POLSKI FADN

SYSTEM ZBIERANIA I WYKORZYSTYWANIA
DANYCH RACHUNKOWYCH Z GOSPODARSTW ROLNYCH

The International Conference „Farm situation changes after accession to the EU in 2004 on the base of the FADN data"

Pułtusk, 7-8 IX 2009

POLSKI FADN
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Edited by
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Contents

Abbreviations

AWU	Annual Work Unit.
CAP	Common Agricultural Policy.
DG-AGRI	Directorate-General Agriculture.
EC	European Commission.
ESU	European Size Unit.
EU	European Union.
euro	european currency unit.
EUROSTAT	Statistical Office of the European Union.
FADN	Farm Accountancy Data Network.
FNI	Farm Net Income.
FNVA	Farm Net Value Added.
FSS	Farm Structure Survey.
FWU	Family Work Unit.
GUS	Central Statistical Office.
IERiGŻ– PIB	Institute of Agricultural and Food Economics - National Research Institute (ang. IAFE-NRI).
LFA	Less Favoured Areas.
LU	Livestock Unit.
NVA	Net Value Added.
Polish FADN	Farm Accountancy Data Network in Poland.
SGM	Standard Gross Margin.
UAA	Utilized Agricultural Area.
UE-2	EU Member States: Romania and Bulgaria from 2007 EU enlargement.
UE-10	EU Member States: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia, Malta, Cyprus from 2004 enlargement of EU.
UE- 15	EU Member States before 2004 enlargement: Austria, Belgium, Denmark, Finland, France, Greece, Spain, Netherlands, Ireland, Luksembourg, Germany, Portugal, Sweden, United Kindom and Italy.
UE-27	All EU Member States for today.
UR	UAA Utilized Agricultural Area.

Introduction

On 7-8th of September 2009 - the International Conference „Farm situation changes after accession to the EU in 2004 on the base of the FADN data" took place in the Hotel "Dom Polonii" in Pułtusk.

The conference was organized by Agricultural Accountancy Department of Institute of Agricultural and Food Economics – National Research Institute (IAFE-NRI). Lech Goraj Director Plenipotentiary for FADN was the Conference Chair.

The main aim of the conference was to assess the impact of the CAP on the economic condition of agricultural holdings in Member States, five years after the accession to the European Union.

The delegate from European Commision, Mrs Sophie Helaine as well as delegates from the Member States such as Estonia, Lithuania, Latvia, Czech Republic, Germany, Slovenia, Hungary actively participated in the conference.

Among national guests in the conference took part the members of Executive Board and Scientific Council IAFE-NRI, the members of the National Committee of Polish FADN, the representatives of the Ministry of Agriculture and Rural Development, Poznań University of Life Sciences, The West Pomeranian University of Technology in Szczecin, Poznań University of Economics, Institute of Rural Development of Polish Academy of Sciences, Central Statistical Office, Agricultural Property Agency, Agricultural Advisory Centers and the employees of IAFE-NRI.

Mr Kazimierz Plocke, Secretary of State in the Ministry of Agriculture and Rural Development performing function of the Head of National Committee of Polish FADN, made a speech on "Changes in Polish agriculture after EU accession". Mr Wojciech Dębski – the Mayor of Pultusk spoke about: " Pultusk in the European Union", as well as Mrs Aleksandra Szelągowska, Director of Department of Finance in Ministry of Agriculture and Rural Development, vice-chairman of National Committee of Polish FADN provided some information on " Financing of Polish agriculture at the time of financial and economic crisis in EU".

Analysis of changes of agricultural holdings' condition after the EU accession elaborated on FADN data exposed very clearly positive results and effects of accession of these countries to the European structures and CAP. Unfortunately, these effects were mainly reduced because of change of income situation due to price rise.

During the conference the necessity of preparing determined analysis in diverse countries was indicated. The continuation of these analysis was announced. This requirement was accepted appreciatingly.

Opening of the conference

Ladies and Gentlemen!

It is my honour to greet all the participants of the International Conference „Farm situation changes after accession to the EU in 2004 on the base of the FADN data".

I am delighted to welcome the host of the conference's premises, Mr Wojciech Dębski, the Mayor of Pułtusk.

I would like to offer an especially warm welcome to our guests from abroad, who agreed to actively participate in the conference and who prepared special presentations.

I would like to welcome our conference's participants:

• Minister Krzysztof Ardanowski of the Chancellery of the President of the Republic of Poland,

• the representative of the Embassy of Germany, Mr Klaus Grimmel,

• distinguished guests representing the domains of administration, science and statistics both from Poland and from abroad,

• Professor Wojciech Józwiak, the President of the Institute's Research Council,

• the representatives of the Polish FADN group, starting with the members of the National Committee and proceeding to the employees of agricultural advisory centres as well as of the Agricultural Accountancy Department of the Institute of Agricultural and Food Economics of the National Research Institute.

I add a special welcome to the representatives of the fundamental part of Polish FADN, that is almost 12.5 thousand farmers who voluntarily carry out accountancy and almost 2 thousand advisors who cooperate with them.

I am pleased to welcome Professor Andrzej Kowalski, Director of the Institute of Agricultural and Food Economics of the National Research Institute, who will inaugurate the conference and present his paper entitled "Challenges for Polish agriculture after the accession to EU".

The main aim of the conference is to assess the impact of the CAP on the economic situation of agricultural holdings in Member States, five years after the accession to the European Union.

Supplementary topics include the assessment of the impact of EU enlargement on the state of agriculture in "old" Member States, based on the example of Germany, as well as its influence on the organisation and use of the FADN data base on the level of the European Commission.

During the conference, presentations will be given by:

• representatives of 7 Member States which joined the EU in 2004,

• the representative of one of the European Community's founding states, our neighbour from the West - Germany

and

• the representative of the European Commission.

All speakers are active members of teams participating in the creation of FADN.

During the conference, four representatives of the users of FADN data, including one from abroad, will also take the floor.

The majority of empirical data on the basis of which the presentations were prepared came from FADN.

After the enlargement of the European Union in 2004, the size of this data base increased by 25% to the number of 75 thousand agricultural holdings. The data base represented about 4

million commercial farms operating within the EU territory, including around 1 million holdings located on the territory of new Member States.

Ladies and Gentlemen!

After the end of the conference, a special publication containing the opinions expressed during discussions will be issued.

Polish and English will be the working languages of the conference.

The conference will be translated simultaneously by the employees of CLS Contact.

The company will also be responsible for electronic recording of the proceedings. That is why, I would be obliged if you could use the microphone during your speeches.

Mr Lech Pażuchowski is responsible for the technical and artistic organisation of the conference.

I wish you all a pleasant stay and encourage you to take active part in the conference.

I hope that your participation will contribute to a better mutual understanding and the development of creative cooperation.

Ladies and Gentlemen!

Before Professor Andrzej Kowalski begins his presentation, I would like to give the floor to the Mayor of Pułtusk, Mr Wojciech Dębski.

Wojciech Dębski

Mayor of Pultusk

Pułtusk in the European Union

PUŁTUSK WELCOMES CONFERENCE PARTICIPANTS

7-11 September 2009

5 - th Anniversary of FADN

Institute of Agricultural and Food Economics - National Research Institute

PUŁTUSK in the European Union

WOJCIECH DĘBSKI – PUŁTUSK MAYOR

INTERNATIONAL CONFERENCE CELEBRATING THE 5TH ANNIVERSARY OF INTRODUCING FADN
PUŁTUSK, 7-11 September 2009

PUŁTUSK in the European Union

Wilkierz – „Constitution"of Pułtusk from 1729

A medieval fortified settlement established

in the 13th century. Map and visualisation
of the archaeological open-air museum

The Płock bishops' castle in Pułtusk

Churches

Renaissance polychromy

The Pułtusk meteorite – 30.01.1868 r.

Educational tradition
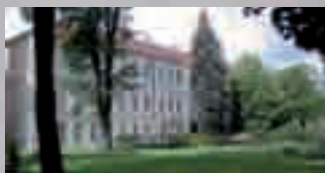
In 1565 bishop Andrzej Noskowski has brought Jesuits to Pułtusk, who have established a college in 1566. Since the half of the16th cent., the first public theatre in Poland functioned at the Jesuit school. Among others priest Piotr Skarga and Jakub Wujek lectured at the school, and, inter alia, Jerzy Ossoliński–Crown Chancellor, Andrzej Batory – cardinal and Maciej Kazimierz Sarbiewski – Latin poet as well as Wiktor Gomulicki graduated from it. In 1781, the Benedictines have taken over the school and administered it until 1832. After a fire in the building in 1826, a four-grade lower-secondary school for male students has been constructed.

Educational traditions

Pultusk Akademy
of Humanities

UE funds absorbed by Pułtusk

Pre-accesion Funds

SAPARD

- Construction of a water supply network with connections in Przemiarowo
- Extension of the municipal waste landfill in Płocochowo in the gmina of Pułtusk
- Modernisation of a road in the gmina of Moszyn-Gromin
- Modernisation of a road in the gmina of Kleszewo-Lipa-Chmielewo
- Construction of a water supply network in the villages: Kleszewo and Olszak
- Construction, placing of signs and promotion of 4 bicycle trails within the territory of gmina of Pułtusk.

|	
Total value of the investment	- 5.481.000 zł
Co-financing by EU funds	- 2.093.900 zł

The municipal waste landfill in Płocochowo

INTERNATIONAL CONFERENCE CELEBRATING THE 5TH ANNIVERSARY OF INTRODUCING FADN
PUŁTUSK, 7-11 September 2009

PUŁTUSK in the European Union

After-accesion Funds

The Integrated Regional Operational Programme 2004-2006

- Conversion of gmina roads in the village of Grabówiec
- Construction of wastewater collection system with connections, task I for the hospital
- Construction of a gmina indoor swimming pool in a shell sports hall

| Total value of the investment | - | 16.158.500 zł |
| Co-financing by EU funds | - | 6.677.000 zł |

Sectoral Operational Programme "Restructuring and modernisation of the food sector and rural development 2004-2006"

- Construction of an outdoor multi-function field in the village of Boby
- Construction of an outdoor multi-function field in the village of Płocochowo
- Construction of an outdoor multi-function field in the village of Przemiarowo
- Organisation and placement of signs for a bicycle trail "The Route of Pełta"

| Total value of the investments | - | 956.700 zł |
| Co-financing by EU funds | - | 606.100 zł |

PUŁTUSK in the European Union

UE Funds - Plans for 2007-2013 - projects under implementation and projects that are being assessed

Investment name (years of implrmntation)	Programme	Total value (inPLN thous. gross)	Co-financing (in PLN thous.gross)
Conversion of a communication route in the sections: Lipniki Kolonia – Płocochowo, Lipniki – Płocochowo (2008-2009)	RPO WM 2007-2013	3 123,7	2 592,9
Conversion of a communication route including a gmina road in the village of Boby Kolonia and a section a gmina road between Boby - Glódki (2008-2009)	RPO WM 2007-2013	1 903,7	1 579,3
E -Pułtusk - e-administration development, and extension of modernization of IT infrastructure of the City Hall (2008-2010)	RPO WM 2007-2013	1 262,3	1 062,6
Extension of wastewater collection system in Pultusk agglomeration (2009-2012)	PO Infrastructure and environment	47 003,0	26 071,7
Water suuply system in the village of Gnojno (2009-2012)	PROW 2007-2013	2 151,8	1 571,2
Water Treatment Plant Trzciniec-project II (2009-2010)	PROW 2007-2013	2 051,8	1 535,8
Construction of the sports hall in the Lower - Scondary school No.1 (2008-2009)	RPO WM 2007-2013	10 153,7	8 630,6
Construction of a Sports Hall in the School Complex No.2 (2008-2009)	RPO WM 2007-2013	8 781,7	7 464,4
Adaptation and renovation of Volunteer Fire Department in Trzciniec for the needs of a rural community centre.	PROW 2007-2013	584,7	435,0

PUŁTUSK in the European Union

Revitalisation of old-town historic buildings of the island and road and foot traffic routes (2009 – 2003)	RPO WM 2007-2013	9 808,3	8 168,4
Development of access to the internet for the inhabitants of gmina of Pułtusk	RPO WM 2007-2013	2 951,3	2 508,6
Improvement in the education level of inhabitans of rural areas training for farmers (2008)	PO KL	50,0	50,0
„Grab the second chance"vocational courses for persons that are socially excluded (2008)	PO KL	215,9	190,6
„Forge of human resources- improvement in the competences of pupils of schools of Pułtusk"	PO KL	978,8	945,3
„Our skills are our visiting card"	PO KL	993,8	945,3
Education as an opportunity for development of inhabitants of rural areas	PO KL	50,0	50,0
Development of electronic administration in the self-gov. of the Mazowieckie Voivodeship supporting the elimination of dichotomy of the voivodeship's potential in terms of EA	Surveyor of the Mazov. Voivodeship	Partnership in the project	
Acceleration of improvement in competitivness of the Mazov. Voivodeship by building the information society and knowledge-based economy by generating integrated bases of knowledge about Mazovia BW	Surveyor of the Mazov. Voivodeship	Partnership in the project	
"Quality in the first place" – implementation of modern management methods in the self-goverm.admin. offices	PO KL	Partnership in the project:	
Office of Territorial Self-govern. Unit of the 21st .century	MSWiA		

Thank you for your attention

Andrzej Kowalski

Institute of Agricultural and Food Economics
- National Research Institute (IAFE-NRI)

Challenges for Polish agriculture

Polish FADN Conference

- ## Challenges for Polish agriculture

Andrzej Kowalski

Institute of Agricultural and Food Economics – National Research Institute
Chair of Rural Development, Warsaw School of Economics

PUŁTUSK, 7 SEPTEMBER 2009

Challenges for Polish agriculture………

- *5 years in EU*
- *The role and importance of agriculture in the national economy in the age of globalisation.*
- *The role of the economic policy in shaping of development models for agriculture*
- *Main contemporary development strategies for agriculture*
- *Conclusions*

- Mutual full opening of markets was not a hindrance to the development of the Polish food economy; instead it became a strong impulse for its growth.

- Within the 5 years of our EU Membership the export of agri-food products increased from EUR 4.0 billion to EUR 11.3 billion (2.8 times) whereas the import increased from EUR 3.6 billion to EUR 9.8 billion (also 2.8 times), and the surplus increased 3.3 times from EUR 0.45 billion to EUR 1.5 billion.
- The trade with other EU countries developed even more rapidly. Food deliveries from Poland to the EU States in 2003-2005 increased by 248%, whereas imports to Poland increased by 212%.

- The positive balance of foreign trade in agri-food products has improved:
- in total from EUR 0.4 billion in 2003 to EUR 1.5 billion in 2008,
- with EU-25 States from EUR 0.4 billion to EUR 2.3 billion in 2008,
- with EU-15 States from EUR 0.2 billion to EUR 0.8 billion in 2008 (but in 2006-2007 it was EUR 1.5 billion)
- with EU-12 States from EUR 0.2 billion to EUR 1.5 billion in 2008.

- The increase of prices in the market environment was and still is unfavourable for farmers as well as food processing entities. Price growth rates of agricultural products and food prices were and still are lower than the inflation rates and the dynamics in prices of means of production for agriculture.

Polish food sector 5 years after the accession

Chart legend:
- Inflation
- Food and nonalcoholic beverages
- Food
- Prices of agricultural products sold by farmers (individual farms)
- Prices of products and services acquired for current agricultural production, investments
- Price differentiations
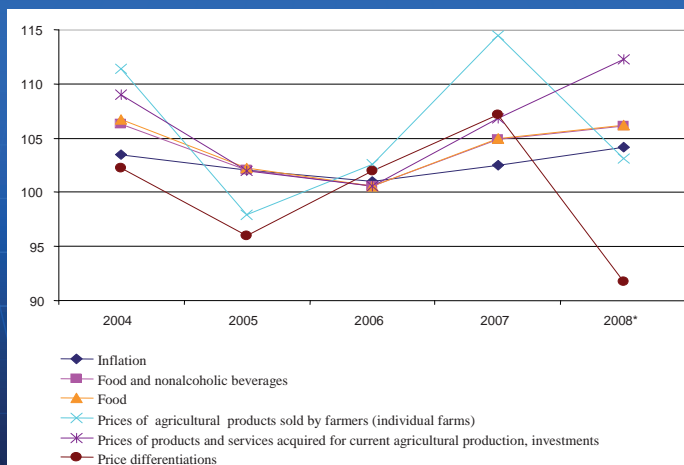
After Poland's accession to the EU the global agricultural production in constant prices amounted to PLN 58.5 billion and was on average 2.5% higher than in 2001-2003. Livestock production increased by 6,9% within the period, and the crop production decreased by 1.1%.

- Following Poland's accession to the EU, first of all there was a great increase in market deliveries of red and poultry meat as well as processed meat products. It stems from the industrialisation of agri-food processing and its concentration forced by the processes of adaptation to EU standards.

- The segments of agriculture which show the increase of production after the accession to the EU are poultry sector and rape cultivation, e.g. due to the growing demand for biofuels.

- The upward tendency for deliveries of maturing cheese, dairy drinks and desserts, chocolate products and beer, as well as non-alcoholic drinks continued.

- Poland's accession to the EU did not have an impact on the level of production of important segments of the Polish agriculture such as cereals, milk and pork.

- There has been a strong downward trend in bulb and root plants production, especially potatoes and fodder crops. Following the accession to the EU the production of fruit has dwindled slightly, but its current level is about 15% higher than in 1998-2000.

- The decrease in food consumption occurred only in the first year of Poland's accession to the EU and it resulted mostly from a significant increase in prices of food and non-alcoholic drinks. The decrease in food consumption was hampered in 2005, and starting from 2006 up until 2008/2009 in the majority of markets there was again an increase in demand for agri-food products.

- In 2003-2008 there have been important changes in the income situation of agricultural holdings in Poland. After Poland became an EU Member State, the income of Polish farmers grew significantly. The income received from agricultural holdings in the pre-accession period increased over 2 times per 1 full-time employee (working at least 2200 hours in an agricultural holding annually).

- After Poland's accession to the EU there has been a production revival in food industry. The value of sold production of food industry has been increasing since 2003 with the rate of 6-7% annually.

Table 1 Public resources co-financing „rural" programmes in 2004 – 2008 (estimates; public domestic and EU resources in PLN milion)	
Name of the program	Funds paid (PLN milion)
SAPARD	2 000
Rural Development Plan 2004 - 2006	14 000
SPO „"Restructuring and Modernisation of Food Sector and Rural Development 2004 – 2006	6 000
Rural Development Programme 2007 - 2013	4 000
Total	**26 000**

Polish food sector 5 years after the accession

- The results of foreign trade show high competitiveness of Polish food producers on foreign markets and indicate that Poland's export offer is safe, ensures high quality and good price for foreign consumers.

- The competitiveness of Polish food producers mostly stems from the fact that they have an advantage over their competition through the prices. We have a clear price advantage (lower prices) on many markets in basic agricultural products. Labour intensive products prevail among the groups of products with a relatively high competitive position on the Single Market.

- Despite the observed positive transformations, efficient competition with other Community States is hampered by a relatively low level of agricultural production and food processing concentration, low labour efficiency in food industry and not very active marketing and promotion of Polish agri-food products.

- It needs to be stressed that the production and export potential as well as the competitive position of the Polish agri-food sector after EU accession is shaped within the restrictions made by the partial level of direct payments.

- After Poland's accession to the EU, it turned out that the threats are smaller than forecasted and our food producers efficiently use the opportunities resulting from the opening of a large and wealthy European food market. Polish food economy is well-prepared to operate on the European Single Market.

- At present economic and social policies of practically speaking all countries in the world take into account the specificity of agriculture. Agriculture's share in creation and redistribution of added value results from its positioning in the structure of national economy. Agriculture, as a raw material branch is by nature subject to depreciation in the input-output system.

- First of all, agriculture is a weaker partner on the market. Farmers are dispersed, therefore, unable to oppose the organized forces of purchasing and manufacturing centres for agricultural raw materials.

- Secondly, agriculture as a raw material branch, is both spatially and economically away from the final purchaser (i.e. the consumer and the exporter). Meanwhile the market privileges final stages of raw material processing into final products.

- Thirdly, so far the long-term development mechanism in Poland did not support strengthening of the agriculture's competitive capacity on the domestic market. Agriculture has been regarded as a backward branch with no potential for development. Left to itself, it was so far unable to surpass the critical mass of the reforms and in fact it functioned on the periphery of the national economy.

Economic growth accelerates the decrease in agriculture's importance for the national economy and, subsequently, results in the need for various adaptations of agriculture to the national economy.

- Global tendency to extend international cooperation means pressure to even out global technologies, production and consumption standards. It results as well in destabilizing of traditional socio-economic systems, including supporting permanent transformation of agricultural economy.

- Global competition enforces adaptation to new conditions, changes behavioural patterns and interaction between enterprises, employees and consumers.

- The consequence of globalisation is the process of revealing of the real competition, not hindered by anything. Globalisation is liquidation of instruments and means of protection from external competition.

- The consequence of global market is rapid development of consumerism as a philosophy of life.

- Global competition enforces adaptation to new conditions, changes behavioural patterns and interaction between enterprises, employees and consumers.

- Consumer preferences resulting from unified tastes become a reason for creation of unified global market. Advantages of this process are taken mainly by global entities producing standardized products on global scale.

- To act reasonably it is vital to know the aims and direction one heads to. What seems rational from the local and short-term perspective may prove highly irrational from macroeconomic point of view and in long-term perspective.

- The assessment of models and strategies for the development of agriculture covers technological, economic, environmental and spatial, and socio-political criteria.

Criteria defining efficiency and competitiveness of agriculture should take into account the following:

- the efficiency of agricultural production,
- the structural efficiency,
- the export/import efficiency,
- the efficiency in providing adequate living and working standards for farmers,
- the extended reproduction capacity,
- the efficiency pertaining to environmental protection,
- the efficiency pertaining to the place in the national economy.

- All productive efficiency assessments, based both on theoretical and model analyses, and on empirical data from other countries, cannot be overestimated, they have an important cognitive value, yet, at the same time, limited use in practice.

Industrial development.

- In the financial area industrialization set new perspectives for agricultural growth
- In the economic area industrialization influenced agriculture by increasing demand for agricultural products, withdrawal of labour force from agriculture, development of transport, taking over certain functions of agri-food processing and development of agricultural technologies.
- In the cultural area industrialization strongly influenced values and attitudes of farmers.

Induced development.

- Induced development is a concept of forced agricultural development.
- Innovations and material media of development – in accordance with the concept of induced development – originate outside agriculture and are forced therein by means of market channels.

Bipolarisation strategy

- is inspired by the market liberalism doctrine. According to this doctrine it is assumed a priori that the main problem of the Polish agriculture is the faulty agrarian structure, and its radical change might result in development and modernization of agriculture.

Sustainable development strategy.

- General message of this development strategy for agriculture is heading toward modernized, technologically and economically efficient, environmentally and people friendly agriculture, based mainly on family farms, integrated with all the national economy and complementary to other activities in rural areas.

Global agriculture development factors:

- population growth,
- low productive activity of agriculture compared to information technologies,
- introduction of new generation farming technologies and "intelligent" and "functional" food,
- dramatic change in agriculture structure and marketing,
- decrease in agricultural production in developed countries,
- new food production centre on global scale,
- increase in deterioration of environment…

- The analysis of global development patterns of agriculture shows that its main developing factor has been maximising efficiency (productivity) of the quantity of production factors, i.e. minimising their use per production unit. Hence obvious conclusion that increasing efficiency is the key to search for a model for Polish agriculture.

- Considering models for Polish agriculture one cannot miss the fact of technological backwardness of our agriculture in relation to EU countries, which manifests itself in more than three times higher employment rate in agriculture and several times lower labour equipment , which results in 1.5 lower land efficiency and about five times lower labour efficiency.

- Searching for new bases of competitive advantage for Polish companies and products becomes vital. The hitherto existing bases of competitiveness, such as low labour cost, low prices of land and energy, and underestimated, in proportion to its purchasing power, zloty, rapidly loose importance in Poland.

POLISH FOOD SECTOR 5 YEARS AFTER THE ACCESSION

- Mutual full opening of markets was not a hindrance to the development of the Polish food economy; instead it became a strong impulse for its growth.

- While searching for the development model for the Polish agriculture one needs to take into account the transformation pace of the economy as a whole, aiming at the improvement of its competitiveness, and processes taking place in EU.

Crisis today and tomorrow

- Globalisation of financial markets causes significant changes in the roles played on markets by the most important states and regions. 80% of the world financial resources are allocated in four regions: the United States, the Eurozone, Japan and Great Britain, although the Chinese market is the fastest growing one in the world.

Crisis today and tomorrow

- In 2007, global stock exchange capitalisation, bonds and bank assets constituted almost 400% of the world GDP. This ratio was even greater in Japan (about 500%), while in the USA, it was almost 400%. Only global bank assets exceed the world GDP by30%.

Crisis today and tomorrow

- Nowadays, relatively high concern is connected with operation on the global financial market of thousands of arbitration funds, which due to their operation undertake risky transactions and are not properly supervised.

Crisis today and tomorrow

- Another hypothesis sees the causes of the current crisis in the intentional policy of creating high currency reserves implemented by emerging markets, especially the countries of Eastern and Southern-Eastern Asia, which were damaged by the wave of currency and financial crisis in 1997-1998.

Crisis today and tomorrow

- The new causative factor of the international payment imbalance has recently been high surplus of the crude oil exporters. The oil countries do not still have and will not have any serious alternative with respect to the dollar in the short term.

Crisis today and tomorrow

- Practically speaking, experts agree on one thesis only, that the current financial crisis will surely influence the pace of economic growth worldwide.

Crisis today and tomorrow

- None of the major expert centres presented reliable evaluations concerning the scope, depth, and length of the recession.
- There are also no realistic proposals how to resolve the crisis.

Crisis today and tomorrow

- The global population will be increasing considerably to 2050. This increase, however, will be deeply unequal.
- The share of human resources able to work in Russia, Japan,
- Germany, China will decrease dramatically (143 million people compared to 2006). However, it will surge in India (+390 million people in 2050 compared to 2006), Nigeria, Pakistan and the US.

Crisis today and tomorrow

- In Poland the total population will decrease from 38.1 million in 2008 to 35.99 in 2035,
- and probably to about 34 million in 2050, which is by 11% - in the period of not even two generations.

Crisis today and tomorrow

- The data of the World Economic Outlook IMF from April 2008 show that GDP of China - calculated in accordance with the purchasing power parity – moved to the second place, after GDP of the U.S., GDP of India to 4th, Russia to 7th, and Brazil to 9th.

Crisis today and tomorrow

- In accordance with the annually published World Wealth Report 2007, about 9.5 million people had financial assets of over USD 1 million in the world. The total value of these people's resources exceeded USD 37 trillion (the highest growth of the richest people was in 2007 in India, Russia, Indonesia, and Singapore). The prognosis for 2011 predict further growth of financial assets to almost USD 52 trillion.

Crisis today and tomorrow

- The poverty level significantly decreased as a result of economic growth, globalization processes and development of market economy. The world population with income below USD 1.000 annually was about 50% in the 70s of the 20th century, in 2000 it was only 17%, with the prognosis of the decrease to about 6% in 2015.

Crisis today and tomorrow

- Thank you for your attention

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Condition of agricultural holdings
after the accession to EU
- Czech Republic

FADN CZ

Condition of agricultural holdings after the accession to EU – Czech Republic

Ing. Josef Hanibal

September 2009, Pultusk, Poland

FADN CZ   *Institute of Agricultural Economics and Information, Prague*

Condition of agricultural holdings after the accession to EU – Czech Republic

Content:

- *Basic changes in the Czech agriculture after 1989*
- *FADN results of the Czech farms before 2004 and after*
- *Comparison of farm efficiency of the Czech farms with selected countries of EU*

FADN CZ

Development of farms' structure in the Czech Republic after 1989

Type of farm	Number of farms	% on the total UAA	Average size (ha)
1989			
State farms	174	30,9	6 261
Cooperatives	1 024	67,8	2 561
Individual farms	3 205	1,3	4
2003			
Cooperatives	686	26,3	1 475
Companies	2 336	44,0	709
Other legal entities	174	2,3	571
Individual farms	32 496	24,8	30
2008			
Cooperatives	588	23,3	1 436
Companies	2 609	46,0	627
Other legal entities	196	0,8	158
Individual farms	28 968	28,2	36

* Provisional results for 2008

FADN CZ

Development of labour in agriculture in the Czech Republic after 1989
(in thousands)

Legend:
- Total holdings
- Individual farms
- Legal entities (cooperatives, companies and others)

number of employees in thousands

	1989	1999	2003	2004	2005	2006	2007	2008
Total holdings	507							
Individual farms		32	30	30	30	29	29	26
Legal entities		151	118	111	107	105	102	98

* Provisional results for 2008

FADN CZ

Condition of agricultural holdings after the accession to EU – Czech Republic

Structure of agricultural holdings according to the type of farming, Legal entities

* Provisional results for 2008

Condition of agricultural holdings after the accession to EU – Czech Republic

Structure of agricultural holdings according to the type of farming, Individual farms

* Provisional results for 2008

Condition of agricultural holdings after the accession to EU – Czech Republic

Total output (production) per farm, Legal entities (€)

€

- Other production
- Animal production
- Crop production

	average 2001-2003	2004	2005	2006	2007	2008 *
Other production	120 142	135 916	89 142	99 252	98 005	137 492
Animal production	770 672	744 211	805 386	799 808	824 363	962 854
Crop production	702 424	895 125	751 489	781 708	960 157	1 106 014

2 000 000
1 500 000
1 000 000
500 000
0

* Provisional results for 2008

FADN CZ

Condition of agricultural holdings after the accession to EU – Czech Republic

Total output (production) per farm, Individual farms (€)

€

- Other production
- Animal production
- Crop production

	average 2001-2003	2004	2005	2006	2007	2008 *
Other production	2 997	2 725	3 513	2 360	2 596	3 980
Animal production	20 995	21 573	28 278	28 542	25 836	27 215
Crop production	52 937	67 205	60 820	69 051	98 751	95 214

120 000
100 000
80 000
60 000
40 000
20 000
0

* Provisional results for 2008

FADN CZ

Total output per ha of UAA (€)

* Provisional results for 2008

FADN CZ

Total output per AWU (€)

* Provisional results for 2008

FADN CZ

Condition of agricultural holdings after the accession to EU – Czech Republic

Total costs on production per ha of UAA (€)

* Provisional results for 2008

FADN CZ

Condition of agricultural holdings after the accession to EU – Czech Republic

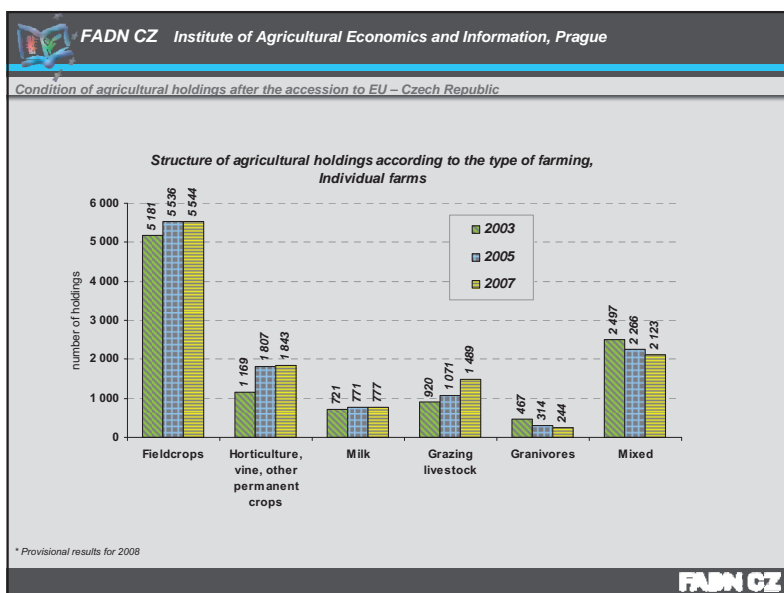**Total costs / total output**

* Provisional results for 2008

FADN CZ
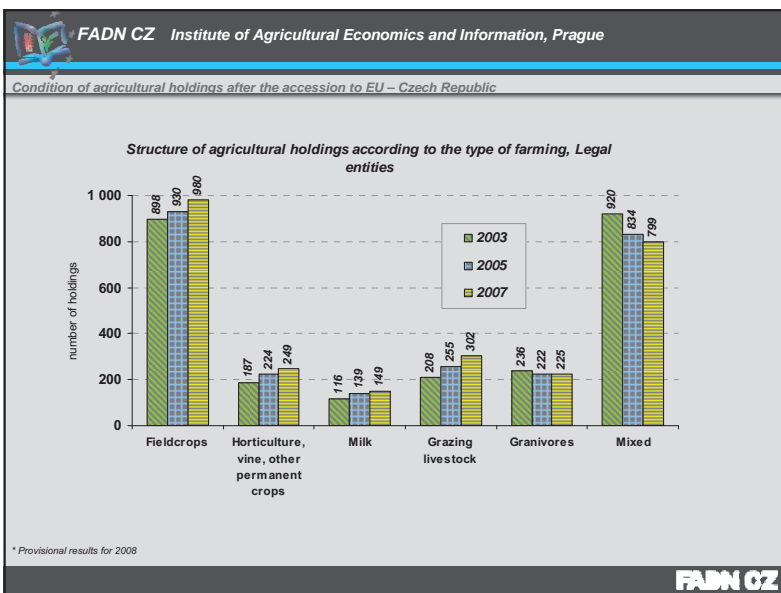
Condition of agricultural holdings after the accession to EU – Czech Republic

Gross farm income per farm (€)

€

- Legal entities
- Individual farms

	average 2001-2003	2004	2005	2006	2007	2008 *
Legal entities	524 922	712 245	669 682	700 820	822 382	948 681
Individual farms	26 225	45 107	48 660	57 297	76 525	73 161

* Provisional results for 2008

FADN CZ

Condition of agricultural holdings after the accession to EU – Czech Republic

Gross farm income per ha (€)

- Legal entities
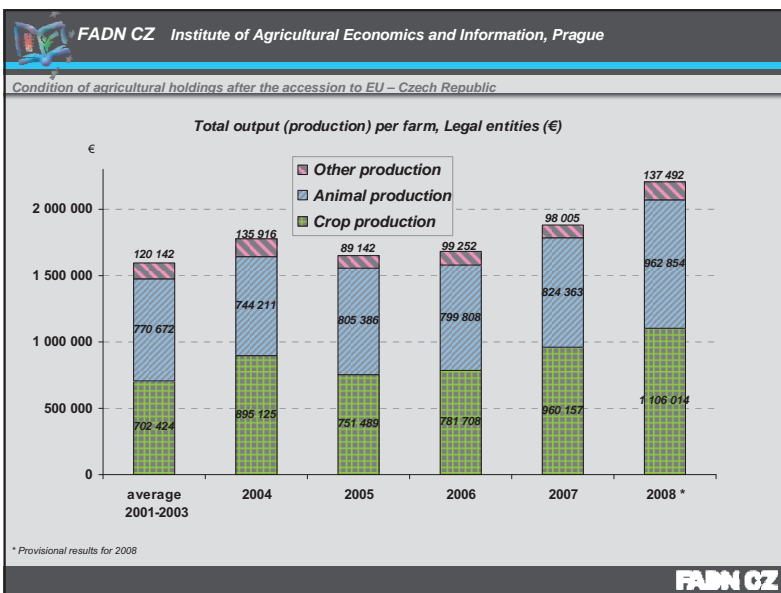- Individual farms

	average 2001-2003	2004	2005	2006	2007	2008 *
Legal entities	347	464	470	508	599	660
Individual farms	218	352	379	417	573	523

* Provisional results for 2008

FADN CZ

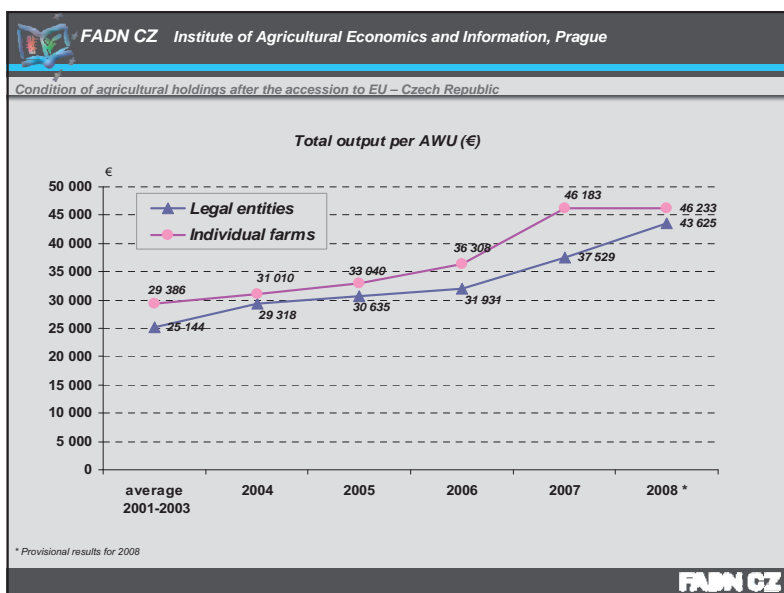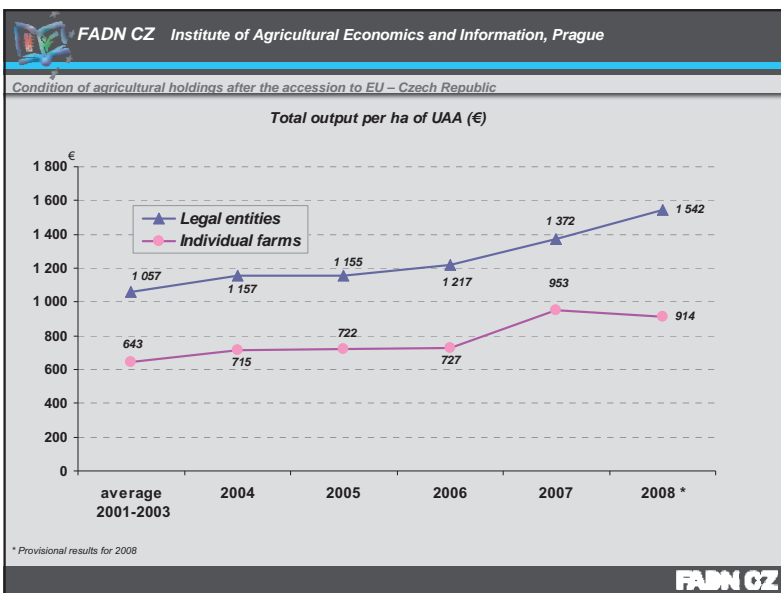*Condition of agricultural holdings after the accession to EU – Czech Republic*

