

# Agricultural Situation and Prospects in the Central and Eastern European Countries





**European Commission  
Directorate General for Agriculture (DG VI)  
Working Document**

**Agricultural Situation and Prospects  
in the Central and Eastern European Countries**

**Lithuania**

**This Document has been prepared by DG VI in collaboration with Dr. Albina Aleksiene, and with the assistance of Dr. Christian Böse, ASA Institute for Agricultural Sector Analysis, Bonn.**

**The manuscript has been prepared by Martin Strittmatter, with the assistance of Steve Darling. The authors accept full responsibility for any errors, which could still remain in the text.**

**The closing date for the data collection was the 26.06.95**

# Table of Contents

	<b>Page</b>
<b>Foreword</b>	
<b>0 Executive Summary</b>	
<b>1 General Overview</b>	
1.1 Geographic situation and climate	1
1.2 Population	1
1.3 Education	2
1.4 Infrastructure	2
1.4.1 Transport	2
1.4.2 Energy	2
1.4.3 Rural Infrastructure	3
1.5 Political situation and historical development	3
1.6 Economic situation	4
1.6.1 General situation	4
1.6.2 Occupational activities	4
1.6.3 Industrial production	5
1.6.4 Foreign Trade	5
1.6.5 Currency and monetary questions	6
<b>2 Agricultural Economy</b>	
2.1 Importance in the economy	7
2.2 Land Use	8
2.3 Food Consumption	8
2.4 Structure and privatisation	9
2.5 Arable sector	13
2.5.1 Cereals	13
2.5.2 Fodder Crops	14
2.5.3 Potatoes	14
2.5.4 Oilseeds	15
2.5.5 Sugar beet	15
2.5.5 Fruit and Vegetables	16
2.6 Livestock	
2.6.1 Milk	18
2.6.2 Beef meat	20
2.6.3 Pork	20
2.6.4 Poultry and other Livestock	22
2.7 Forestry	22
2.8 Fisheries	23

<b>3</b>	<b>Processing Industries</b>	
	3.1 General situation	24
	3.2 Meat processing	24
	3.3 Milk processing	25
	3.4 Sugar processing	25
	3.5 Retail sector	26
<b>4</b>	<b>Upstream Sector</b>	
	4.1 Seeds	26
	4.2 Fertilizers	26
	4.3 Compound feed	27
	4.4 Pesticides	27
	4.5 Machinery and equipment	27
<b>5</b>	<b>Production costs</b>	
<b>6</b>	<b>Agricultural Policy</b>	
	6.1 Price support measures	29
	6.2 Agricultural credit	29
	6.3 Direct support	30
	6.4 Taxation	31
<b>7</b>	<b>Trade</b>	
	7.1 General situation	31
	7.1.1 Trading partners	32
	7.1.2 Main export commodities	33
	7.1.2 Main import commodities	34
	7.2 Trade Policy	34
	7.3 Free trade agreement with the EU	36
<b>8</b>	<b>Perspectives, evolution, conflicts and problems</b>	
	8.1 Development of the macro-economic Situation	37
	8.2 General perspectives for agriculture	37
	8.3 Impact of agricultural policy measures	39
	8.4 Possible development for the main commodities	39
	8.4.1 The Cereal sector	39
	8.4.2 Potatoes	40
	8.4.3 Other arable crops	40
	8.4.4 The dairy sector	40
	8.4.5 The beef meat sector	41
	8.4.6 Pig meat	42
	8.4.7 Poultry	43

<b>Glossary</b>	<b>44</b>
<b>Bibliography</b>	<b>45</b>

## **ANNEXES**

<b>Annex 1</b>	<b>PHARE Programme in Lithuania</b>	<b>46</b>
<b>Annex 2</b>	<b>Price comparison between the Baltic states</b>	<b>49</b>
<b>Annex 3</b>	<b>Production cost estimates</b>	<b>52</b>
<b>Annex 4</b>	<b>Balance sheets for main commodities</b>	<b>54</b>
<b>Annex 5</b>	<b>Europe Agreement</b>	<b>57</b>
<b>Annex 6</b>	<b>Agriculture and Environment</b>	<b>62</b>

## List of Tables

Table 0.1	Projections for Main Commodities	XII
Table 1	Lithuania in comparison with other CEECs and EU-15	XIII
Table 1.1	Lithuania macro-economic indicators	3.1
Table 1.2	Main foreign trade partners in 1993 and 1994	6
Table 2.1	Per capita consumption of major food products	9
Table 2.2	Structure of Land ownership January 1995	12
Table 2.3	Summary table cereal production	14
Table 2.4	Potato production in Lithuania	15
Table 2.5	Sugar beet production in Lithuania	16
Table 2.6	Vegetable production in Lithuania	17
Table 2.7	Production of milk and dairy products	19
Table 2.8	Beef meat production	20
Table 2.9	Pig meat production	21
Table 2.10	Poultry meat production	22
Table 4.1	Development of fertilizer use	27
Table 7.1	Importance of agricultural trade	32
Table 7.2	Main agricultural trade commodities	33
Table 7.3	Conventional import tariffs for main commodities	35
Table 7.6	Main concessions of the Free trade agreement with the EU	36
Table 8.1	Projection for cereal production	40
Table 8.2	Projection for milk production	41
Table 8.3	Projection for beef meat production	42
Table 8.4	Projection for pork production	42
Table 8.5	Projection for poultry meat production	43

## List of figures

Figure 1	Ethnic structure of Lithuania	1
Figure 2	Use of agricultural land	8
Figure 3	Farm structure	11
Figure 4	Cereal production	13
Figure 5	Price Relation: Pork/ Barley	28

## Foreword

The European Union has expressed its intention to offer membership to those countries in central and eastern Europe with which it has an association agreement (see box below). Agriculture has been identified as an important issue for future accession, due to its relative size in some of the Central and Eastern European Countries (CEECs) and to the difficulties there might be in extending the Common Agricultural Policy in its current form to these countries.

A series of ten country reports on the agricultural situation and prospects in the CEECs has been prepared by the services of the European Commission in collaboration with national experts and with the help of scientific advisers. The ten countries covered are Bulgaria, the Czech Republic, Hungary, Poland, Romania and Slovakia, which are associated to the European Union through the Europe Agreements, and Estonia, Latvia, Lithuania and Slovenia, which are in the process of being associated.

The country reports attempt to provide an objective analysis of the current situation in agriculture and the agro-food sector in the CEECs and an assessment of the developments to be expected in the medium term.

*Extract conclusions Copenhagen summit of 22-23 June 1993*

"The European Council today agreed that the associated countries in Central and Eastern Europe that so desire shall become members of the European Union. Accession will take place as soon as an associated country is able to assume the obligations of membership by satisfying the economic and political conditions required.

Membership requires that the candidate country has achieved stability of institutions guaranteeing democracy, the rule of law, human rights and respect for and protection of minorities, the existence of a functioning market economy as well as the capacity to cope with competitive pressure and market forces within the Union. Membership presupposes the candidate's ability to take on the obligations of membership including adherence to the aims of political, economic and monetary union."



## **About the data....**

The data used in this country report are derived from a **CEEC dataset** established by DG VI in cooperation with other services of the European Commission and with external experts. Data have been selected after a number of analyses carried out by both external research institutes<sup>1</sup> and DG VI services. They originate from various sources: FAO, OECD, World Bank, United Nations, USDA, national statistics, economic institutes and the European Commission (DG II, Eurostat).

The main objective was to obtain a dataset which was as coherent as possible, offering a good comparability of data.

For the agricultural data, the starting point of the analysis was the work carried out by Prof. Jackson (Institute for Central and East European Studies, Katholieke Universiteit Leuven, Belgium), who compared figures from OECD, FAO and the national statistics of Poland, Hungary, the Czech Republic, Slovakia, Bulgaria and Romania. The conclusion of this study was that the FAO was the most reliable source because these data were standardized, which was not the case for the two other sources.

Moreover, DG VI services compared FAO and USDA data and although for the crop sector there were no important differences, this was not the case for the animal sector where big discrepancies were apparent. This is due to different methodological approaches and also to different coefficients used to transform live animal weight in carcass weight.

In general the FAO data for agriculture were used, but for certain countries and/or for certain products, and in particular for the most recent years, the figures were adjusted or replaced by data from other sources, after discussion with country specialists and with FAO statisticians. In such cases, FAO coefficients and standards were used to avoid a break in the time series.

Despite all efforts to create a coherent, reliable and up to date dataset, all figures presented in this report should be interpreted with care. Significant changes in data collection and processing methods have sometimes led to major breaks in historical series as the countries concerned have moved from centrally planned to market economies. One general impression is, according to some experts<sup>1,2</sup>, that these problems may have led to overestimate the decline in economic activity in general and of agricultural production in particular in the first years of transition, data from 1989 and before being somewhat inflated and data after 1989 underrecording the increase in private sector activity.

