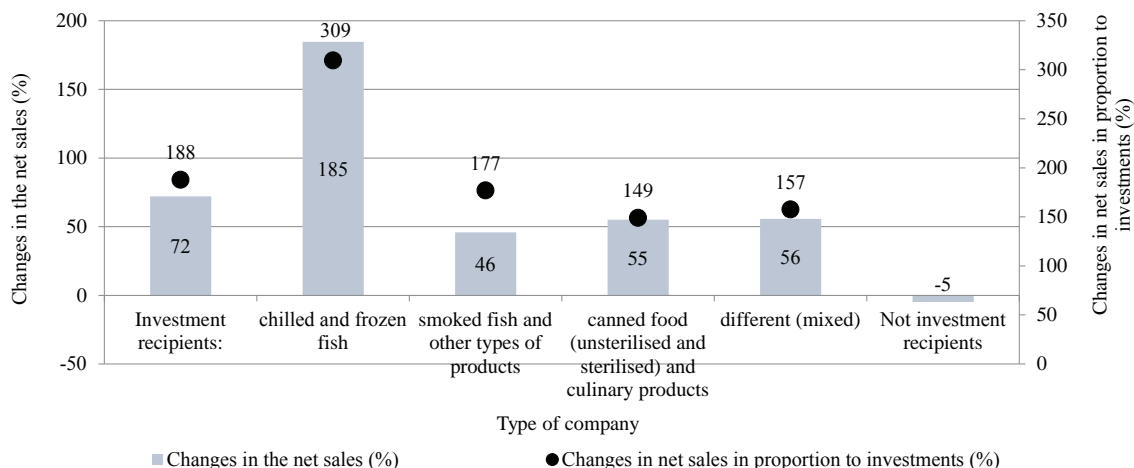


Figure 4. The influence of investments on the net turnover of fish processing companies in Latvia from 2005 – 2012, % (author's calculations based on Central Statistical Bureau, 2014; Ministry of Finance, 2014; Rural Support Service, 2014; Latvian Environmental Investment Fund, 2014; Food and Veterinary Service, 2014; State Revenue Service, 2014; Ministry of Agriculture, 2014).

The largest companies, which renewed the value of their fixed assets, were the fish processing companies, specialized in chilled and frozen fish production (289%).

Also, the companies specialized in production of canned fish (sterilized and unsterilized) and culinary products, as well as production of mixed production, invested into the renewal of their fixed assets (190% and 21%, accordingly)

Despite the fact that the companies specialized in production of smoked fish and other kinds of goods (including repackaging), also invested into renewal of value of their fixed assets, the investments were not sufficient to renew the fixed assets of the companies completely (the value of fixed assets decreased by -13%).

As a result of the investments, human resources employed up till now and the renewed fixed assets have provided the formation of net turnover in the fish processing companies.

The net turnover of fish processing companies, which have received the investments and directed them to the development of business, during 2005 – 2012 increased by 72%, whereas the net turnover of the fish processing companies, which have not received the investments, decreased by -5% (Figure 4).

For a more precise evaluation of investments' impact, the author uses a complex indicator – changes of net turnover compared to the made investments in the framework of the projects supported by the EU financial instruments. The fish processing companies specialized in production of chilled and frozen fish have had the greatest influence of investments on the raise of net turnover (185%). A positive increase of net turnover as a result of investments has been

experienced by the fish processing companies specializing in production of smoked fish and other kinds of goods (including repackaging), mixed fish production (177% and 157%, accordingly), whereas the changes of net turnover of the fish processing companies, specializing in production of canned fish (sterilized and unsterilized) and culinary products, in comparison to the invested means was 149%.

There are three indicators that were chosen to describe the benefit of the support from the investments, namely, net added value, value of production and productivity (Table 1).

The analysis of data indicates a significant influence of investments on changes in net value added, value of production and productivity: the indicators of fish processing companies, which received the investments from 2005 – 2012, increased by 102%, 72% and 107%, respectively. In turn, fish processing companies, which have not received the investments, net value added, value of production and productivity in the mentioned period were much smaller: 25%, -7% and 28%, accordingly.