Gross farm income per AWU (€)

- Legal entities
- Individual farms

	average 2001-2003	2004	2005	2006	2007	2008 *
Individual farms	9 961	15 287	17 360	20 813	27 788	26 461
Legal entities	8 267	11 762	12 464	13 314	16 395	18 665

* Provisional results for 2008

FADN CZ

Condition of agricultural holdings after the accession to EU – Czech Republic

Farm net value added per farm (€)

€

- Legal entities
- Individual farms

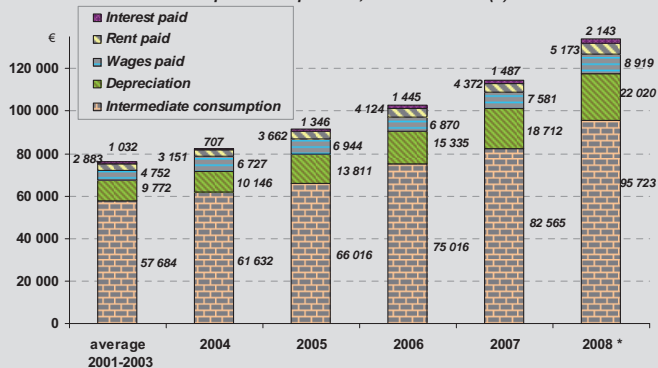|	average 2001-2003	2004	2005	2006	2007	2008 *
Legal entities	386 600	582 907	538 075	557 801	670 515	760 775
Individual farms	16 453	34 961	34 849	41 962	57 813	51 141

* Provisional results for 2008

FADN CZ
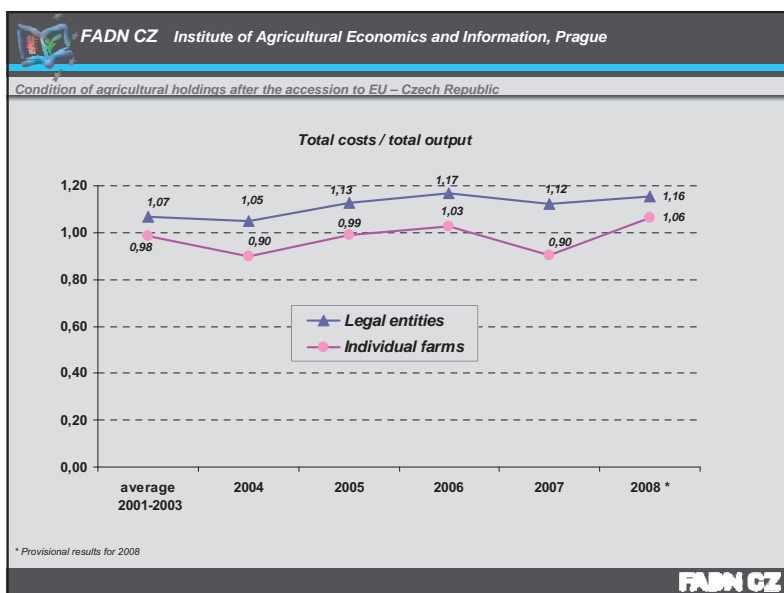
Condition of agricultural holdings after the accession to EU – Czech Republic

Farm net value added per ha (€)

€

- Legal entities
- Individual farms

256
380 378 404 489 528
136 273 272 305 433 364

average 2001-2003 2004 2005 2006 2007 2008 *

* Provisional results for 2008

FADN CZ

Condition of agricultural holdings after the accession to EU – Czech Republic

Farm net value added per AWU (€)
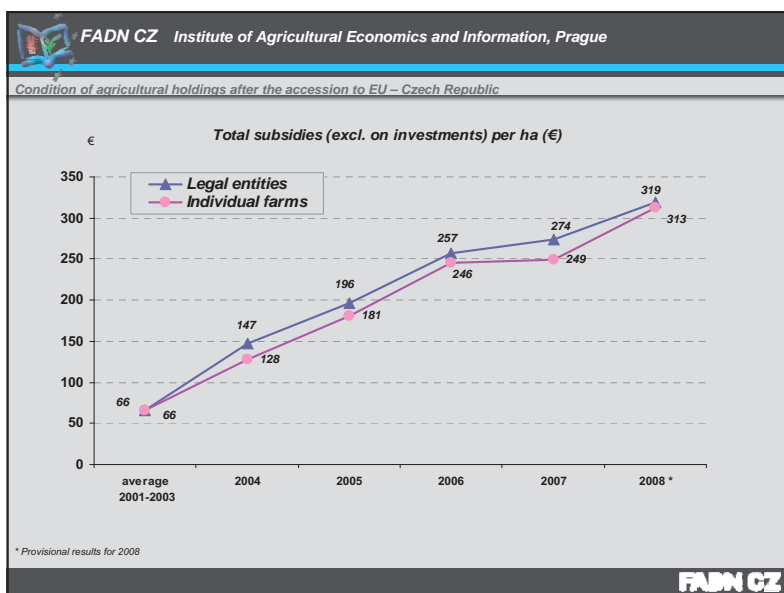
€

- Legal entities
- Individual farms

6 269 9 626 10 015 10 597 13 367 15 040
6 130 11 848 12 433 15 243 20 993 18 733

average 2001-2003 2004 2005 2006 2007 2008 *

* Provisional results for 2008

FADN CZ

65

Condition of agricultural holdings after the accession to EU – Czech Republic
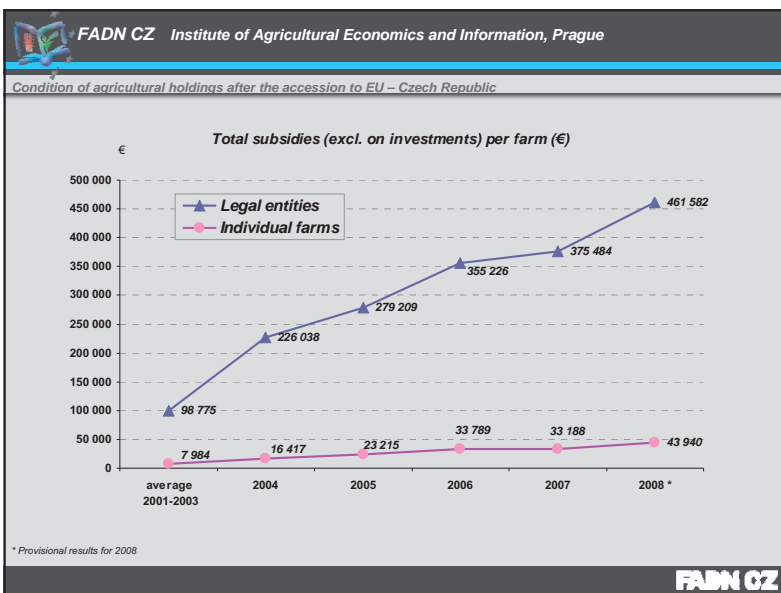
Family farm income per farm (€)

€

- Legal entities
- Individual farms

200 000

150 000 — 142 627

115 785 — 114 733

100 000

50 000 — 56 031 — 59 143 — 44 746
8 472 — 24 810 — 23 255 — 29 669 — 36 186

0
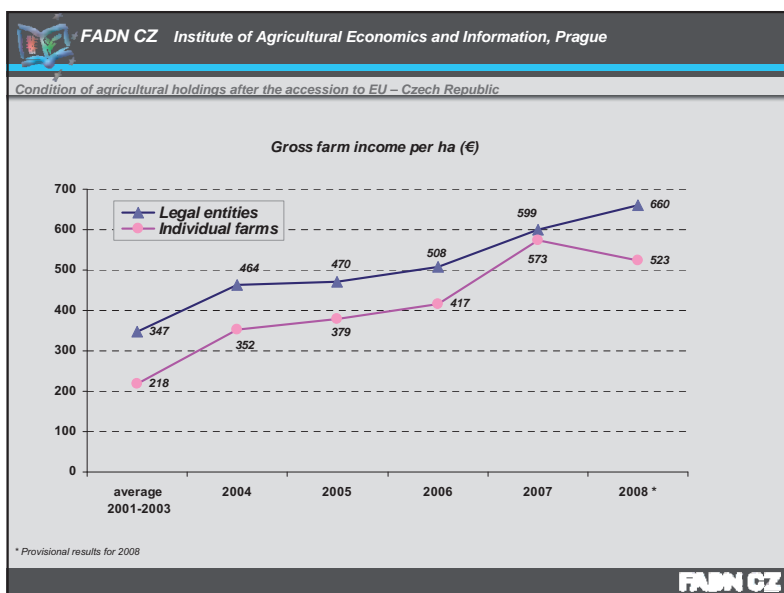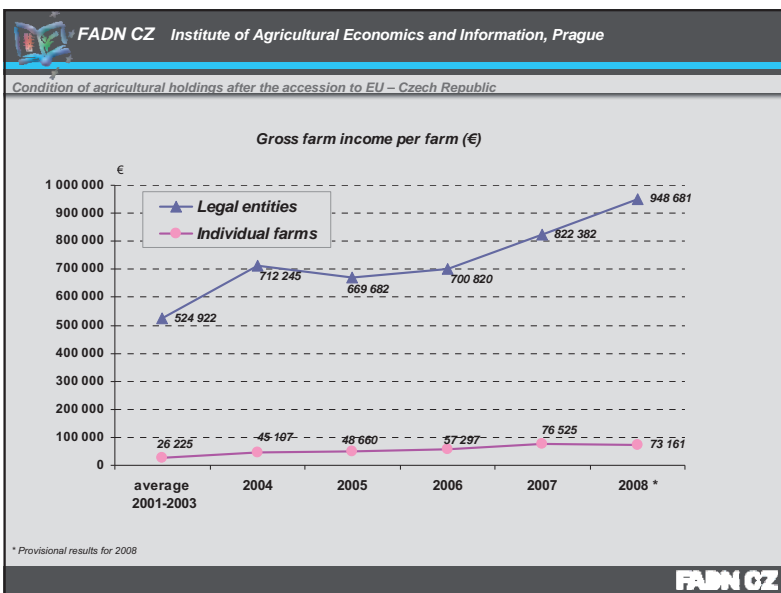
average
2001-2003   2004   2005   2006   2007   2008 *

-42 235

-50 000

* Provisional results for 2008

FADN CZ

Condition of agricultural holdings after the accession to EU – Czech Republic

Family farm income per ha (€)

€

400

- Legal entities
- Individual farms

350 — 335

300

255

250 — 216

200 — 194 — 184

150

104

100 — 70 — 76
75

50 — 39 — 43

0

-29
average
2001-2003   2004   2005   2006   2007   2008 *

-50

* Provisional results for 2008

FADN CZ

66

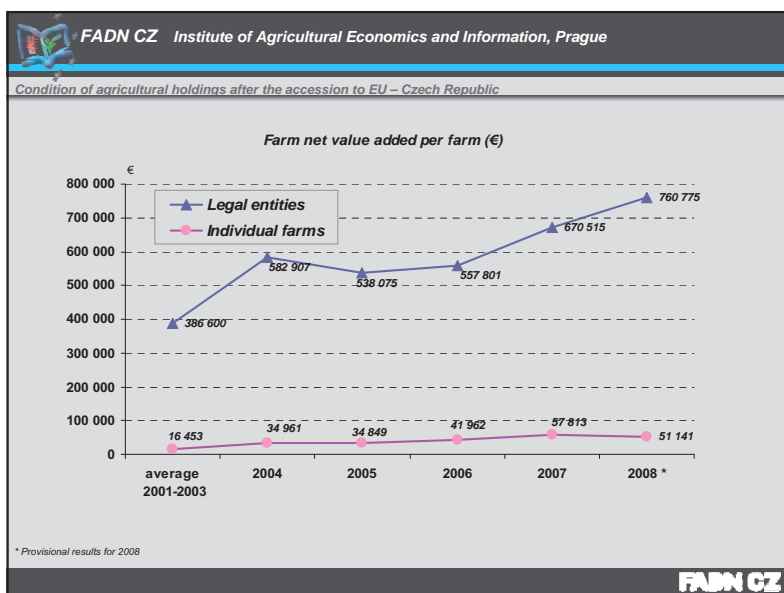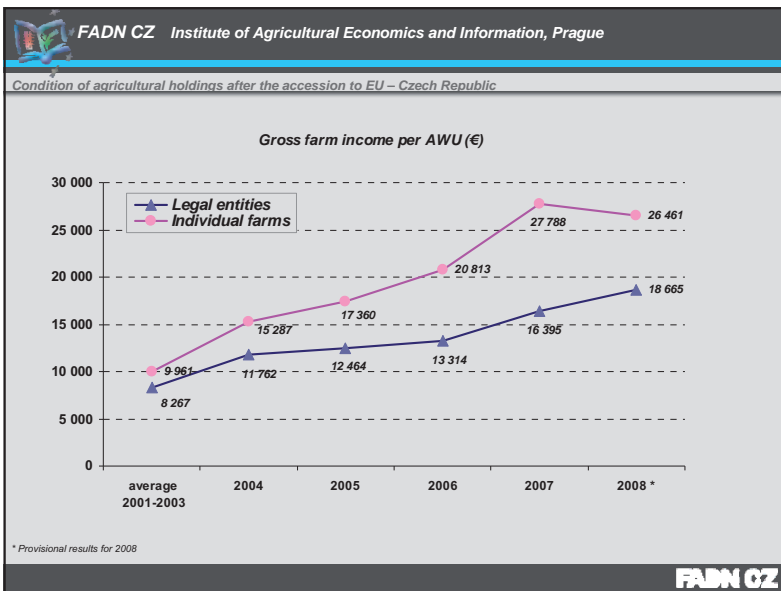Condition of agricultural holdings after the accession to EU – Czech Republic

Family farm income per AWU (€)

* Provisional results for 2008

FADN CZ

Comparison with EU countries - Total output per ha (€)

* Provisional results for 2008

FADN CZ

Comparison with EU countries - Total output per AWU (€)

* Provisional results for 2008

Comparison with EU countries - Total inputs / ha (€)

* Provisional results for 2008

Comparison with EU countries - Total inputs / total output

* Provisional results for 2008

Comparison with EU countries - Total subsidies (excl. on investments) per ha (€)
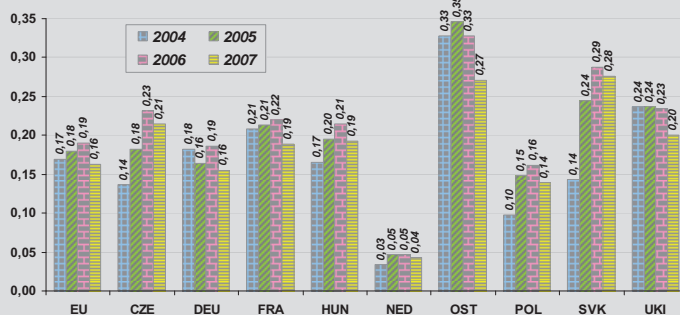
* Provisional results for 2008

Comparison with EU countries - Farm net value added per AWU (€)
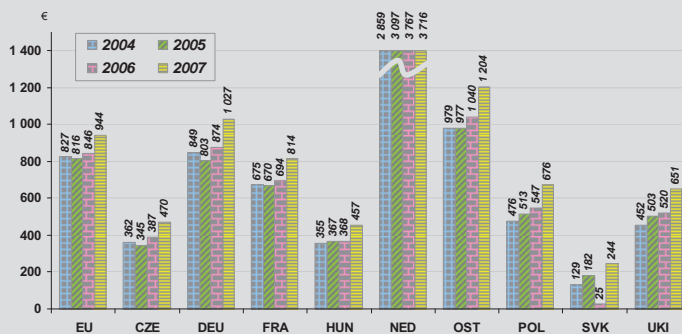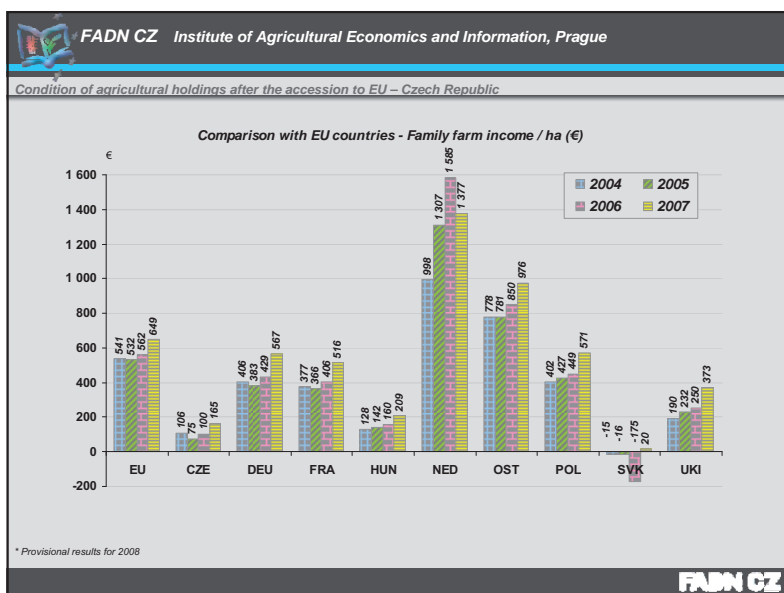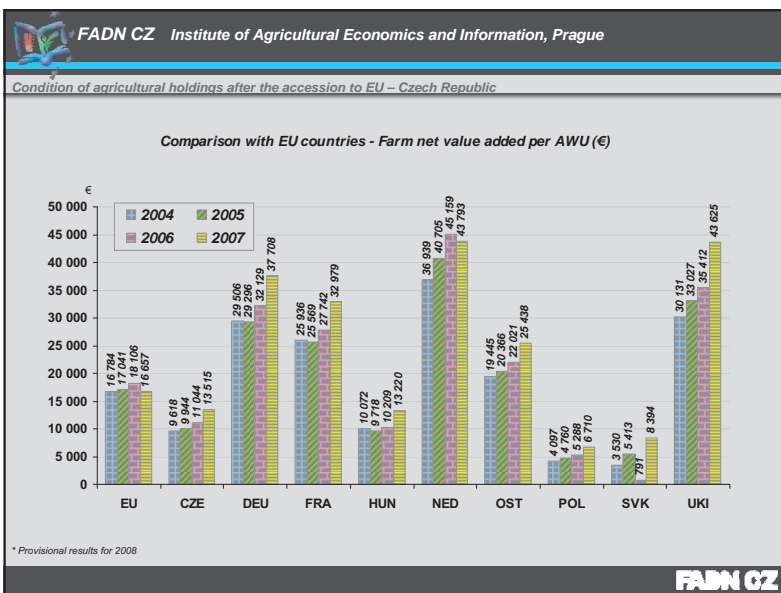
€

Legend: 2004 2005 2006 2007

	EU	CZE	DEU	FRA	HUN	NED	OST	POL	SVK	UKI
2004	16 784	9 618	29 506	25 936	10 072	36 939	19 445	4 097	3 530	30 131
2005	17 041	9 944	29 296	25 569	9 718	40 705	20 366	4 760	5 413	33 027
2006	18 106	11 044	32 129	27 742	10 209	45 159	22 021	5 288	791	35 412
2007	16 657	13 515	37 708	32 979	13 220	43 793	25 438	6 710	8 394	43 625

* Provisional results for 2008

FADN CZ

Comparison with EU countries - Family farm income / ha (€)

€

Legend: 2004 2005 2006 2007

	EU	CZE	DEU	FRA	HUN	NED	OST	POL	SVK	UKI
2004	541	106	406	377	128	998	778	402	-15	190
2005	532	75	383	366	142	1 307	781	427	-16	232
2006	562	100	429	408	160	1 585	850	449	-175	250
2007	649	165	567	516	209	1 377	976	571	20	373

* Provisional results for 2008

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Comparison with EU countries - Family farm income / AWU (€)
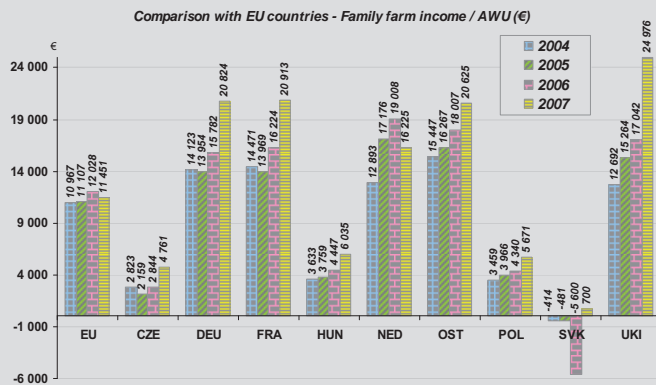
Conclusions:

- *Income situation of farms is being improved after accession mainly thanks to subsidies*
- *Large farms have comparative advantage due to size*
- *Productivity of farms is slightly increasing*
- *Efficiency of the Czech farms in comparison with EU leaders is low*
- *FADN database has a great potential for analyses of farms' productivity*

Condition of agricultural holdings after the accession to EU – Czech Republic

THANK YOU
FOR YOUR ATTENTION!

FADN CZ

Eduard Matveev

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Changes of Estonian agricultural farms after the accession to EU

Changes of Estonian agricultural farms after the accession to EU

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Abstract

The aim of this study is to analyse the changes in the main economic indicators of Estonian agricultural farms after the accession to the European Union (EU) based on the Farm Accountancy Data Network (FADN) data.

Agriculture has traditionally been an important sector of national economy and a source of income for the Estonian population. Estonian agricultural policy changed sharply after regaining the independence in the beginning of nineties of 20th century.

There are major structural changes occurred also in the agricultural sector after Estonia's EU accession in 2004. The share of agriculture and hunting in gross domestic products (GDP) at current prices declined from 2.0% in 2003 to 1.5% in 2008, while the share of agriculture and hunting in total employment dropped from 4.4% to 2.6% over the same period.

According to the data of the farm structure survey (FSS) carried out by the Statistics Estonia, in 2007 there were 23 300 agricultural holdings in Estonia, i.e. 37% less than in year 2003. Whereby, the number of farms with less than 2 European size unit (ESU) decreased by 14 014 i.e. 47% and with more then 2 ESU - increased by 494 i.e. 7%. Agricultural area and production has concentrated mainly into larger holdings with more than 50 hectares of agricultural area.

In this presentation, the agricultural producers in Estonia and the EU are compared and the impact of the accession to the EU on agricultural producers' economic performance in Estonia are analysed, using FADN data from 2003-2008. For reference, there are provided data from EU member states for 2007, whereas old Member States (EU-15), new Member States acceded May 1st 2004 (EU-10) and Member States acceded January 1st 2007 (EU-2) marked by different colours.

In 2008 an Estonian agricultural holding used 123 ha of utilized agricultural area on average, which is 33 ha more than in 2003. In the EU-27 the agricultural producers had 31 hectares of land on average. The largest operators in terms of land use were in Slovakia (582 ha on average) and Czech Republic (237 ha), and the smallest in Malta (3 ha) and Greece (7 ha).

Total labour input was 2,5 annual work units (AWU) per holding on average (conditional 1 AWU = 2 200 working hours) of which unpaid labour of owners accounted for about half. The use of labour has grown significantly in 2003-2008: while in 2003 there was 31 hectares of agricultural land per AWU, in 2008 it was already 49 hectares per AWU, or an increase of 58%.

In 2007 in the EU-27 the ratio of subsidies (excluding subsidies on investments) was 14% in the total output. The highest ratio of subsidies in the total output was in Finland (36%) and Ireland (32%), and the lowest in Netherlands (4%) and Italy (9%). In 2007 in Estonia this indicator was 23%.

In 2008 the NVA per AWU has increased 2.6 times in Estonia when compared to 2003, whereas the proportion of subsidies in the NVA increased from 25% in 2003 to 83% in 2008.

After the accession of the ten new countries in 2004, the EU average dropped dramatically. In 2008, the average NVA per AWU in the EU-27 was 16 733 EUR (21 235 EUR/AWU in 2003 on average in the EU-15).

Key words: comparative analysis, net value added, subsidy, FADN

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Latvian State Institute of Agrarian Economics

Latvia's farms performance,
in the Baltic states and EU

Latvia's farms performance, in the Baltic states and EU

V.Bratka

Farm Economics Department
Latvian State Institute of Agrarian Economics

5th anniversary of Polish FADN

Pułtusk, Poland
7 September, 2009

Content of presentation

- **Representativity of Latvia's FADN**
- **Framing results 2003 – 2008, Latvia**
- **Baltic states 2003 – 2007**
- **EU 2004 – 2006**

Representativity of Latvia's FADN

		Total	FADN, % (>2 ELV)
Number of farms	FSS2007	113 382	20,1
	FSS2005	133 004	14,5
Total SGM, thsnd. Ls	FSS2007	265 149	82,7
	FSS2005	192 674	72,9
Livestock units	FSS2007	487 442	83,6
	FSS2005	455 231	75,9
UAA, thsnd. ha	FSS2007	1 775	67,5
	FSS2005	1 705	72,2

Representativity of Latvia's FADN

Output	77,4 %
Crop production	*81,6 %*
Livestock production	*88,3 %*
Other output	*50,0 %*
Intermediate consumption	78,3 %
Depreciation	100,0 %
Subsidies, support	99,8 %
NVA	84,8 %

NVA per AWU by economic size classes: Latvia, 2003 – 2008, Ls
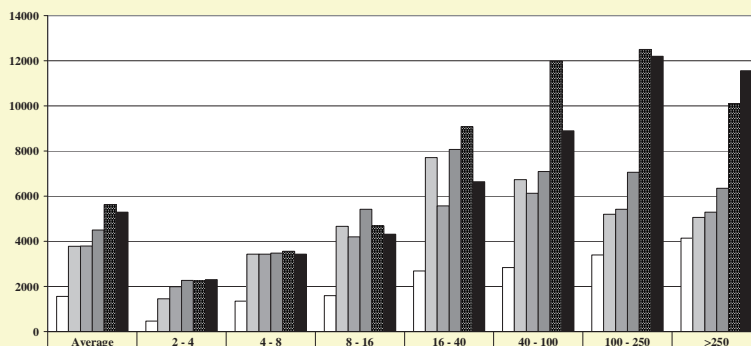
	Average	2 - 4	4 - 8	8 - 16	16 - 40	40 - 100	100 - 250	>250
2003.	1552	465	1345	1596	2688	2837	3397	4143
2004.	3777	1445	3425	4664	7717	6730	5196	5057
2005.	3781	1984	3431	4197	5572	6130	5418	5292
2006.	4506	2264	3472	5426	8068	7095	7056	6342
2007.	5629	2248	3559	4685	9077	11992	12507	10109
2008.	5283	2304	3430	4306	6632	8892	12205	11568

NVA per AWU by type of farming: Latvia, 2003 - 2008, Ls
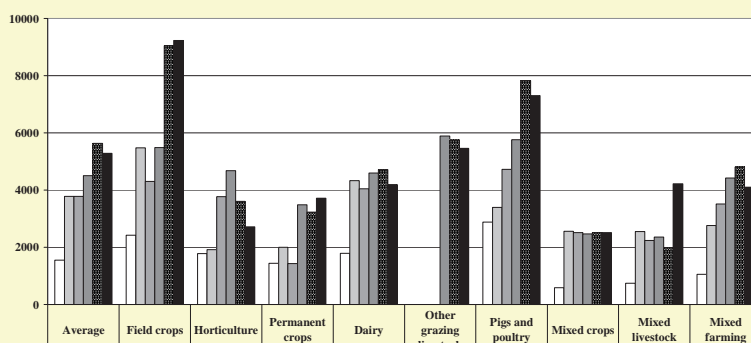
	Average	Field crops	Horticulture	Permanent crops	Dairy	Other grazing livestock	Pigs and poultry	Mixed crops	Mixed livestock	Mixed farming
2003.	1552	2422	1779	1433	1788		2882	587	745	1049
2004.	3777	5479	1915	1997	4327		3390	2554	2546	2762
2005.	3781	4302	3776	1424	4042		4728	2517	2235	3512
2006.	4506	5491	4678	3483	4592	5887	5761	2471	2356	4417
2007.	5629	9053	3601	3231	4713	5755	7828	2507	1981	4813
2008.	5283	9229	2720	3721	4187	5458	7305	2512	4218	4101

Yields: Latvia, 2003 - 2008, t

	2003.	2004.	2005.	2006.	2007.	2008.
Wheat	2,9	3,6	3,8	3,0	3,7	3,8
Rye	2,1	2,6	2,1	2,5	3,2	3,2
Barley	2,1	2,8	2,8	2,3	2,6	2,6
Oats	1,9	2,4	2,2	1,9	2,2	2,2
Triticale	1,6	2,7	2,5	2,0	2,9	2,9
Rape seeds	1,4	1,7	2,1	1,5	2,0	2,0
Milk	4,2	4,5	4,6	5,0	4,9	5,0
Potatoes	16,6	15,1	15,8	13,8	17,1	17,0

Prices: Latvia, 2003 - 2008, Ls/t

	2003.	2004.	2005.	2006.	2007.	2008.
Wheat	67	69	62	79	126	109
Rye	60	61	55	72	112	87
Barley	59	64	58	72	115	92
Oats	56	56	56	67	92	74
Triticale	54	59	61	68	106	88
Potatoes	49	53	60	99	94	98
Rape	136	128	121	161	186	246
Milk	100	135	160	168	192	193

Meat prices: Latvia, 2004 - 2008, Ls/t

	2004.	2005.	2006.	2007.	2008.
Beef	434	525	556	553	643
Pork	689	698	740	756	858
Mutton	566	488	718	-	821
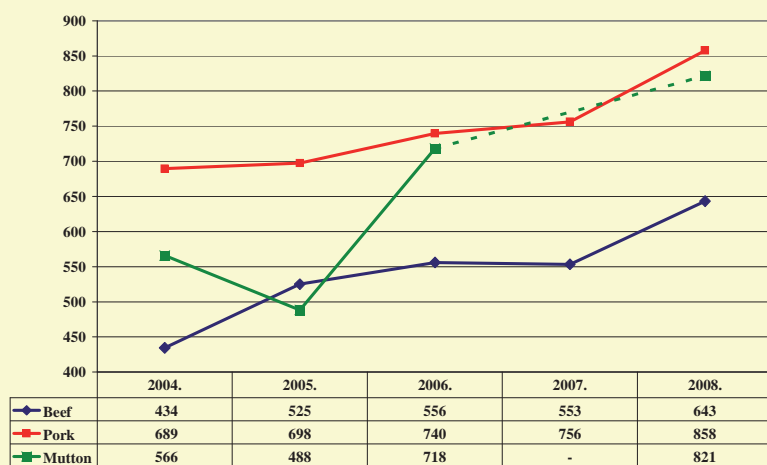
Production NVA and support per AWU: Latvia, 2003 - 2008, Ls

	2003.	2004.	2005.	2006.	2007.	2008.
Production support	702	2272	2392	3498	3562	4292
Production NVA	850	1505	1389	1008	2067	991
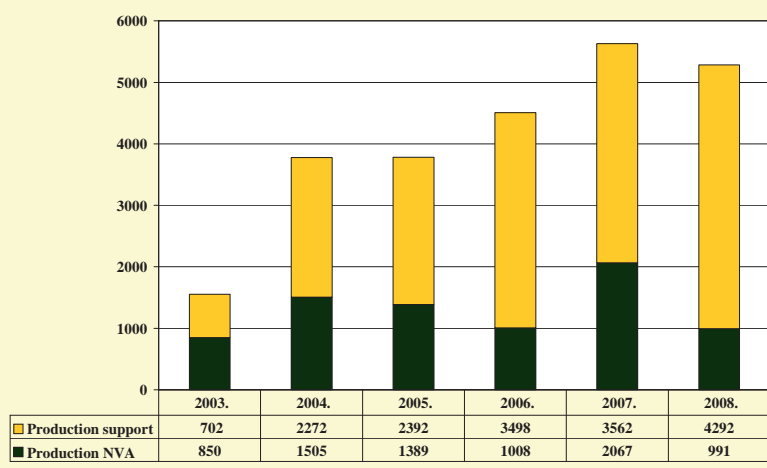
Production NVA and support per AWU by economic size classes: Latvia, 2008, Ls

	Average	2 - 4	4 - 8	8 - 16	16 - 40	40 - 100	100 - 250	>250
Production support	4 397	2 257	2 939	4 605	6 427	8 658	9 288	6 238
Production NVA	886	27	530	- 219	368	666	3 602	5 872
Share of NVA in output	37%	48%	44%	37%	38%	37%	36%	33%
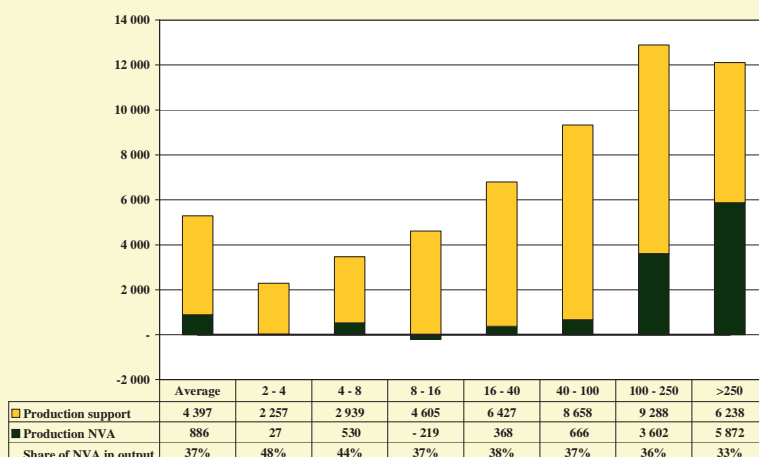
Production NVA and support per AWU by type of farming: Latvia, 2008, Ls

	Average	Field crops	Horti-culture	Permanent crops	Dairy	Other grazing livestock	Pigs and poultry	Mixed crops	Mixed livestock	Mixed farming
Production support	4 397	7 475	183	1 264	3 738	4 333	2 505	2 315	4 039	3 534
Production NVA	886	1 754	2 537	2 457	449	1 125	4 800	197	179	568
Share of NVA in output	37%	42%	25%	44%	38%	59%	14%	45%	49%	41%

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NVA per AWU: Baltic states, 2003 - 2007, Euro

	2003.	2004.	2005.	2006.	2007.
Latvija	2406	5678	5430	6472	7988
Lietuva	3269	5850	7039	4559	8965
Igaunija	3762	7256	7987	8410	13279

NVA per AWU: EU memberstates, 2004 - 2006, Euro

2004. 2005. 2006.