---

<sup>1</sup> - M. JACKSON and J. SWINNEN (1995): A statistical analysis and survey of the current situation of agriculture in the Central and Eastern European Countries, report to DG I, European Commission.

- W.J. STEINLE (1994): First Study on Data Collection on "Visegrad" Countries and ECO Countries, Empirica Delasasse, Eurostat.

<sup>2</sup> S. TANGERMANN and T. JOSLING (1994): Pre-accession agricultural policies for central Europe and the European Union, study commissioned by DG I, European Commission.

## **Executive Summary Lithuania**

### **General Overview**

Lithuania has a **total area** of 65.000 km<sup>2</sup>, which is about the size of Ireland and slightly more than its neighbour Latvia. Agriculture utilises 54% of the land, which is the highest percentage of the three Baltic states.

The coastal area has a **maritime climate**, whereas the centre and the east is more continental.

The **population** totals 3.74 million, which is slightly declining. Roughly one third of the population live in rural areas. The average population density reaches 58 inhabitants per km<sup>2</sup>. The age structure in the rural areas is unbalanced, elderly people being clearly the majority. Ethnic minorities, mainly Russians and Poles account for 20% of the population but are less important than in the two other Baltic countries.

Due to its geographic situation Lithuania plays an important role as transit country. The **road and railway network** is sufficient, but is often in a poor condition. There are no primary **energy resources** and petrol and gas have to be imported. Production of electric energy, however exceeded domestic needs and important quantities were exported in particular to Latvia.

Lithuania declared its **independence** from the Soviet Union in March 1990 and is now a parliamentary Republic with a unicameral assembly, the Seimas. The elections in 1992 brought back to power the former communist party which was transformed into the Democratic Labour Party (LDLP). Questions concerning the Kaliningrad regions and rights of ethnic minorities are a constant source of tension between Lithuania and Russia.

Before independence Lithuania was an integrated part of the Soviet economy and industrialisation was mainly initiated during the Soviet era. Metal work, the production of electric energy but also the food processing industry being the most important sectors. Following its liberalisation, industrial and agricultural output deteriorated significantly: this occurred because on the one hand prices for energy and raw materials shot up, while on the other hand Lithuanian products lost their traditional markets in Russia. The indebtedness and outdated technical equipment of most factories are posing enormous problems. The per capita GDP is below the level which is reached in Latvia and Estonia. The privatisation process has started but the state sector still plays an important role in the economy. The present government is not making major efforts to accelerate the reform process.

The official rate of unemployment is rather low, reaching 3.8% in 1994 but it can be assumed that the real rate is much higher. Employment in other sectors is declining, whereas the agriculture's share of employment increased in recent years, which is mostly due to employment on small household plots.

Before independence, **trade flows** were nearly exclusively within the Soviet Union. In recent years this situation changed and Lithuania began to develop trade links with Western Europe. Nevertheless Russia still accounts for a large proportion of both imports and exports and has

remained the most important single trading partner. Until 1992 exports exceeded imports but since 1993 the trade balance has become negative. The over valued currency plays an important role in this context and reduces export competitiveness.

The national currency the "Litas" has been in use since 1993. Despite a considerable rate of inflation the Litas has been pegged to the US\$ at a ratio of 1US \$ : 4 Litas. The national budget ran a slight surplus in 1992 and 1993 but for 1994 a slight deficit is expected.

### **The situation of Agriculture**

Agriculture plays an important role in the Lithuanian economy. Despite a considerable drop in recent years, agriculture has still a share of around 7% of GDP and employs some 20% of the labour force. Due to a lack of other employment, especially in rural areas, farming activities provide the major basis for living.

The total agricultural area reached 3.5 Mio ha in 1993. **Arable land** accounts for two thirds of the agricultural land. Roughly 1.2 Mio ha are planted to **cereals**, of which barley accounts for 50%, followed by wheat and rye. The bulk of cereal production is used as animal feed. The productive area has been increasing since independence but yields declined due to contracting application of fertilizers and plant protection products. Total cereal production reached 2.4 Mio t in 1994. **Potatoes** are planted on 120.000 ha, yields are also low and hardly exceed 14 t/ha. Household plots and small private farms have an important share in potato and vegetable production and some 30% of potatoes are used as animal feed. **Sugar beet** is produced on 30.000 ha, but domestic consumption by far exceeds production. The production of oil seed is practically negligible.

**Livestock production** used to be the most important sector of Lithuanian agriculture providing considerable potential for the export of dairy products, beef and pork. Domestic production of animal feed however, was not sufficient to supply the livestock sector, so that production was to a large extent based on imported feed from other Soviet Republics. In return the surplus of meat and dairy products was marketed mainly in Moscow and St. Petersburg. Following independence, increasing prices for all kinds of (imported) inputs such as animal feed and energy, the loss of the traditional markets and the deteriorating domestic purchasing power led to a substantial drop of production.

In the Soviet era agriculture was collectivized and organised in large scale farms. After independence agriculture was restructured and the land restituted to its former owners. The **structure of Lithuanian agriculture** is now characterised by three different types of farms. The Agricultural Companies, which are the successors of the former kolkhoses and sowkhoses have an average size of 450 ha and farm some 30% of the land. Household plots (2 ha on average), which are still closely connected with the agricultural companies occupy another 25% of the land. 34% of the land is farmed by private farms with an average size of only 8.5 ha. The remainder is land in state ownership, rented out to various types of farms. The restructuring process has not yet come to an end and legal titles are still unsettled for most of the land.

## **The Upstream and Downstream Industry**

The main branches of the **food processing industry** are slaughterhouses, meat processing enterprises and dairies and mills. As a consequence of declining primary production the output of the processing industry also contracted. In addition the processing industry is characterised by outdated and worn out production facilities, high indebtedness and enormous overcapacities which are leading to high production costs. In the meat sector, non of the slaughterhouses meet EU standards, so that exports to the EU are not possible for the moment. A similar situation exists in other sectors, where quality and packing are not adapted to the requirements of the EU market. The Russian market will therefore likely remain the major outlet for Lithuanian food products. The privatisation of the processing industry is not yet complete and investments in the sector are at a low level.

**Fertilizer production** as well as application of fertilizers and pesticides contracted significantly in the last few years. The production and distribution of fertilizers is still monopolized and prices are comparatively high.

**Machinery** is not equally distributed and smaller farms in particular suffer from a lack of mechanisation. In addition, the huge Russian type tractors and other farm machinery are not suitable for the newly emerging small scale farms.

Despite the low labour efficiency, the low salaries keep down the labour costs, so that the **variable costs of production** for cereals are largely determined by the prices for purchased inputs, machinery and energy. At present, producer prices cover little more than the variable production costs for cereals. As far as the livestock sector is concerned, the costs for animal feed are the by far dominating factor. Profitability of pig meat production could be improved if the protein content of the animal feed could be increased, since it would lead to better feed conversion rates. Milk production has to cope with low producer prices and the poor condition of the processing industry. Due to a recent support programme, prospects for the dairy sector and for beef meat might improve.

## **Agricultural Policy**

The total **budget spent on agriculture** reached 212 Mio Lt (45 Mio ECU) in 1994. For 1995 this amount will be increased to 332 Mio Lt (68 Mio ECU). Lithuania recently began to introduce price support schemes for various commodities. For 1994 and 1995 state procurement of 400.000t of cereals has been envisaged but obviously could not be reached. Soft credits for farmers are provided by the "**Farmers Support Fund**", which is also used for investments to improve the rural infrastructure. **Border protection** measures are applied on most agricultural imports, with ad valorem tariffs of between 30% and 40%. Export subsidies have not yet been introduced in Lithuania.

## **Agricultural Trade**

Following independence, **trade** of agricultural commodities contracted significantly but an important part of trade flows may not be officially registered and is not included in the statistics. Re-exports also play an important role. Traditionally, Lithuania has been a net-exporter of agricultural commodities and the national trade statistics still show a slight surplus

in 1994, but imports are increasing, whereas exports decline. The main **export** commodities are still meat and dairy products but due to the drop in livestock production, cereals have also been exported in recent years. Trade with western European countries has increased significantly in recent years and especially milk powder was exported in large quantities. Russia still remains the most important single trading partner taking up most of the exported butter and cheese. In recent years many live bovine animals have been exported to Poland.

**Imports** are spread more evenly among various groups of products but fruit, sugar and cereals for human consumption have a larger share of imports.

Lithuania has concluded free trade agreements with a number of countries but agricultural commodities did not play a major role in this context. A free trade agreement with the EU came in operation already in January, making limited concessions namely for milk powder, butter and pig meat. A common quota for the Baltic states for live cattle allowing exports of up to 3500 animals to the EU has also been opened. **An Association agreement** with the EU has recently been signed.

## **Outlook**

The Lithuanian economy showed the first signs of recovery in 1994 and it can be expected that continued economic growth will lead to increasing demand for food products. The poor condition of the processing industry and the lack of capital however, will hamper the process of recovery of the agricultural sector.