The acquired data show that the investments were efficiently used in all the fish processing companies, which received them: both the companies, specializing in production of chilled and frozen fish production, and smoked fish and other kinds of goods (including repackaging), as well as companies, specializing in production of canned fish (sterilized and unsterilized) and culinary products, and companies specializing in production of mixed fish production.

53% of the total amount produced in 2013 was such canned fish as sprats, sardines and sardinellas (Central Statistical Bureau, 2014), and 50 % of the total amount of prepared and canned fish export was the export to Russia (Ministry of Agriculture, 2014).

Table 1

A comparison of results obtained by the means invested in various fish processing companies in Latvia from 2005 - 2012, EUR, % (author's calculations based on Central Statistical Bureau, 2014; Ministry of Finance, 2014; Rural Support Service, 2014; Latvian Environmental Investment Fund, 2014; Food and Veterinary Service, State Revenue Service, 2014; Ministry of Agriculture, 2014)

Type of company	2005	2012	Changes from 2005-2012 (%)
Net value added (EUR million)			
Investment recipients:	12.11	24.43	102
chilled and frozen fish	0.86	2.17	153
smoked fish and other types of products	-0.34	0.78	327
canned food (unsterilised and sterilised) and culinary products	3.14	5.38	71
different (mixed)	8.45	16.10	91
Not investment recipients	3.45	4.31	25
Production value (EUR million)			
Investment recipients:	197.29	339.25	72
chilled and frozen fish	25.92	74.02	186
smoked fish and other types of products	14.14	20.64	46
canned food (unsterilised and sterilised) and culinary products	57.10	87.78	54
different (mixed)	100.14	156.79	57
Not investment recipients	32.88	30.42	-7
Productivity (EUR thousand per employee)			
Investment recipients:	18.18	37.60	107
chilled and frozen fish	84.86	109.17	29
smoked fish and other types of products	35.33	52.43	48
canned food (unsterilised and sterilised) and culinary products	20.11	34.80	73
different (mixed)	13.63	28.66	110
Not investment recipients	18.18	23.28	28

Taking into account that one of the main raw materials of fish processing sector is sprat, where the amount of its catch in the territorial waters of Latvia in 2005 – 2012 reduced by -52% (Ministry of Agriculture, 2014; Food Safety, Animal Health and Scientific Institute of Environment BIOR, 2013), and that the export of canned fish to Russian markets due to political, social and economical situation is risky for business activity and development, investments into the development of fish processing sector should be channelled to production of innovative goods (to increase the added value) and acquisition of new markets irrespective of company's specialization. Investments aimed at high risk markets should not be supported.

In the light of reduction of total catch, not only in the Latvia's territorial waters (from 2005 – 2012 by -38%) (Ministry of Agriculture, 2014; Food Safety, Animal Health and Scientific Institute of Environment BIOR, 2013), but also all around the world, and the increase of demand for aquaculture fish, in future it is advisable to channel the investments to the fish processing companies, where aquaculture fish are used as a raw material.

Conclusions

By April 16, 2014. the author had identified 129 participants of fish processing sector (companies, societies and non-governmental organizations, 57% of which in the 2004 – 2006 and 2007 – 2013 planning periods received support in amount of EUR 130.12 million in the framework of the EU financial instruments. 89% of the total support was channelled to development and modernisation of production, as well as acquisition of new markets and only 4% - for implementation of social and environmental activities. The remaining support in amount of 7% was the compensation for the carried out measures to balance the intensity of fish fleet and measures of aquatic environment in aquaculture.

Availability and use of investments significantly influence the development of fish processing sector: financial indicators of the fish processing companies, which have received the investments, are much better than the indicators of fish processing companies, which have not received the investments.

Considering the investments and their return in the fish processing sector, as well as changes of catch and availability of raw materials (especially sprat), as well as focus of the canned fish export on Russian market,

in future it is advisable to channel the investments to production of innovative goods and to implementation of marketing measures and acquisition of new markets, as well as to the fish processing companies, where aquaculture fish are used as a raw material.

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