SVK SVN LTU POL LVA POR CYP EST HUN CZE ELL MLT SUO IRE ESP OST ITA SVE FRA DEU LUX UKI BEL NED DAN

Output - costs ratio:
Baltic states, 2003 – 2007

	2003.	2004.	2005.	2006.	2007.
Latvija	1,05	1,11	1,03	0,98	1,04
Lietuva	1,31	1,43	1,30	1,11	1,41
Igaunija	1,07	1,04	1,03	0,97	1,06
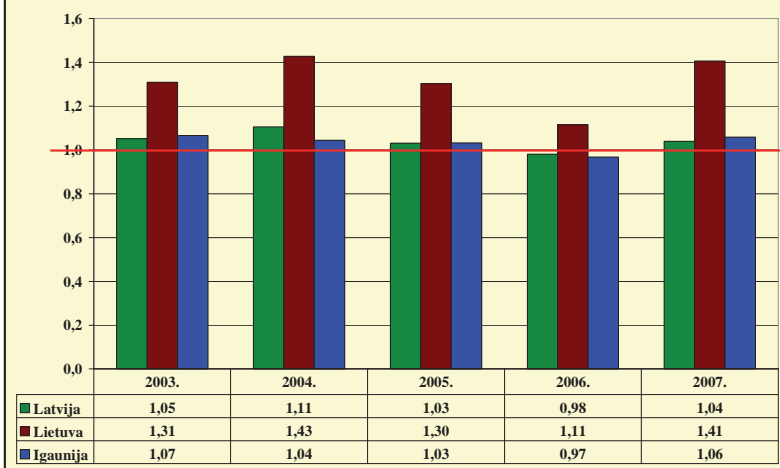
Output - costs ratio:
EU memberstates, 2004 – 2006
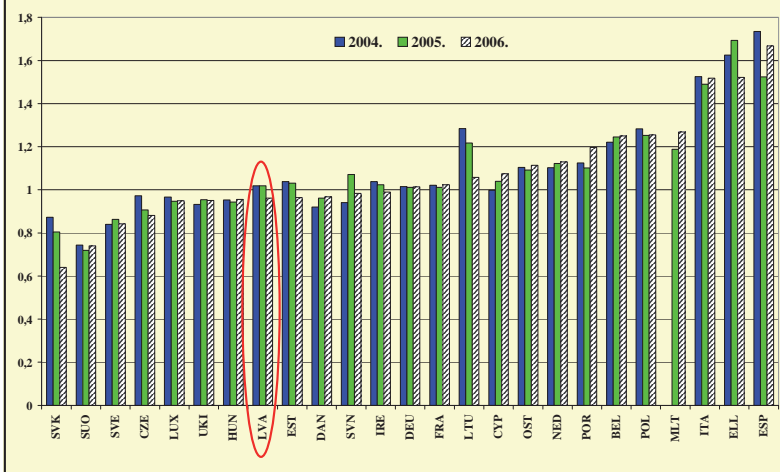
Cash crops production: Baltic states, 2003 – 2007, EUR / 1 ha UAA
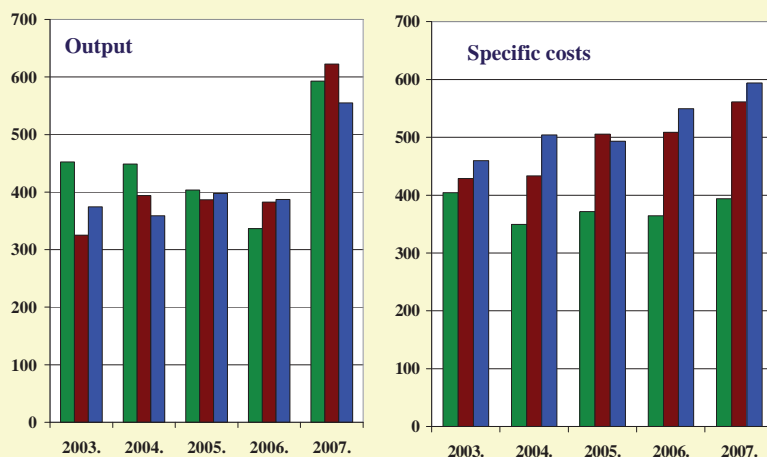
Livestock production: Baltic states, 2003 – 2007, EUR per 1 LU
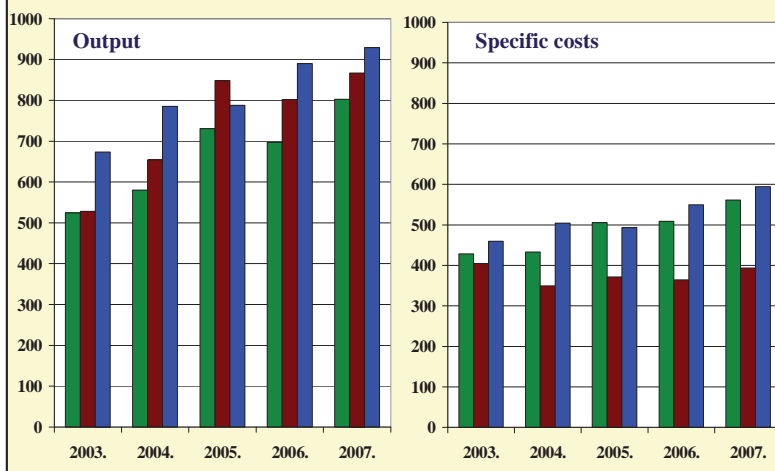
Cash crops output: EU memberstates, 2004 – 2006, Euro per 1 ha UAA
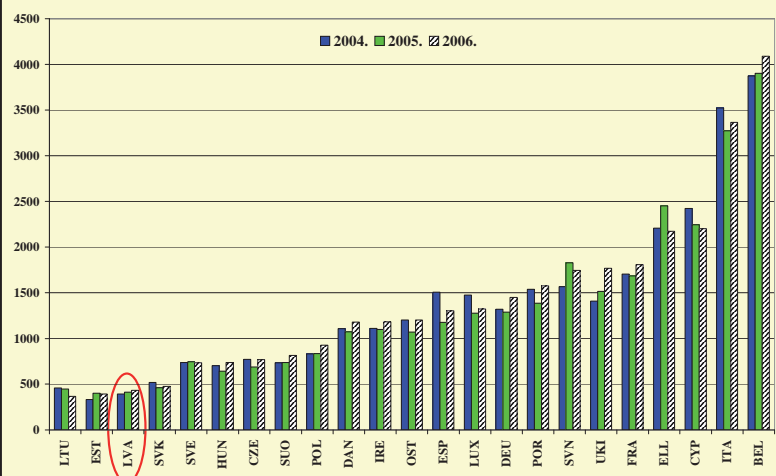
Livestock production output: EU memberstates, 2004 – 2006, Euro per 1 LU
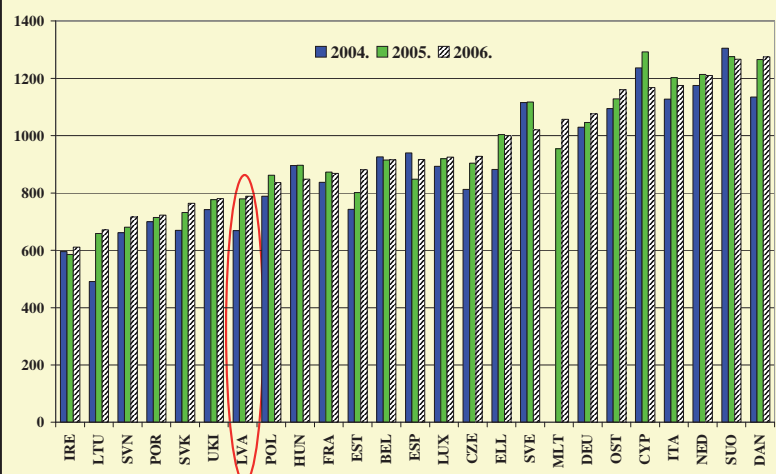
Rent paid (EUR/ha) and share of rented UAA: Baltic states 2003 – 2007
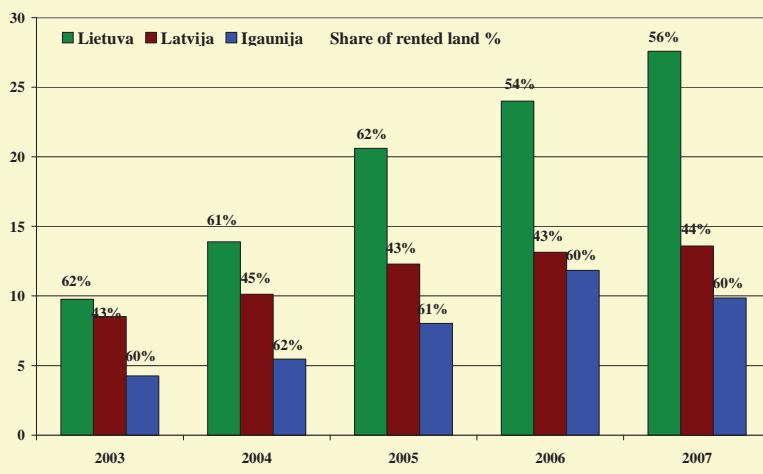
Rent paid (EUR/ha) and share of rented UAA: EU memberstates, 2004, 2006

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Labour costs:
Baltic states, 2003 – 2007, EUR per hour

Labour costs:
EU memberstates, 2004 – 2006, EUR per hour
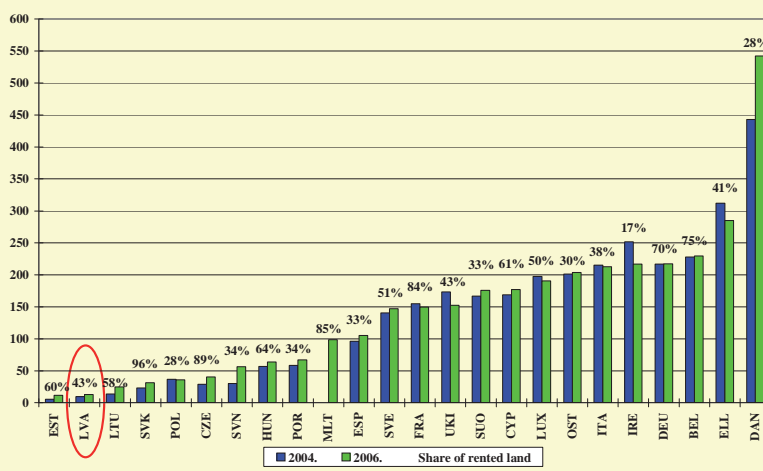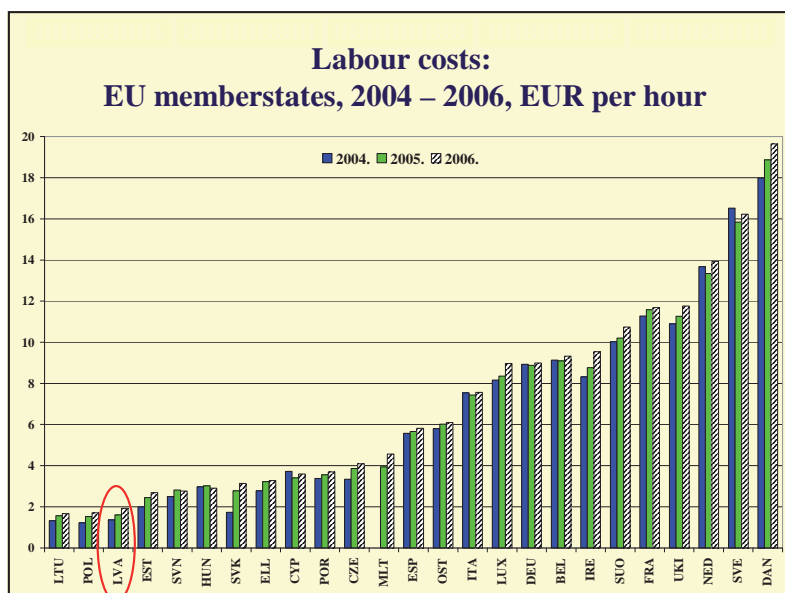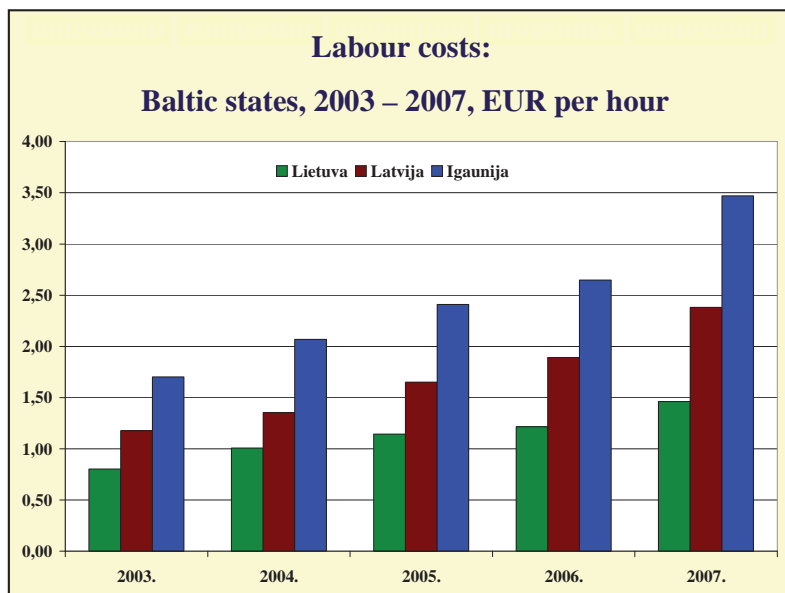
Financial leverage: Baltic states, 2003 – 2007
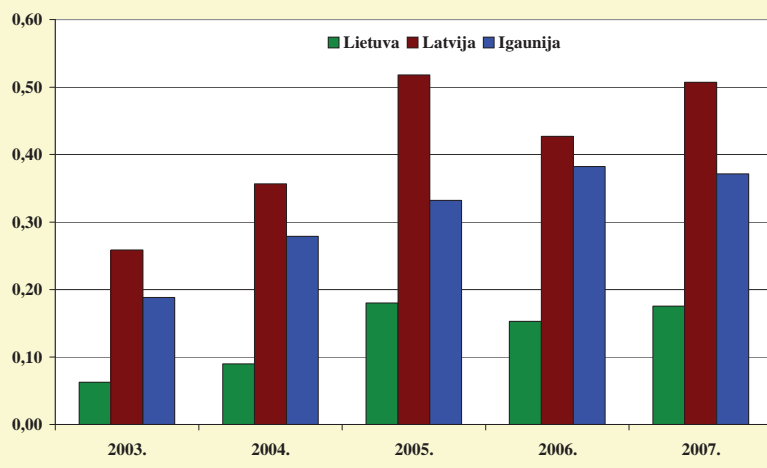
Financial leverage: EU memberstates, 2004 – 2006
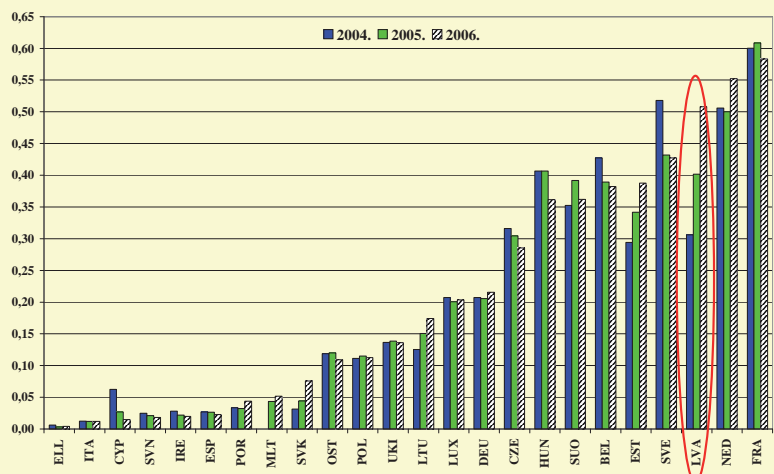
Gross investments and investment support:
Baltic states, 2003 – 2007, EUR

Gross investments - investment subsidies ■ Investment subsidies
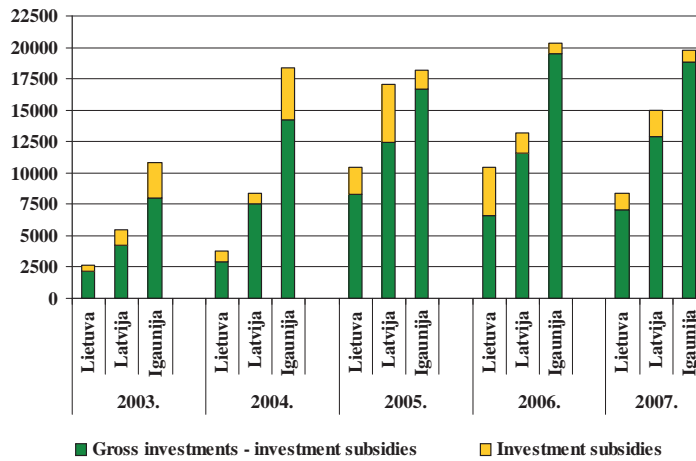
Share of investment subsidies in the gross investments:
EU memberstates, 2004 – 2006, %

2004. ■ 2005. 2006.
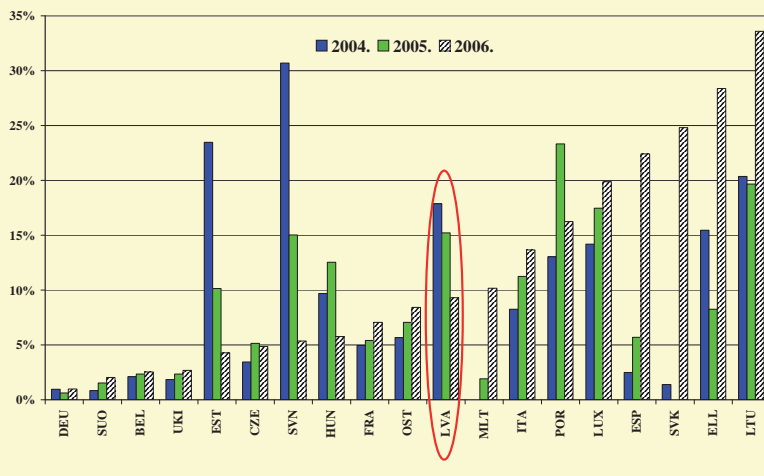
Thank you for attention!

Questions ...?

Arvydas Kuodys
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Lithuanian FADN before and after the EU accession

LITHUANIAN FADN BEFORE AND AFTER THE EU ACCESSION

Arvydas Kuodys and Rima Daunyte

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MAIN POINTS

- Structure of the Lithuanian farms;
- Economic indicators of Lithuanian farms in 2003 and 2007, comparison with the EU – 25;
- Farming types of the commercial farms;
- Farming results of the cereal and dairy family farms after the EU accession

STRUCTURE OF THE FARMS

- First Agricultural Census was held in 2003. Small mixed farms prevailed. Average family farm size was 8 ha, less than 30 thousand farms were above the FADN threshold 2 ESU;

- According to FSS 2007, there were 230 thousand farms; average farm size became 12.6 ha, ~ 40 thousand farms were above 2 ESU.

ECONOMIC INDICATORS OF THE FARMS, Euro

INDICATORS	Lithuania		EU-25	Comparison, %	
	2003	2007	2006	LT 2007 to LT 2003	LT 2007 to EU-2006
Economic size, ESU	6.1	8.2	33.2	134	25
Total output (TO)	17654	26994	63110	153	43
Total inputs (TI)	13494	19211	55382	142	35
Subsidies on production	1567	7153	11849	4.6 times	60
Subsidies on investment	469	1345	124	2.9 times	10.8 times
Gross Farm Income	8475	20360	38351	2.4 times	53
FNVA	6441	16766	29482	2.6 times	57
FNI	6196	16280	19701	2.6 times	83
FNVA/AWU	3270	8965	18199	2.7 times	49
FNI/FWU	3561	9807	15888	2.8 times	62
Total assets	43572	82506	309026	189	27
Total liabilities	2589	12316	45062	4.8 times	27
Net worth	40983	70190	263964	171	27
Productivity ratio TO/TI	1.31	1.41	1.14	108	124
Subsidies for production on FNI, %	25	44	60	176	73
Solvency (ratio of liabilities to assets), %	5.9	14.9	14.6	2.5 times	102

LITHUANIAN FARMS ABOVE 2 ESU GROUPED BY TYPE OR FARMING, FSS 2007

CODE	TYPE OF FARMING	NUMBER OF FARMS	%
13	**Specialist cereals**	**7380**	**18.7**
14	General field cropping	2560	6.5
20	Specialist horticulture	530	1.3
34	Various permanent crops combined	320	0.8
41	**Specialist dairying**	**8730**	**22.0**
42	Specialist cattle – rearing and fattening	70	0.2
43	Specialist cattle – dairying, rearing and fattening combined	2560	6.5
44	Sheep, goats and other grazing livestock	160	0.4
50	Specialist granivores	120	0.3
60	Mixed cropping	3730	9.4
71	Mixed livestock, mainly grazing livestock	4880	12.3
72	Mixed livestock, mainly granivores	160	0.4
81	**Field crops – grazing livestock combined**	**7860**	**19.9**
82	Various crops and livestock combined	510	1.3
	TOTAL	**39570**	**100**

LITHUANIAN CEREAL FARMS

Receipts of cereal farms per 1 ha UAA, Euro

Bar chart legend: ■ 2003 ■ 2007

	Average	<50 ha	50-100 ha	100-150 ha	>150 ha
2003	268	229	233	247	306
2007	453	308	376	433	533
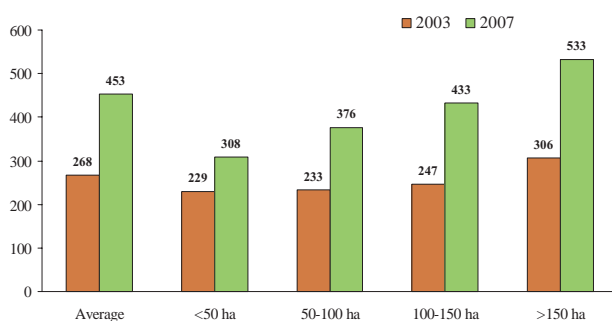
LITHUANIAN CEREAL FARMS

Farm Net Income per 1 ha UAA, Euro
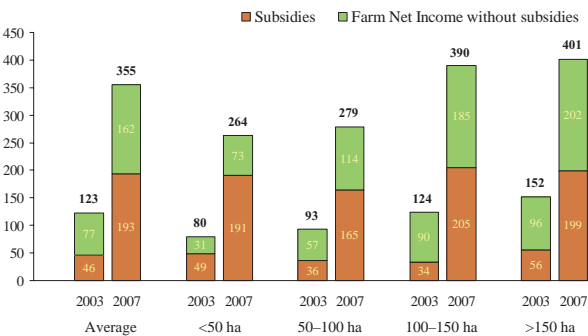
LITHUANIAN DAIRY FARMS

Receipts of dairy fams per cow, Euro
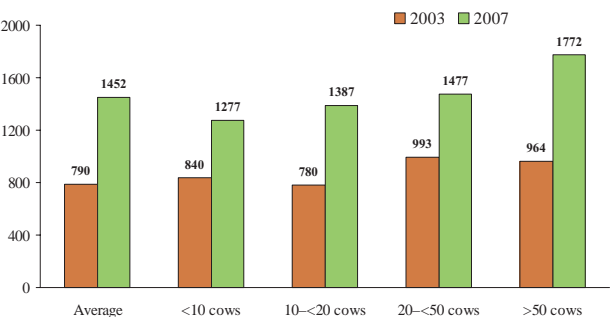
LITHUANIAN DAIRY FARMS

Farm Net Income per dairy cow, Euro
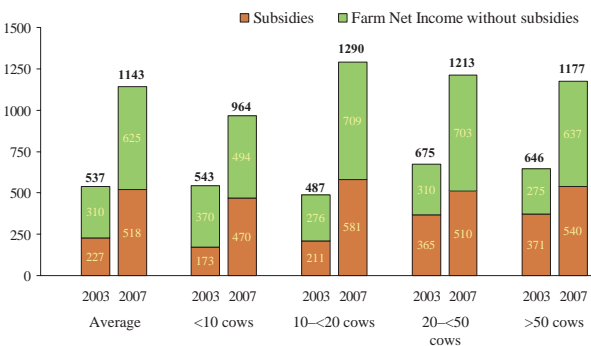
Thank you for your attention!

In case you have any questions,
please feel free to contact us by email:
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Slovenian agriculture 5 years after EU accession

Slovenian agriculture 5 years after EU accession

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Ministry of Agriculture, Forestry and Food of Republic of Slovenia

Abstract

1. Introduction

Slovenia is one of the smallest countries in the European Union. With area of 20,273 km^2 it is about 16 times smaller than Poland and 2,036,000 inhabitants is only a little more than the population of Warsaw. It is thus understandable that Slovenia is not a very important player on the global and the European agricultural market. If we add some natural disadvantages of Slovenian land we can realize that the Slovenian agricultural sector has many problems with competitiveness.

In this article we would like to show some positive and some negative consequences of the Slovenian accession to the EU in 2004.

2. Slovenian agriculture in last 5 years

Slovenia is a small country with many natural disadvantages. Figure 1 shows that approximately 75 % of Slovenian area is designated as Less Favored Areas (LFA). Vast part of LFA is mountain area. Only few areas are flat and suitable for intensive agriculture, but they have problems with shallow soil and decreasing quantities of rain due to climate change.

Figure 1. Less Favored Areas in Slovenia
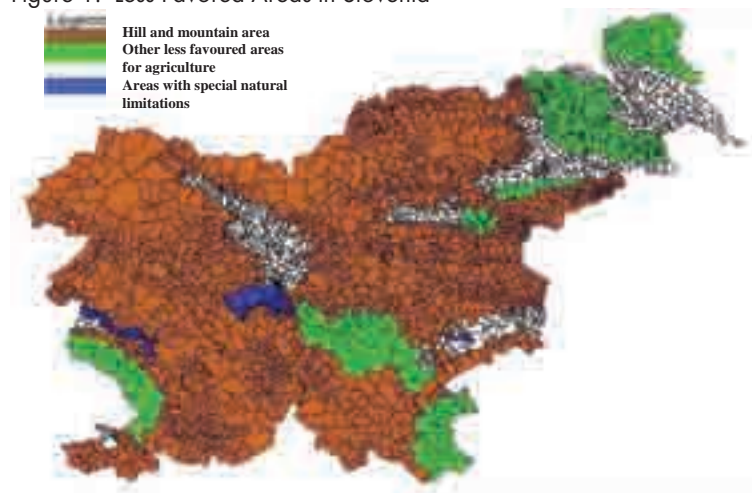
Source: Agricultural Advisory Service, 2009

The next disadvantage is that over 60 % of Slovenian territory is covered by forests and forestation continues, especially in the hilly regions on land that borders permanent forest. This disadvantage, however, also means an opportunity for Slovenian farmers since they can make some additional income from forests.

There are also some disadvantages in Slovenia, other than natural. Slovenian farms are very small and not rounded. In Figure 2 we can see that an average Slovenian farm has only 6.5 ha of Utilized Agricultural Area (UAA). In the FADN 2007 Standard Results, this number is higher, but with 11.27 ha it is still much smaller than the EU 27 average with 28.48 ha of UAA. If we have in mind that Slovenian farms are not rounded and that they are mostly located in LFA, which makes managing costs higher, we can imagine that Slovenian farmers have great problems with competitiveness.

Figure 2 shows that the number of small farms has not declined much in the last 5 years and that only 16 % of farms have more than 10 ha of UAA. We can realize that the situation is not so rough for the small farms and there are two probable reasons for this:

- Farmers that own small farms do not depend only on agricultural income as they make their living outside the farm and farming is a kind of "hobby".
- With higher EU subsidies farmers can still have enough income from agriculture to survive.

Figure 2. Number of agricultural holdings (AIS, 2009) in Slovenia

						Index (2000 = 100)					2007
	1997	2000	2003	2005	2007	1997	2000	2003	2005	2007	2005
No of farms (000)	90.8	86.5	77.1	77.2	75.3	105.0	100.0	89.2	89.3	87.1	-2.4
UAA (000 ha)	466.6	485.9	486.5	485.4	488.8	96.0	100.0	100.1	99.9	100.6	0.7
Average UAA per farm (ha)	5.1	5.6	6.3	6.3	6.5	91.4	100.0	112.2	111.9	115.5	3.1
Share of farms with >=10 ha	10%	13%	16%	15%	16%	74.9	100.0	123.7	118.0	122.5	3.8
Share of UAA on farms with >=10 ha	35%	42%	47%	48%	51%	82.6	100.0	112.8	114.5	121.4	6.0

Source: SORS (Farm structure survey)
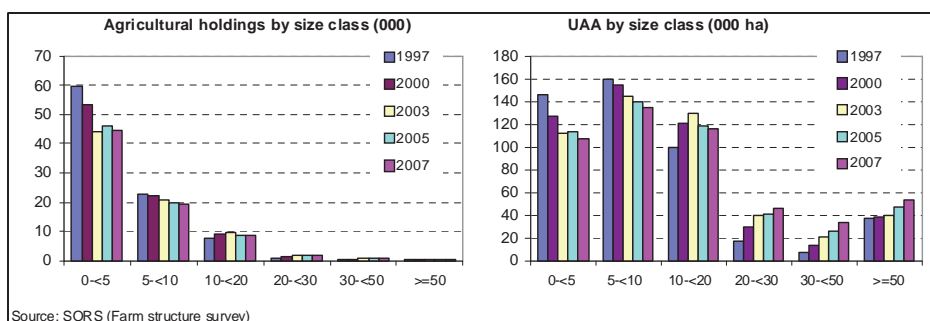
The use of arable land in Slovenia has not declined although there are some losses due to urbanization, highway building and forestation in some parts of Slovenia, index comparing years 2003 and 2007 amounts to 100.5. That probably means that because of decoupling of EU subsidies in 2007 farmers declared all possible land (rent and cleaning).

The number of livestock units in Slovenia is quite stabile. Figure 3 shows that there was a major decrease in the number of pigs due to the market situation in the EU and good prices for wheat and maize in 2007. The number of cattle has increased a little since 2007 and the

reason is that Slovenia kept special beef premium for bulls and steers coupled. Without this premium some farmers would be forced to stop fattening bulls because of the market situation. Figure 4 shows that the number of cows has remained at the same level, while the number of sheep and goats has increased significantly.

The Slovenian agricultural market has changed significantly due to the influence of the open EU market. Before the accession to the EU, Slovenia had had almost stabile negative trade balance of agricultural products. The majority of import and export had come from the countries of the former Yugoslavia and export there was well subsidized. Since Slovenia kept the market for the EU almost closed the access to the EU market was limited, too.

Figure 3. Number of livestock units in 000 (AIS, 2009)

Source: SORS
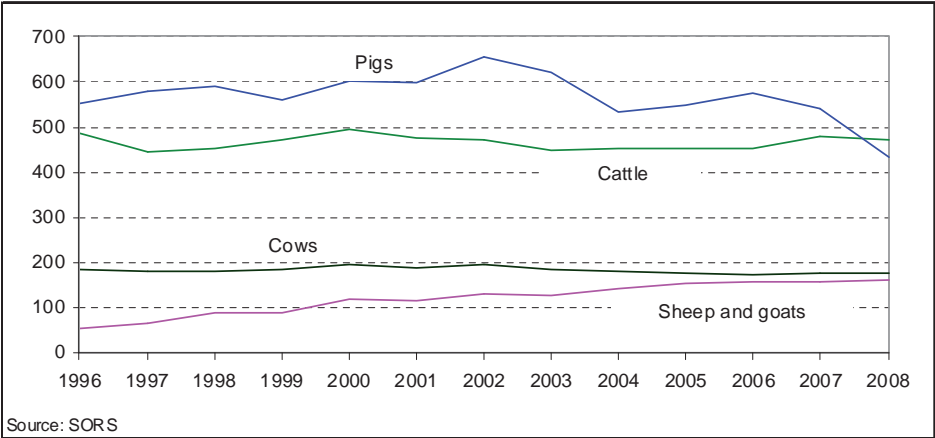
As shown in Figure 4, Slovenian export has doubled since 2004, but the same has happened to import, so negative trade balance of agricultural products has doubled as well. Slovenian self-sufficiency in agricultural products has decreased rapidly and is at the moment slightly above 60 %.

Figure 4. Slovenian agricultural products trade balance (mil. €)

Source: SORS, processed by AIS
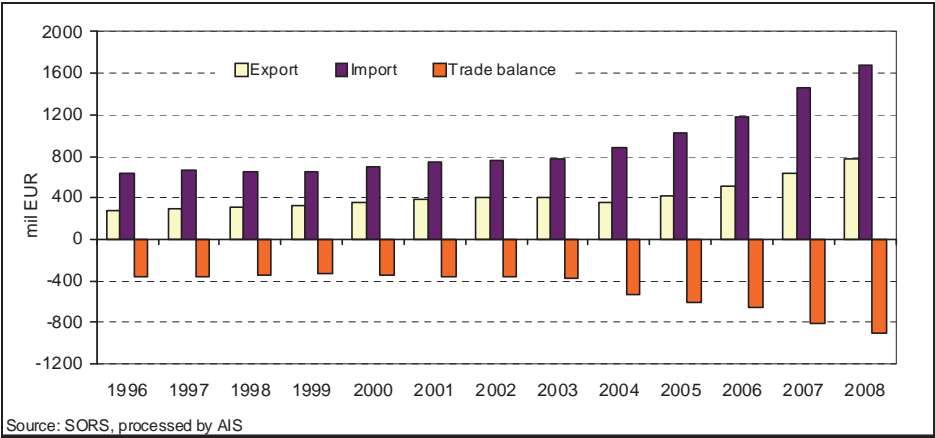
If we look at the Slovenian agricultural output price index in Figure 5 we can see that it was in constant decline from 1996 to 2004. Since 2005, it has increased every year and in 2008 it was by around 20 % higher than in 2004. Almost the entire increase was made by crop output prices when animal output prices increased only in year 2008. However, due to crisis in 2009 we can expect a very radical drop in the agricultural output price index. Prices of crop output have declined to 2007 level, the prices of animal output, for example milk and pork meet, have declined even more.

Figure 5. Slovenian agricultural output price index (deflated, 2000=100)

Source: SORS, calculated by AIS
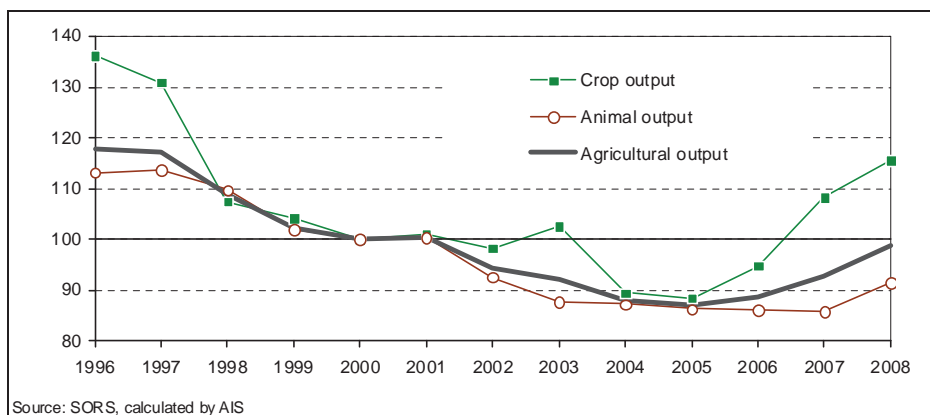
On the other hand, we can see in Figure 6 that the prices of input products have increased considerably in the last five years. Slovenia has widely opened the so called price scissors. Agricultural input prices have increased by over 20 % and terms of trade have dropped by 20 %.

Figure 6. Slovenian agricultural input price index (deflated) and terms of trade (2000=100)

Source: SORS, calculated by AIS
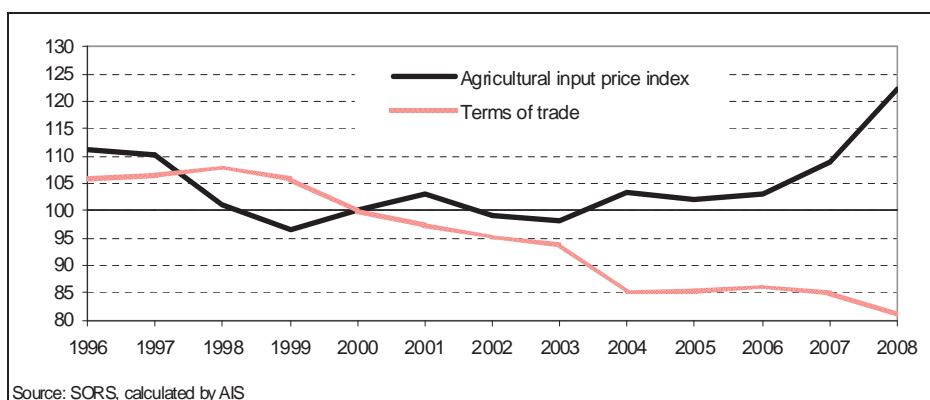
We should ask ourselves about the reason why so many farms continue their operation even under such difficult conditions. The answer is very simple – subsidies have increased significantly. Slovenia had implemented direct payments before the accession to the EU, so there was a possibility to do so even after the accession without having to use the single payment scheme (SPS) that other new member states were obligated to do. From 2007 on, Slovenia has a national envelope of €143 million for direct payments. These payments are partially still

coupled, but the majority has already been decoupled. If we add compensatory allowances under axis 2 of the Rural Development Program (LFA, agri-environment payments) we can see that farmers receive much more subsidies than before the EU accession. Since 2007, a new Rural Development Program 2007-2013 has been implemented, with more than €1 billion to spend in 7 years for rural development. Farmers have the possibility to use these funds for investments on farms to raise their competitiveness.