The contraction of agricultural production appeared to bottom out in 1994 and a moderate growth of production can be expected for the coming years. The area planted to cereals, will however probably decline and a shift to grassland and pastures may occur. Due to the low pace of recovery of the livestock sector, cereal production will likely exceed the domestic demand. High quality food grain however, will probably not be available in sufficient amounts and will therefore have to be imported.

**Milk and dairy production** will probably continue to exceed domestic consumption and an important part of the production will have to be exported. **Beef meat** will also stay in surplus for the coming years as will **pork and poultry**, although the exportable surplus will not be very large. Apart from the quantitative restrictions, the quality requirements of the EU will be difficult to achieve, so that the Russian market will probably remain the most important for the coming years

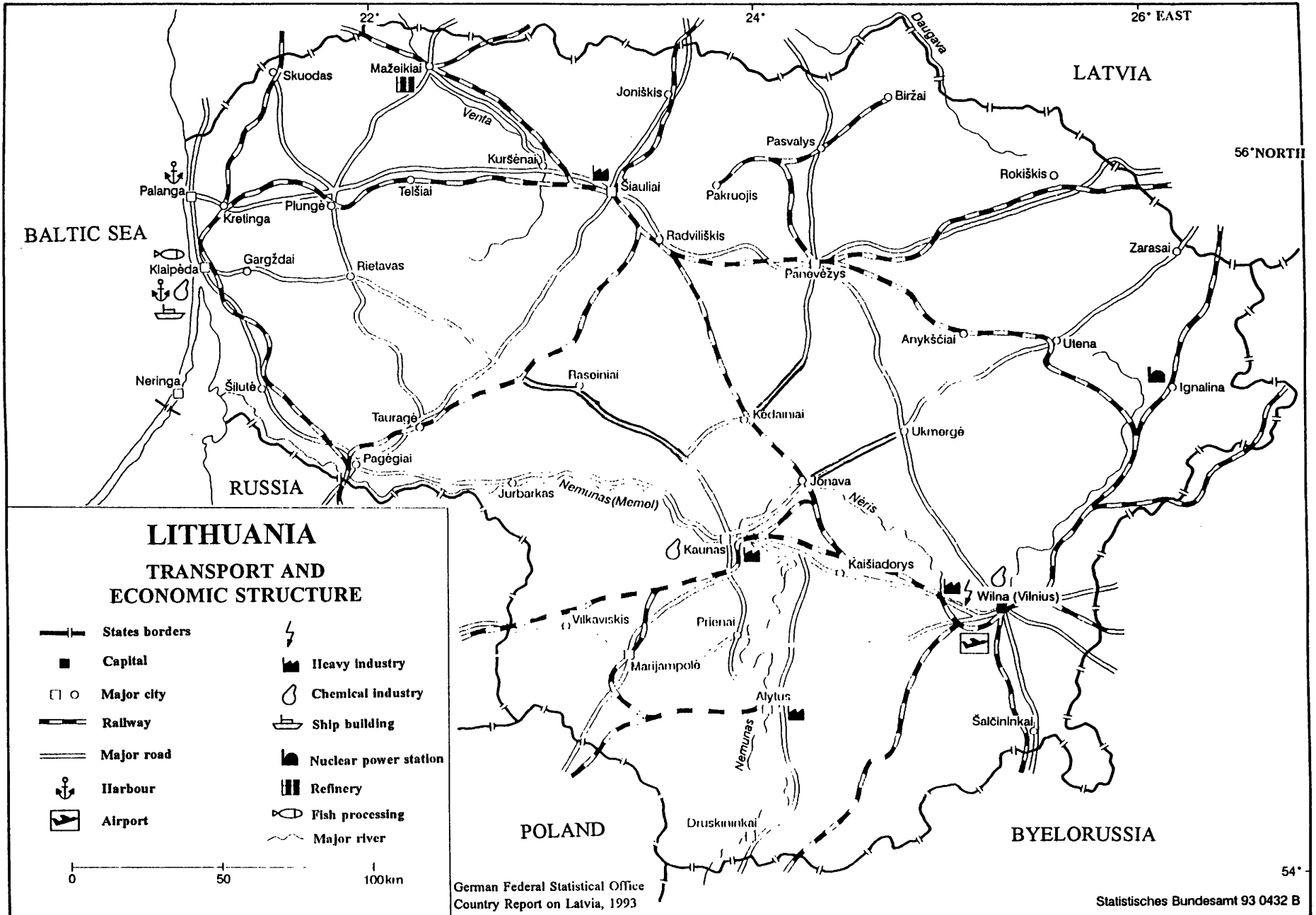
**Table 0.1**  
**Projections for main Commodities (000 t)**

	<b>1993</b>	<b>1994</b>	<b>2000</b>
cereals	2561	2412	2622
milk	2067	1660	2209
beef	146	120	181
pork	93	83	110
poultry	22	25	34

**TABLE 1 : Lithuania in comparison with other CEECs and EU-15**

	Population	GDP	GDP pc	Total area	Agricultural area		Arable area		Agricultural production		Agricultural employment		Rainfall
	(mio)	(bio ECU)	(ECU)	(mio ha)	(mio ha)	(% total)	(mio ha)	(ha pc)	(bio ECU)	(% GDP)	(000)	(% tot. empl.)	(mm/year)
Bulgaria	8.5	9.4	1110	11.1	6.2	55.9	4.0	0.47	1.131	12.0	694	21.2	550
Czech. Rep.	10.3	26.7	2586	7.9	4.3	54.3	3.2	0.31	0.871	3.3	271	5.6	491
Estonia	1.6	1.5	938	4.5	1.4	30.6	1.0	0.63	0.266	10.4	89	8.2	600
Hungary	10.3	32.5	3150	9.3	6.1	65.8	4.7	0.46	2.068	6.4	392	10.1	600
Latvia	2.6	2.2	850	6.5	2.5	39.2	1.7	0.65	0.232	10.6	229	18.4	680
Lithuania	3.8	2.3	627	6.5	3.5	54.0	2.3	0.62	0.259	11.0	399	22.4	625
Poland	38.5	73.4	1907	31.3	18.6	59.5	14.3	0.37	4.648	6.3	3661	25.5	550
Romania	22.7	21.8	961	23.8	14.7	61.9	9.3	0.41	4.500	20.2	3537	35.2	635
Slovakia	5.3	8.7	1643	4.9	2.4	49.0	1.5	0.28	0.512	5.8	178	8.4	611
Slovenia	1.9	9.8	5018	2.0	0.9	42.7	0.2	0.13	0.250	4.9	90	10.7	1350
CEEC-10	105.4	188.3	1786	107.7	60.6	56.2	42.3	0.40	14.7	7.8	9540	26.7	
EU-15	369.7	5905.1	15972	323.4	138.1	42.7	77.1	0.21	208.8	2.5	8190	5.7	

All figures are for 1993. Rainfall long term average.  
Source : DGVI CEEC dataset.





# 1. General overview

## 1.1 Geographic situation and climate

With a total **area** of 65 300 square kilometres, which is about the size of Ireland, Lithuania is slightly larger in size than neighbouring Latvia. It is the largest and the southernmost of the three Baltic republics. Lithuania is generally flat with some hilly landscapes, the highest point being 293 m. Lithuania shares borders with four countries: The Kaliningrad region of Russia, Latvia, Belarus and Poland.

The country is divided into 44 counties and 11 city **administrative** units, but a restructuring is being prepared, which will result in only 10 counties, subdivided in 44 smaller units is under discussion.

The **climate** in Lithuania represents the transition from continental climate with fairly dry summers and cold winters in the East of the country and a sea climate in the coastal regions. The sea climate compared to the eastern part of the country, is characterized by higher precipitation and an average temperature which is higher in winter and lower in summer. For Kaunas, a city which is approximately in the centre of the country, the average annual precipitation is 625 mm, while the average temperature for January is  $-5.1^{\circ}\text{C}$  and in July  $18.1^{\circ}\text{C}$ .

The **utilized agricultural area (UAA)** approaches 3.524 million ha. The soil quality varies considerably: rather productive areas can be found in the centre of the country but soil quality degrades considerably eastward. In the north and south of the country, wet and sandy soils are dominant which require drainage. Good quality soil is found on only 34% of UAA, while medium and low quality soils each cover another third of the land. A large part of the agricultural area is drained, but the drainage systems often lack maintenance, leading to deteriorating land quality.

## 1.2 Population

At the beginning of 1995, the **population** was 3.72 million with an average density of 58 inhabitants per square kilometre. The natural growth of the population declined from nearly 0.83% in 1980 to 0.25% in 1992 and has now become even slightly negative. A slow but constant remigration of

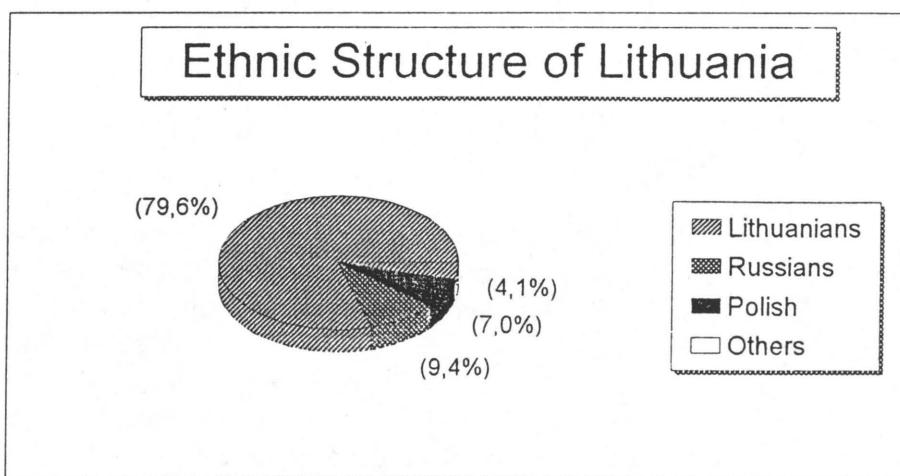


Figure 1

Russians is also leading to a decline of the population. About 69% of the population live in urban areas (cities, towns, local centres) and 31% in rural areas. Official figures indicate that 27% of the rural population

are above the pension age. Many of them are apparently engaged in managing the small household plots or the newly emerged small scale private farms. The general movement of the rural population to the cities that could be observed in the Soviet period stopped after independence, mainly, because of a lack of jobs.

With roughly 80% of the population declaring a Lithuanian nationality, Lithuania has the lowest rate of foreign residents amongst the Baltic Republics (Russian 9.5%, Polish 7%, Ukrainians and Belorussians 3%).

## **1.3 Education**

Lithuania has a nine year compulsory school education, which is followed by a system of secondary schools, mostly comprehensive schools. Special schools, with lessons held in their mother tongue, exist for the Polish and Russian minorities. Higher education is assured by 63 technical schools and 15 high schools with some 85.000 students.

## **1.4 Infrastructure**

### **1.4.1 Transport**

The geographic situation makes Lithuania a bridge between Russia and Western Europe with important transit functions. The railway network comprises nearly 3000 km of track, most of which is however in a very bad condition and with insufficient connections to the Western European railway networks. The railway accounts for only 21% of the total transport volume.

The road network has a total length of 35.800 km paved roads, 21.000 km of which are public roads. Highways account for 420 km. The national road system is good, but most of the rural roads have no hard surface resulting in difficult transport in the autumn and early spring.

### **1.4.2 Energy**

Apart from a hydroelectric power plant in Kaumas, Lithuania does not have any natural energy resources of its own. Electric energy is produced in the (Tchernobyl-type) nuclear power plant at Ignalina and in three conventional power plants. The nuclear power plant of Ignalina produces 80% of the total electric energy output but due to its poor condition as far as security is concerned and repeated break-downs, it is an object of constant concern. Nearly all the primary energy supply is imported from Russia, the Ukraine and from Belarus. Half of the electric energy produced used to be re-exported. Subsidies on energy per capita have recently been removed by the government and due to the bad performance of the Ignalina power plant, more petrol has had to be imported for energy production. Energy prices have consequently increased.

### 1.4.3 Rural Infrastructure

Rural infrastructure is partly still intact. Most farm buildings established between the two world wars are ready for private use (60%), the rest requires renovation or significant improvement. The larger part of the rural population however live in settlements, which were established during the Soviet period. This type of settlement can now be seen as an obstacle to the establishment of individual private farming. All are connected to the national electrical system.

Most farmland needs **drainage** and the poor condition of some of the drainage systems limits cultivation of some crops. Construction and further maintenance of the drainage system will require greater attention.

## 1.5 Political situation and historical development

The roots of the Lithuanian state go back to the 13 th century. In the 14 th and 15 th century Lithuania covered most of the Ukraine and parts of Western Russia. In the 16 th century it was embodied in the Polish Lithuanian empire. In the 19 th century most Lithuanian territory fell under Russian rule. In the period between the two World wars Lithuania lived through a short period of independence before it fell again under Soviet occupation in 1940.

Since the **declaration of independence** on 11 March 1990, Lithuania is a Parliamentary Republic with a President of the Republic (*Algirdas Brazauskas*), and an unicameral parliamentary assembly (*Seimas*) with a Prime Minister (*Adolfas Slezevicius*). The Parliament is the supreme body of the State consisting of 141 deputies elected for 4 years. Legislation and bills are initiated and passed by the *Seimas*, but requires approval by the President.

The **Parliamentary elections** to the *Seimas* of November 1992 resulted in a new left wing government formed by the Lithuanian Democratic Labour Party (LDLP 71 seats). The powerful opposition, led by the Fatherland Union (FU 30 seats) under the former chairman of the parliament, *V. Landsbergis*, continuously accuses the government of corruption and of slowing down the privatisation programme. Serious doubts exist about the future of the present government given that the next general election must be held by the autumn of 1996.

Political tensions with Russia exist over the status of the Kaliningrad region, which is a Russian enclave between Lithuania and Poland and serves in principal as a military base. The future of the military base in general and questions of transit are still the subject of ongoing disputes between Lithuania and Russia. Recently Latvia and Estonia backed Lithuania on the Kaliningrad question and a nuclear free zone was claimed for the whole region, leading to growing tensions with Russia. Despite these political tensions, a bilateral trade agreement has been concluded.

Although important trade connections exist with Poland, political relations are not without difficulties, mainly because of the ethnic minorities in both Lithuania and Poland. The bilateral agreement between Poland and Lithuania has recently been concluded and could help to improve the situation.

**Table 1.1 Lithuania Macroeconomic Indicators**

		1990	1991	1992	1993	1994*	1995
<b>Population</b>	Mio	3,7230	3,7510	3,7610	3,7521	3,7390	3,7170
<b>GDP<sup>a</sup></b>	Nominal GDP (million Litas)			3382	11075	11940	
	GDP per Capita			899	2951	3.193	
	Real GDP (percentage change) <sup>a</sup>	-3,3	-13,1	-34	-27,1	2	3
	share of : - Agriculture <sup>2</sup>	27,6	19,2	11,6	11	7,2	
	- Industry Services		56,3		41 47,8		
<b>Monetary</b>	Rate of Inflation <sup>a</sup>		383	1163	189	45	25
	Exchange Rate/ECU				4,7012	4,717	
<b>Labour Indicator</b>	Official Unemployment <sup>a</sup>		0,3	1,1	1,6	3,8	
	Average Wages Litas/month						
	Real Index 1990=100						
	share of : - Agriculture <sup>2</sup>	17,8	19,2	21,3	22,4	21,8	
	- Industry Services		39,5 41		31 47,8		
<b>Government Finance<sup>a</sup></b>	Total revenue (Percent of GDP)				2733,2	4042	
	Total Expenditure (Percent of GDP)				24,7	33,9	
	Balance (percent of GDP)				2645,8	4355	
					23,9	36,5	
					87,4	-313	
				0,8	(2,0)		
<b>Trade<sup>a</sup></b>	Total Exports (Mio Litas)				8707	8063	
	Total Imports (Mio Litas)				8798	9358	
	Trade Balance (Mio Litas)				-91	-1295	

source: FAO; <sup>2</sup>OECD; including employment in household plots<sup>a</sup> National office of statistics

\* GDP for 1994 first 9 months

## **1.6 Economic situation**

### **1.6.1 General Situation**

Lithuanian **Gross Domestic Product (GDP)** declined considerably and constantly after independence. The sharpest decrease could be observed in 1992 when GDP fell to only two-thirds of its 1991 level. In 1993 the downwards trend slowed down and for 1994 a small increase of 2% is reported. For 1995 GDP could grow by 3%. GDP per capita reached Lit 3193 (ECU 677) in 1994. Lithuanian industry showed only little recovery in 1994 and the real situation is difficult to assess. Gross agricultural product (GAP) did not contribute positively to the general economic development, mainly due to the summer drought in 1994, which led to additional losses in agricultural production. The private sector advances strongly, mainly in transport, in the retailing sectors and also in construction.

Since independence, the transition process has been marked by a dramatic decline in output caused by the deterioration of trade resulting from the disintegration of the former Soviet Union and rising energy prices.

### **1.6.2 Occupational activities**

A high share of people in employment is a common characteristic of all the Baltic republics. Employment in the private sector has increased strongly, reaching 60.3% in 1994 after 50% in 1993. In spite of the deteriorating economic situation, civilian employment remains high, partly due to unpaid leave or part time work. The official rate of unemployment is still very low and it can be assumed that the real rate of unemployment is several times above the official figure which increased to 4.2% at the end of 1994.