Figure 7. Slovenian budgetary expenditure for agriculture (mil. €)
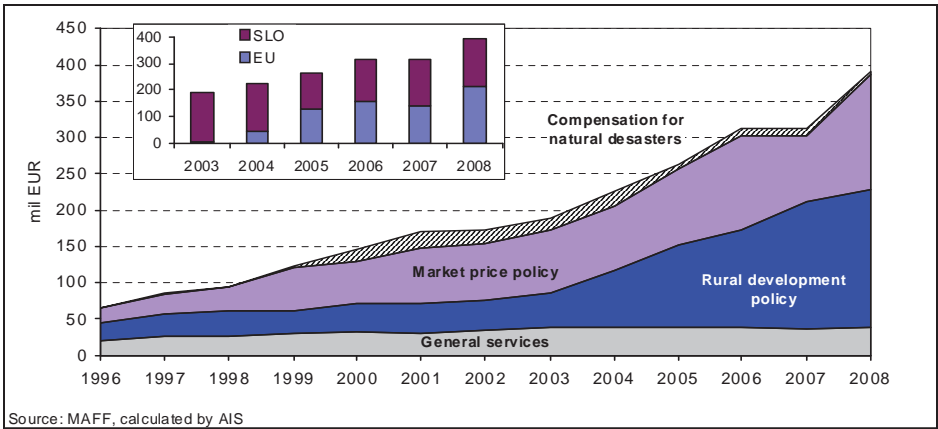
We know that it is difficult to place agricultural products on the European market, but there are obstacles on the Slovenian market as well. Strong concentration of retailers has taken place in Slovenia, so over 80 % of the market share is in the hands of three biggest retailers. Slovenia has lost almost all small local merchants. We can easily say "The customer is no longer king, the retailer is!" Since the accession, some new discount retailers have started to do their business in Slovenia, but they cannot get enough Slovenian food products because suppliers are afraid to loose their place in the three biggest retailers. Slovenian consumers are very price-oriented, so their loyalty for local food products is questionable.

Figure 8. Slovenian livestock output/LU and crop output/ha for 2006

Source: DG Agri EU FADN

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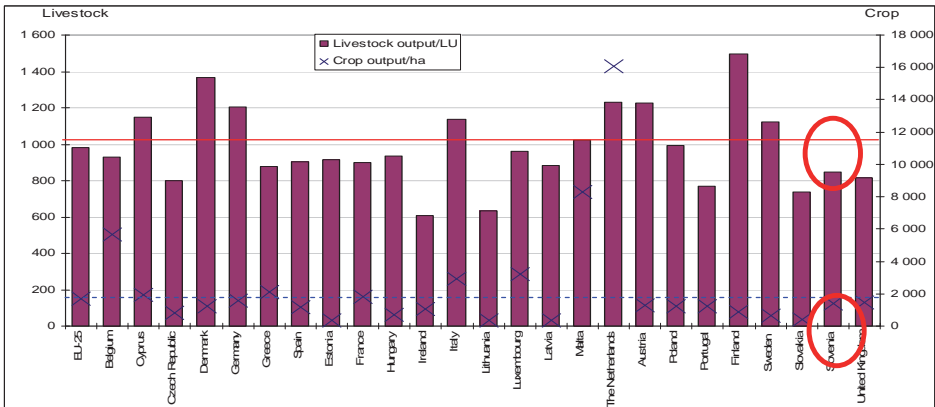
What can we say about Slovenian agriculture after we take a look into the FADN standard results? If we observe crop output/ha in Figure 8 we can see that Slovenia is not far (95 %) below the EU 25 average. In livestock output/LU, the difference is a little higher. For example, in milk production the Slovenian average of milk produced per cow is by approximately 1000 liters lower than the European average, which means 1/6 of the European average.

We get very different results if we observe the farm net value added (FNV) per annual working unit. In 2007, Slovenia was only in front of Bulgaria and Romania, which is very surprising if we know the situation of Slovenian agriculture.

Figure 9. Slovenian FNVA/AWU in 2007 (in €)

Source: DG Agri EU FADN
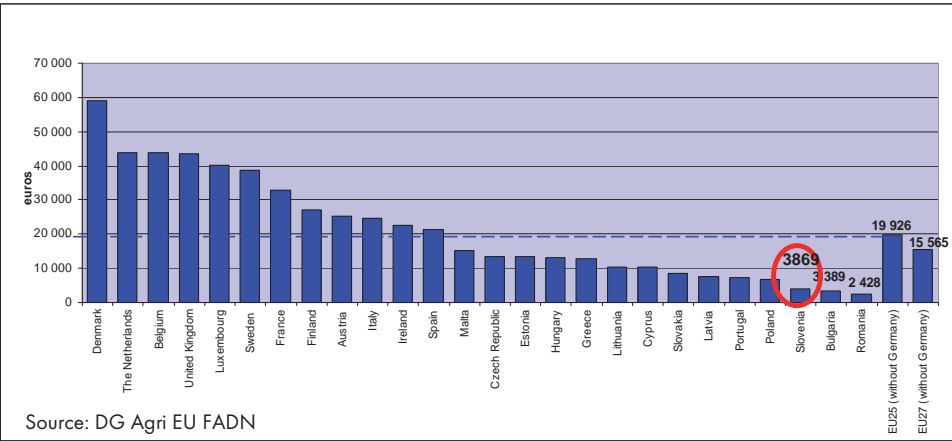
In 2007, FNVA/AWU in Slovenia increased by 63 % compared to 2006, but it is still only at the 2005 level. We believe that this data are not correct. The calculation of AWU is based on estimations made by farmers about their labor input. It is clear that farmers do not want to give the impression that they do not work enough. We can also blame the questionnaire for farmers, which asks just how many hours do they, their family and hired workers work on an average day.

Figure 10. Slovenian total UAA, total livestock units and total labor input (2006)

Source: DG Agri EU FADN

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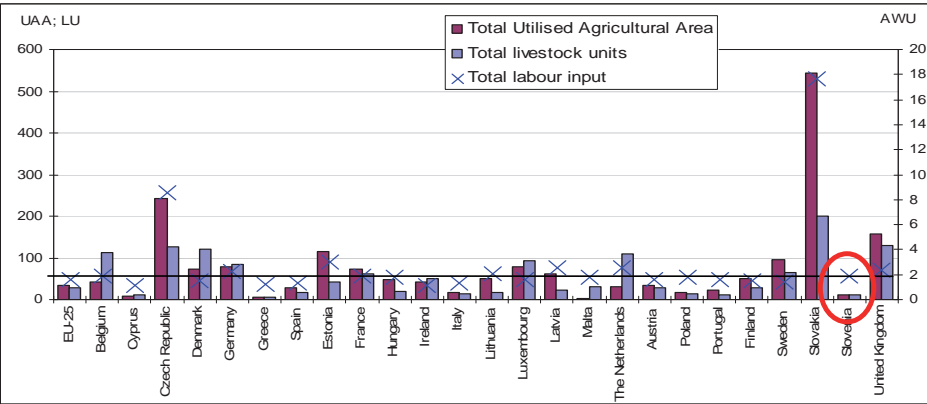
We can understand that this value should be a little higher than the EU 25 average, given the size and the structure of Slovenian farms. However, Figure 10 shows that for 25 % of the average total UAA and total livestock Slovenian farmers use 100 % of the average labor input. We believe that this figure is too high because of bad labor estimation made by farmers.

If we calculate the income per ha of UAA or the subsidies per ha of UAA we can see that Slovenia takes around 10th place in the EU. If we put these figures on AWU Slovenia is only in front of Bulgaria and Romania. Slovenia should improve the questionnaire for farmers in such a way that they will give more realistic figures on labor input.

There is very important information regarding Slovenian farmers that is not included in the questionnaire. Slovenian farms are one of the most solvent ones in EU 27.

Figure 11. Solvency of Slovenian farms – ratio between debts and total assets (2006)

Source: DG AGRI EU FADN
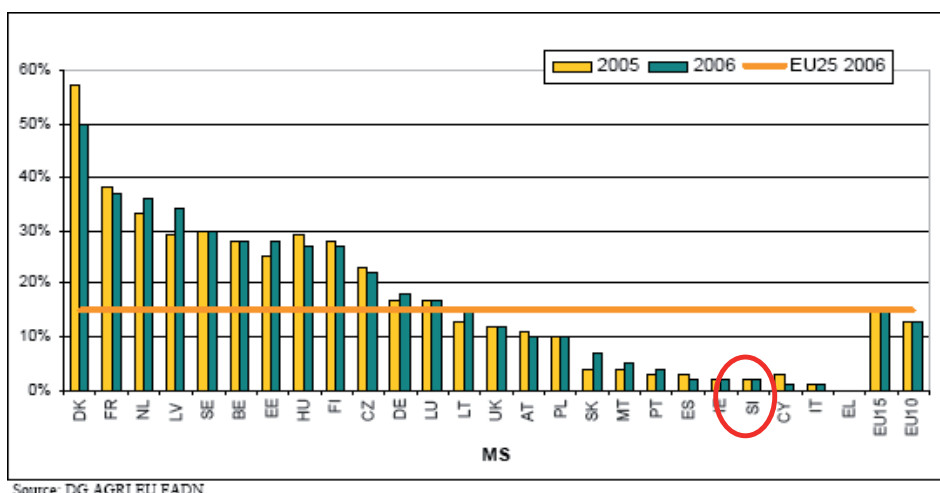
Figure 11 shows that the ratio between debts and total assets of Slovenian farms was 1.7 % in 2006 and in 2007 2 %. We can expect that the solvency of Slovenian farms will slightly decrease because of the Rural Development Program 2007-2013 measures. By applying for investment support under RDP 2007-2013 farmers must assure 60 % and more of own capital, for which they sometimes raise credits.

3. Conclusions

Slovenia has small, not rounded farms with more that 75 % of land located in LFA, so production costs are higher than in flat areas. This brings problems with competitiveness, so farmers are forced to make additional income in other gainful activities (OGA), such as forestry or agri-tourism, or outside the farm. That is why over 70 % of farms have at least one family member employed outside the farm.

Since the accession to the EU in 2004, there have been positive and negative consequences of the open European market for Slovenian agriculture. Productivity and export of agricultural products have increased, but so has import, thus the balance is even more negative. Costs have increased too, so the price scissors are wide open. This is compensated by increased subsidies, which means that farm income has not dropped but actually increased a little.

Subsidies represent almost 30 % of the total farm income and without them farmers would barely cover production costs.

According to FADN data, Slovenian farms are solvent. Hence, they do not have to carry the burden of high interests. This will change in the future since farmers are applying for investment support under RDP 2007-2013 and they have to co-finance the investments, so they sometimes raise bank loans.

FADN data showcase that on Slovenian farms almost 100 % labor input is done by family members, but there is a problem with farmers reporting very high quantity of labor input. If we only concentrated on FADN data we would think that Slovenian farms are low productive and that they are only better than Bulgarian and Romanian farms. But if we calculate the income, subsidies and NVA per ha we get quite different figures, which are in our opinion more realistic. We understand that there must be some extra labor input on Slovenian farms since they are not rounded and are located in LFA, but the difference between them and the EU average should not be that big.

We can say that Slovenian agriculture shares the same destiny as agriculture in other member states, but because of its smallness it is even more vulnerable. Now is the time to find its market niches and to encourage and use consumer loyalty. This would be easier to achieve if the concentration of retailers were not so strong. Talking about a solid production chain "from farm to forks" is just a worn-out phrase because the weakest link in this chain will always be used. Unfortunately, due to their poor organization farmers will always be the link that is used by others.

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Results of Hungarian agricultural holdings in an international comparison

Results of Hungarian agricultural holdings in an international comparison

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Abstract

1. Introduction

The income situation always stays to be a main agricultural policy objective. Therefore it is very important to find the best methodologies on member states level to gather this information efficiently and provide a reliable and objective data source.

The aim of this study is to briefly introduce the Hungarian FADN system and to show the results of Hungarian agricultural holdings in an international comparison.

2. The organisational structure of Hungarian FADN

The Hungarian FADN system was established with the aim to serve national information needs and the connection to the FADN system of the European Commission at the same time. The establishment was also prescribed by the 114th Act, in 1997, about the development of the Hungarian agriculture. At the moment of accession came into force the 13/2004 (I/31) Regulation of the Hungarian Ministry of Agriculture and Rural Development that was in line with the Act, laying down – amongst others – the composition of the Management Committee of the Hungarian FADN system.

The farms in the field of observation consist of individual and corporate farms above 2 European Size Units (ESU). Farms are chosen according to their size, type of farming and geographical location. Data collection – as well as book keeping and other accounting services for the individual farms – is done by data collecting organisations (Accountancy Offices (AOs)) which were selected by public procurement procedure. (In 2007 there were 7 Accountancy Offices). The conditions of data collection are laid down in written contracts between the AOs and the farms. The professional requirements of the Accountancy Offices' activities are defined in signed contracts between the AKI and the Accountancy Offices. Compliance to the requirements is checked on regular basis by the AKI.

The processed results are published annually by AKI in Hungarian and English. The main findings of the analysis – amongst others – will become a part of the minister's report to Parliament on the situation of agriculture.

The organisational structure of the system is shown in Figure 1.

Figure 1. Organisational structure of the Hungarian FADN
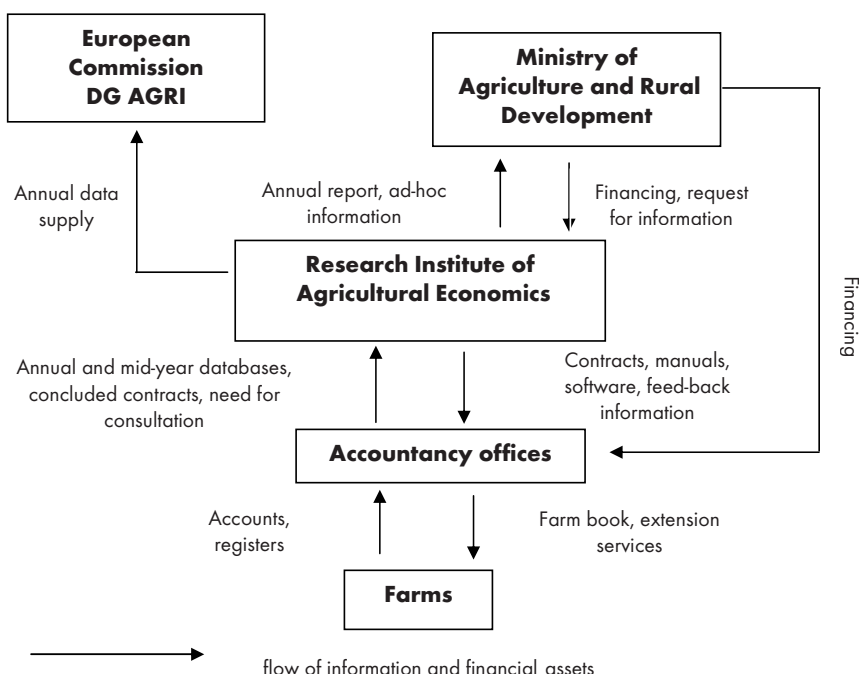
Data collection system includes the following organisations:

• European Commission's Agriculture Directorate-General, manages the activities in the framework of the uniform FADN, prepares general reports on the Union as a whole and uses data for other purposes (e.g. modelling);

• Ministry of Agriculture and Rural Development (Hungarian Abbreviation: FVM), takes up general supervision and financing;

• AKI, is responsible for continuous operation, central data processing, publishing and dissemination of information, development of the system and maintaining contacts with the European Union;

• Specially selected Accountancy Offices maintain direct contacts with farms and (in the majority of individual farms) do the book-keeping and compile the annual reports. At present 7 Accountancy Offices, selected in an open competition, belong to the system. These offices are also responsible for exploring and recruiting data supplying farms on the basis of the selection plan elaborated by AKI.

• Farms are the objects of observation. Selection is made according to four criteria (legal form, farm size, production type and geographic position). The survey only includes farms above 2 European Size Units.

Information flow between the different layers of the structure are characterised by the following:

The Ministry of Agriculture and Rural Development asks AKI for data and provides financial sources (FVM finances the activity of the Accountancy Offices as well). At the same time, AKI prepares the annual report and supplies information on ad-hoc demands.

In their comprehensive relationship AKI provides Accountancy Offices with contracts, professional documentation, instructions and software, while the offices provide farm data for AKI and require regular information and consultation.

Accountancy Offices provide farms with feed-back information on their own activity and the average figures of farms with similar capacities, which they can use for horizontal and vertical comparison. In addition, in exchange for the cooperation, Accountancy Offices offer extension and other services for farms (preparation of tax return sheets and applications, organisation of field trips for data suppliers etc.). On the other hand, farmers let the offices have their invoices and business records.

3. Results of Hungarian FADN farms on 2007 basis

Despite of the improving farm earnings the catching up of Hungary is slow. The difference of gross income per one hectare last year was 1.8 times in this year only 1.7 times. The results achieved during the harmonisation of the Hungarian Farm Accountancy Data Network with EU requirements allow the comparison of farms in Hungary and in the EU-15 and EU-25 in an identical system and according to similar indices. The comparison is complicated by the fact that EU indicators can be obtained only with 2 years delay, however as the order of magnitude does not change a lot from year to year thus we find the comparison still reasonable in every year. Table 1. includes the comparative indicators of Hungary and some other EU member states that are comparable to Hungary regarding the importance of agriculture in the national economy or the farm structure.

Table 1. Results in international comparison[1]

Countries Indicators	France	Italy	Austria	Poland	EU-15 average	EU-25 average	Hungary[2]
EUR/ha							
Gross production value	1 887,0	3 490,5	2 178,8	1 582,5	2 245,7	2 065,0	1 524,9
– Intermediate consumption	1 092,2	1 391,7	1 184,1	905,3	1 232,3	1 152,7	1 049,3
– Depreciation	312,2	388,5	444,8	209,1	280,6	260,7	157,0
+ Balance of current subsidies and taxes	331,9	362,3	654,2	207,6	358,3	331,3	255,8
= **Net value added**	814,4	2 072,5	1 204,1	675,7	1 091,2	982,9	574,3
– Costs of foreign sources [3]	312,7	415,0	163,8	90,0	342,2	305,7	281,6
from this: wages	129,0	324,3	44,7	63,0	178,8	166,1	188,6
+ Balance of investment subsidies and taxes	14,7	8,3	-64,0	- 14,7	-0,7	-0,2	13,5
= Farm income [4]	516,5	1 665,8	976,3	571,1	748,4	677,0	306,3
Gross farm income [5]	645,5	1 990,1	1 021,0	634,0	927,2	843,0	494,9
Gross farm income/AWU	26 137,7	23 725,5	21 568,6	6 296,6	22 363,1	18 070,3	13 587,9

Source: Own calculations based on the FADN Public Database (http://europa.eu.int/comm/agriculture/rica)
[1] Data for Hungary refers to 2008, for EU countries to 2007 (preliminary).
[2] 1 EUR = 251,25
[3] Labour costs, social and health insurance of paid labour, costs of land and building lease, paid interests

In Hungary the gross production value per one hectare is 73.8 percent, the intermediate consumption per hectare is 91.0 percent of the EU-25 average. Regarding cost efficiency in Hungary it takes 79 cents to produce 1 Euro production value while in the EU-25 it takes only 68. This has nothing to do with subsidies but rather results both from the relatively high input prices and the weak efficiency of the utilisation of inputs. On the area of cost efficiency Hungary is lagging behind at all farm types even in the case of arable crops deemed to be the most competitive sector.

Deducting intermediate consumption, depreciation (of which the value per one ha is only 59.3 percent of the EU average) and the balance of current subsidies and taxes from the gross production value will get the net value added. For Hungary this is 574.3 Euro/ha in contrast to the 982.9 Euro/ha average of the EU. One reason of the difference between the net values added is the different levels of subsidies after taxes. In Hungary this is only 72.2% of the EU-27's average.

Table 2 presents the figures of net value added according to farm type. In Hungary except for pig and poultry producers the value of the profitability indicator at all farm types is lower compared to the average of the EU-15.

Table 2. The net value added in Hungary and in the EU-15

Type of farming	Unit	EU-15*	Hungary*
Arable crop producers	EUR/ha	855,5	427,7
Horticultural farms	EUR/ha	15 766,5	2881,3
Vine producers	EUR/ha	3 376,9	1432,4
Fruit growers	EUR/ha	2 374,6	1967,6
Milk producers	EUR/l.u.	847,1	719,5
Grazing livestock producers	EUR/ l.u.	482,2	336,1
Mixed farms	EUR/ha	759,4	519,2
Total	**EUR/ha**	**1 091,2**	**574,3**

Source: Own calculations based on the FADN Public Database (http://europa.eu.int/comm/agriculture/rica) .
*Data in case on Hungary refer to 2008, in case of EU-15 to 2007.

Data in Table 3. shows that what percentage of the total UAA and the livestock herd are those Hungarian farms possess which have reached the profitability level of the EU-15. Profitability in this case – similarly to the previous table – is indicated by the net value added per one ha or per one livestock unit.

Table 3. The share of Hungarian farms – reaching the profitability of EU-15
– from the production of the given type of farming

Type of farming	Number of farms	UAA	Livestock
Arable crop producers	8,7%	7,7%	-
Vine producers	4,3%	8,8%	-
Fruit growers	5,6%	12,4%	-
Milk producers	11,6%	-	27,3%
Mixed farms	7,69%	21,13%	18,04%

Only 8-10 percent of arable land is utilized at the profitability level of the EU-15 while in the case of animal husbandry this share is around 20-25 percent.

Due to property and labour law differences the indicator of farm income is not suitable for comparison between Hungary and the other EU Member States. (Hungarian wages per ha are at the same level as the EU wages only because in Hungary corporate farms employ solely paid workforce of which the paid salaries will increase the value of the indicator. In contrast to that in most of the EU Member States family labour is dominant for which salary is not paid.) Reality is much more reflected in the indicator of gross farm income that shows a 1.7 times difference in favour of te EU. Figure 2. shows that despite of growing agricultural incomes catching up is taking place slowly.

Taking the productivity of labour it is worth to mention that in Hungary one full-time agricultural employee on average produces 15,768 EUR value added. The average of the EU-25 in contrast to that is 21,067 EUR while the average of the EU-15 (26,320 EUR) is 1.7 times higher of the Hungarian value.

Although on the areas of productivity and profitability lagging behind of Hungary is decreasing year by year compared to the countries of the EU-15, the constantly low level of investments however gives rise to concern. Table 4. presents the level of investments since 2004 to 2007 according to type of farming.

Excluding fruit growers the sum of gross investments at all farm types is lower compared to the average of the EU-15. What is more Hungarian farms during the four years' period invested less than the similar Polish farms. It is even more surprising knowing that in Hungarian investment subsidies per ha were higher compared to Poland or to the EU-15.

Figure 2. Change of the gross farm income per annual work unit (AWU)
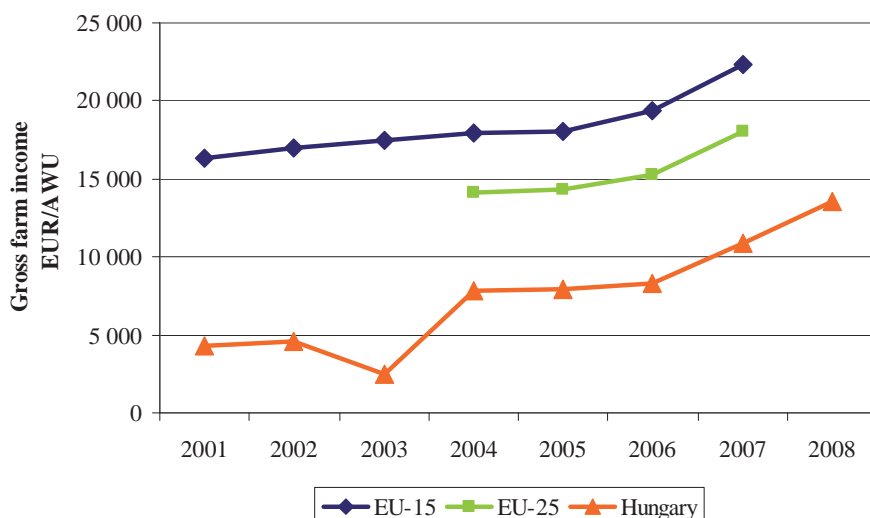
Table 4. Aggregated investments and investment subsidies (2004-2007) per hectare and livestock unit

Type of farming	Unit	Gross investments			Investment subsidies		
		Hungary	Poland	EU-15	Hungary	Poland	EU-15
Arable crop producers	EUR/ha	449	545	708	43	8	15
Horticultural farms	EUR/ha	936	10 544	13 779	16	23	213
Vine producers	EUR/ha	1 925	-	2 102	59	-	170
Fruit growers	EUR/ha	2 010	2 875	838	133	23	48
Milk producers	EUR/lu.	676	1 015	1 343	51	19	44
Grazing livestock producers	EUR/lu	409	2 869	544	13	15	39
Granivore livestock producers	EUR/lu	80	402	317	17	6	6
Mixed farms	EUR/ha	345	500	1 101	43	11	36
Total	**EUR/ha**	**506**	**897**	**1 079**	**45**	**12**	**39**

Low levels of investments are especially conspicuous at the livestock producer and the horticultural farms. In the case of arable crop growers – due to their investments into machinery – lagging behind is not so big. The reason for the moderate motivation for investing is not the poor investment support system but rather the not so favourable economic environment. Interest rates and taxes are high as well as the cooperation between the different players of the

production chain is poor. At many farms there is a negative spiral: lack of investments lead to low technological level that will result in low profitability. Due to low profitability farms either will not be eligible for loans or only at high interest rates and indemnity.

4. Summary

The income of Hungarian agricultural holdings increased significantly after the EU accession. However income convergence to the old member states is not significant. Studying the latest results in a European Union (EU-25) context it can be concluded that income of Hungarian farms reached only the 58,7% of the average.

In conclusion we can also state that the Hungarian agriculture could not take the advantage of EU membership in comparison with other new member states.

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Economic condition of agricultural holdings in Poland after 2004

Economic condition of agricultural holdings in Poland after 2004

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Abstract

1. Introduction

The description of the condition of agricultural holdings in Poland was based on data from the panel of 7202 private agricultural holdings carrying out accountancy for Polish FADN in 2004-2008.

The results reflect the condition of holdings differing in their production orientation and economic size expressed in European Size Unit (ESU).

Classification of agricultural holdings in every year of the analysed period was performed according to the Community Typology of Agricultural Holdings with the use of SGM parameters.

The analysis of the results was based on the average results calculated as arithmetic means for a specified set. There is a significant difference between the structure of holdings included in the panel and the structure of statistically representative sample of agricultural holdings. For instance, the average economic size of an agricultural holding in the panel calculated as an arithmetic mean was 19.2 ESU and 29.4 ha, and weighted average calculated using weights for individual strata of the representative sample was 9.8 ESU and 15.9 ha.

Since it was impossible to use the appropriate weights for the panel as it is used for the sample, the averages from the entire panel of agricultural holdings were not included in the analysis. Instead, to demonstrate situation in the entire sector of agricultural holdings over the analysed five years, data from other sources were used (such as economic accounts for agriculture prepared according to Eurostat methodology by a team headed by Z. Floriańczyk, PhD).

When Poland became a Member State of the European Union, the principles of the Common Agricultural Policy (CAP) started to be applied to the agricultural sector. Implementing selected mechanisms of CAP resulted in a tenfold increase in non-market financial support paid to agricultural holdings. While in 2003 the amount of direct payments granted to agricultural holdings was PLN 0.8 billion, in 2004 the support amounted to almost PLN 8 billion.

Figure 1. Subsidies and taxes in the Polish agricultural holdings sector 2003-2008 (PLN mln)
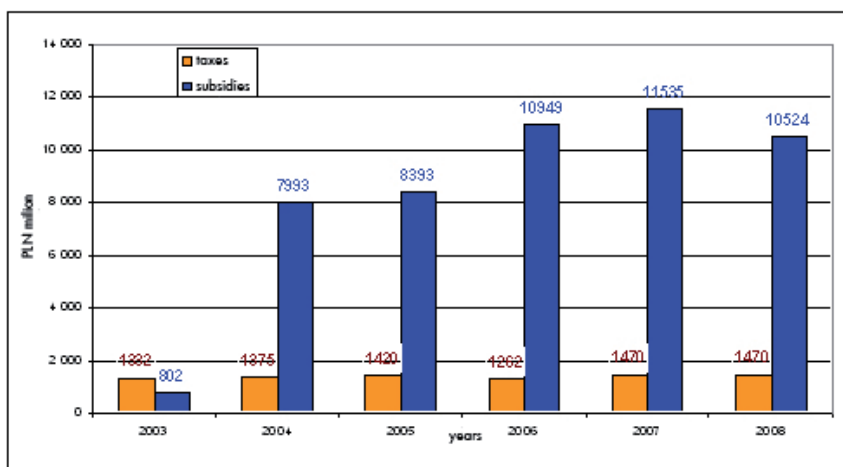
The significant increase in the amount of direct payments granted to agricultural holdings with no major change in their taxation changed the direction of transfer of value added between the agricultural sector and other branches of national economy as compared to the pre-accession situation. The direction is reflected in the amount of the balance between subsidies and taxes paid by agricultural holdings. In 2003 the amount of paid taxes was higher than the amount of received subsidies by over PLN 0.5 billion, and in 2004 the amount of received subsidies was higher than the amount of paid taxes by PLN 6.6 billion.

Figure 2. Subsidies and taxes balance and income of agricultural holdings sector in Poland in 2003-2008 (PLN mln)
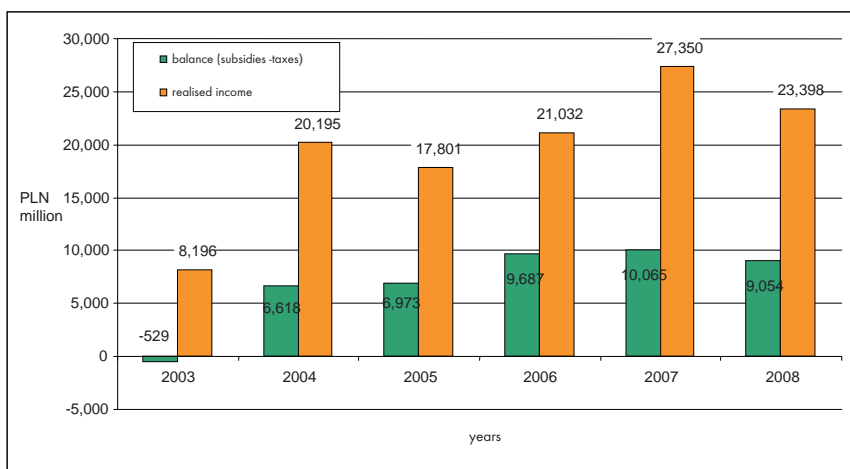
In the last five years of Poland's membership in the European Union subsidies granted through non-market channels played important role in producing the income of holdings.

As a result, the absolute and relative improvement of farmers' income occurred as compared to 2003, mainly because of the significant increase in the amount of received subsidies at that time. It should be taken into consideration that, according to J. Zegar, it was as late as in 2007 when Polish farmers recovered the agricultural holdings' income level they had in 1995.[1] In the pre-accession period farmers' income was devastated to a significant extent.

2. Economic results of applying the principles of Common Agricultural Policy to Polish agricultural holdings

Results of macro-economic accounts for agriculture and public statistical data on remuneration in the national economy were used to assess the significance of applying the CAP mechanisms to agricultural holdings.

While assessing the relative change in farmers' income in the analysed period, the nominal value of the average income from family farm per one full-time employed person was compared to the average net remuneration in the national economy.

The above comparison demonstrated that in the year preceding Poland's accession to the EU the value of farmers' income amounted to 24.2% of the average net remuneration. In the year of accession to the EU the ratio increased to 56.2%. It was the result of applying the mechanisms of CAP to Polish agricultural holdings since the share of direct payments in the income amounted to 9% and 39% respectively at that time. In 2008, a relative reduction in income became visible. The share of direct payments increased to 45%, in spite of the absolute decrease in their value in the income.

Table 1. Selected parameters of incomes and subsidies in Polish agriculture in 2003-2008

Specification	Unit	Year					
		2003	2004	2005	2006	2007	2008
The average net remuneration in the national economy	PLN	17,622	18,325	19,060	19,840	21,570	23,330
Income per one full-time employed person	PLN	4,259	10,290	8,252	9,984	12,690	10,609
Income's relation to the average remuneration	%	24.2	56.2	43.3	50.3	58.8	45.5
Subsidies per one full-time employed person	PLN	402	4,009	3,882	5,198	5,352	4,772
Subsidies' share in income	%	9.4	39.0	47.0	52.1	42.2	45.0

Source: Author's own calculations according to economic accounts for agriculture – EAA.

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[1] J.S. Zegar: Dochody w rolnictwie w okresie transformacji i integracji europejskiej. Warsaw 2008.

3. Economic conditions for the agricultural holdings' sector

The analysis of changes in prices of materials and services bought and products sold by farmers shows that in the five years of EU membership situation on the markets was not favourable to farmers.

Figure 3. Indicators of changes in prices on agricultural markets in 2005-2008 (the previous year = 100%)
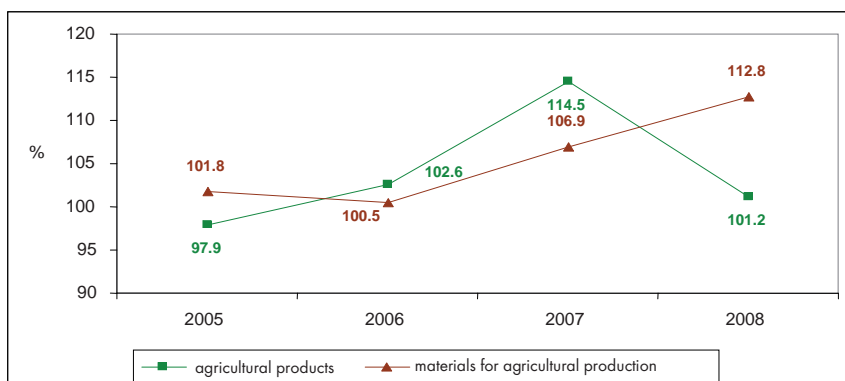
Source: CSO data.

In the analysed period, 2004-2008, prices of materials for agricultural production were increasing compared to preceding years. The highest price index (12.8%) was observed in 2008. Prices of agricultural products were more volatile than prices of materials. A drop to 97.9% in their prices was noted in 2005, and the highest price index (14.5%) in 2007.

Macro-economic accounts for agriculture data show that in 2004-2008 the growth in the value of intermediate consumption and depreciation related to changes in prices was higher than the total growth in value of intermediate consumption. Therefore, the ratio between the growth of value resulting from changes in prices to total growth in value of intermediate consumption and depreciation was 103.6 to 100. This means that the increase in costs in Polish agriculture amounting to PLN 12.4 billion at that time was entirely the result of the increase in prices of materials since the decrease in production quantity by PLN 0.4 billion was observed.

Table 2. Impact of changes in prices on the growth in value of intermediate consumption and depreciation in the Polish agricultural sector in 2004-2008

Period	Total growth	Growth relating to quantity	Growth relating to price
	PLN million		
2004-2005	-450	-188	-262
2005-2006	993	-1,362	2,355
2006-2007	7,594	811	6,783
2007-2008	4,221	296	3,925
Total	12,358	-443	12,801
Growth relating to price in %			**103.6**

Source: Author's own calculations according to economic accounts for agriculture in 2004-2008.

In the analysed period clear fluctuations of prices of products sold by farmers were observed. The conducted analysis of macro-economic accounts for agriculture shows that change in prices of agricultural products had a 92.2% share in the total growth in value of the Polish agricultural production in 2004-2008. This means that the growth in value of the Polish agriculture production, amounting to PLN 15.9 billion at that time, was in 92.2% caused by the increase in prices of agricultural products. (As only a PLN 1.2 billion increase in production quantity was observed in that period.)

Table 3. Impact of changes in prices on the growth in value of production in the Polish agricultural sector in 2004-2008

Period	Total growth	Growth relating to quantity	Growth relating to price
2004-2005	-473	-1,924	1,451
2005-2006	2,027	-1,135	3,162
2006-2007	13,851	3,882	10,028
2007-2008	539	477	61
Total	15,944	1,241	14,703
Growth relating to price in %			**92.2**

Source: See Table 2.

Having outlined the economic conditions for the agricultural holdings' sector, the analysis of the economic results of agricultural holdings with a particular focus on the meaning of the support given by CAP programmes was conducted.

The empirical basis for the analysis was constituted by results of the panel with 7202 private agricultural holdings. Agricultural holdings within the research panel continuously carried out accountancy for Polish FADN in 2004-2008

In order to group agricultural holdings according to the agricultural type and class of economic quantity, the abovementioned set of holdings was classified according to the Community Typology of Agricultural Holdings with application of SGM "2004" parameter.

The economic results calculated on the basis of accountancy data are presented in current prices. Because of the dynamic change in market prices of materials and services bought and prices of agricultural products sold by farmers, direct comparison of the results from individual years of the analysed period may lead to drawing wrong conclusions. To omit the impact of changes in prices on the assessment of economic activity in a given period, data concerning the production value and costs were expressed in prices from the first year of the analysed period.

Figure 4. Development of prices on Polish agricultural markets in 2004-2008 (2004=100)
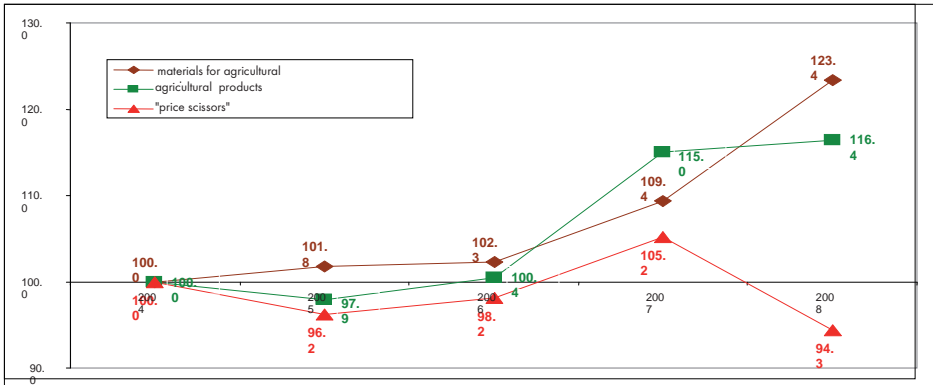
Source: Author's own calculations according to CSO data.