At the end of 1994, for every vacant post, 28 applicants were registered. Official long-term forecasts which are rather optimistic, estimate rising unemployment for the coming years, with a culmination already in 1996. For 1997 a slight reduction in the number of unemployed is expected.

Official estimates indicate a decline in the agricultural labour force from 260 000 in 1989 to 215 000 in 1993. The share of agricultural employment decreased accordingly to 11.2%. People working on household plots however are not included in this figure. Other sources including the employment on household plots record a share of employment in agriculture of 22%.

### **1.6.3 Industrial production**

Industrial production is an important factor of the Lithuanian economy, which represented a share of more than half of the GDP in 1991.

Industrialisation in Lithuania started mainly in the Soviet era after 1940. Most of the enterprises were dependent on raw materials and part-manufactured products from other Soviet Republics, so that the whole industrial structure was part of the centrally planned economic network. After liberalisation, Lithuania lost most of its former markets and faced problems to get the necessary supply of raw materials.

The most important sectors of Lithuanian industry are energy, metal work and mechanical engineering, light industry and the food processing industry. The pulp and paper industry as well as other wood-based industries are also important to the economy and may offer good prospects for future economic development. Most of the industrial factories are however outdated, energy wasting and inefficient. High indebtedness and a production level far below capacity is causing increasing problems and a series of bankruptcies is still expected. Following independence, industrial output contracted to only 48.2% of its former volume, whereas employment has until now shown only a small decrease.<sup>1</sup>

### **1.6.4 Foreign Trade**

Official trade statistics for the first year of independence cover only part of the real trade flow. They do not allow a clear picture of trade developments to be drawn. The most recent figures for 1994 have improved but problems of coherence of data still remain. Reasons for the difficulties with trade statistics are firstly problems of incomplete statistical recording. The customs administration in the beginning did not work properly and trade values were often underestimated. High inflation and the importance of barter trade, but also black market activities, which are escaping statistics add to the problems.

According to the national trade statistics, the overall trade balance has become negative in 1993 and the deficit has increased in 1994, mostly due to increasing imports. The over valued currency plays an important role in this context.

Before independence nearly all trade flows were exclusively within the Soviet Union. Only marginal quantities were imported from or exported to third countries. Main import commodities were primary energy, such as petrol and gas, metals and machinery. Imports of animal feed ingredients, mainly cereals, were essential to supply the large livestock sector. On the export side, textiles, food products but also some kind of machinery were the most important.

After independence trade flows contracted and Lithuania started to develop closer trading links with Western Europe. Both imports and exports to Western Europe have increased

---

<sup>1</sup>Statistisches Bundesamt, Länderbericht Litauen 1993

during the last two years. In 1994 the EU accounted for a quarter of Lithuanian imports and exports. At present, quality and packaging problems as well as missing marketing skills are limiting further exports to the EU.

Russia is still the most important trading partner of Lithuania, but in the last two years trade connections with Russia have deteriorated for a number of reasons: Russia began to charge high import taxes, accounts were not settled in due time, and rising prices in Lithuania weakened the competitiveness of Lithuanian products on the Russian market. Subsidized food prices in Russia and high inflation of the Rouble added to the difficulties. Starting in January 1995, Russia and Lithuania granted each other "Most Favoured Nation" (MFN) status, which will make trade easier. In 1994 half of all exports and slightly less of all imports were with Russia.

Roughly one fifth of Lithuanian exports go to other Eastern European countries, mainly Poland and Latvia. On the import side Eastern European countries increased their share, reaching 12% in 1994.

**Table 1.2**  
**Main foreign trade partners**  
**in 1993 and 1994**

	1993		1994	
	Export %	Import %	Export %	Import %
FSU	57.1	67.5	46.7	50.2
EU	16.9	18.7	25.8	26.4
PECO	19.0	6.1	18.0	12.1
EFTA	3.5	4.7	5.3	7.8
Other	3.14	3.2	4.1	3.6

source: Lithuanian Department of Statistics

Imports of primary energy, mainly petrol, accounted for roughly one third of total imports, followed by machinery, technical equipment, chemicals and transport equipment. On the export side, agricultural products, mineral products, textiles and machinery were dominant.

### 1.6.5 Currency and monetary questions

Lithuania left the rouble zone in June 1993 and introduced the Litas as its national currency. Subsequently the extremely high rates of inflation (1163% in 1992) has been reduced to 189% in 1993 and 45% in 1994. For the coming years a further decline of the inflation rate is expected. The Litas is pegged to the US \$ and the exchange rate is fixed at a rate of 1 US \$ = 4 LT. Despite the still considerably high domestic rate of inflation, the exchange

rate has been kept stable, which is leading to a certain overvaluation of the Litas, with negative consequences especially for exports.

Income statistics show **average incomes** ranging around 400 Litas per month, but with wages in the agricultural sector being only two-thirds of that amount. It must however be taken into account that workers in the "agricultural partnerships" have an additional income from their household plots, which is not included in the nominal value of their salary. In addition, expenses for houses are much lower in rural areas than in the cities.

**Foreign investments** amounted to 4.2% of GDP in 1994 (200 Mio ECU), but still there are administrative and legal obstacles, such as unsettled ownership rights, which inhibit foreign investment to some extent.

**The budget deficit** in 1994 is estimated to be around 2% of GDP (313 Mio Litas). In that year the budget revenue did not reach the expected amount, which was partly due to inefficient tax-administration and partly due to the general economic situation. According to an agreement with the IMF, the budget deficit for 1995 should not exceed 1.5% of GDP. The 1995 budget foresees expenditures of 3.82 billion Litas (780 Mio ECU) and revenues of 3.4 billion Litas (690 Mio ECU), leaving a deficit of roughly 90 Mio ECU.

**The taxation system** includes an income tax which was introduced in 1990. At present a standard rate of 33% is charged on all incomes. Apart from that a profit tax of 29% for legal persons and enterprises has been introduced, A 70% reduction for the first two years and a 50% reduction for the third year is foreseen to encourage the establishment of new enterprises and to attract foreign capital. A value added tax (VAT) at a rate of 18% was introduced in May 1994. Until the beginning of 1996, a reduced tax rate of only 9% will be applied on main food products. Agriculture is currently entitled to refunds for the tax paid on inputs and machinery. A land tax is applied on all privately owned land, at an annual rate of 1.5% of the nominal land value.

## **2 Agricultural Economy**

### **2.1 Importance in the economy**

The contribution of agriculture to total GDP is declining but still important, being 11% in 1993 and 7.2% in 1994. Since independence, a downwards trend has occurred, caused by adjusted agricultural output and input prices and reduced production, mainly in the livestock sector. Trade in agricultural commodities also played an important part in total trade volumes. It should be noted that the decline of the agricultural sector is not as pronounced as in other countries in transition. The agricultural labour force contributed a share of GDP of roughly 22% of the total working population. People working on household plots are included in this figure.



## 2.2 Land Use

Of the 6.53 mio ha of total land in Lithuania, the total agricultural area in 1993 equalled 3.524 mio ha; the highest proportion of all three Baltic Republics. Arable land, the most important sector, accounted for 2.314 mio ha followed by meadows and permanent pastures (1.182 mio ha) and permanent crops (43 000 ha). The share of arable land in relation to the total agricultural area approaches 71%, whereas the corresponding figure for the EU is 52%. This is mainly due to the fact that around half of the arable land is sown with perennial grasses for animal feed.

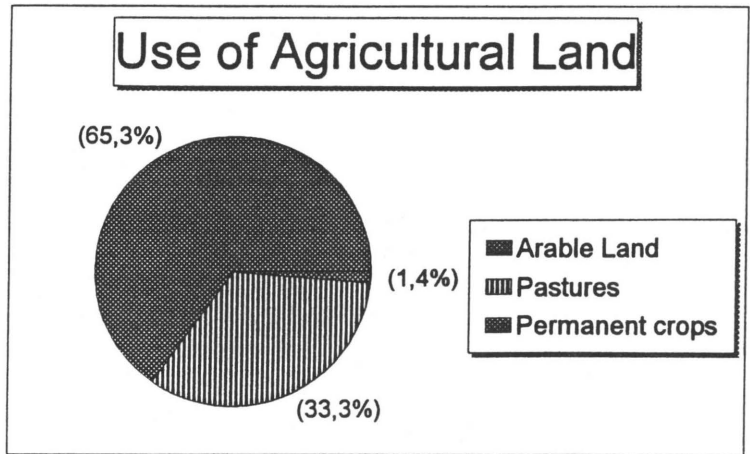


Figure 2

The major part of the agricultural land is drained but since the collective farms ceased to exist and financial funding is often missing the drainage systems lack maintenance and presently are in a poor condition, which leads to a drop of yields.

## 2.3 Food Consumption

Before the transition period consumption of meat and dairy products was fairly high compared to average incomes. The high consumption of sugar in the beginning of the 1990s is due to the fact that a considerable share of the sugar was transformed into alcohol.

In the meantime, consumption patterns have changed and cheaper cereals and potatoes are replacing more expensive meat and dairy products. Household expenditure on food (excl. alcoholic beverages) accounts for approximately 50% of total expenditure for urban and 45% for rural households. The production of household plots is of great importance in this context.

The degree of self sufficiency for main agricultural products varies considerably. As part of the integrated economy of the Soviet Union, Lithuanian agriculture traditionally exported meat and animal products, canned and fresh fruits, potatoes and fish products. The animal products were produced on the basis of substantial animal feed imports (cereals and oilseeds). But also for vegetable oil, sugar, citrus fruits and alcoholic beverages the production does not meet domestic consumption.

**Table 2.1**  
**Per capita consumption for major food products**

	1990	1991	1992	1993	1994	EU <sup>3</sup>
Milk and dairy (l)	480	315	334	319	267	
Meat and meat products	89	66	65	56	50	87
Beef meat <sup>2</sup>	39.1	30.6	35.1	32.8		22
Pig meat <sup>2</sup>	39.9	28.5	24.2	18.4		41
Eggs (Pieces)	305	293	207	143	165	
fish			11	8	14	
sugar	40	31	23	25	23	34
potatoes	146	128	95	122	80	79
vegetables	79	83	65	69	55	116
cereals*	108	138	120	124	96	81

Source: Lithuanian Statistical Department ; \* flour; <sup>3</sup> EU 12 1993

<sup>2</sup> including processed meat

## **2.4 Structure and Privatisation**

During the Soviet period agriculture was nationalized and farming was organized into large state and collective farms, the so called sowkhoses and kolkhoses. In 1989 some 834 collective farms with an average size of 2.700 ha and 275 state farms with an average size of 3000 ha, farmed the bulk of the land. Household plots, which were privately farmed by members of the collective farms, had an average size of only 0.5 ha and represented approximately 9% of the agricultural land.

Privatization of farming had already began in the Soviet era in 1989, based on the law of peasant farming, which allowed farm workers to run family farms on their own responsibility but without giving them a legal title to the land. Farms which had been established during that period are economically relatively well off. They started with an average size of 25 ha and could benefit from government support and soft credits. Many managed to increase in size and now have between 50 and 80 ha and good access to necessary assets. There are altogether 5000 farms which have been established under this law.

Since 1990, the privatisation progress steadily progressed. Household plots were allowed to increase from 0.5 ha to 2-3 ha. The last and most important step of privatisation, the restitution of agricultural land to former owners and their heirs, began in 1991 but posed a series of problems. This reflected the fact that the process of privatisation in agriculture

had not been planned systematically from the beginning, but followed changing political aims :

- As a consequence of the former privatisation steps, which increased the household plots and established peasant farms the claims for restitution exceeded the land available, so that compensation schemes had to be introduced. If restitution was not possible, compensation in the form of other agricultural land, or forest land, or house construction sites or in money was provided.
- Farm assets were not restituted but privatised on a voucher basis among the members of the collective farms depending on their pay rolls and the time they worked on the collective farms.
- Restitution was based on the small scale farm structure of the pre-war period, which also limited the size of the newly emerging farms. In addition parcels of land are now divided between numerous heirs, which has led to further fragmentation of farm land.

There are still 300 000 (total 450 000) claims for land outstanding, sometimes totally contradictory to those already settled. These claims have to be checked by land surveyors. Official estimates suggest that it will be at least another 5 years before the property rights and the necessary boundaries for land registration have been established. Privatisation laws have been amended several times to cope with the above mentioned difficulties. Claimants can now choose to be compensated in cash or to get forests or other land instead. The funds for compensation in cash however are limited and in 1994 only 5.2 mio Litas were made available for this purpose. The compensation scheme offers 600-1700 Litas/ha depending on the quality of the land and has been well received, resulting in claims for compensation exceeding the available refunds.

Legal titles to the land are still missing in many cases, so that an effective **land market** cannot yet develop, this is blocking the necessary restructuration process. In principle, agricultural land can be sold for cash with prices varying between 1000 and 1600 Litas (200-325 ECU). But legal bodies and foreigners are not allowed to own land. Agricultural partnerships have a preference to lease land which is not used by its new owners.

The process of land restitution is still not finished and at present more than 50% of the land is used on a leasing basis. The development of the last few years has shown, that the number of household plots and agricultural Partnerships is declining, while the number of individual private farms is increasing. The average size of the private farm however is still slightly decreasing. For the time being the distribution of land between the major types of farm can be given as follows:

The individual **private farms** operate with an average size of only 8.5 ha. Together they farm one third of all the agricultural land. In many cases these private farms do not have the necessary machinery and still use the services of the "agricultural Partnerships". In many cases they cannot afford the necessary investments and are consequently farming on a subsistence rather than commercial basis. Among the private farms, those established already in 1989 had a much better starting position. Their average size is around 25 ha and they are

generally well equipped. They do however farm only a small share of the total land.

The **agricultural Partnerships** farm an other third of the agricultural land and can be seen as the successors of the former state farms and kolkhoses. Since land can only be owned by individuals, these partnerships farm on the land shares of their members or on leased land. There is still a lot of restructuring going on. Some of the partnerships are liquidated while in others the land is increasingly concentrated into the hands of a declining number of members. Total number of partnerships presently amounts to 2300 (average 450 ha). It may be assumed that in the long run, agricultural partnerships with between 500 and 1000 ha could farm approximately 20% of the total agricultural land.

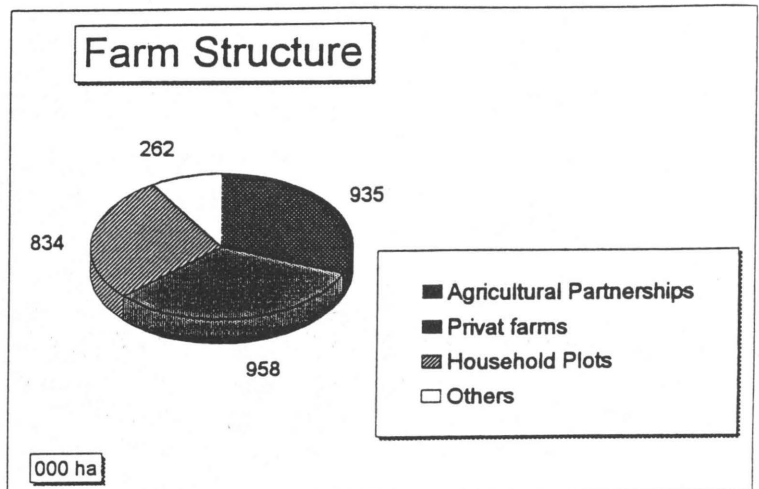


Figure 3

**Household plots** which were previously run by the farm workers in the days of the former kolkhoses, represent a total of approximately 400.000 individual entities with an average size of only 2 ha. They account for a quarter of total farm land. In many cases they are still closely linked with the Agricultural Partnerships, using the same machinery and the same distribution and marketing channels. Farmers who started their farm business on restituted land, have to give back the household plots, which are not allocated as property.

**State farms** have been maintained on 1.2% of the land, mainly for research purposes. But still a large proportion of the agricultural land is in state property and is leased mainly to agricultural partnerships but also to individual farmers.

For the time being foreigners do not have the possibility to purchase any land in Lithuania, a law to change this is now in preparation.

### Importance of Farm types for the agricultural production

Agricultural partnerships account for 45% of grain production, half of sugar beet production and possess 60% of cattle and 54% of pigs. Household plots on the other hand produce two thirds of potatoes, 60% of vegetables and have 51% of dairy cows. Private farms produce some 30% of arable crops but have a very low share of the livestock sector. Only some 3% of cattle, 15% of dairy cows and 9% of pigs belong to this category. It is interesting to note that the highest livestock density is in the household plots, followed by the agricultural partnerships, whereas private farmers have the lowest livestock density, which is due to the fact that the assets such as machinery and animals have not been restituted like the farm land but have been privatized in a different way.

**Table 2.2**  
**Structure of Landownership**  
**January 1995**

	number	total area (000 ha)	agric. land (000 ha)	average size ha	area as % of total
State farms	217	41	27	188	1,2
Agricultural Partnerships*	2340	1055	935	450	31.3
Private farms	134 600	1137	958	8.5	33.8
Household Plots	396 000	840	834	2.1	24,9
Dwelling properties	422.000	80		0.2	2.3
Gardens	218.000	22	17	0.1	0.7
other <sup>3</sup>	53 600	234	218		
Total		3368	3114		100

source: National Department of statistics; 400 000 ha of land which at present is part of the "states fund" is **not included** in the statistic; <sup>3</sup> most of this category is states land rented to different types of farms.