In the analysed period of 2004-2008 prices of materials and services increased by 23.4% and prices of agricultural products increased by 16.4%. Only in 2007 the agricultural products price index was higher than materials price index as compared to 2004. It was the result of the high increase of cereal prices on the global market caused by large speculative investments in 2007 which resulted in perturbation on the global cereal market[2].

Figure 5. Change in the value of agricultural holding's production according to types of farming (TF8) in 2008 as compared to 2004 (in %)
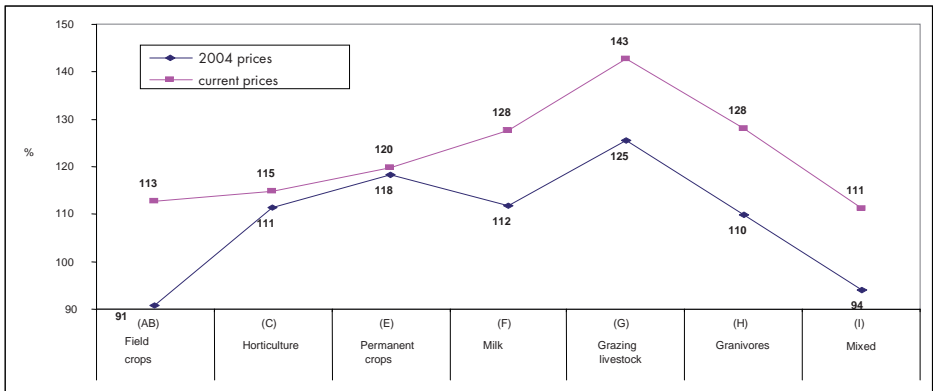
Source: Author's own calculation according to Polish FADN data.

In 2008 the growth in value of production in all types of farming as compared to 2004 was observed. The highest growth of 43% was noted in holdings specialised in farming grazing livestock, other than dairy cows. In this group the highest 25% growth of value expressed in constant prices was observed in 2004. This means that this group of holdings also increased the quantity of production in that period. In this group, the growth in value of production was in 39.4% caused by the change of prices and in 60.5% by changes in production volume. One of

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[2] In 2007 the average cereal purchase price in Poland amounted to PLN 800 and was higher by 40% as compared to 2006. In 2008 price of this product decreased to 80% of the 2007 price. The average milk purchase price, however, amounted to PLN 1.19 in 2007 and was 30% higher as compared to 2006.

the lowest indicators of growth in production value expressed in current prices (only holdings of mixed production profile showed a lower growth) was noted in holdings specialised in field crops. Measurement of changes in value of production expressed in constant prices indicated that only in this one group of specialised holdings the decrease in production volume was noted. In this case the growth in value of production was fully caused by the change of prices. Second type, out of seven distinguished types of farms that also noted a decrease in production expressed in constant prices in 2008, was a group of mixed holdings.

Figure 6. Change in agricultural holding's production costs according to types of farming (TF8) in 2008 as compared to 2004 (in %)
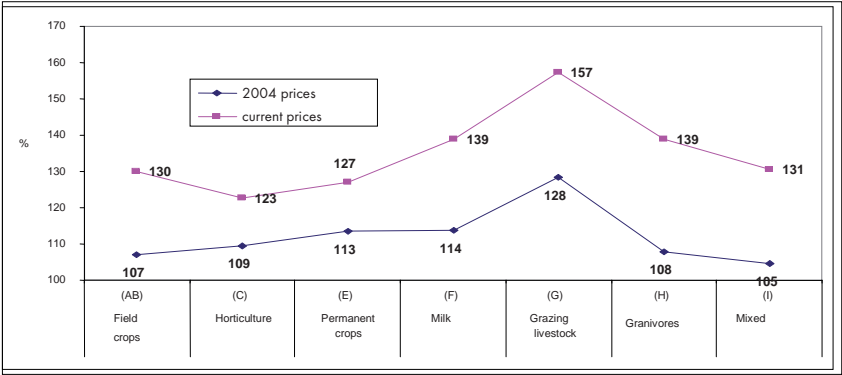
Source: See Figure 5.

In the last year of the analysed period the increase in production costs was noted compared to 2004 in all types of agricultural holdings. The highest increase of 67% was observed in holdings specialised in farming grazing livestock, other than dairy cows. In this group the highest 28% growth in value expressed in constant prices was observed in 2004. This means that this type of farms also increased the quantity of production in that period. In this group of agricultural holdings, the increase in production costs was in 58.2% caused by the growth of prices and in 41.8% by the increase in production volume. One of the lowest indicators of the increase in production costs expressed in current prices was noted in holdings specialised in horticulture. It can be stated that remarkably lower indicators of the increase in production costs were noted in holdings specialised in plant products.

The result of the performed economic activity in that period was economic surplus – the difference between value of production together with financial support, and incurred costs of agricultural holding's operational activity. The category of income from family farm per one full-time employed person, whose input of work was not paid, was used for the needs of the analysis. The used category is the resulting value left for the agricultural holding to pay all of its own production factors in a specified accounting year.

This income category calculated on the basis of accountancy data is presented in current prices.

Because of the inflation, i.e. loss of the purchasing power of money in time, direct comparison of the results from individual years of the analysed period may lead to drawing wrong conclusions.

Figure 7. The cumulative effect of inflation in 2004-2008 (2004=100)
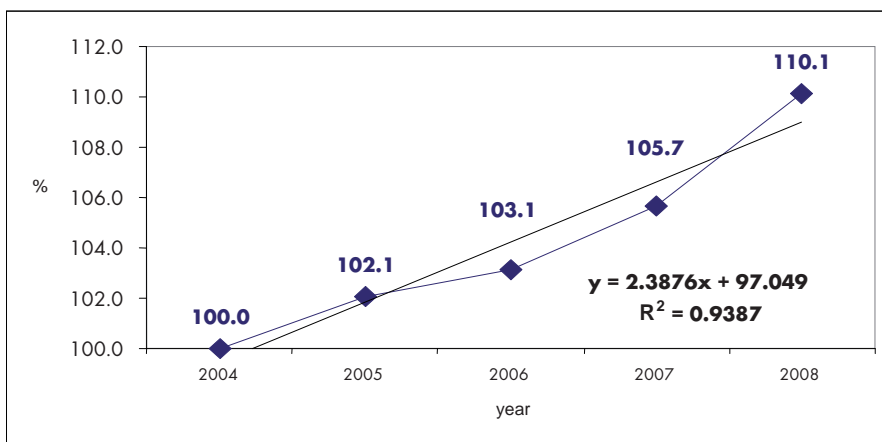
In the analysed period of 2004-2008 the zloty's real value decreased by 10.1%. This means that the purchasing power of income acquired by farmers in 2008 was 10.1% lower than of the respective income acquired in 2004. Inflation was systematically growing and zloty's purchasing power was approx. 2.4% lower each year, according to the straight trend line.

Having counted the value of income with the use of deflationary indicator created on the basis of inflation indicators, the author of Figure 8 presented changes of current and real values of income in 2008 provided by various types of agricultural holdings as compared to the first year of the analysed period.

The results indicate that in all types of agricultural holdings the increase in income value expressed in current prices per one full-time employed person was noted. The highest indicator of income increase in 2004 (62%) was noted in holdings specialised in farming pastured animals, other than dairy cows, whereas the lowest one (6%) was noted in holdings specialised in horticulture.

However, after converting income value into real value, the increase proved to be lower by 10-13 pp than the increase expressed in current prices. Moreover, the income value expressed in real prices decreased in holdings specialised in crops as compared to 2004.

Figure 8. Changes of income value from family farm per one full-time employed person, according to TF8 in 2008 as compared to 2004 (in %)
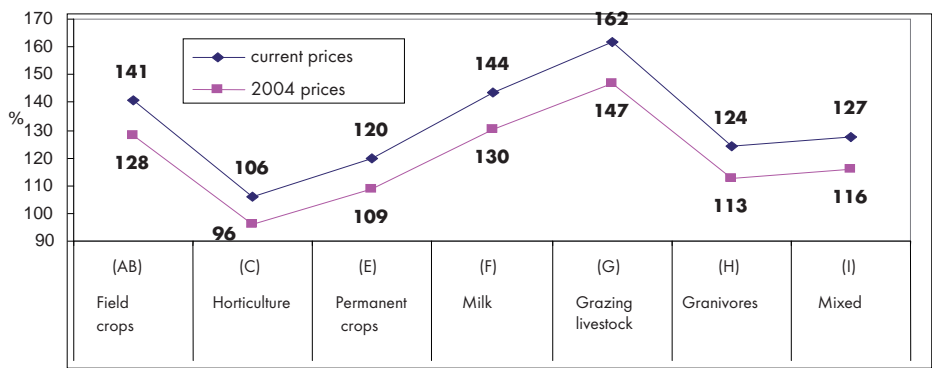
Faster pace of increase in production costs, in comparison to value of production, had no direct influence on income gained in particular types of farming. Since the non-market financial support can be obtained, income is influenced not only by the surpluses from market operations but also by subsidies for running a holding and by some part of investment subsidies granted under Common Agricultural Policy. The analysis of share of subsidies for running a holding in producing income from family farm indicates that the granted subsidies were of the greatest importance in the last year of the analysed period. The degree of income dependence on subsidies is diverse in holdings of various production orientations. The biggest share of subsidies granted for running a holding is observed in holdings specialised in field crops and in mixed production holdings. Income of holdings specialised in horticulture, however, was to a smallest degree dependent on the subsidies.

Figure 9. Share of the direct payments in producing income from family farm, according to types of farming (TF8) in 2004-2008
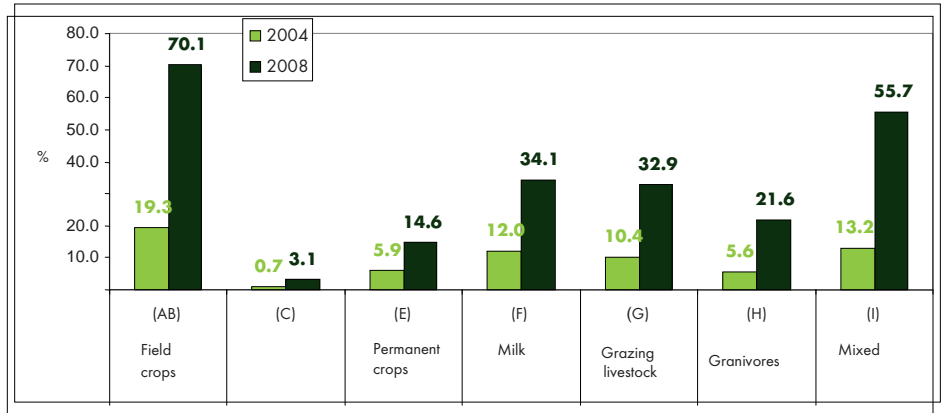
The analysis of income level and subsidies' share indicates that the smaller the income per unit of the utilised agricultural area, the more important the subsidies are. For instance,

in 2008 holdings specialised in field crops and holdings specialised in horticulture gained income per 1 ha of arable land amounting to PLN 1,144 and PLN 19,082 respectively. The source of the basic part of subsidies for operational activity in Poland (SAP, AAP, LFA) is the utilised agricultural area.

4. Summary

According to the analysis of Polish FADN data concerning the last five years, the lowering level of farmers' income with simultaneous growth of the role of direct payments in producing the income is observed under Common Agricultural Policy. In many cases certain amount of subsidies is used for balancing income with production costs. This is the result of maintaining significantly higher pace of the increase in prices of materials in comparison with the increase in prices of agricultural products.

However, subsidies are not the main method for increasing income in the Polish sector of agricultural holdings. Activities resulting in increasing work efficiency are. This type of activity is also suggested by the European Commission. Its farm income forecast for 2007-2015 indicates that the real income per one full-time employed person will increase by 49.8% in 12 countries that joined the European Union after 2004 on condition that the employment drops by 23.7% in this period (on average 3.5% yearly).[3] While preparing the forecast, the European Commission considered the amount of funds granted to the Member States for restructuring of agriculture.

This signifies the employment reduction by 512 thousand full-time employed persons (from 2,162 thousand to 1,650 thousand) within eight years (until 2015) in Poland. In view of these requirements, the following question arises – are such changes possible under present structural conditions?

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[3] Prospects for agricultural markets and income 2008-2015. European Commission, Directorate-General for Agriculture and Rural Development. March 2009. http://ec.europa.eu/agriculture/publi/caprep/prospects2008/index_en.htm

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Agricultural holdings in northern Poland after its accession to the EU

Agricultural holdings in northern Poland after its accession to the EU

Zachodniopomorski Uniwersytet Technologiczny w Szczecinie

Prof. Grażyna Karmowska **Pułtusk 2009**

ZACHODNIO-POMORSKIE

Area: 2 289,2 ha thousand
Utilized Agricultural Area: 44,77%

POMORSKIE

Area: 1 829,3 ha thousand
Utilized Agricultural Area: 47,19%

WARMIŃSKO-MAZURSKIE

Area: 2 417,3 ha thousand
Utilized Agricultural Area: 45,56%

PUŁTUSK 2009

- In the past, similarly to the present large area agriculture, the majority of public sector's agriculture based on hired labour was concentrated in the rural areas of western and northern Poland.

PUŁTUSK 2009

Structure of agriculture in Zachodniopomorskie Voivodeship

Structure	years			
	2002	2004	2005	2006
Utilized Agricultural Area [ha]	1 111 018	1 081 746	1 032 574	1 024 794
Agricultural holdings in total [pcs.]	71 032	68 785	65 145	59 149
Including: individual farms [pcs.]	70 614	68 304	64 696	58 726
Agricultural production per 1 ha of agricultural land [PLN]:	2 367	2 644	2 615	2 368
- global	1 799	2 093	1 920	1 849
- final	1 681	1 796	1 953	1 776
- marketable				
Share of commercial production in the final agricultural production [%]	93,4	85,8	101,7	96,1
Structure of marketable agricultural production [%]:				
- crop	51,6	55,9	50,9	46,5
- livestock	48,4	44,1	49,1	53,5

PUŁTUSK

Structure of agriculture in Pomorskie Voivodeship

Structure	years			
	2002	2004	2005	2006
Utilized Agricultural Area [ha]	869,6	810,4	778,7	785,3
Agricultural holdings in total [pcs.]	76 722	72 152	70 596	62 520
Including: individual farms [pcs.]	76 412	71 412	70 254	62 283
Agricultural production per 1 ha of agricultural land [PLN]: - global - final - marketable	2 411 1 627 1 513	3 095 2 381 2 110	2 878 2 232 2 151	3 000 2 321 2 230
Share of marketable production in the final agricultural production [%]	62,75	68,17	74,74	74,33
Structure of marketable agricultural production [%]: - crop - livestock	42,7 57,3	53,0 47,0	50,8 49,6	50,4 49,6

POMORSKIE VOIVODESHIP

2004 2005 2006

	Average value of holding's working capital	Gross investments	Net investments	Cash flow I	Cash flow II
2004	471,86	32,25	8,79	70,08	39,16
2005	481,86	41,02	16,73	79,88	45,64
2006	491,85	49,79	24,68	89,68	52,13

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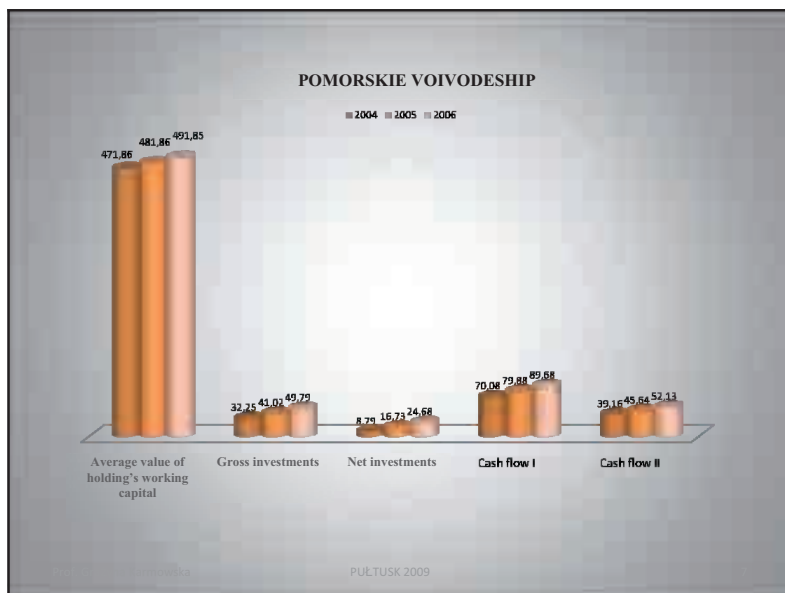
Structure of agriculture in Warmińsko-Mazurskie Voivodeship

Structure	years			
	2002	2004	2005	2006
Utilized Agricultural Area [ha]	1 303 424	1 120 567	1 078 146	1 101 189
Agricultural holdings in total [pcs.]	80 573	77 947	71 206	67 670
Including: individual farms [pcs.]	80 297	77 704	70 965	67 452
Agricultural production per 1 ha of agricultural land [PLN]: - global - final - marketable	2 723 2 148 2 056	3 026 2 299 2 101	3 149 2 473 2 331	3 052 2 465 2 332
Share of marketable production in the final agricultural production [%]	95,7	91,4	94,3	94,6
Structure of marketable agricultural production [%]: - crop - livestock	25,0 75,0	27,8 72,2	23,0 77,0	22,7 77,3

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Financial indicators in 2005 [PLN thousand]

warmińsko-mazurskie   pomorskie   zachodnio-pomorskie

Financial indicators in 2006 [PLN thousand]

Polska   warmińsko-mazurskie   pomorskie   zachodnio-pomorskie
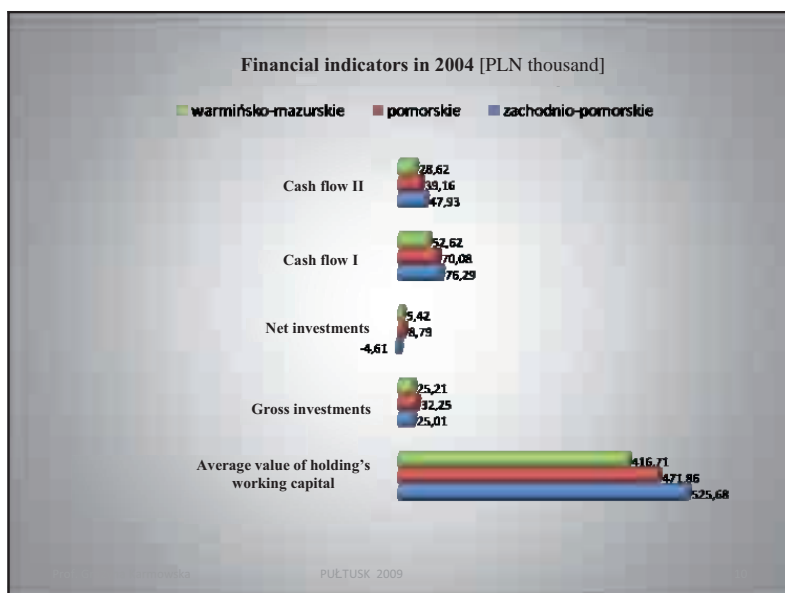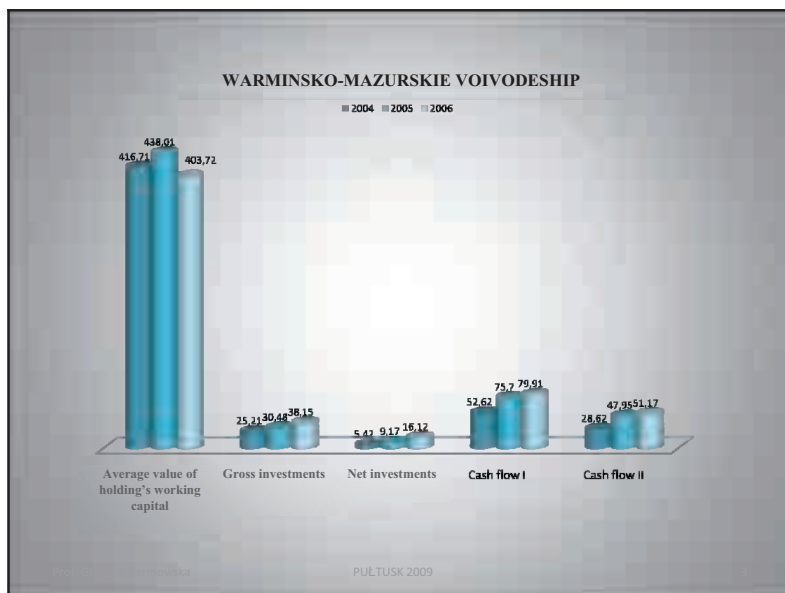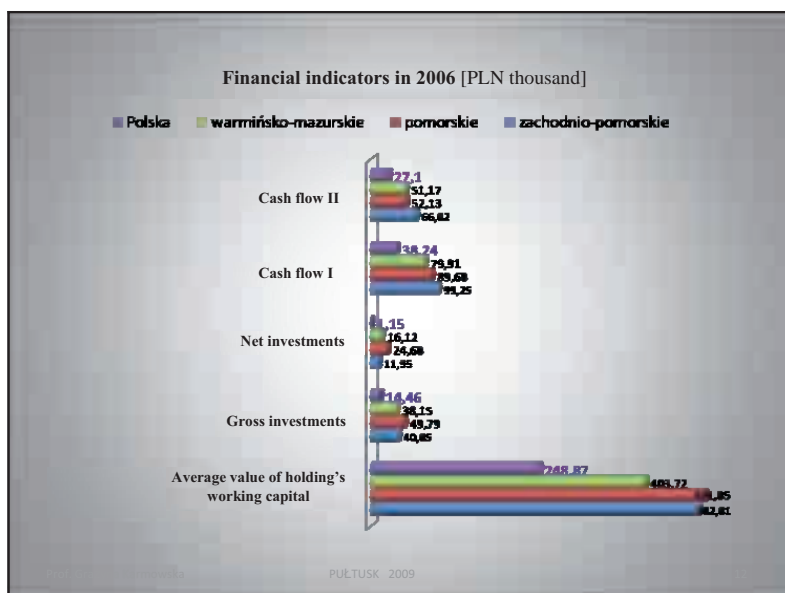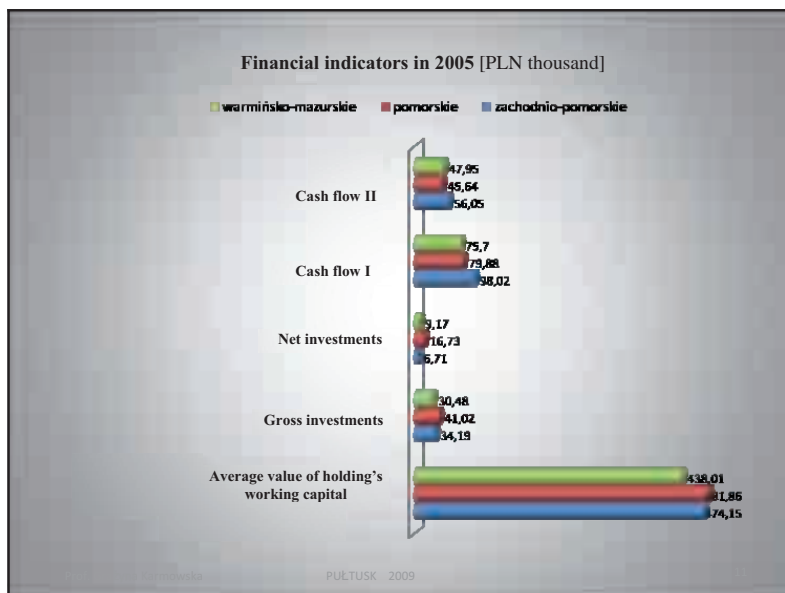
The use of payments under SAPARD Programme

Voivodeship	PLN thousand			%		
	2004	2005	2006	2004	2005	2006
ZACHODNIO-POMORSKIE	3 605	1 412	5 959	0,92	1,36	1,05
POMORSKIE	18 518	5 224	28 173	4,71	5,02	4,98
WARMIŃSKO-MAZURSKIE	11 497	3 384	17 059	2,92	3,25	3,01
POLAND	393 577	104 078	565 920	100	100	100

Source: Own calculations based on data from the Ministry of Agriculture and Rural Development

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ECONOMIC SIZE OF HOLDINGS, ESU

Voivodeship	total	Number of holdings		
		< 8 ESU	8-40 ESU	> 40 ESU
ZACHODNIO-POMORSKIE	54 086	45 275	7 764	1 049
POMORSKIE	57 422	46 906	9 509	1 008
WARMIŃSKO-MAZURSKIE	64 859	50 555	12 935	1 370
POLAND	2 390 956	2 145 609	226 632	18 716

Source: Own calculations based on data from GUS 2007

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Standard Gross Margin (SGM)

Voivodeship	total	EUR thousand		
		< 8 ESU	8-40 ESU	> 40 ESU
ZACHODNIO-POMORSKIE	491 550	78 401	137 452	275 697
POMORSKIE	452 774	100 721	178 824	173 229
WARMIŃSKO-MAZURSKIE	538 207	98 821	256 927	182 459
POLAND	10 407 351	3 674 451	4 242 439	2 490 460

Source: Own calculations based on data from GUS 2007

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EFFICIENCY INDICATORS

- **total labour input** - total value of production per 1 hour of total labour input
- **Utilized Agricultural Area** - total value of production per 1 ha of agricultural land

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Efficiency indicators 2004-2006

Efficiency indicators	2006			
	zachodnio-pomorskie	pomorskie	warmińsko-mazurskie	POLAND
Total labour input [PLN/1h]	44,6	44,6	36,5	37,0
Utilized Agricultural Area [PLN/1ha]	2 832,40	4 241,2	3 324,5	5 512,2
	2005			
	zachodnio-pomorskie	pomorskie	warmińsko-mazurskie	POLAND
Total labour input [PLN/1h]	43,8	44,0	41,1	20,7
Agricultural land [PLN/1ha]	3 064,4	4 263,20	3 997,40	4 762,4
	2004			
	zachodnio-pomorskie	pomorskie	warmińsko-mazurskie	POLAND
Total labour input [PLN/1h]	53,5	46,7	41,2	22,4
Agricultural land [PLN/1ha]	3 524,2	4618	4 182,0	5 412,3

PUŁTUSK   2009

Thank you for your attention

Discussion

After the speeches, many conference participants took part in a discussion.

Professor Wojciech Józwiak, President of the Scientific Council of the Institute of Agricultural and Food Economics – National Research Institute, took the floor in the discussion first. He has pointed out the possibilities of using FADN data and shared his doubts, taking into consideration the comparability of acquired results. When putting a question to Josef Hanibal from the Czech Republic, he pointed out that the comparison of companies to individual farms is unjustified since a part of costs incurred by companies represents the payroll fund, and this item does not exist in the case of individual farms. He also pointed out that Josef Hanibal had compared average sizes, and it should be kept in mind that there is fragmented structure of agriculture in Poland, as opposed to the Czech Republic, which features farms of large size. Professor Józwiak posed a question whether subsidies for farmers should be assessed positively or negatively when considering survey resulting of the French INRA institute in Rennes that has found out that subsidies make French farmers lazier and do not compel growth in effectiveness – the farmers begin to make irrational decisions. The professor has expressed his concerns that it might be similar in Poland. The professor has put a question to Ms Valda Bratka about the labour cost per 1 hour, and he asked her to define it in detail whether it is labour cost in a farm or labour cost in the national economy that is at issue. A question to Mr Tomaž Cör from Slovenia was posed as well, whom was asked by the professor to specify what he meant by saying that the subsidy rate amounted to 30%; whether he meant income or revenue. Wojciech Józwiak has also asked a question to Lech Goraj about the forecast of income until 2015. He asked about explanations whether it was developed prior to or after the outbreak of the global economic crisis. Which method was used in this forecast; whether it was taken into account what might affect the global agriculture, including the Polish one as well, due to the crisis. In the opinion of the professor, the crisis will last at least until 2013, so it is almost the entire period covered by this forecast, which is not a reason for optimism in his view.

When answering the first question, Josef Hanibal said that indicators calculated in a "special" way, which are supposed to eliminate the methodical difference, are used for the purpose of comparing companies to individual farms in the Czech Republic. He agreed that the burden of labour cost in companies and other legal entities exerts huge influence on the level of income. However, the problem in individual farms consists in the method of valuation of unpaid farmer's labour, and thus it was decided to use such indicators. He also added that in his presentation he used the data that are official FADN data calculated per average farm in the Czech Republic and in Poland. He stressed that analyses should be continued by making comparisons of farms of the same type. Josef Hanibal answered the question about subsidies by saying that Czech farmers regard subsidies as necessary and that, in the case of abolition thereof, it should be Austria, Germany or France to withdraw from it first.

A question to Josef Hanibal was also put by Roman Chmielewski from the Ministry of Regional Development, the member of the National FADN Committee and it was a question about the results in classification by region. He asked whether, just like in Poland, there are also such huge differences between particular regions in the Czech Republic. In reply he confirmed they are. As emphasised by the answering persons, the location of a farm is important, but its area matters as well. In the case of an area of 50 ha, the subsidies received by a farmer assure income that is sufficient for the entire family.

Szilárd Keszthelyi, took the floor too, and he admitted that similar problems can be found also in Hungary therefore he would like to inform about the method applied in Hungary that is used for the purpose of comparing company-like farms and individual farms. It consists in calculating fees and remuneration in agricultural enterprises in comparison to what is earned by individual farmers. Due to that it is possible to compare the two sectors. He also emphasised that very important research had been conducted by the Hungarian institute in the previous year which indicated that 54% of the total subsidy for agriculture is transferred to other sectors.

Tomaž Cör pointed out that subsidies in Slovenia constitute ca. 30% of income of farms. This support is very important, in particular in a situation when the crops are cultivated on hill sides and the work is carried out primarily manually. Because of that reason, the results achieved by farmers are much worse, but it does not result from their laziness or incorrect organisation, but from the conditions in which they run their farms.

On the basis of results of the research on milk, Roman Sass, Director of the Agricultural Advisory Centre in Minikowo, concluded that EU Member States located in the northern Europe incurred higher costs, but at the same time they received higher subsidies whereas in the southern Europe, production costs and subsidies were lower. It would serve a particular purpose to verify whether this correlation is durable and whether it persists for a long period of time.

Referring to the previous voices in the discussion, Lech Goraj, pointed out the importance of methodical assumptions in the process of conducting research and drafting the results. Many problems are still not resolved, e.g. the method of farmer's labour valuation. Besides, along with the change of principles of Common Agricultural Policy, the expectations of the European Commission against the Member States change too, and this often entails the necessity of registering additional information and adjustment to the methodical assumptions. He emphasised that they should meet in a smaller group to improve and develop the methods or to supplement certain information, just like the colleagues from the DG AGRI Commission do, and all the comments from such meeting are all the more valuable, especially because the data base is comparable.

In reference to the analyses at the EU level, Sophie Helaine took the floor. She concluded that such countries as Spain and Greece in fact incur much lower costs than e.g. the Scandinavian countries. The outlays in the north are larger, but it is related to the scale of production which is much larger than in southern Europe. In the south there are more perennial crops whereas in the north it is the production of milk and cereals that is much more intense. Therefore it is difficult to directly compare what is produced by countries. One should be careful as far as the issues of effectiveness are concerned since they constitute only a part of the picture. It is also important at which level the results are compared. For instance Denmark is ranked first in terms of the added value calculated according to production factor costs (together with the balance of subsidies and taxes) whereas if we consider the profitability of farms then the Danish ones are in very bad condition.

In response to the question by Wojciech Józwiak about the labour cost, Valda Bratka from Latvia said that her entire presentation was based on FADN data from Latvia, Lithuania or Estonia, or average European data, and she only made a reference to farms.

In his answer to the asked question, Lech Goraj, emphasised that the forecast had been developed by the European Commission, as a Commission product, whereas he was only the one to pass that information so that others could find that forecast and analyse it.

Ms Zdzisława Dziduch, the Coordinator in the Agricultural Advisory Centre of the Świętokrzyskie Voivodeship in Modliszewice, concluded that, in her opinion, subsidies in Poland do not make farmers lazier, quite on contrary – they caused that farmers began to cultivate land, farms have developed, various investments were initiated, e.g. the ones that are related to environmental protection. She also talked about difficult situation of many farms.

She suggested that the gathered data and research results be used for the generation of forecasts to a greater extent.

Lech Goraj made a reference to the discussion that takes place in Poland recently about immoral behaviour of farmers that have been using cereal grain for heating purposes. The cereal price represents 1/3 or 1/4 of the coal price. He criticised various authorities getting involved in this discussion and suggesting that burning of grain is a sin (burning of bread). According to him this type of an approach means ordering a farmer around, especially because, on the other hand, a question arises whether making of "booze" (from grain as well) is moral. In his opinion, the farmers have learned to count when they noticed that cereal costs PLN 200 and coal PLN 700 per ton, and they decided to heat by burning cereal instead of transferring their income to other sections. And this is a reason to congratulate them.

Wojciech Józwiak pointed out again that research on the influence of subsidies for innovativeness of actions taken by farmers is a French research (INRA) and not his own, and thus they should not be disregarded. He again made a reference to comparability of presented data indicating that results achieved by farms of the same economic size or belonging to the same agricultural type should be compared. Making comparisons of results of average farms for particular countries is encumbered with too high an error. He also had some comments concerning the question asked by Roman Sass about effectiveness and changes in effectiveness. Referring to this problem, he stressed that Zbigniew Floriańczyk analysed the issues concerning the effectiveness and changes in effectiveness of management, technical management and financial effectiveness by means of Mankwist indices on the basis of economic accounts for agriculture. And he may apply to have these materials made available. He pointed out that this research indicated that an increase in the effectiveness of management in the Polish agriculture was not impressive at all when considering the 10 countries that joined the EU in 2004. Poland is ranked seventh among 10 countries. Such analyses are drawn up with the use of "quite solid method and using a quite solid basis of empirical materials". The professor has also concluded that the results of analyses that were carried out using the data of the Polish FADN indicate that farms of economic size above 16 ESU are competitive in relation to other countries, and the only problem consists in the fact that there are very little such farms. Smaller farms – with regard to the economic size thereof – do not fully restore the used up assets and do not stand a chance for survival in a longer perspective. Production costs in these farms are very high, they frequently highly surpass the revenue, and these farms function only because own labour cost is very low.

Lech Goraj touched upon the problem of agricultural structure in Poland which causes that farms of economic size above 100 ESU amount to barely 0.11%, and the ones below 2 ESU – 68.02%.

The Director of the Agricultural Advisory Centre of the Pomorskie Voivodeship – Aldona Łoś pointed out that farmers make up about 30% of the society, a part of them have been farmer families for generations, yet sometimes it is physicians or teachers that become farmers, which results in the change of the cultivation method. Profitability of production is a problem. The costs are often high, but we have very good food that needs no advertisement. The quality of products should become our advantage.

Lech Goraj has concluded that it is the field of operation of agricultural organisations. He posed a question: Why are various restrictions and standards that have to be met by production imposed on the European farmers, and there are imported agricultural products from outside the EU produced with no imposed restrictions that have to be fulfilled by the European farmers?

Zdzisław Kamiński, Deputy Director of the Agricultural Advisory Centre of the Warmińsko-Mazurskie Voivodeship, Branch Office in Oleck, emphasised how important the role of advisors is, their knowledge on data collection on the basis of which all the analyses discussed at our conference are carried out afterwards. He also pointed out how important the subsidies are for Poles. The farmers that receive them invest a lot, farms develop, the equipment is comparable to that of the Old EU-15, and sometimes even better. He pointed out that accounting results are used in a too small scope on the "macro" scale. At the same time they are very important and useful for the development and efficient functioning of particular farms, this concerns e.g. co-operation with banks. By putting forward his proposal to the representative of the European Commission – Sophie Helaine, he also postulated that the empiric material that is being gathered in the FADN system should not be extended any more.

In her reply Sophie Helaine claimed that it is not possible since Common Agricultural Policy is being smoothly modified and it is necessary to use various forms of microeconomic data to be able to answer the new questions. Additionally, new challenges emerge that concern new fields of operation, as well as various sectoral analyses are being carried out and this is why the scope of gathered data is being extended. She emphasised that if there is a need for new data at the managing committee, cost assessment is performed as well and then the final decision is made. By referring to the utterance by professor Józwiak, Sophie Helaine emphasised that not only the averages are searched for. The website of the European Commission contains publications related to production costs in the sectors of beef, milk, swine, agricultural crops, as well as financial indicators and maps containing the results from particular farms. There is also a large part devoted to distribution. She also stressed that everything depends on what one wants to analyse and the average is of some importance, but it does not reflect the entire picture. The interested persons may study this research and find many answers.