\*privatized farms with share holders

The future farm structure envisaged by the Ministry of Agriculture would consist of about 700 agricultural communities with an average size around 1000 ha and accounting for some 20% of the agricultural land. The remainder would be private family farms with an average size of around 50 ha. For the medium term however small scale farms will almost certainly prevail and especially the household plots will remain an important element of Lithuanian Agriculture. In this context it has also to be mentioned that the age structure in the rural areas shows a high proportion of elderly people, whereas the younger generation tends to leave the countryside and seek employment in the towns.

For the time being however, agriculture has to compensate for the loss of employment in other sectors of the economy and currently employs about 22% of the total workforce. This will certainly prolong the period of difficulties and postpone adjustments in the sector.

In some areas agriculture is facing severe environmental difficulties, particularly in the northern Karst region which has only thin top-soil layers. Fertilizers, particularly nitrates are washed out easily and endanger the ground water quality. It is reported that a total area of 400.000 ha is affected by high nitrate levels in the ground water. Protective measures, comprising firstly of restrictions on agriculture, have already been taken but it is very difficult to implement them in the current situation.

## 2.5 Arable Sector

Traditionally, the total crop value accounted for approximately 48% of total agricultural output (EU 48%) but due to massive destocking in the livestock sector this share has increased in recent years.

### 2.5.1 Cereals

The area planted to cereals covers about 50% of the total arable land. It increased from 1 million ha in 1990 to 1.2 million ha in 1993, ( which is about 3% of the EU level ). and dropped again in 1994. Average yields increased steadily during the Soviet era, reaching 3.1 t in 1991. Due to reduced utilisation of inputs, the increased area of lower yielding barley and the severe droughts of 1992 and 1994, yields dropped to only 2.0 t in 1994. Accordingly cereal production dropped from over 3 Mio t in 1991 to 2.4 Mio t in 1994

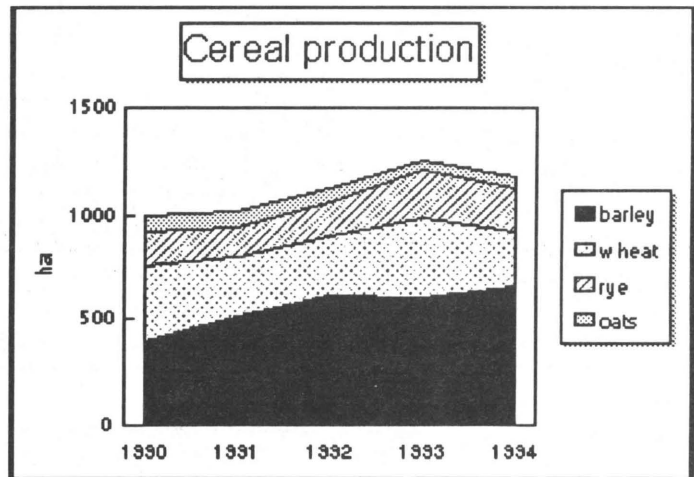


Figure 4

(some 1.4% of the EU cereal production). Increased utilisation of inputs, and a switch to higher yielding varieties could certainly raise the production potential again.

In 1994, barley accounted for roughly 55% of the cereal area, wheat for 22%, and rye for 17%, the remainder being oats and mixed grains. The area planted to barley has particularly increased in recent years.

Human consumption is approximately 460 000 t. The decline in the livestock sector was far more pronounced than the reduction of production, so that in 1994 Lithuania produced more cereals than it needed. The quality however is not always sufficient, so that flour and food wheat still have to be imported.

**Table 2.3**  
**Summary table cereal production in Lithuania**

	1990	1991	1992	1993	1994
area (000 ha)	994	1015	1135	1241	1178
production (000 t)	3047	3132	2198	2561	2412
consumption (000 t)*	3753	3550	3007	2230	2076
exports (000 t)				331	336
imports (000 t)*	706	418	809		

source: FAO,\* own calculations;

Farm gate prices for cereals increased in 1993 to around 62 ECU. For 1995 minimum prices of between 350 Litass (71 ECU) for barley and 500 Litass (102 ECU) for wheat have been set. These prices, which are subject to annual negotiations, however, are not always respected and actual market prices appear to be below this level. Actual figures indicate that Lithuania might very soon face a problem of oversupply in cereals, leading to a significant drop in cereal prices.

### 2.5.2 Fodder crops

The area planted to fodder crops has increased since independence and at present takes up 1.2 Mio ha, as much as cereals. Products cultivated include mainly annual silage on the basis of grass, fodder beets, mixtures of protein crops and perennial grasses, while the production of silage maize has contracted. The total yield for feed corn collapsing from 2.8 Mio before independence to only 240.000 t in recent years<sup>2</sup>. The quality of forage is reported to be declining, resulting in deteriorating conversion rates in the livestock sector.

### 2.5.3 Potatoes

Potatoes are grown on a total of 120 000 ha (5% of the arable area) and has remained fairly stable over recent years. Yields are, however, very low and do not exceed 14 t/ha (EU 30 t/ha) dropping to only 10 t in 1994. It should be noted that an important part of the potato production is produced on small holdings, both for human consumption but also for animal (mainly pig) feed, the latter accounting for 30% of the total utilisation of potatoes. A substantial part of the potato harvest is lost during storage, because many potatoes are still kept in the ground over winter. The per capita consumption of potatoes is close to 100kg/head. Some potatoes are also transformed into alcohol.

---

<sup>2</sup>World Bank 1994

**Table 2.4**  
**Potato production in Lithuania**

	1990	1991	1992	1993	1994
area (000 ha)	112	106	114	122	120
production (000 t)	1573	1508	1079	1773	1096
yield t/ha	14.0	14.2	9.5	14.5	9.1
consumption (000 t)	1699	1613	1249	1762	1346
of which animal feed	575	526	296	646	308

source: FAO; Lithuanian Department of Statistics and own calculations

#### **2.5.4 Oilseeds**

Oilseed production consists exclusively of rapeseed. Before independence it covered 11 000 ha which declined to only 6000 ha in 1994. Yields are fairly low (1.4 to 1.7 t/ha) and "00" variety growing is still in its trial phase. Increased production of rape seed in Lithuania could contribute to an improved supply of protein feed for the livestock sector. Due to climatic reasons, the prospects for oilseed production are however limited. At present the protein content of animal feed is not sufficient, which is leading to low conversion rates. For the time being oilseed production neither covers the demand of the livestock sector nor is it sufficient to cover the demand of vegetable oils for human consumption. The 1994 crop was affected by drought which improved oilseed prices on the domestic market - in line with high 1994 world prices. This might stimulate further oilseed production in the future.

#### **2.5.5 Sugar beet**

The area planted to sugar beet has remained relatively stable at around 33.000 ha. Sugar beet production is concentrated in the fertile region in the centre of Lithuania. In 1994 a drop to only 27.000 ha could be observed. Sugar beet production which is still concentrated in larger farms and agricultural partnerships, represents a share of only 0.9% of Lithuanian agriculture and is unlikely to increase substantially in the future. Total production fluctuates according to differences in growing conditions but it seems that the intensity of production has little changed since independence.



Total beet production reached 462.000 t in 1994 (17.1 t/ha) with a sugar content of approximately 16 %. Per capita consumption of sugar used to be very high, mainly due to the fact that part of the sugar produced was transformed into alcohol (vodka). Since independence, per capita consumption dropped significantly to only 23 kg in 1993. The sugar processing industry is large and inefficient and domestic production is expensive, so that the sugar sector is one of the most protected sectors of Lithuanian agriculture, with the highest import tariffs (70%) applied. Starting in 1995 a support scheme for sugar beet production will be introduced.

**Table 2.5**  
**Sugar beet production in Lithuania**

	1990	1991	1992	1993	1994
area (000 ha)	32	30	33	35	27
production (000 t)	912	925	622	855	462
yield t/ha	28.5	30.8	18.8	24.4	17.1
sugar production	159	151	88	92	64
consumption (000 t)			87	94	86

source: FAO; 1994 , Lithuanian Department of statistics

### 2.5.6 Fruit and Vegetables

Vegetable production plays a limited role in Lithuanian agriculture, the total area being around 25.000 ha, but with an increasing tendency over recent years. This is mainly due to the production from small household plots which account for 60 % of the total production. Red beets, carrots and cabbages are favoured. For the small holdings, vegetables have a double function, of improving family nutrition and providing an additional income. Part of this production has been marketed through the collective farms for export (mainly to the FSU) and for processing. An increasing quantity in recent years has also been marketed on private local markets. The quality of these products is low and cannot be marketed elsewhere. The shortage in storage facilities, inappropriate handling and little marketing efforts (packaging, quality guarantees, off-season market supply) limit for the moment expansion of the sector. However, demand is expected to increase further and the restructuring of some canning factories might stimulate future domestic production.