Sophie Helaine

European Commission
DG AGRI L.3

Production structure and economic results analysis of EU farms
Impact of EU enlargement

Results of FADN farms in 2007
(Comments on methodology)
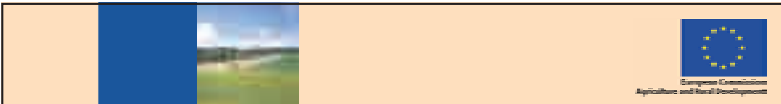
Production structure and economic results
analysis of EU farms

Impact of EU enlargement

DG AGRI L.3. Sophie HELAINE – 5th anniversary of Polish FADN 08.09.2009

Introduction

- EU enlargment in 2004 ⇨
    + 1 million farms represented in FADN
    + diversity
        ➢ Legal status
        ➢ Size…
    ↳ Accuracy of traditional family farm income in question

Production structures

1. Types of farming in the EU (2007)
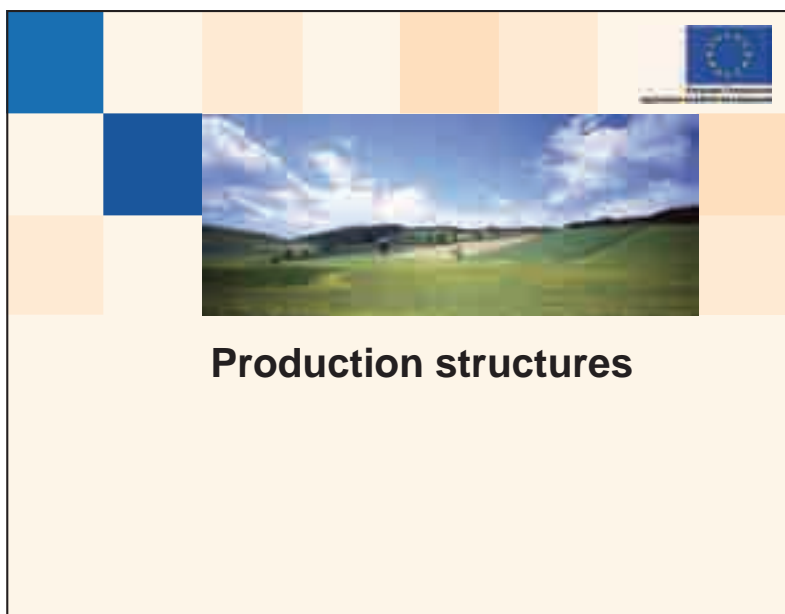
	Sp. Fieldcrops	Sp. Permanent crops	Sp. Grazing livestock (incl. Dairy)	Mixed farms
EU-10	19%	7%	18%	**48%**
EU-2	16%	2%	27%	**50%**
EU-15	21%	**34%**	23%	16%
EU-27	20%	23%	23%	29%

2007 Provisional results

2. Legal status

MS with more than 5% of non individual farms
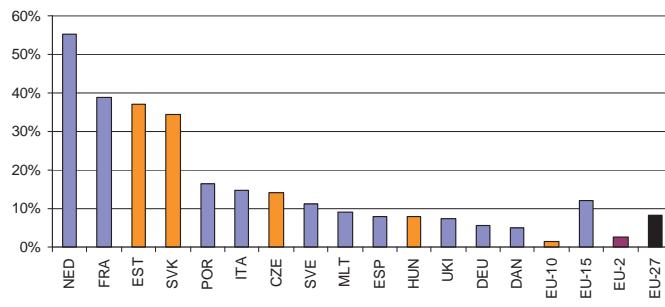
2007 Provisional results

Source: DG AGRI EU FADN

Avg farm area by legal status (in ha)

	Individual farms	Partnership	Other
EU-10	**20**	**21**	**567**
EU-15	31	86	82
EU-2	7	75	194
EU-27	24	85	133

2007 Provisional results

Source: DG AGRI EU FADN

3. Area

Average area per farm by MS in hectares

582 ha

Mean area
EU-10: 28 ha
EU-15: 37 ha
EU-2: 12 ha
EU-25: 31 ha
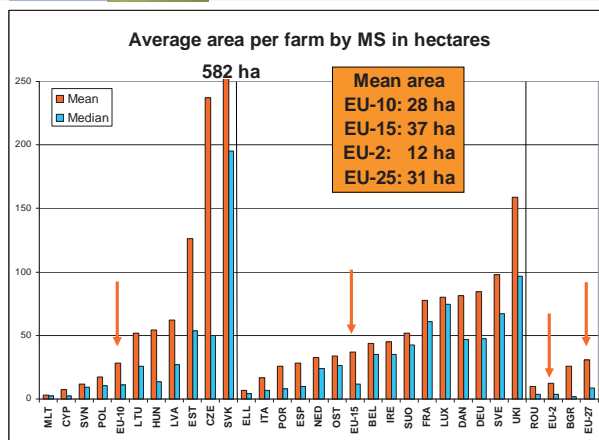
2007 Provisional results

Source: DG AGRI EU FADN

3. Area

	P5	Median	P95	Max
EU-10	**2.6**	**11**	**67**	**9 651**
MLT	0.0	2	9	30
SVK	30.4	195	2 382	7 165
EU-15	**1.3**	**12**	**139**	**7 845**
ELL	1.2	4	22	180
UK	13.7	96	449	7 845
EU-2	0.1	4	20	11 109
EU-27	**1.0**	**9**	**116**	**11 109**

2007 Provisional results

Source: DG AGRI EU FADN

4. Labour

MS with a share of paid labour above 20%
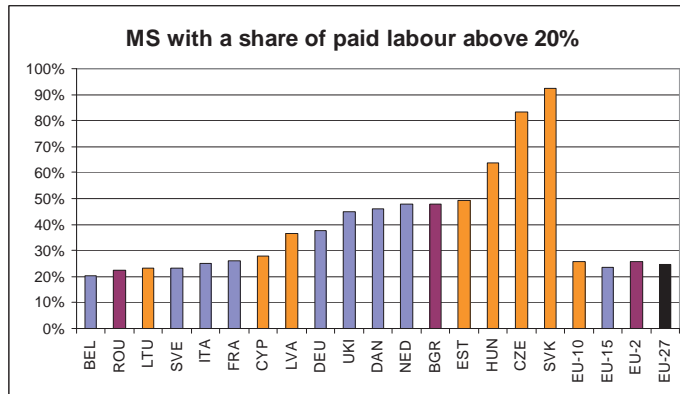
2007 Provisional results
Source: DG AGRI EU FADN

4. Labour

- Farms WITHOUT family labour:
  - 32% in SVK
  - 14% in CZE
  - 9% in ROU
  - 8% in HUN…

**Farms selection
Typology and weighting**

Farms selection

- SVK field of survey : 5% of farms for 90% of SGM…
- ROU and BGR: a threshold at 1 ESU and still less than 30% of holdings and less than 80% SGM

Weighting

- Diversity of farms in large size classes
  - Clustering of size classes 9 and 10
  - Specific weight for very large farms?

  New typology = 14 classes of eco. size

- No stratification by legal status…

Economic analysis

New income/margin indicators

Family farm income

↓

Farm net income

+ Interests
- Family labour cost
- Own land cost
- Capital cost
= Profit (before taxes)

Income in FADN 2007 in €

2007*	EU-10	EU-15
FNVA	15 200	40 200
FNI	10 800	27 600
Profit	4 600	2 800
FNVA/AWU	7 900	26 300
Profit/AWU	2 400	1 800

* Provisional data

Income in FADN 2007

FNVA/AWU in FADN 2007 in Euro

Source: DG AGRI EU FADN

* Provisional results

Income in FADN 2007

Profit/AWU in FADN 2007 in Euro

Source: DG AGRI EU FADN

* Provisional results

Thanks for your attention
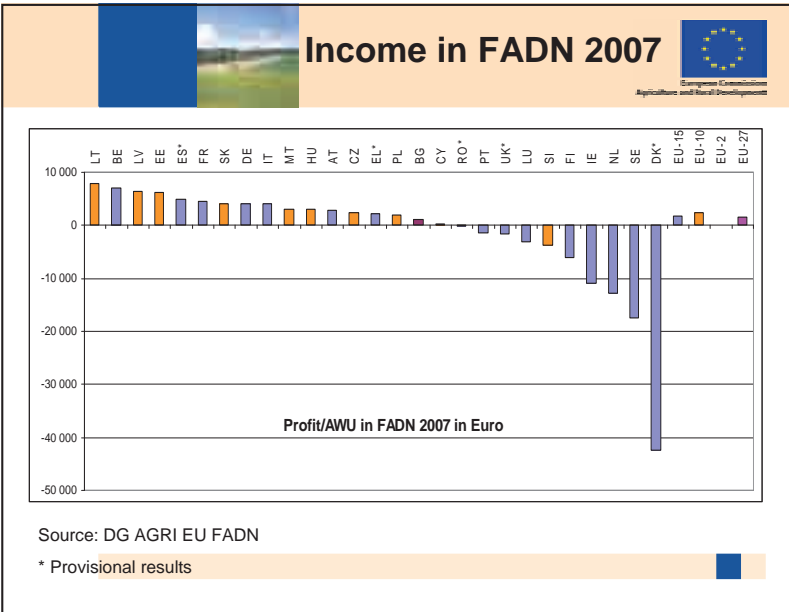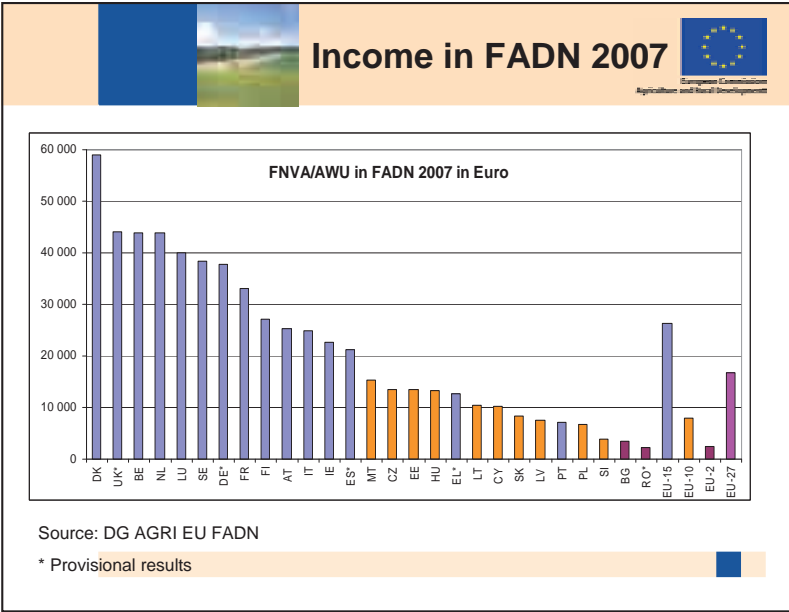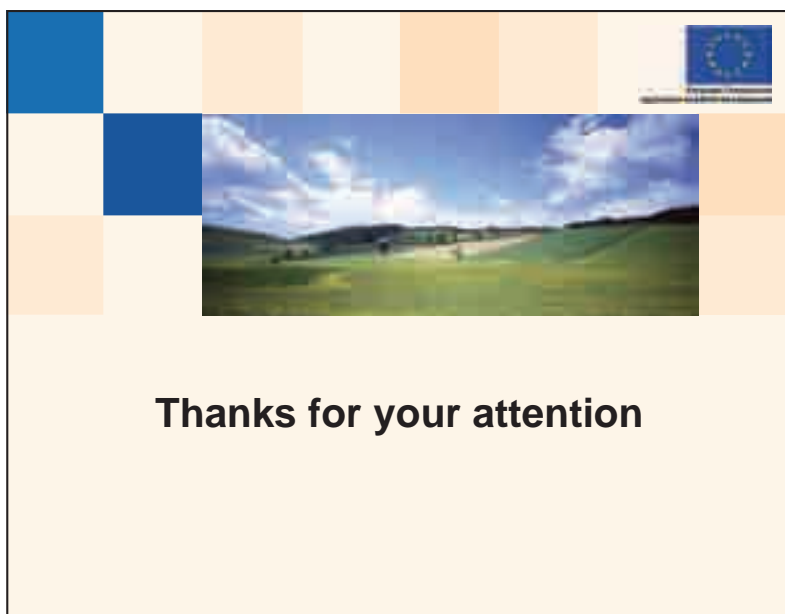
Results of FADN farms in 2007
(Comments on methodology)

Sophie Helaine
European Commission , Directorate - General for Agriculture
(DG AGRI L.3)

Table 1 presents a comparison between the main income indicators for the FADN farms in 2007.

In 2007 the average **FNVA/AWU** for the EU-27 was €16 800, varying from €26 300 in the EU-15 to €7 900 in the EU-10 and €2 500 in the EU-2. Compared to 2006, it is 14% higher in the EU-15 and 34% in the EU-10. The very good prices for main agricultural commodities can explain the better results in 2007. The differences between the EU groups averages and between MS are huge. In 2007, the highest average FNVA/AWU was observed in Denmark at €58 900 and the lowest in Romania at €2 300.

In the EU-27 the **profit** (before taxes) reached €1 500 per AWU in 2007. The profit does not differ much between EU groups: €1 800 in the EU-15, €2 400 in the EU-10 and €0 in the EU-2. Some MS such as Denmark, Sweden, the Netherlands and Ireland have very negative results.

It is to be mentioned that the farm net income in Denmark is also very low. The main reasons for this are that wages per hour and rent per ha are among the highest in the EU and successors have to buy the farm to their parents. As a consequence own factors are very costly too. Land cost is as well a major burden in the Netherlands and in Ireland. In Sweden and the Netherlands the main driver for negative profit is the labour cost.

Table 1: Mean income indicators in FADN 2007

	FNVA	Farm net Income	Profit	Cash flow**	FNVA/ AWU	FFI/ FWU***	Profit/ AWU	Cash flow/AWU
BE	84 500	59 600	13 700	47 900	43 800	38 700	7 100	24 800
DK	91 200	2 500	-65 600	54 800	58 900	3 000	-42 400	35 300
DE*	86 700	47 900	9 100	44 500	37 700	30 900	4 000	19 400
EL*	14 900	13 100	2 500	14 200	12 700	12 500	2 200	12 100
ES*	28 800	24 100	6 700	22 800	21 300	22 000	4 900	16 900
FR	63 000	39 900	8 500	39 400	33 000	28 400	4 500	20 600
IE	25 600	21 000	-12 300	22 700	22 600	19 800	-10 900	20 100
IT	34 800	28 000	5 600	31 500	24 800	26 500	4 000	22 400
LU	66 500	50 800	-5 400	34 300	40 100	36 200	-3 200	20 700
NL	121 300	44 900	-35 700	55 700	43 800	31 100	-12 900	20 100
AT	40 400	32 800	4 500	27 400	25 400	22 200	2 800	17 200
PT	11 600	9 200	-2 200	6 700	7 200	6 800	-1 400	4 200
FI	39 600	28 200	-8 800	18 700	27 100	23 200	-6 000	12 800
SE	57 700	29 300	-26 100	26 100	38 400	25 400	-17 400	17 400
UK*	104 600	59 800	-4 000	45 200	44 100	45 800	-1 700	19 100
CY	12 100	8 500	300	10 000	10 200	7 300	200	8 400
CZ	111 200	39 200	20 200	26 300	13 500	16 700	2 500	3 200
EE	36 800	24 700	17 000	14 900	13 400	12 600	6 200	5 400
HU	24 700	11 300	5 700	16 400	13 200	14 200	3 000	8 800
LT	20 900	19 000	15 700	13 500	10 500	11 500	7 900	6 800
LV	17 500	13 800	15 100	8 000	7 600	8 000	6 500	3 500
MT	29 000	24 600	5 800	22 300	15 300	14 700	3 100	11 800
PL	11 700	9 900	3 500	8 300	6 700	6 500	2 000	4 800
SK	141 900	11 800	68 500	55 900	8 400	20 800	4 100	3 300
SI	6 800	6 100	-6 400	3 400	3 900	3 700	-3 700	1 900
BG	8 500	4 800	2 900	4 600	3 500	2 600	1 200	1 900
RO*	4 800	3 200	-300	2 600	2 300	1 700	-100	1 300
EU-15	**40 200**	**27 600**	**2 800**	**27 900**	**26 300**	**23 400**	**1 800**	**18 300**
EU-10	**15 200**	**10 800**	**4 600**	**9 500**	**7 900**	**7 100**	**2 400**	**5 000**
EU-2	**5 300**	**3 400**	**100**	**2 900**	**2 500**	**1 800**	**0**	**1 400**
EU-27	**28 800**	**19 800**	**2 600**	**19 600**	**16 800**	**14 900**	**1 500**	**11 500**

* provisional results
** Cash flow taking into account operations on capital, debts and loans.
 ***Family farm income per family working unit calculated only for farms with family labour.
Source: DG AGRI EU FADN

In addition the order between MS according to the profit/AWU is completely different in comparison with the order by FNVA/AWU. Denmark experienced in 2007 the lowest profit per AWU at €- 42 400 and Lithuania the highest at €7 900. Shall it be concluded that farmers in Denmark are less efficient than farmers in Lithuania or that many of them will stop producing tomorrow? No, the analysis of these results is indeed more complex.

The level of profit is directly linked to the **family labour costs** representing 21% of the total costs (incl. own factors) in the EU-15. The share of family labour cost in the total costs depends on the wages per hour in the MS (refer to Annex 2), on the share of unpaid labour and on the amount of other costs. For example, the highest wages per hour are observed in Denmark (21 €/hour) but family labour costs correspond "only" to 11% of the total costs. By contrast family labour costs represent close to 40% of the total costs in Greece where workers are paid 3.5 €/hour.

The family labour cost is estimated in order to compare farms using only paid labour force to farms relying mainly on family work. However, it should be kept in mind that it is challenging to calculate a reliable estimate because records of hours worked on the farm might be overestimated[1]. and it is not easy to choose an appropriate remuneration for family labour. Farmers may indeed accept to be remunerated less than according to the average

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[1] That is why a limit of 3 000 hours per AWU has been introduced.

agricultural wage. They may consider farming as a way of life or benefit from other sources of income for their household (other gainful activities directly related to the holding, spouse working outside).

Concerning **own capital cost** the interpretation of the results is difficult. In Finland, Slovakia, Romania, Bulgaria, Estonia, Hungary, Poland, Lithuania and Latvia (refer to Table 2) the estimates for capital costs are negative because the estimate is based on the real interest rate i.e. the interest rate minus the inflation rates and in those MS the inflation rate was higher than the interest rate. This phenomenon explains why the highest profit can be observed in Lithuania and Latvia, whereas in these MS the FNVA/AWU and the cash flow per AWU are rather limited. On the contrary in Denmark the cash flow indicating the capacity of the farms for saving and self-financing is very high.

As a conclusion the profit is useful to compare MS between each other. However additional income indicators and the cash flow should always be considered to give a broader picture of the situation. A negative profit (before taxes) is manageable by farmers for some years as long as they accept that not all of their production factors, especially their labour, are fully remunerated.

Table 2: Average costs per farm in FADN 2007

	Interme-diate con-sumption	Deprecia-tion	Wages	Family Labour	Rent	Own land	Own capital	Interests	Total costs excl. own factors	Total costs incl. own factors
	a	b	c	d	e	f	g	h	i = a+b+c +e+h	j = i-h+d +f+g
BE	118 200	23 400	8 600	36 400	7 400	3 300	6 200	7 400	164 900	203 400
DK	191 100	33 300	26 500	35 000	14 000	32 900	300	48 400	313 300	333 100
DE*	143 200	26 300	17 800	25 600	13 100	7 700	5 500	5 700	206 200	239 300
EL*	7 700	2 600	1 000	8 500	800	1 200	800	0	12 200	22 700
ES*	17 500	2 600	3 400	14 200	1 000	2 600	600	200	24 700	41 900
FR	84 500	24 100	10 000	26 400	10 000	2 200	2 800	4 200	132 800	160 000
IE	28 400	8 400	1 400	21 400	1 800	8 700	3 200	1 200	41 300	73 300
IT	23 400	6 500	5 500	18 200	1 400	2 400	1 700	200	36 900	59 100
LU	90 200	44 400	5 100	28 700	7 900	8 400	19 100	8 500	156 000	203 700
NL	237 800	45 200	36 500	46 100	10 700	23 000	11 500	28 000	358 200	410 800
AT	39 800	14 900	1 500	20 600	2 200	4 900	2 800	1 800	60 200	86 700
PT	13 100	3 700	2 000	9 700	500	800	1 000	200	19 400	30 700
FI	65 600	23 000	5 100	30 400	3 300	6 900	-400	3 800	100 800	134 000
SE	116 200	22 200	11 400	42 300	8 800	9 000	4 200	8 200	166 800	214 100
UK*	157 000	25 800	27 500	36 300	10 200	16 600	11 000	7 900	228 400	284 400
CY	17 700	4 100	2 800	7 200	800	400	500	100	25 500	33 600
CZ	221 100	30 300	61 900	13 300	9 100	1 400	4 300	3 400	325 800	341 400
EE	54 800	9 400	10 300	11 000	700	600	-4 000	2 400	77 600	82 900
HU	48 400	8 000	9 100	4 900	2 900	1 400	-800	2 000	70 400	73 900
LT	19 100	4 000	1 900	7 000	900	600	-4 300	700	26 600	29 200
LV	29 400	5 500	4 100	7 400	400	600	-9 300	1 400	40 800	38 100
MT	40 100	3 400	3 500	17 300	200	0	1 500	600	47 800	66 100
PL	15 600	3 600	1 100	6 400	200	700	-800	200	20 800	26 900
SK	350 700	148 600	114 200	9 200	14 500	1 300	-67 200	9 800	637 800	571 300
SI	15 300	5 500	500	11 100	200	600	800	100	21 700	34 100
BG	11 400	1 600	2 200	2 400	1 300	200	-600	300	16 800	18 400
RO*	6 100	1 100	1 300	4 500	300	400	-1 500	100	8 900	12 200
EU-15	**45 400**	**10 300**	**6 600**	**18 600**	**3 600**	**4 000**	**2 200**	**2 500**	**68 400**	**90 700**
EU-10	**23 300**	**5 100**	**3 200**	**6 700**	**700**	**800**	**-1 200**	**500**	**32 800**	**38 500**
EU-2	**6 800**	**1 100**	**1 400**	**4 300**	**400**	**400**	**-1 400**	**100**	**9 900**	**13 000**
EU-27	**33 800**	**7 600**	**5 000**	**13 600**	**2 400**	**2 700**	**900**	**1 600**	**50 400**	**65 900**

* provisional results

Source: DG AGRI EU FADN

Estimation of the costs of the own fixed factors

• **Family labour cost**: it is estimated on the basis of the wages the owner of the farm would have to pay if he would hire employees to do the work carried out by the family members.

It is estimated as the average regional wage per hour obtained in FADN database[2] multiplied by the number of hours worked by family workers on the farm.

It is commonly recognised that the number of hours of family workers is sometimes overestimated. Thus the method uses a maximum of 3 000 hours per Annual Work Unit (it equals 8.2 hours a day 365 days a year and corresponds more or less to the time farmers milking cows can spend on a farm)[3].

• **Own land cost**: it is estimated on the basis of the rent the owner of the farm would have to pay if he would need to rent the land he is using.

It is estimated as the owned area multiplied by the rent paid per ha on the same farm or if there is no rented land on the farm by the average rent paid per ha in the same region and for the same type of farming[4].

• **Own capital cost**: the own capital (permanent crops, buildings, machinery and equipment, forest land, livestock and crop stocks) cost is estimated on the basis of the interests the owner would have to pay if he would borrow all the money to buy his assets.

The interests paid for the capital are not known as this information is optional. Nevertheless, to take into account the actual interest rate paid on the farm a "weighted" interest rate is calculated as the weighted average of this interest rate for debts and the long term interest rate published by Eurostat for the net worth. The weighted interest rate is corrected by inflation rate[5]. It is to be noted that in MS where inflation is very high; the own capital cost estimate might finally be negative.

In the end, the own capital value is estimated as the average assets value (closing plus opening valuation divided by 2) multiplied by the interest rate corrected by inflation.

For Luxembourg and Estonia for which no 10 year bonds interest rate is available a rate calculated based on FADN is used (Total interests / Total debts at closing valuation). For the Czech Republic and Romania the 5 year bonds interest rate is used.

The total circulating capital is not valued because of the lack of reliability of this variable in some MS. Nevertheless the crop stocks value is taken into account.

---

[2] If there are not enough farms (less than 20) with paid labour at regional level, the national average is taken into account.

[3] A limit of the estimation method is that if a farmer would receive a salary he would probably work less.

[4] If there are not enough farms (less than 20) in a given region for a type of farming, the national rent per ha for the given type of farming is used (the TF8 classification is used).

[5] The inflation rate is based on the Eurostat price indexes for the Gross fixed capital formation (available from 1996).

Inflation rate used for the calculation a capital cost

(Calculation based on the price indexes for the Gross fixed capital formation 2000 = 100 (based on euro) of Eurostat)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
AT	-1.1%	-1.6%	0.5%	1.0%	1.6%	1.0%	0.6%	0.7%	1.3%	2.1%	2.2%	3.2%	3.0%
BE	-1.1%	-2.4%	1.0%	2.5%	2.1%	0.6%	-0.6%	1.2%	2.6%	1.4%	3.7%	2.2%	2.3%
BG	-10.9%	19.3%	8.5%	2.7%	1.4%	4.6%	0.6%	-0.6%	4.7%	5.1%	7.9%	8.1%	9.8%
CY	3.6%	4.3%	2.2%	2.1%	2.2%	2.5%	3.3%	1.4%	4.6%	5.8%	3.8%	3.2%	4.4%
CZ	7.2%	2.1%	4.3%	1.0%	7.4%	5.5%	8.2%	-2.4%	1.6%	7.3%	6.4%	3.0%	12.1%
DE	-2.6%	-3.1%	-1.2%	-0.7%	0.3%	-0.8%	-1.1%	-1.2%	0.3%	0.0%	0.5%	2.6%	1.1%
DK	-0.2%	-1.1%	-0.4%	1.8%	0.8%	2.6%	2.0%	0.5%	0.9%	1.6%	1.4%	4.7%	2.4%
EE	7.1%	3.4%	-0.3%	2.6%	2.9%	6.0%	0.9%	0.6%	3.3%	4.0%	8.7%	7.1%	-0.7%
ES	4.2%	0.0%	0.8%	4.2%	7.2%	3.7%	4.7%	5.0%	5.4%	5.8%	5.2%	2.7%	1.5%
FI	-1.7%	1.4%	-0.2%	2.6%	3.7%	2.0%	-2.3%	-1.5%	1.3%	3.6%	3.3%	4.5%	3.9%
FR	1.2%	-1.5%	0.2%	0.7%	1.9%	1.5%	1.3%	1.2%	3.0%	3.0%	4.0%	2.9%	3.9%
GR	6.5%	5.4%	-1.5%	4.5%	0.1%	1.3%	1.6%	2.0%	1.3%	2.0%	2.7%	2.1%	3.3%
HU	4.1%	7.2%	-2.0%	3.3%	5.7%	8.9%	8.0%	-1.0%	4.2%	4.0%	-0.8%	7.9%	2.8%
IE	6.7%	12.4%	2.7%	7.8%	9.6%	7.7%	4.4%	4.9%	6.1%	3.4%	6.0%	1.4%	-5.5%
IT	11.8%	4.3%	1.2%	1.6%	2.9%	2.1%	2.9%	1.5%	2.7%	3.0%	2.7%	2.6%	3.2%
LT	7.6%	17.0%	-1.0%	0.2%	13.4%	4.2%	0.8%	0.2%	0.6%	5.6%	6.4%	8.9%	7.2%
LU	-0.9%	-1.5%	0.1%	1.6%	2.8%	2.7%	0.5%	-0.3%	0.2%	2.6%	0.4%	1.5%	2.0%
LV	16.3%	5.2%	-1.2%	13.2%	19.3%	1.0%	-9.9%	-8.1%	1.8%	5.1%	12.9%	26.3%	13.3%
MT						3.9%	2.2%	-3.4%	0.5%	-0.8%	6.5%	3.8%	6.3%
NL	-1.6%	-3.0%	-0.1%	1.8%	3.1%	3.1%	2.8%	1.5%	1.1%	1.3%	2.0%	1.9%	2.1%
PL	8.3%	4.4%	4.2%	-2.5%	11.7%	10.3%	-4.5%	-10.9%	-0.7%	13.3%	4.5%	6.7%	10.3%
PT	3.1%	2.2%	0.9%	2.7%	4.5%	2.4%	2.4%	1.2%	2.4%	2.5%	2.8%	2.2%	2.1%
RO					21.2%	10.5%	2.3%	0.5%	5.8%	23.4%	10.4%	15.6%	1.5%
SE	8.6%	-0.5%	-1.5%	3.3%	7.4%	-6.0%	2.9%	-0.2%	-0.2%	-0.5%	2.2%	2.3%	-0.9%
SI	-1.2%	1.1%	3.6%	-0.1%	-0.7%	-0.3%	0.0%	0.9%	4.0%	4.3%	2.5%	3.9%	4.2%
SK	9.5%	6.0%	1.9%	-5.8%	11.1%	4.7%	5.5%	5.5%	6.6%	6.5%	5.7%	11.5%	10.1%
UK	3.7%	16.8%	1.5%	3.4%	8.8%	-1.8%	0.3%	-7.1%	4.2%	1.4%	2.2%	1.1%	-13.1%

Note: For Greece 1996 to 2000 the calculation is based on the price indexes for Gross domestic product

Interest rate - Government bond yields, 10 years' maturity

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
BE	6.49	5.75	4.75	4.75	5.59	5.13	4.99	4.18	4.15	3.43	3.81	4.06
BG	-	-	-	-	..	..	8.26	6.42	5.25	3.8	4.01	4.42
CZ	-	-	-	-	6.94	6.31	4.87	..	..	..	..	..
DK	7.19	6.25	4.94	4.92	5.64	5.08	5.06	4.31	4.3	3.4	3.81	4.02
DE	6.22	5.64	4.57	4.49	5.26	4.8	4.78	4.07	4.04	3.35	3.76	4.02
EE	-	-	-	-	-	-	-	-	-	-	..	..
IE	7.29	6.29	4.8	4.71	5.51	5.01	5.01	4.13	4.08	3.33	3.74	4.04
GR	14.62	10.17	8.47	6.3	6.1	5.3	5.12	4.27	4.25	3.58	4.07	4.29
ES	8.74	6.4	4.83	4.73	5.53	5.12	4.96	4.12	4.1	3.39	3.78	4.07
FR	6.31	5.58	4.64	4.61	5.39	4.94	4.86	4.13	4.1	3.41	3.8	4.07
IT	9.4	6.86	4.88	4.73	5.58	5.19	5.03	4.25	4.26	3.56	4.05	4.26
CY	-	6.93	6.74	7.36	7.55	7.65	5.37	4.7	6.08	5.16	4.12	4.51
LV	..	..	..	..	..	..	..	..	4.85	3.53	4.16	5.63
LT	-	-	-	-	-	-	5.97	5.22	4.43	3.73	4	4.58
LU	-	-	-	-	-	-	-	-	-	-	-	-
HU	-	-	-	9.91	8.55	7.94	7.09	6.83	8.19	6.6	7.12	6.74
MT	..	..	..	-	5.75	6.11	5.74	4.98	4.68	4.57	4.32	4.73
NL	6.15	5.58	4.63	4.63	5.4	4.96	4.89	4.12	4.09	3.37	3.78	4.07
AT	6.32	5.68	4.71	4.68	5.56	5.07	4.97	4.15	4.15	3.39	3.8	4.05
PL	-	-	-	9.53	11.79	10.68	7.32	5.78	6.92	5.23	5.26	5.5
PT	8.56	6.36	4.88	4.78	5.59	5.16	5.01	4.18	4.14	3.44	3.91	4.18
SI	-	-	-	-	-	-	-	-	2.49	3.81	3.9	4.54
SK	-	-	-	-	8.33	8.05	6.91	4.99	5.02	3.52	4.42	4.49
FI	7.08	5.96	4.79	4.72	5.48	5.04	4.98	4.13	4.11	3.35	3.78	4.05
SE	8.02	6.62	4.99	4.99	5.37	5.11	5.3	4.64	4.42	3.39	3.7	3.93
UK	7.94	7.13	5.6	5.01	5.33	5.01	4.91	4.58	4.93	4.46	4.37	4.94

Source: Eurostat

Annex 3: Description of labour and land tenancy on FADN farms 2007

	Farms without family labour	Share of paid labour (hours)	Wages per hour	Share of rented land	Rent per ha
BE		18%	9.3	74%	227
DK		43%	20.9	29%	591
DE*	2%	38%	9.3	71%	220
EL*		11%	3.5	43%	262
ES*	0%	20%	6.2	34%	104
FR		27%	11.9	84%	152
IE		6%	9.4	17%	241
IT	0%	23%	7.3	39%	208
LU		15%	9.3	51%	193
NL		44%	13.8	40%	813
AT		7%	6.1	31%	207
PT		16%	3.8	32%	59
FI		14%	11.9	35%	183
SE		21%	17.0	53%	169
UK*		42%	11.7	43%	151
CY		28%	3.8	64%	166
CZ	14%	82%	4.4	88%	44
EE	6%	48%	3.5	60%	10
HU	8%	64%	3.5	67%	81
LT	0%	22%	2.1	60%	28
LV	3%	35%	2.4	45%	13
MT	3%	16%	4.4	81%	89
PL	0%	14%	2.1	27%	49
SK	32%	93%	3.9	96%	26
SI		4%	3.6	32%	67
BG	5%	48%	1.0	89%	56
RO*	9%	18%	1.4	41%	80
EU-15	**0%**	**23%**	**8.9**	**53%**	**183**
EU-10	**1%**	**25%**	**3.1**	**51%**	**47**
EU-2	**8%**	**22%**	**1.3**	**54%**	**69**
EU-27	**2%**	**23%**	**5.8**	**53%**	**151**

* provisional results

Rainer Meyer

German Federal Ministry of Food, Agriculture and Consumer Protection (BMELV). - Farm Income/FADN

Impact of EU enlargement in 2004
- on German agriculture

International Conference on the Occasion of 5th Anniversary of Polish FADN

Impact of EU enlargement

in 2004

- on German agriculture

Rainer Meyer

German Federal Ministry of Food, Agriculture and Consumer Protection (BMELV).

- Farm Income/FADN

8th September 2009 – Poland

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2 Thanks for the invitation…

Dziękuję za zaproszenie

field of observation is agriculture……

Impact of EU-Enlargement 2004 of German Agriculture

Steps of EU-Enlargements (2004 in yellow)

Impact of EU-Enlargement 2004 of German Agriculture

Basic Information

EU-Enlagement 2004 of 10 Memberstates (MS):

Reform of EU-Common Agricultural Policy (CAP) was overdue
Reform 2003

- Chance and change of EU-enlargement 2004 to use;
- Reorientation of agriculture – Germany - New Memberstates
- New markets of German farmers/food industrie/trade
- 2004 in time implementing EU-standards
  - exporting products in EU-MS
  - national standards at home
- EU-payments/subsidies

Summary:
- Over all: a win-win situation
- all participants
- farmers/food industries/trade and policy
.

Impact of EU-Enlargement 2004 of German Agriculture

CAP-reform 2005

- **Removal of the link between production and the aid a farmer receives.** (<u>decoupling</u>)

- **Full decoupling** of direct payments from production is to be implemented **as early as possible** (as from 1 January 2005).

- **The amount** of the **decoupled payments** made to farmers will be linked to
- either the **amount of payments received in the past (standard model)**
- or the **size of farmed land (regional model)** with a single payment per ha of agricultural land.

- Member States **will be obliged** to **cut** direct payments beginning in 2005 (2005: 3%, 2006: 4%, as from 2007: 5%) **in favour of the development of rural areas** (<u>compulsory modulation</u>).

Impact of EU-Enlargement 2004 of German Agriculture

EU-Budget
- multi annual financial framework
- financial frameworks for 2000-06

German agriculture – FSS 2007
374 000 agricultural-, forest- and fishery units
1,2 Mill. persons working; decreases about 1% per year
20 Mrd. Euro GNP-agricultural (0,9 % GNP in Germany).

figures as FSS	2005 in 1 000	2007 in 1 000	Annual Changes (%) [1]
Farms-Einzelunternehmen	366,3	350,1	- 2,2
as: Farms-full time	**164,4**	**157,5**	**- 2,1**
Farms-part time	201,9	192,6	- 2,3
Agricultural Land rented (%)	62,4	61,8	.
Empoyees total	1 276,4	1 251,4	- 1,0
Of which: Family employees	782,7	728,6	- 3,5
Permanent non-family WU	187,4	186,6	- 0,2
Non-permanent non-family WU	306,3	336,3	+ 4,8

Impact of EU-Enlargement 2004 of German Agriculture

Agricultural facts; concerning:
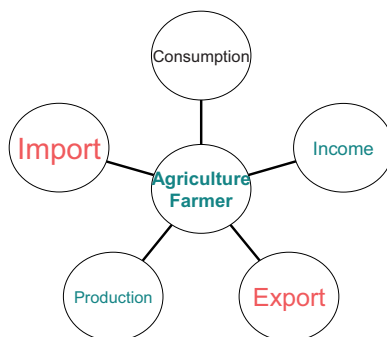
Impact of EU-Enlargement 2004 of German Agriculture

Germany: agricultural products prices index

agricultural products prices inedex

2000 = 100
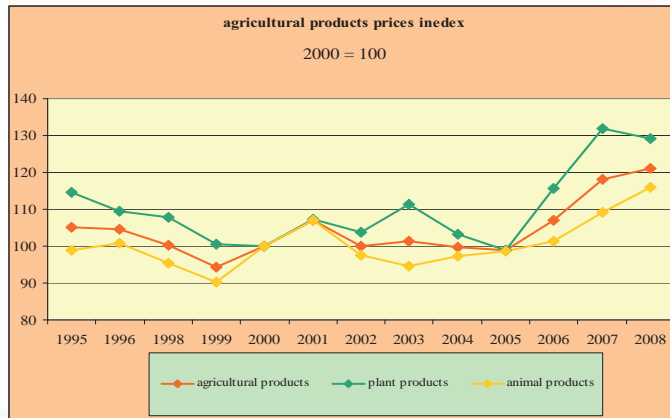
Impact of EU-Enlargement 2004 of German Agriculture

- **Germany-Income plus wages-** fulltime farmer 1996-2008
- Type of farm:Fieldcrops/Dairy/ Granivores/All

Income of Agricultural Farms (full time)
Income plus wages per working unit
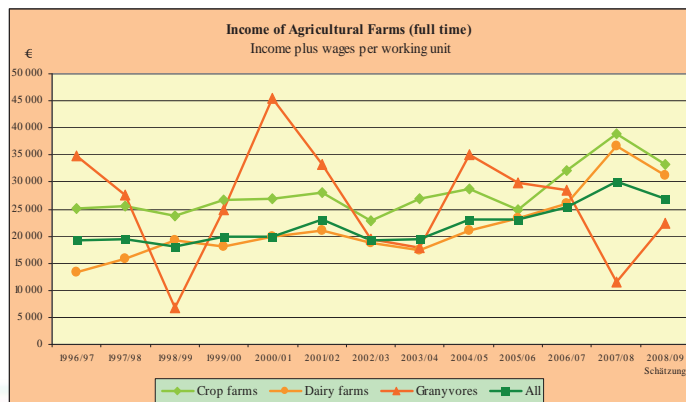
Impact of EU-Enlargement 2004 of German Agriculture
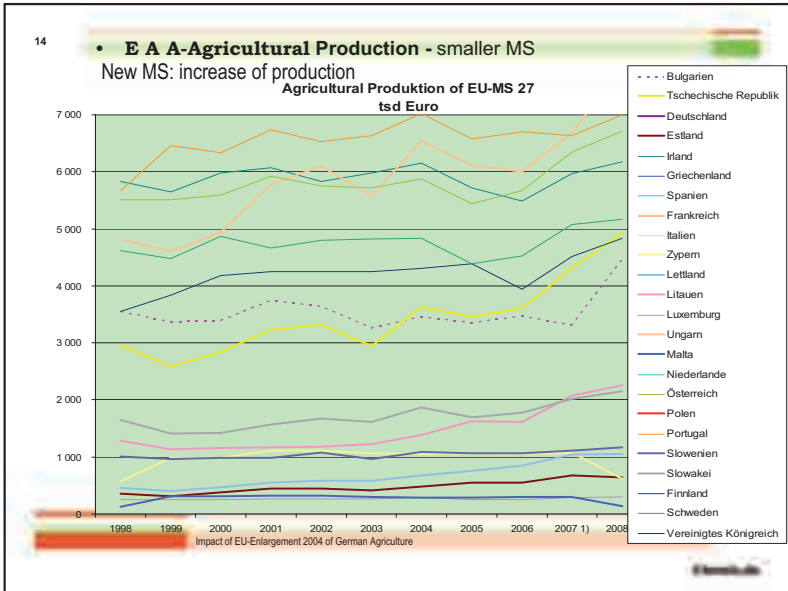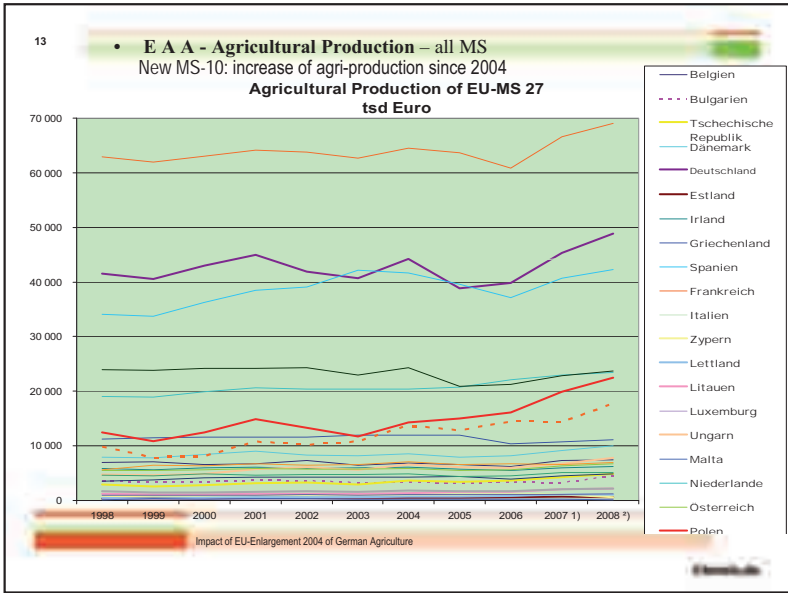
Investments in New Memberstates

Pfeifer&Langen,
German sugar producing company;
located in West-Poland;
264 000 t Zucker.

British Sugar Poland ;
+150 000 t sugar;
Gross value 233 Mio.Euro;
400 employees.

Impact of EU-Enlargement 2004 of German Agriculture

Agri-trade Germany: 20 percent of agri-sales are exported

- **Agricultural export** in 2008 53 bn €
- since 1990 more than 2x; since 1980 more than 4x
- **Agricultural import** in 2008 60 bn €.
  - 59 bn €; +9,5 %: Oilseeds / –products; +31.4 %
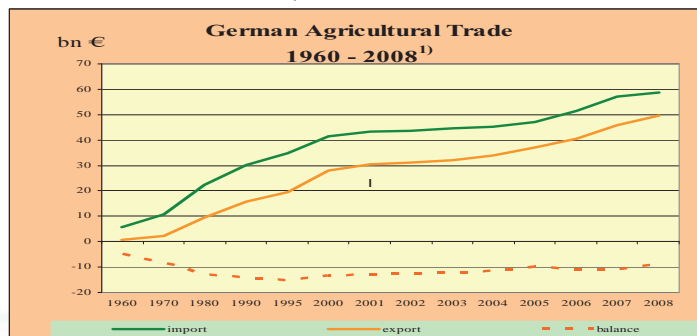
German Agricultural Trade 1960 – 2008[1]

Impact of EU-Enlargement 2004 of German Agriculture

German Agricultural Trade; increases

German Trade of Agricultural Products
1960 - 2008
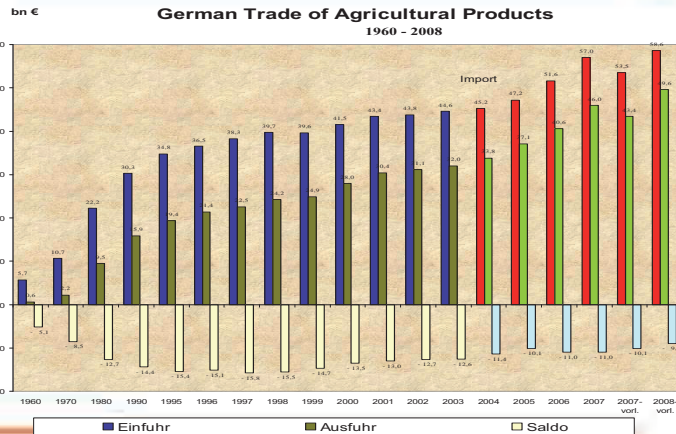
Impact of EU-Enlargement 2004 of German Agriculture

Agricultural Trade - with new MS increases rapidly
Exports to 12 new MS 2008:
5,67 Mill. Euro; +30,2 %. esp. Poland/Czech Republik

German Exports of Agricultural Products to main new MS-2004

Impact of EU-Enlargement 2004 of German Agriculture

183
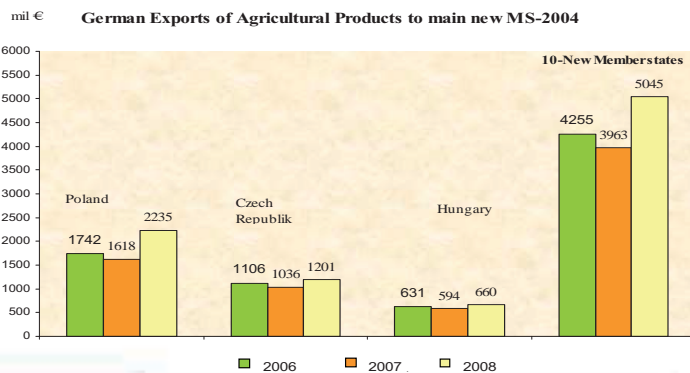
German Foreign Trade — Jan-June 2008 and 2009

- bn €-

	Trade			of.: Agricultural Products		
	Import	**Export**	**balance**	**Import**	**Export**	**balance**
World						
Jan.-June 2008	407,6	511,2	+103,6	28,9	24,3	- 4,6
Jan.-June 2009	333,5	391,2	+ 57,8	28,2	23,0	- 5,2
%	- 18,2	- 23,5		- 2,5	- 5,6	
of wich:						
EU-27						
Jan.-June 2008	242,4	330,1	+ 87,7	19,7	19,5	- 0,2
Jan.-June 2009	195,3	249,8	+ 54,5	19,2	18,4	- 0,7
%	- 19,4	- 24,3		- 2,7	- 5,6	
of wich:						
EU-MS-12						
Jan.-June 2008	**47,5**	**59,9**	**+ 12,4**	**2,0**	**2,7**	**+ 0,7**
Jan.-June 2009	**39,4**	**42,8**	**+ 3,5**	**2,1**	**2,6**	**+ 0,5**
%	- 17,2	- 28,5		+ 4,8	- 2,1	

Impact of EU-Enlargement 2004 of German Agriculture

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- **EU-Twinning-Project**

EU-27 … and more

- pre-Accession Assistance
- Institution Building
- Framework
- key input
- Member State administration
- missions of other specialists
- training events, awareness raising visits
- reform process towards the targeted result

Impact of EU-Enlargement 2004 of German Agriculture

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Good luck for Polish FADN
- and thanks of very good cooperation
to all persons in the headquarter of the Polish FADN

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Structural change, factor productivity and efficiency: first results from Polish FADN records

Structural change, factor productivity and efficiency: first results from Polish FADN records

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Abstract

1. Introduction

The intention of this paper is to analyse both the extent of structural change in Polish agriculture and its determinants on the basis of FADN database. The data consist of a sample of 8484 farms for the period from 2004 to 2007. In detail, we examine the farm specialisation and farm growth within different types of agricultural production. Moreover, we discuss which kinds of structural change are likely to occur if the observed trends continue in the years to come.

Driving forces behind structural change are differences in factor productivity and thus different remuneration of inputs. In turn, factor productivity is affected by a number of factors such as farm size, economies and diseconomies of scale, the impact of technical progress, human capital and management skills of the farm operator.

According to our research outline, the paper is organised as follows. In the first part we shed light on structural change. The second part of the article deals with the impact of the various determinants of factor productivity in the different types of specialisation branches. The final part provides a short summary and concludes by drawing/closes with general policy implications.

2. Transitional matrices for forecasting structural change

The analysis of structural change was examined by employing transition matrices. On the basis of the group affiliation (size categories and specialisation) of the individual farms at different times, the migration flows between the groups were obtained. In the next step, the individual adjustment responses were aggregated and divided by the number of farms per group so as to calculate the share of farms that migrated from one group to another. As a result, the elements of the transition matrix are obtained. Multiplying the transition matrices by the number of farms at the beginning of the investigation period yields the distribution of the farms among the groups at the end of the investigation period. Provided constant transition matrices, this approach is applicable to reliably forecast structural development. Moreover, if data of a sufficient long period are available, adjacent observations can be used to evaluate the stability of the corresponding transition matrices. Since the actual data generated small changes in these matrices, we estimated structural change employing average transition probabilities for the period from 2004 to 2007.

2.1. Tendencies: increase in dairy farms, decrease in mixed farms

Following the methodological outline above, we first examined the degree of specialisation of the farms. To this end, the necessary grouping criterion for the farms was chosen to be the main agricultural type of production according to EU classification scheme. The corresponding results are displayed in Figure 1. Altogether, the numbers reveal that Polish agriculture was characterised by a relatively low level of specialisation in 2004, with about 50% of the farms belonging to the group of mixed farms. Other important agricultural types were field cropping, as well as dairy farming and pig production. Yet until 2007, clear changes became apparent: the number of farms with mixed production and specialising in field cropping was declining, while the share of dairy farming was increasing. Provided these trends continue during the coming years, only about 30% of the agricultural enterprises will be run without a distinct specialisation by the end of 2019. The share of dairy farming will nearly double, whereas the share of pig and poultry producing farms will remain constant.

Figure 1: Share of Farms with Specialisation in ...
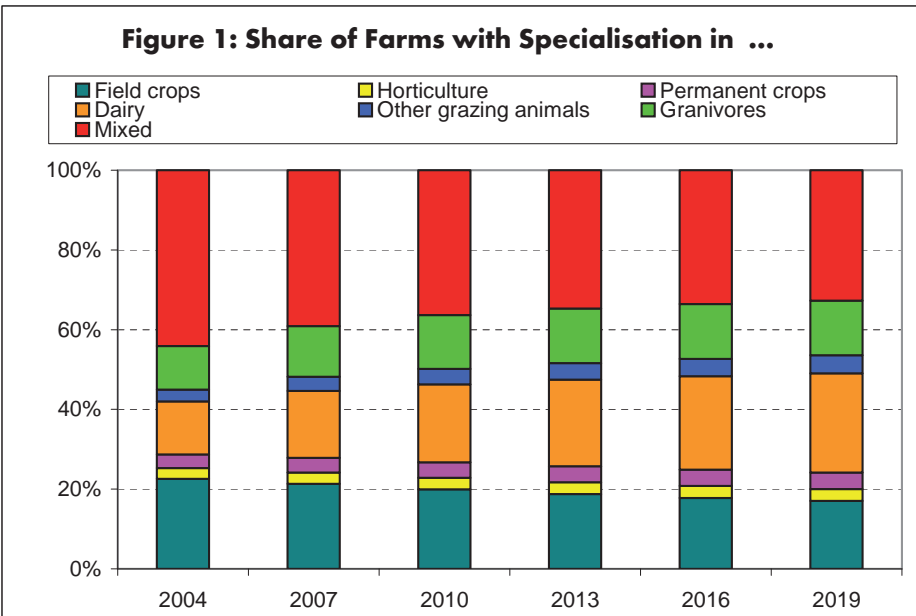
Source: Own calculations

2.2. Dynamic developments in the markets of milk, pigs and poultry

Changes in farm size were analysed for four main agricultural types of production (field cropping, dairy farming, pig and poultry production, as well as mixed farming). For classification, farm size was measured in European Size Units (ESU), which are derived from standard gross margins. Corresponding group boundaries are listed in Figure 2. According to Figure 2, small farms were prevalent in all types of agricultural production in 2004. The share of farms below 16 ESU amounted to about 60%. Large farms (> 100 ESU) were hardly represented. At the beginning of the investigation period, the size distribution within the specialisations was rather similar. Only in field cropping and mixed farming was the share of small group sizes (< 8 ESU) higher than in the other types of production.

Figure 2: Farm Size Development by Spezialisation
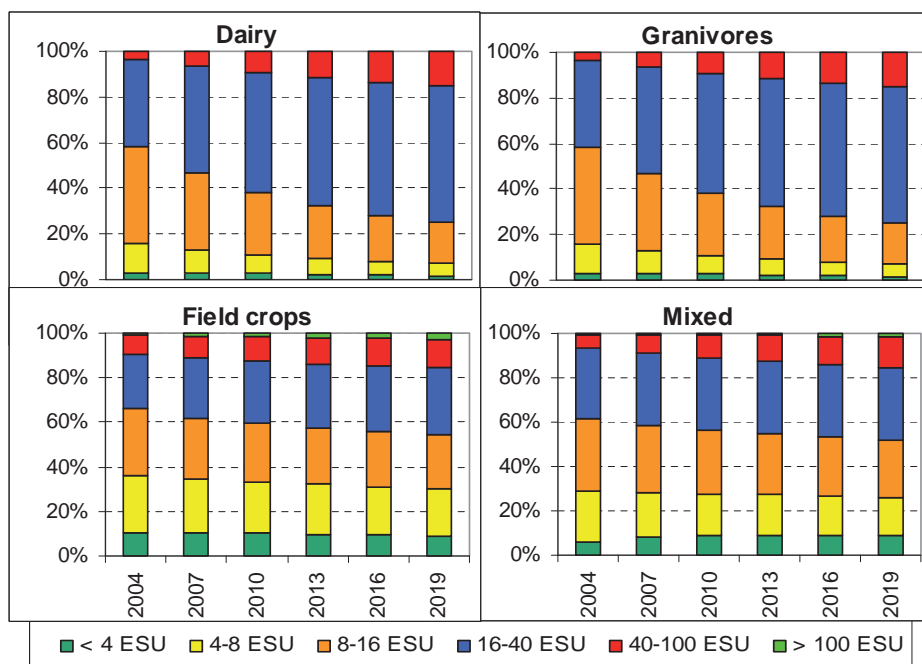
Source: Own calculations

According to our results we expect that if the trends observed between 2004 and 2007 continue, the distribution of farm size will nearly remain stable in these types of production in the next years. Animal production is expected to undergo both a more rapid adaptation and uneven growth within its various size groups: especially larger farms (> 16 ESU) will benefit at the expense of medium-sized farms (8-16 ESU). Moreover, there will only be a low inclination to establishing large farms above 100 ESU. Consequently, this tendency implies a bipolar agricultural structure in Poland.

2.3. Tentative interpretation

The procedure introduced above provides a ready instrument to analysing the ongoing adjustment processes in agriculture. However, there are some major shortcomings that limit the interpretation of results. First, since nominal data are used, it is not possible to reliably determine whether structural changes arise from price or quantity adjustments. With respect to our results it can be presumed that both the increasing importance of dairy farming and the decline in mixed farming were primarily due to increasing milk prices after the accession of Poland to the EU rather than structural adjustments. Because of incomplete statistical information, we were not able to control for the underlying price effects. In this context, for instance, it is to be expected that structural change will be at the expense of dairy farming due to current pressure on milk prices.

Second, it is equally difficult to consider changing institutional conditions appropriately. More precisely, this approach fails to explicitly cover policy reforms, policy restrictions in general

and future developments of institutional conditions such as changes in policy. To compensate for this methodological gap, expert knowledge is required, at least, to allow qualitative assessments of adjustment responses. What is more, expert knowledge is also helpful in evaluating the transition matrices themselves. Corrections are necessary, e.g. whenever a retarded structural change is made up for within the sample period or an impediment disappears. Disappearing obstacles are to be treated in the same way.

In this context, effects of the milk quota scheme are especially noteworthy. Due to curtailment of production, potentials for development are far from being fully exploited. Thus, structural change will become less pronounced until the expected expiry of the milk quota scheme in 2015.

Despite these restrictions, the presented approach provides valuable insights into the process of structural change and thereby giving implications for agricultural policy. Above all, the result that farm growth is at the expense of medium-size farms indicates the different roles of agricultural production for the individual families. Here, besides maximisation of income through growth, the stabilisation of incomes through diversified factor input in small holdings is of central interest.

3. Measuring differences in productivity

When analysing the driving forces behind structural change, factor productivity and its determinants are pivotal. In general, it is to assume that, in the long run, only those branches of agricultural production and farm sizes will prevail that can provide higher factor remuneration, and thereby are connected with higher factor productivities.

To proceed further, we assume that farm output depends on the volume of factor inputs (hours of work, used agricultural land, volume of intermediate inputs, the aggregated amount of depreciation and expenditure on services as an indicator of the amount of capital). Among others, further determinants comprise the quality of factor inputs, technical change, other farm characteristics and the degree of exploited production potentials, ie. the efficiency of factor input. The quality indicators used in the estimation include land quality, human capital incorporated in agricultural workers and age of the capital stock. Intermediate input quality was measured as the share of home-grown seeds and feed in total volume of these inputs. Effects of technical progress were captured by a trend variable. Farm characteristics consider management skills of the farm operator as well as economic and natural location factors. As these factors could not be observed directly, their impact on the production level was estimated by a specific estimation procedure assuming a normal distribution of these variables in the sample.

With respect to the functional form, we presumed translog production functions to adequately reflect the underlying production structures. All monetary values were deflated, for one thing, to separate price and quantity effects, and for another, to eliminate the price effects at the same time.

The generated results were then used to calculate an index of inputs. Therefore, a normalisation was performed such that the input index gives each farm's position as compared to the sample's average value at any time. Similarly, an index of outputs was obtained from output. Finally, from both indices, factor productivity can be calculated as quotient of output and input index. The normalisation procedure not only allows describing the development of productivity but also consistently discerning productivity differences between farms.

3.1. Productivity-induced structural changes

Figure 3 provides an overview over the average productivity changes within the different types of specialisation. On average over the investigated farms, factor productivity slightly increased during the sample period. However, the results show distinct differences between the types of production with respect to both level and development of factor productivity. The

both production types milk, and pig and poultry yielded productivities above average, field cropping on average, while mixed farms found themselves at the lower end the scale. The estimated differences in productivity are in accordance with the structural developments discussed above in so far as those types of production with high productivity, as expected, experienced a significant increase in farm size. Moreover, it is the mixed farm's low level of productivity that can be seen as the root cause for the increasing specialisation of agricultural production.

Figure 3: Differences in Total Factor Productivity (TFP)
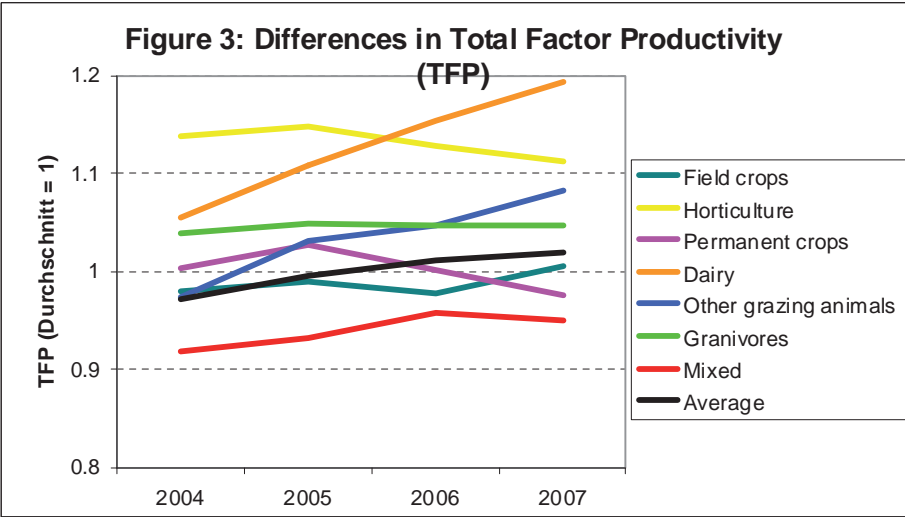
Source: Own calculations

3.2. Reasons for differences in productivity

This section discusses how far factor input (SE), factor quality (QUA), technical progress (TCH), operational heterogeneity (HET) and efficiency (EFF) influenced the differences between the types of agricultural production. Technically, factor productivity (TFP) is the product of these impacts. For practical purposes, the determinants were calculated as normalised indices, thereby providing information on how strong each variable contributed to factor productivity level and development. The results of the corresponding calculations are listed in Figure 4.

Technical progress (TCH) contributed positively to all specialisation types of production. The results show no significant difference, either in level or time course, thus inferring that innovations had no distinctive effects on specialisation. In addition, technical progress could contribute only moderately to changes in productivity. The same holds true for the exploitation of production potentials, i.e. efficiency (EFF). The effect of EFF, however, on production types varied. Despite advantages in dairy farming as well as pig and poultry production, the developments were divergent. While increasing in dairy farms, EFF revealed a downward trend in pigs and poultry production. Furthermore, we found medium to larger reserves of unused productivity reserves for mixed farming and field cropping, albeit with fluctuation in the latter case.

Figure 4: Determinants of Total Factor Productivity
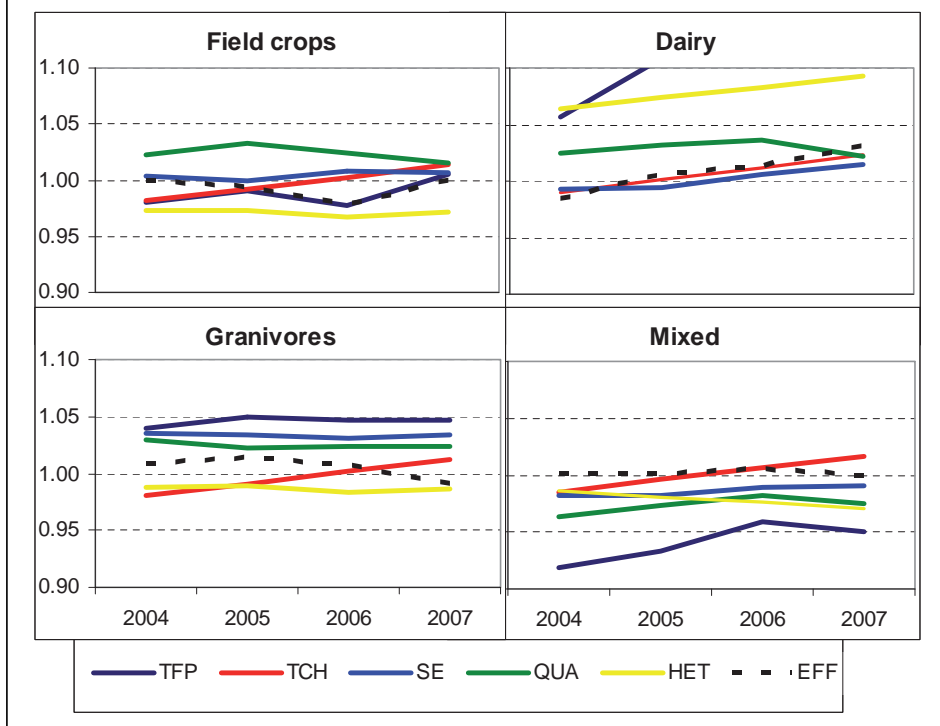
Compared with technological change and efficiency, the scale effect (SE) responded slightly different. SE, indicating the degree of realised economies of scale, mattered most to pig and poultry production, and mixed farms. SE reduced productivity of mixed farms; a finding that clearly reveals that these farms cannot make use of increasing farm sizes due to technological constraints. By contrast, pig and poultry production benefit from exploiting economies of scale; a result that is consistent with the observations in other countries, where organisational and biological-technical progress led to increasing standardisation in production and thereby to a wide-ranging industrialisation of the production processes. What is more, this development implies a growing concentration of production towards large-scale farming in these countries. Similar developments are recognisable in Polish agriculture. The share of poultry and pig farms remained relatively constant (Figure 1), whereas average farm size increased significantly within these specialisations (Figure 2).

The situation for mixed farms came out differently. These types of farms not only suffered from disadvantages in scale effect SE, they also scored below average in factor quality (QUA). The reasons behind low quality scores QUA are twofold: factor quality QUA is significantly determined, first, by natural conditions such as soil quality, and second, by entrepreneurial decisions, which are to be seen in the market context or market position of these farms. In general, mixed farms are less integrated into intermediate input markets. To a higher degree than other farm types they, for instance, rely on home-grown seeds and feed. Besides, the observed quality differences are directly related to lacking investment into human capital and real capital in the preceding years. The analysis does not allow to differentiate between these

influences, however, it can be assumed that the declining share of mixed farms (Figure 1) indicates that diversified agricultural production does offer a long-term perspective to Polish agriculture. In fact, increasing specialisation is likely to result from future investments of many farms.

With respect to operational heterogeneity (HET), dairy farms can exploit clear advantages compared to other farms. Nonetheless, as with the other indicators, the single causes cannot be uniquely assigned. For one thing, it could be assumed that managers of dairy farms benefit from more useful management skills as distinct from managers of other types of specialisation; yet, an explanation that needs further discussion as it remains unclear why this difference in skills only applies to milk production. However, farms in milk production show a higher degree of vertical integration as against other production branches; an advantage that is certainly fostering a flow of know-how from dairy plants to farmers. Furthermore, the relocation of milk production to regions with comparative advantages amplifies the positive influence of HET within the milk producing sector. This interpretation is consistent with the revealed changes in Polish milk production in the past years. In addition, our results support the view that HET is a conglomeration of various determinants. Therefore, further investigations explicitly considering the impact of the various location factors are required to obtain detailed information about the distribution of management skills and how they influence both production and structural change.

4.   Summary: structural change and agricultural policy options

In the years to come, structural change in Polish agriculture will continue. It is to be expected that agricultural enterprises will become increasingly specialised provided market and production risks can be kept manageable. Among the various types of agricultural production, it is milk production that will benefit most from this development. Similar to specialisation, farm growth will continue, albeit on a divergent, or more precisely, dual path since growth will be at the expense of medium-sized farms. This is the point at which agricultural policy is called upon to adjust its conceptions and instruments accordingly so that the different aims of farming can be accomplished in the both size categories alike, the very small holdings and the rather large enterprises. Besides, agricultural policy then should be sufficiently flexible in order to encompass all the relevant determinants of productivity change, both comprehensively and sufficiently differentiated so as to provide Polish agriculture with preconditions for optimal development. But yet, this implies that policy-makers are willing to to create an economic, institutional and organisational framework in which agricultural enterprises of all forms of specialisation can take full advantage of their growth potentials.

Walenty Poczta

Poznan Uniwersity of Life Sciences

Influence of Polish accession to the EU on structural adjustments in Polish agriculture

5-lecie Polskiego FADN

Wpływ akcesji na przemiany strukturalne w rolnictwie polskim
Influence of Polish accession to the EU on structural adjustments in Polish agriculture

Prof. dr hab. Walenty Poczta

Pułtusk 06.09.2009 - 08.09.2009

Czy akcesja Polski do UE wpłynęła na strukturę sektora rolnego?

Did the Polish accession to the EU influence the structure of Polish agriculture?

Czy sytuacja strukturalna i czynniki kształtujące sytuację produkcyjno-ekonomiczną rolnictwa w okresie poakcesyjnym sprzyjają jego umiejscowieniu w sektorze rolnym UE?

Do the structure and the factors influencing productivity and economic condition of Polish agriculture in the after-accession period help to place it in the European agricultural sector?

Zakres analizy (prezentacji):
Analysis covers:

- Struktura gospodarstw rolnych (farm structure):
  - *na podstawie struktury obszarowej (based on area structure)*
  - *na podstawie wielkości ekonomicznej (based on economic size)*
- Zmiany strukturalne w zakresie skali wywarzania w gospodarstwach rolnych (structural changes in production scale)
- Wpływ akcesji na sytuację produkcyjno-dochodową rolnictwa polskiego (impact on the production and economic situation)

Podstawowe źródła danych:
Data sources:

- *Charakterystyka gospodarstw rolnych* 2002 opublikowana po Powszechnym Spisie Rolnym 2002 r. (GUS) (*Characteristics of agricutural holdings* 2002 published after the Agricultural Census 2002 (CSO),

- *Charakterystyka gospodarstw rolnych* 2005 (GUS) (*Characteristics of agricutural holdings* 2005) (CSO),

- *Charakterystyka gospodarstw rolnych* 2007 (GUS) (*Characteristics of agricutural holdings* 2007) (CSO),

- Rachunki Ekonomiczne dla Rolnictwa - RER (Eurostat) (Economics Accounts for Agriculture EEA) (Eurostat)

- Inne: Eurostat i GUS (Central Statistical Office – CSO)

Struktura gospodarstw rolnych

na podstawie

struktury obszarowej

(Farm structure based on area structure)

Powierzchnia UR, pełnozatrudnieni i nakłady kapitałowe w rolnictwie polskim i relacje między nimi w latach 2002-2007
(Agricultural land area, full-time employees and capital inputs in Polish agriculture and main relations between production factors in 2002-2007)

Lata (Years)	Powierzchnia UR ogółem (tys. ha) *(UAA in 000 ha)*	Roczna jednostka pracy (w tys. AWU) *(in 000 AWU)*	Nakłady kapitałowe (amortyzacja+ zużycie pośrednie (mln zł, ceny stałe 2007 roku) *(capital inputs (depreciation and intermediate consumption)*
2002	16 899,3	2 254,8	45 861,3
2005	15 906,0	2 291,9	44 602,8
2007	16 177,1	2 299,3	50 371,0
Relacje między czynnikami produkcji *(relations between production factors)*			
Lata	Powierzchnia UR na 1 AWU (ha) *(UAA per AWU)*	Nakłady kapitałowe na 1 AWU (tys. zł) *(capital inputs in 000 zł per AWU)*	Nakłady kapitałowe na 1 ha UR (tys. zł) *(capital inputs per 1 ha of UAA in 000 zl)*
2002	7,49	20,3	2,7
2005	6,94	19,5	2,8
2007	7,04	21,9	3,1

Powierzchnia UR na 1 AWU (ha) (2007r.)
(UAA per one AWU)
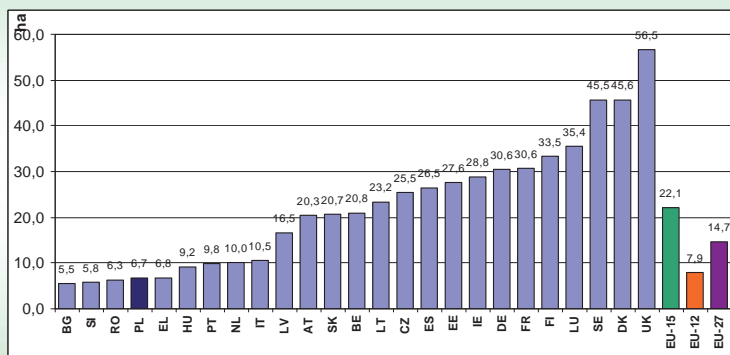
Wartość nakładów kapitału (amortyzacja + zużycie pośrednie) na 1 AWU (tys. euro) (2007 r.)
capital inputs (depreciation + intermediate consumption) in 000 Euro per one AWU
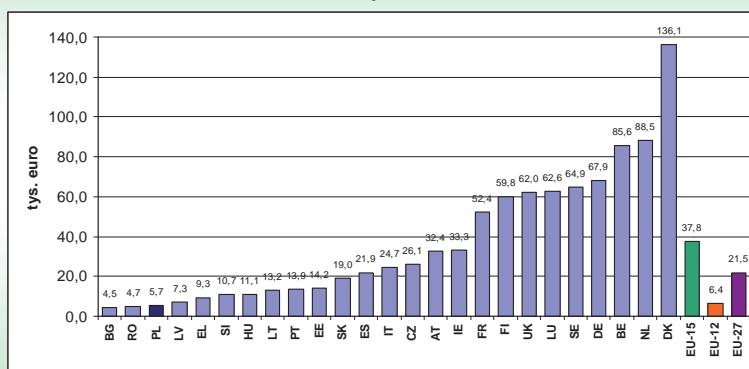
Wartość nakładów kapitału (amortyzacja + zużycie pośrednie) na 1 ha UR (tys. euro) (2007r.)
capital inputs (depreciation + intermediate consumption) in 000 Euro per 1 ha of UAA
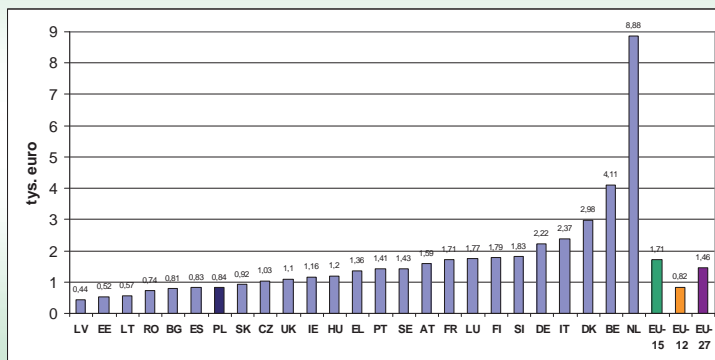
Relacje między czynnikami produkcji w rolnictwie UE w 2007 roku *(relations between production factors in 2007)*			
Kraje	UR na 1 AWU (ha) <10;>20 *UAA per 1 AWU*	Nakłady kapitału na 1 AWU (tys. euro, 000 euro) <10;>50 *capital inputs per 1 AWU*	Nakłady kapitału na 1 ha UR (tys. euro, 000 euro)<1;>2 *capital inputs per 1 ha of UAA*
BG	5,52	4,45	0,81
CZ	25,47	26,12	1,03
DK	45,60	136,10	2,98
EE	27,57	14,21	0,52
FR	30,63	52,44	1,71
ES	26,46	21,88	0,83
NL	9,97	88,51	8,88
LT	23,24	13,21	0,57
LV	16,52	17,34	0,44
DE	30,55	67,91	2,22
PL	6,73	5,66	0,84
PT	9,83	13,85	1,41
RO	6,28	4,65	0,74
SK	20,67	18,98	0,92
SI	5,82	10,68	1,83
HU	9,21	11,08	1,20
UK	56,54	62,04	1,10
IT	10,46	24,74	2,37
EU 27	14,72	21,53	1,46

Zmiany w strukturze obszarowej gospodarstw rolnych (liczba gospodarstw) changes in farm area structure (number of farms)					
Wyszczególnienie	Gospodarstwa rolne (farms)				
	2002		2007		różnica (tys.) (2007-2002) difference	2007 (2002 =100)
	liczba (tys.) (number)	struktura (%) (structure)	liczba (tys.) (number)	struktura (%) (structure)		
Powyżej 1ha razem w tym:	1 956 141	100,0	1 808 044	100,0	-148 097	92,4
1-2 ha	517 040	26,4	422 610	23,4	-94 430	81,7
2-3	281 161	14,4	273 779	15,1	-7 382	97,3
3-5	348 689	17,8	340 485	18,8	-8 204	97,6
5-10	426 869	21,8	400 152	22,1	-26 717	93,7
10-15	182 685	9,3	166 595	9,2	-16 090	91,2
15-20	83 938	4,3	77 597	4,3	-6 341	92,4
20-30	64 265	3,3	65 351	3,6	1 086	101,7
30-50	31 678	1,6	37 372	2,1	5 694	117,9
50-100	12 394	0,6	15 995	0,9	3 601	129,1
100 ha i więcej	7 422	0,4	8 109	0,5	687	109,3
Przeciętna powierzchnia gospodarstw (ha UR) (average farm area) Ogółem (in total) Powyżej 1ha UR (farms > 1 ha)	5,8 8,4		6,3 8,8		0,5 0,4	108,6 104,8

Zmiany w strukturze obszarowej gospodarstw rolnych (użytki rolne) changes in farm area structure (agricultural land)					
Wyszczególnienie	Powierzchnia użytków rolnych w gospodarstwach farm agricultural land area				
	2002		2007		różnica (tys. ha) (2007-2002) (difference)	2007 (2002=100)
	tys. ha (area in 000 ha)	struktura (%) (structure)	tys. ha (area in 000 ha)	struktura (%) (structure)		
Powyżej 1ha w tym:	16 502,8	100,0	15 846,3	100,0	-656,5	96,0
1-2 ha	725,3	4,4	613,4	3,9	-111,9	84,6
2-3	685,0	4,2	667,7	4,2	-17,3	97,5
3-5	1 354,2	8,2	1 323,2	8,4	-31,0	97,7
5-10	3 031,6	18,4	2 838,2	17,9	-193,4	93,6
10-15	2 216,0	13,3	2 021,8	12,8	-194,2	91,2
15-20	1 440,4	8,7	1 335,2	8,4	-105,2	92,7
20-30	1 541,2	9,3	1 572,1	9,9	30,9	102,0
30-50	1 181,4	7,2	1 397,2	8,8	215,8	118,3
50-100	829,9	5,0	1 071,6	6,8	241,7	129,1
100 ha i więcej	3 497,8	21,2	3 005,8	19,0	-492,0	85,9

Zmiany w strukturze obszarowej gospodarstw rolnych w latach 2002-2007 (2002=100)
(changes in farm area structure)
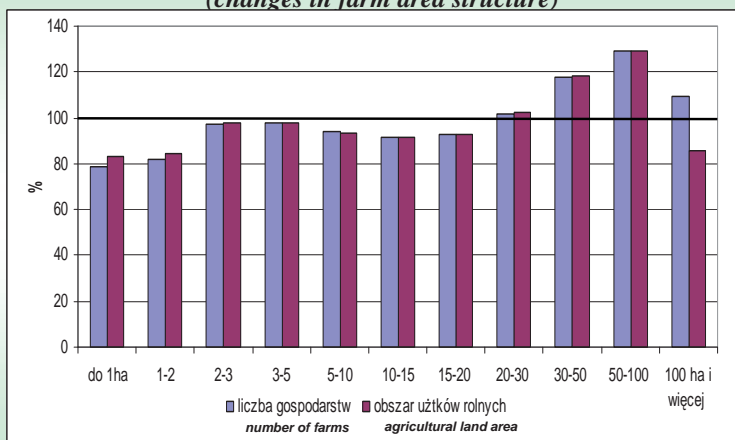
Udział gospodarstw powyżej 20 ha (2007)
(share of farms >20 ha)
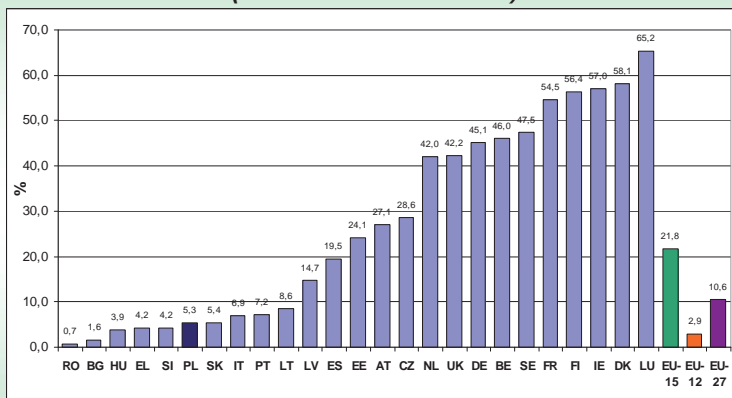
Udział użytków rolnych w gospodarstwach powyżej 20 ha
(share of UAA owned by farms > 20ha)
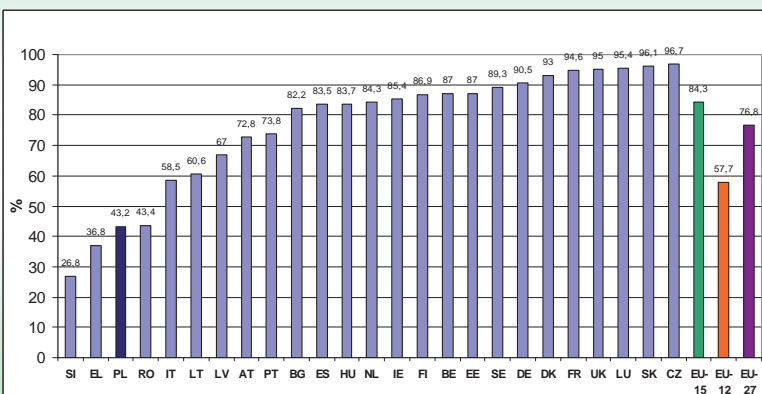
Struktura gospodarstw rolnych oraz użytkowania ziemi w krajach Unii Europejskiej w 2007 roku				
(structure of farms and land use in EU member countries in 2007)				
Kraj	Gospodarstwa w grupach obszarowych >20 ha (%) <10 ; > 40 (farms by area groups > 20 ha))		Powierzchnia UR w grupach obszarowych > 20 ha (%) <50 ; >80 (UAA by area groups > 20 ha)	
	20-50 ha	> 50 ha	20-50 ha	> 50 ha
BG	0,6	1,0	3,1	79,1
CZ	11,5	16,9	4,0	92,7
DK	23,6	34,4	12,7	80,3
EE	12,9	11,2	10,0	77,0
FR	19,3	35,2	13,5	81,1
ES	10,3	9,2	13,9	69,6
NL	27,4	14,6	36,6	47,6
LT	5,6	3,0	14,7	45,9
LV	10,0	4,7	18,0	49,0
DE	22,1	23,0	16,1	74,4
PL	4,3	1,0	18,9	24,3
PT	4,0	3,2	10,5	63,3
RO	0,4	0,3	3,4	40,0
SK	1,6	3,8	1,8	94,3
SI	3,7	0,5	16,0	10,8
HU	2,0	1,9	9,0	74,7
UK	16,3	25,9	9,7	85,3
IT	4,7	2,2	19,6	38,9
EU 27	5,7	4,9	14,8	62,0

Krzywa koncentracji Lorenza dla skumulowanych odsetków liczby gospodarstw rolnych i powierzchni gospodarstw rolnych w Polsce i pozostałych krajach UE w 2007 roku
(Lorenz curve – cumulated shares of farm number and farm area)
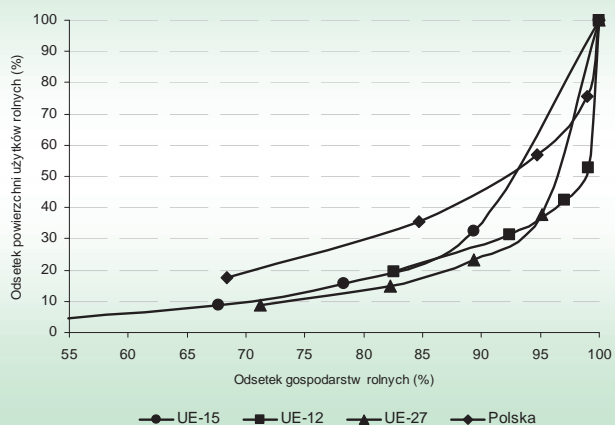
Struktura gospodarstw rolnych

na podstawie wielkości

ekonomicznej

(Farm structure based on economic size)

Liczba i struktura gospodarstw rolnych według klas wielkości ekonomicznej w Polsce *(number and structure of farms by economic size group)*						
Klasy wielkości ekonomicznej (ESU) *(economics size group)*	**Gospodarstwa według klas wielkości ekonomicznej** *(farms by economics size group)*					
	2002		**2007**		**różnica (tys.) (2007-2002)** *difference*	**2007 (2002=100)**
	(tys.) *number in 000*	**struktura (%)** *structure*	**(tys.)** *number in 000*	**struktura (%)** *structure*		
Ogółem *(total)*	**2 172,2**	**100,0**	**2 390,9**	**100,0**	**218,7**	**110,1**
0-2	**1 427,2**	**65,7**	**1 624,2**	**67,9**	**197,0**	**113,8**
2-4	**280,4**	**12,9**	**299,8**	**12,5**	**19,4**	**106,9**
4-6	**148,4**	**6,8**	**138,6**	**5,8**	**-9,8**	**94,1**
6-8	**91,2**	**4,2**	**83,0**	**3,5**	**-8,2**	**91,0**
8-12	**100,5**	**4,6**	**95,7**	**4,0**	**-4,8**	**95,2**
12-16	**48,6**	**2,2**	**50,6**	**2,1**	**2,0**	**104,1**
16-40	**62,9**	**2,9**	**80,3**	**3,4**	**17,4**	**127,7**
40-100	**9,6**	**0,4**	**14,6**	**0,6**	**5,0**	**152,1**
100-250	**2,3**	**0,1**	**2,9**	**0,1**	**0,6**	**126,1**
powyżej 250	**1,1**	**0,05**	**1,3**	**0,05**	**0,2**	**118,2**

Udział gospodarstw powyżej 16 ESU
(share of farms > 16 ESU)
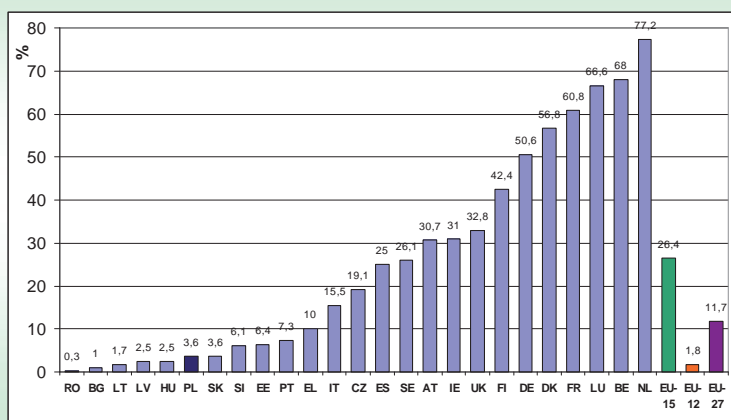
Udział nadwyżki bezpośredniej wytworzonej w gospodarstwach powyżej 16 ESU
(share of SGM produced in farms > 16 ESU)

22,9	43,5	45,4	46,1	48,3	54	55,2	64,4	69,8	75,4	76,2	79,6	80,6	82	85,1	88,7	90,1	94,5	94,8	95,1	96	96	96,1	97,3	98,2	86,7	48,1	81,6
RO	PL	EL	SI	LT	LV	BG	PT	HU	IT	EE	IE	ES	AT	FI	SE	SK	CZ	DE	UK	DK	LU	FR	BE	NL	EU-15	EU-12	EU-27
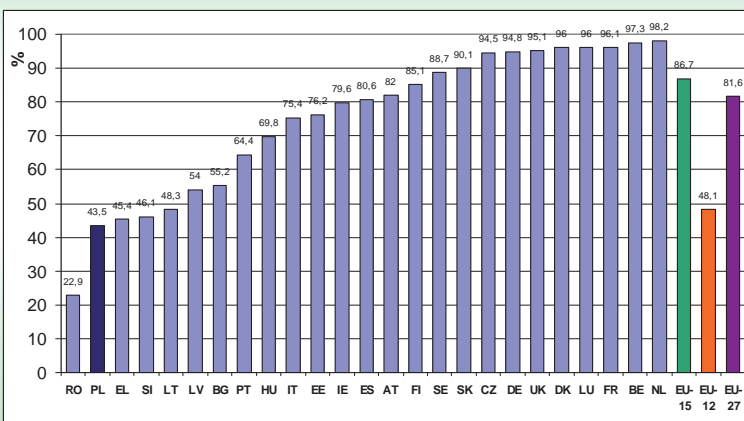
Struktura gospodarstw rolnych oraz nadwyżki bezpośredniej w UE w 2007r. *(structure of farms and SGM in EU member countries in 2007)*

Kraj/ Country	Struktura gospodarstw rolnych według wielkości ekonomicznej (%) < 1 ; > 20 *(structure of farms by economic size)*		Standardowa nadwyżka bezpośrednia (%) < 25 ; > 80 SGM	
	40-100 ESU	> 100 ESU	40-100 ESU	> 100 ESU
BG	0,3	0,3	10,8	38,1
CZ	4,6	6,4	6,9	82,6
DK	14,3	22,9	11,5	78,3
EE	1,6	1,4	13,4	51,5
FR	27,1	14,1	34,7	50,8
ES	7,1	2,8	23,1	37,0
NL	25,3	35,2	15,8	78,4
LT	0,4	0,2	9,7	27,5
LV	0,6	0,3	12,4	2,1
DE	20,2	12,0	26,4	58,5
PL	0,5	0,2	8,9	14,0
PT	2,0	0,8	18,5	29,1
RO	0,1	0,0	4,1	14,9
SK	0,9	1,5	7,4	78,8
SI	0,9	0,3	8,3	18,2
HU	0,6	0,4	11,0	47,3
UK	12,1	9,8	21,1	66,1
IT	4,0	1,7	19,1	37,5
EU-27	3,8	2,0	22,4	45,1

Wnioski dot. struktury rolnictwa

- W Polsce pod względem obszarowym dominują gospodarstwa małe i średnie - takich gospodarstw jest ponad 90%, a użytkują one ponad 55% zasobów użytków rolnych,

  Majority of Polish farms is small and medium – over 90% of total number, which use over 55% of agricultural land

- Można sformułować wniosek, że znaczenie segmentu gospodarstw małych i średnich w polskim rolnictwie z punktu widzenia zrównoważonej sytuacji ekonomicznej i społecznej na polskiej wsi jest nadmierne,
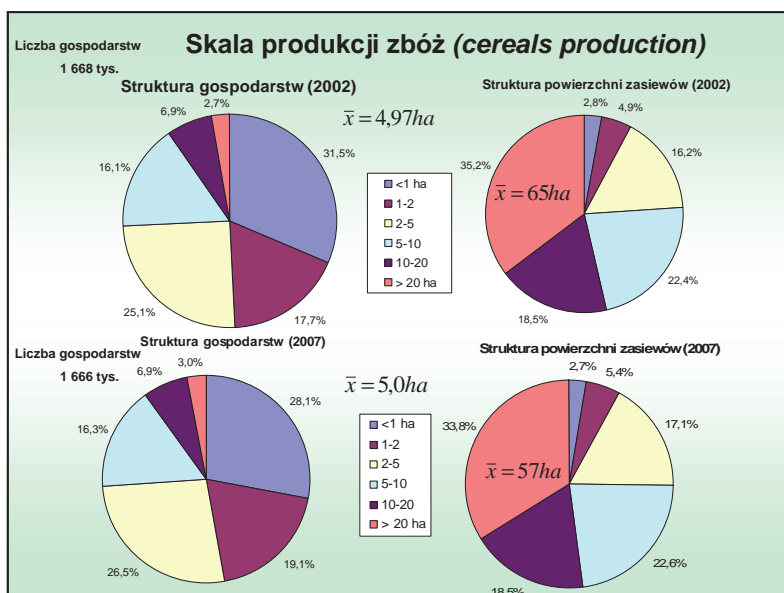
  One can claim that meaning of small and medium farms in Polish agriculture is to high from the economic and social point of view

- Nadreprezentacja gospodarstw małych i średnich może wywoływać dysfunkcjonalność *(It can cause following problems)* :

  - **produkcyjno-rynkową** - perturbacje w wielkości produkcji rolnej, głównie roślinnej a co za tym idzie skutkować niedostatecznym zaopatrzeniem produkcji zwierzęcej i przemysłu w surowce rolne, a to będzie wymuszać import zaopatrzeniowy i pogorszenie salda hz
    (*problems with cereals production – not enough supply to satisfy demand of livestock producers and food industry, which may rise import and deteriorate balance of trade)*

Wnioski c.d.

  - **ekologiczną** - część gospodarstw małych i średnich, których znaczenie dla kształtowania sytuacji ekonomicznej rodzin ich użytkowników jest ograniczone, nie wypełnia standardów dobrej praktyki rolniczej i wcale nie przyczynia się do udziału w wypełnianiu funkcji ekologicznej i kształtowaniu krajobrazu (*nie sprosta wymogom cross compliance*),
    (small and medium farms have problems with being environmental friendly and do not contribute to the landscape, they will have problems with cross compliance requirements)

  - **społeczną** – dysfunkcjonalność produkcyjna i ekologiczna powodować może marginalizację części obszarów wiejskich i występowanie dysparytetu dochodowego
    (problems with income disparity)

- Nadmierne rozdrobnienie - wbrew temu co często próbuje się udowadniać - wcale nie przyczynia się do szeroko rozumianego zrównoważonego rozwoju rolnictwa i obszarów wiejskich,
  (such a structure of Polish agriculture does not contribute to the sustainable development of agriculture and rural areas)

- Dla lepszego wpasowania polskich gospodarstw rolnych w rolnictwo europejskie konieczne są nadal zasadnicze przekształcenia strukturalne, także w zakresie struktury obszarowej gospodarstw
  (in order to fit in the European agriculture, Polish agriculture still needs some crucial structural adjustments)

Zmiany strukturalne

w zakresie skali wytwarzania

w gospodarstwach rolnych

(Structural changes in the production scale)

Skala produkcji rzepaku *(rape production)*

Liczba gospodarstw
43,0 tys.

Struktura gospodarstw (2002)

7,9%
13,3%
7,2%
16,7%
16,3%
38,5%

$\bar{x}=10,2ha$

<1 ha
1-2
2-5
5-10
10-20
> 20 ha

Struktura powierzchni zasiewów (2002)

0,3% 2,2%
11,1%
10,2%
9,0%
67,2%

$\bar{x}=87ha$

Struktura gospodarstw (2007)

Liczba gospodarstw
78,3 tys.

8,3%
12,5%
9,2%
17,8%
17,1%
35,1%

$\bar{x}=10,2ha$

<1 ha
1-2
2-5
5-10
10-20
> 20 ha

Struktura powierzchni zasiewów (2007)

0,7% 2,4%
10,6%
11,2%
12,0%
63,1%

$\bar{x}=77ha$

Skala produkcji buraków cukrowych *(sugar beets production)*

Liczba gospodarstw
101,3 tys.

Struktura gospodarstw (2002)

2,9%
7,1%
21,0%
36,0%
32,9%

$\bar{x}=2,99ha$

<1 ha
1-2
2-5
5-10
>10 ha

Struktura powierzchni zasiewów (2002)

2,7%
13,9%
35,7%
33,1%
14,6%

Struktura gospodarstw (2007)

Liczba gospodarstw
66,9 tys.

2,5% 1,8%
9,0%
11,7%
41,4%
33,6%

$\bar{x}=3,70ha$

<1 ha
1-2
2-5
5-10
10-20
> 20 ha

Struktura powierzchni zasiewów (2007)

1,9%
12,4%
29,1%
31,9%
9,0%
15,6%

$\bar{x}=60ha$

Skala chowu bydła *(cattle production)*

Liczba gospodarstw
935 tys.

Liczba sztuk
5 533 tys.

Struktura gospodarstw (2002)

$\bar{x} = 5,9 szt.$

5,3%
10,2%
27,9%
17,3%
18,8%
20,5%

1 szt.
2 szt.
3-4
5-9
10-19
≥20szt

Struktura pogłowia (2002)

4,7%
6,9%
10,9%
35,5%
$\bar{x} = 40 szt.$
19,0%
23,0%

Struktura gospodarstw (2007)

Liczba gospodarstw
718 tys.

10,5%
25,6%
$\bar{x} = 8,2 szt.$
10,9%
16,3%
19,3%
17,4%

1 szt.
2 szt.
3-4
5-9
10-19
≥20szt

Struktura pogłowia (2007)

3,1% 4,8%
7,3%
Liczba sztuk
5 855 tys.
13,1%
53,6%
$\bar{x} = 42 szt.$
18,1%

Skala chowu krów mlecznych *(milk cows production)*

Liczba gospodarstw
875 tys.

Liczba krów
2 873,2 tys.

Struktura gospodarstw (2002)

5,1% 1,4%
10,7%
$\bar{x} = 3,3 szt.$
15,0%
45,9%
21,9%

1 szt.
2 szt.
3-4
5-9
10-19
≥20szt

Struktura pogłowia (2002)

16,2% 14,0%
13,3%
$\bar{x} = 38 szt.$
20,0%
15,5%
21,0%

Struktura gospodarstw (2007)

Liczba gospodarstw
656 tys.

3,8%
7,9%
9,6%
$\bar{x} = 4,3 szt.$
11,6%
47,7%
19,4%

1 szt.
2 szt.
3-4
5-9
10-19
≥20szt

Struktura pogłowia (2007)

11,1%
9,0%
Liczba krów
2 824,6 tys.
31,5%
9,0%
$\bar{x} = 36 szt.$
14,7%
24,7%

Skala chowu trzody chlewnej *(pigs production)*

Liczba gospodarstw 761 tys.

Struktura gospodarstw (2002)

$\bar{x}=24,5szt.$

Struktura pogłowia (2002)

$\bar{x}=554szt.$

Struktura gospodarstw (2007)

$\bar{x}=27,9szt.$

Liczba gospodarstw 664 tys.

Struktura pogłowia (2007)

$\bar{x}=600szt.$

Wnioski dot. zmian strukturalnych w zakresie skali wytwarzania

- Akcesja z UE wywołała na ogół pozytywne zmiany w zakresie skali wytwarzania i przyspieszyła procesy koncentracji wytwórczej w rolnictwie;

  (impact of the Polish accession to the EU on the production scale seems to be positive)

- Dość dynamiczne zmiany zachodzą w przypadku *(one can notice some dynamic changes in production of):*
  - produkcji roślinnej w produkcji rzepaku i buraków cukrowych
    (rape and sugar beets),
  - natomiast w produkcji zwierzęcej – głównie w chowie bydła i krów mlecznych
    (cattle and milk cows);

- Przemiany strukturalne w zakresie skali wytwarzania, aczkolwiek też umiarkowane, przebiegają dynamiczniej od zmian w strukturze agrarnej i ekonomicznej
  (structural changes in production scale are more dynamic than those in area and economic) .

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Skutki produkcyjne i dochodowe integracji Polski z UE dla sektora rolnego

(Impact of Polish integration with the EU on production and incomes in agricultural sector)

| Produkcja rolnicza *(agricultural production)*		
Wyszczególnienie	2000-2003	2004-2008
1. Produkcja sektora rolnego - wolumen (ceny stałe 2000 roku) (mld zł - średnio w roku) *(agricultural production – constant prices)*	51,8	59,1
	+14,1% (50% przyrost produkcji +50% dotacje do produktu)	
2. Nominalny wzrost cen produkcji sektora rolnego *(nominal price growth)*	100,0	114,8
3. Produkcja sektora rolnego (ceny bieżące) (mld zł - średnio w roku) *(agricultural production – current prices)*	52,0	68,2
4. Realny wzrost cen produkcji sektora rolnego *(real price growth)*	100,0	102,5
5. Realny przyrost wartości produkcji (114,1*102,5/100=117,0) *(real production growth)*	100,0	117,0

Zużycie pośrednie w sektorze rolnym *(intermediate consumption in agriculture)*		
Wyszczególnienie	2000-2003	2004-2008
1. Zużycie pośrednie - wolumen (ceny stałe 2000 roku) (mld zł - średnio w roku) *(intermediate consumption – constant prices)*	31,5 +3,0%	32,4
2. Nominalny wzrost cen zużycia pośredniego *(nominal price growth)*	100,0	121,5
3. Zużycie pośrednie sektora rolnego (ceny bieżące) (mld zł - średnio w roku) *(intermediate consumption – current prices)*	32,6	40,7
4. Realny wzrost cen zużycia pośredniego *(real price growth of intermediate consumption)*	100,0	108,3
5. Realny przyrost wartości zużycia pośredniego (103,0*108,3/100=111,5) *(real value growth of intermediate consumption)*	100,0	111,5

Dochody sektora rolnego i udzielone subwencje *(incomes and subsidies in agriculture)*		
Wyszczególnienie	2000-2003	2004-2008
1. Dochód przedsiębiorcy rolnego (ceny bieżące) (mld zł - średnio w roku) *(Agricultural income – current prices)*	9,4 +134%	22,0
2. Dynamika dochodów przedsiębiorcy rolnego (ceny stałe) *(Agricultural income dynamics – constant prices)*	100,0	208,5
3. Razem dotacje dla sektora rolnego (ceny bieżące) *(subsidies – current prices)* (mld zł - średnio w roku) 11,5 razy w tym: dotacje do produktów *(production subsidies)* pozostałe dotacje *(other)*	0,9 0,4 0,5	9,9 4,0 5,9
4. Udział dotacji w dochodzie przedsiębiorcy rolnego (ceny bieżące) (%) (*share of subsidies in income – current prices*)	9,2	45,0

Produktywność ziemi (produkcja na 1 ha UR)
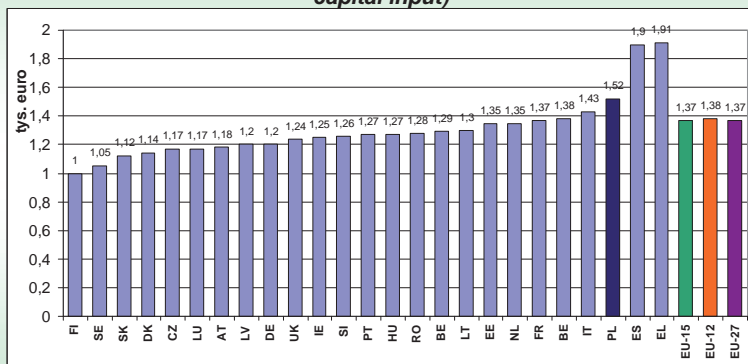*Land productivity (production per 1 ha of UAA)*
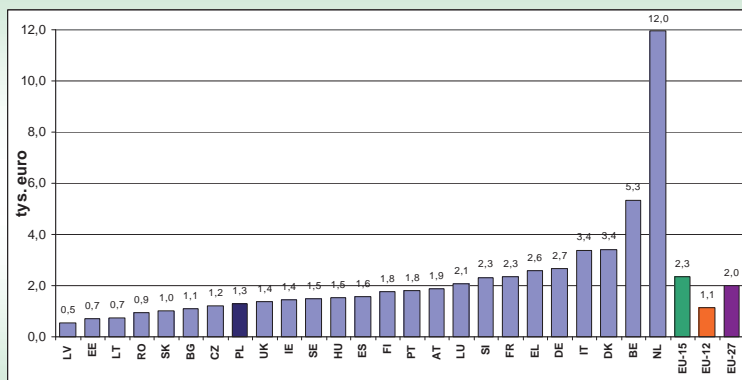
Produktywność pracy (produkcja na 1 AWU)
*Productivity of labor (production per 1 AWU)*
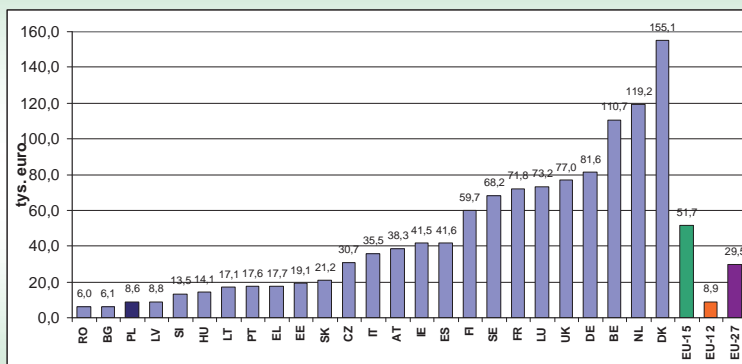
Produktywność nakładów kapitału
(produkcja w euro na 1 euro nakładów)
Productivity of capital inputs (production in Euro per one Euro of capital input)

Analiza skupień krajów UE ze względu na wybrane cechy charakteryzujące sektor rolny w 2007 r
(cluster analysis – chosen variables characterizing agricultural sector)
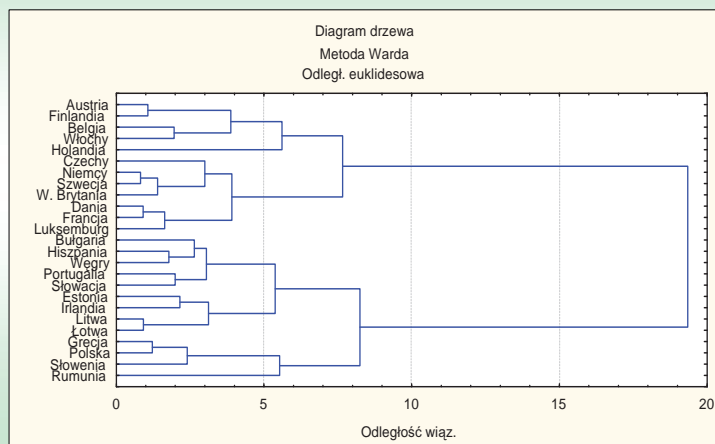
	Udział w PKB (%) (share in GDP)	Udział w zatrud. (%) (share in employment)	UR/osobę (ha) (UAA per person)	UR/gosp. (ha) (UAA per farm)	Ciągniki na 100 gosp. (szt.) (tractors per 100 farms)	Prod/ha (euro) (production per ha)	WDB/AWU (euro) (gross value added/AWU)	UR>50ha (ha) (agri. land >50 ha)
Analiza skupień krajów UE ze względu na wybrane cechy charakteryzujące sektor rolny w 2007 r. (metoda Warda) *(cluster analysis – chosen variables characterizing agricultural sector)*								
I GRUPA								
I podgrupa: AT, FI, BE, IT, NL								
Średnia	1,2	3,8	0,20	22,8	192,5	3381,6	23202,6	47,1
II podgrupa: CZ, DE, SE, UK, DK, FR, LU								
Średnia	0,6	2,5	0,34	57,2	233,9	2077,7	22209,5	82,0
II GRUPA								
I podgrupa: BG, ES, HU, PT, SK								
Średnia	2,2	6,5	0,41	12,6	31,5	1402,1	5295,9	76,9
II podgrupa: EE, IE, LT, LV								
Średnia	1,8	7,7	0,80	24,4	94,8	855,6	6901,7	54,5
III podgrupa: EL, PL, SI, RO								
Średnia	2,8	13,1	0,41	5,3	45,1	1762,0	3968,7	19,3

WNIOSKI KOŃCOWE

- Słabością polskiego rolnictwa jest skupienie znaczącej części potencjału produkcyjnego (zasobów) w gospodarstwach rolnych prowadzących produkcję na małą skalę,

  (production potential is owned mainly by small and medium farms, which seems to be a main disadvantage of Polish agriculture)

- Ta wadliwość strukturalna przekłada się częstokroć na wadliwość technologiczną, a oba obszary wadliwości implikują niską produktywność czynników produkcji,

  (structural problems implies technological problems and low productivity of production factor)

- Ta mikroekonomiczna słabość większości gospodarstw rolnych determinuje sektorową słabość rolnictwa polskiego na JRE,

  (**this microeconomic weakness of the majority of Polish farms determines weakness of the Polish agricultural sector on the Single Common Market)**

WNIOSKI KOŃCOWE cd.

- Mimo iż rolnictwo polskie w warunkach akcesji osiągnęło istotny postęp produkcyjno-ekonomiczny jego konkurencyjność zasobowa (strukturalna) nie jest silnym fundamentem konkurencyjności międzynarodowej
  (although Polish agriculture after integration with the EU reached significant production and economic progress, its structural competitiveness can not be considered as a basis for the international competitiveness)

- Sektor rolny w Polsce wymaga dalszych przemian w zakresie struktur agrarnych i wytwórczych, a WPR UE powinna być istotnym ich stymulatorem
  (Polish agricultural sector still requires a lot of improvement in area and production factors structure. CAP might be a good stimulant for these improvements)

Dziękuję za uwagę !

(Thank you for attention!)

Discussion

When all the presentations were finished, on the second day the participants of the conference were invited for a discussion.

Wojciech Józwiak, President of the Scientific Council of the Institute of Agricultural and Food Economics – National Research Institute, was an exceptionally active person. In his questions put to the speakers, professor made a reference to the changes in FADN methodology connected with the accession of 12 new Member States in 2004-2007 and asked Sophie Helaine to explain whether enterprises are not confused with farms under FADN and whether each EU Member State uses such a differentiation. Because farms composing large enterprises and subject to one owner should be differentiated. Or whether FADN uses the data of these whole entities. When asking a question to Rainer Meyer professor enquired about the opinion on the influence of the crisis and accession of 10 countries in 2004 on the German agriculture. Whether the influence of the crisis on German agriculture is larger than the influence exercised by the accession of new EU Member States. Furthermore, Wojciech Józwiak asked for the specified information about the method of amortisation of fixed assets in agricultural accounting in Germany. By making a reference to the presentation of Heinrich Hockmann, he questioned the purposefulness of preparing agriculture forecasts on the basis of data from four accounting years only. He also pointed out that the presented model did not include the influence of climate change on structural transformations, productivity and effectiveness. Furthermore professor questioned whether farms specialising in milk production actually have such good prospects for future when one considers prices of crops falling each year.

Sophie Helaine answered the questions posed by Wojciech Józwiak saying that the definitions applied in FADN concerning farms are identical as the ones used for the purposes of FSS (Farm Structure Survey).

On the other hand, Rainer Meyer answered the question about amortisation explaining that accounting for amortisation in the case of buildings in Germany is possible already during the investment even if the building is being used.

In reply to Józwiak's question, professor Hockmann emphasised that the presented model is still under construction and there is a possibility of modifying it. It has been prepared to verify the available data and to get acquainted with the initial conclusions arising from the analysis thereof. Research team, together with Hockmann, is aware of the limitations arising from the short time scope of analysed data, but unfortunately other data at this level are not available.

After the discussion, the chairman of the conference, Lech Goraj, thanked the participants of the conference for coming and taking part in it, as well as the organisers and interpreters. Additionally he expressed hope for further rewarding co-operation under the FADN system.

Programme of conference

06.09.2009

18.00	Departure of bus to Pułtusk from in front of IAFE-NRI building, ul. Szkolna 2/4
19.30	Dinner

07.09.2009

07.30 - 09.00   Breakfast
09.00 - 10.00   Opening of the conference by Head of Polish FADN Lech Goraj,
                Director of IAFE-NRI Andrzej Kowalski and Mayor of Pułtusk
10.00 - 11.00   „Challenges for Polish agriculture afterthe accession to EU"
                - Andrzej Kowalski

          „Condition of agricultural holdings after the accession to EU
                according to FADN data":
                        • Czech Republic - Josef Hanibal
11.00 - 11.30   Coffee break
11.30 - 13.30   • Estonia - Eduard Matveev
                    • Latvia - Valda Bratka
                    • Lithuania - Rima Daunyte
                    • Slovenia - Tomaz Cor
13.30 - 15.00   Lunch
15.00 - 16.30   • Hungary - Szilárd Keszthelyi
                    • Poland - Lech Goraj
          „Agricultural holdings of north Poland after the accession to EU"
                 - Grażyna Karmowska
16.30 - 18.00   Discussion
19.00   Formal dinner

08.09.2009

07.30 - 09.00   Breakfast
09.00 - 10.30   „Production structure and economic results analysis of EU farms.
                Impact of EU enlargement" - Sophie Helaine
                „Impact of EU enlargement in 2004 on German agriculture"
                 - Rainer Meyer
                „Structural Change, Productivity and Efficiency: First Evidence
                from the Polish FADN data" - Heinrich Hockmann
10.30 - 11.00   Coffee break
11.00 - 12.30   „Impact of the accession to EU on the structural transitions in Polish
                agriculture" - Walenty Poczta
                Discussion
12.30 - 12.45   Closing of the conference
13.00   Lunch
14.00   Departure to Warsaw

The Pultusk Castle, where the conference took place

From the left: Lech Goraj, Director Plenipotentiary for FADN, Andrzej Kowalski, Director IAFE-NRI

From the left: Lech Goraj, Tomaz Cor, Rima Daunyte, Valda Bratka, Eduard Matveev

Conference participants

Sophie Helaine DG AGRI KE