**Table 2.6**  
**Vegetable production in Lithuania**

	1990	1991	1992	1993	1994
area (000 ha)	16	21	20	25	28
production (000 t)	229	221	260	376	283
yield t/ha	14.3	10.5	13.0	15.0	10.1
consumption (000 t)			244	258	206

source: FAO

The total area planted with fruit and berries is approximately 43.000 ha. They represent nonetheless a relatively important share of total output. The fresh climate in combination with sandy soils produce excellent berries (cranberries, goose berries) which are considered to have good taste, in particular for juice, marmalade etc. As in other countries, the share of small farm production is traditionally high and reached even in communist times 80% of the total output value. Apples are the dominant fruit, representing 75% of the total area planted, followed by plums. Significant annual changes in output are mainly due to the fact that apple yields vary from one year to another. For both, apples and plums, orchard productivity is limited and the average apple tree age is estimated to be 22 years. 10% of the area in question is planted with berries, mostly strawberries, black and red currents, which are mainly produced on large scale farms.

## **2.6 Livestock Sector**

As for the other Baltic states, Lithuanian agriculture is dominated by the livestock sector, with a level of production which by far exceeds domestic demand. The oversupply used to be, and still is, sold mainly on Russian markets (St. Petersburg and Moscow). In the Soviet era, the domestic production of cereals could not cope with the feed demand of the gradually expanding livestock sector, so that large amounts of cereals had to be imported from other Soviet republics. This kind of mutual economic dependence between the Soviet republics was not only a result of climatic conditions but mostly of the political effort to improve the integration between them. Feed quality however is comparatively low and deteriorated after independence, which is first of all due to a low content of protein in the feed mix. As a consequence high conversion rates erode to a certain extent the possible competitive advantage which could be reached in the livestock sector.

Livestock's share in total output is still dominant (52% of total agricultural output), but production declined by 35% since independence. It can be expected that the decline in production bottomed out in 1994.

The end of the Soviet Union has fundamentally changed the system of livestock production in Lithuania. Due to deteriorating profitability the big units were broken up and the major part of the herds split into smaller ones. Markets in Russia are no longer open to the same degree as before and import prices for cereals have increased substantially whilst energy prices have shot up. In addition, the bad performance of the processing industry has proved to be a major blocking factor for an accelerated improvement of the whole sector.

### **2.6.1 Milk**

The dairy sector is the key sector for Lithuanian agriculture. Milk production should be profitable when it is based on the optimal utilisation of local roughage and feedstuff. As a consequence of the changed economic surroundings, production contracted from 3.157 million t in 1990 to only 1.66 million t in 1994. Its share of total agricultural output was estimated at roughly 26% before independence and has stayed relatively stable in recent years. The dairy sector faces two problems: firstly, the traditional importance of dairy exports to the FSU - which has declined dramatically - and, secondly, the shift towards smaller farm units. According to official figures, more than 50% of dairy cows now belong to small household plots with an average size of between 2 and 3 ha, holding only 1 to 4 cows. The bigger family farms account only for 14% of cow numbers and have little share of the milk production. The growing importance of private dairy farms is witnessed by the fact that its share of total milk production increased from 30% in 1990 to more than 70% in 1993, although the substantial decline in the average size of milk producers leads to severe inefficiencies and increasing "on farm" use. The percentage of milk collected has contracted significantly, which has further increased the overcapacity of dairy processing enterprises.

The total number of dairy cows fell from 850 000 in 1990 to 678 000 in 1994. Milk yields in the same period dropped from 3800 kg per cow to 2400 kg. (EU 4900 kg). The small size of dairy herds restrains investments to improve feed conversion ratios, hygienic standards, milking technology and higher milk quality. The lack of on-farm cooling equipment and milking machines and complicated dairy collecting systems increases the bacteria counts which do not match Western European standards.

Traditionally, Lithuania exported 50% of its butter, 25% of its cheese and 40% of its milk powder production. Since 1990, exports of almost all these products contracted and, at the same time, imports of dairy products increased, partly (mainly milk powder) for re-export, mainly to the EU. Per capita consumption of milk used to be fairly high, exceeding 400 l in 1990 but dropped to only 267 l in 1994.

Producer prices for milk are at present rather low and do not cover the costs of production. Beginning in 1995 a support scheme for milk production has been introduced, setting minimum prices of between 400 and 500 Litass per ton (ECU 81-102/t) with an additional premium depending on the quality. The support scheme might improve the situation of the sector, but budgetary possibilities are limited.

**Table 2.7**  
**production of milk and dairy products**

	1990	1991	1992	1993	1994
Dairy cows <sup>2</sup> (000 heads)	848	842	832	738	678
yield/cow (kg)	3722	3463	2698	2801	2448
Milk production (000 t)	3157	2916	2245	2067	1660
butter (000 t)	73.9	67.2	49.2	45.3	33
SMP (000 t)	18.7	22.1	25.8	20	19
cheese (000 t)	26.3	24.5	17.5	20	19

sources: FAO; Lithuanian Department of statistics; <sup>2</sup> first of January

### 2.6.2 Beef meat

The production of beef meat can be seen mainly as a by product of milk production. It accounts for roughly 17% of the total agricultural output (EU 12%). Specialized meat breeds are not very common. The production of beef meat was especially hard hit by low producer prices, which meant it was far from being profitable. The poor performance of the processing industry aggravated this problem. As a consequence, cattle numbers dropped from 2.4 Mio heads in 1990 to 1.4 Mio in 1994. Private farms account for 36% of the total cattle herd and household plots another 12%.

A price support scheme has been introduced in 1995, offering producer prices of between 2100 and 2800 Litass/ ton of live weight (428-570 ECU), which has improved the situation to some extent, but market prices for meat still seem to be somewhat below the targeted level. Consumer prices for beef meat are below the price for pork, which reflects low consumer preference as well as low meat quality.

National statistics indicate that beef meat consumption per head fell from 25 kg in 1990 to 15 kg in 1994 but on farm use and direct marketing might not be included in this figure. Total exports of beef and beef products declined from 87.000 t in 1990 to 38.000 t in 1994.

**Table 2.8**  
**beef meat production**

	1990	1991	1992	1993	1994
cattle (000 heads)	2422	2322	2196	1701	1384
meat production (000 t)	231	185	203	146	120ass
consumption (000 t)	95	99	113	83	82
exports (000 t)	136	86	90	63	38
imports (000 t)				0	0
ending stocks (000 t)					

source: Lithuanian statistical Department; ass= assumption;

### 2.6.3 Pork

In 1993 pork production accounted for roughly 9.6% of total agricultural output, down from 13.3% in 1991. (EU 12%). Meat output contracted from 241 000 t in 1990 to 93 000 t in

1993 and dropped further in 1994. The total number of pigs has been adjusted accordingly. An important part of the production is still concentrated in a few large scale production complexes but the share of small scale production, primarily for on farm consumption, has expanded gradually to more than 40% in 1993.

The performance of the pig-sector has declined, mainly as a result of the steep increase in prices for feed and a declining feed quality, mainly due to low protein content. Feed conversion rates consequently deteriorated. Nevertheless, profitability of pig fattening has improved in recent years, since the relation between feed grain prices and meat prices has developed favourably. In 1992 pork prices were only 7 times as high as grain prices and in 1993 the producer price for pork was 11 times the level of barley. The poor conversion rate however, erodes the benefit from cheaper prices for cereals to some extent. The bad condition of the processing industry, which is highly indebted and suffers from over capacities is one of the most important blocking factors for an improvement of the sector.

Pork is, like in Latvia and in Estonia, by far the most preferred meat by consumers and traditionally accounted for two thirds of all meat consumption. Retail prices for pig meat reflect this preference and are considerably higher than for beef meat.

Traditionally, one third of domestic pork production has been exported to the FSU. The relatively fatty meat and the sausages found a good market in St. Petersburg and in Moscow and were highly appreciated. In recent years however, the export potential has dropped significantly and Lithuania began to import pig meat, mainly from the EU.

**Table 2.9**  
**pig meat production**

	1990	1991	1992	1993	1994 e
pig numbers (000 heads)	2730	2436	2180	1360	1196
slaughtered animals (000 heads)	2620	2256	1798	1094	1800
meat production (000 t) <sup>2</sup>	241	203	160	93	83ass
consumption <sup>2</sup>	149	128	105	92	86
exports <sup>2</sup>	92	75	55	1	0
imports				0	3
ending stocks					

sources: Ministry of agriculture; FAO; and own calculations; <sup>2</sup> carcass weight, including live animals (live weight\* 0.82)

## 2.6.4 Poultry and other livestock

The poultry sector was concentrated into a few poultry complexes which have gone through a period of intensive adjustment. Poultry meat production declined by over 50% from 56.000 t in 1990 to only 22.000 t in 1993. In 1994 an improvement of the sector can be observed when production began to increase slightly again. The traditional Russian markets for the sector (meat and eggs) have however been partly lost. Official trade statistics show that total exports of poultry meat in 1993 were 3000 t and 1000 t in 1994.

In 1994 the first signs of recovery could be observed and egg production, most of it for the domestic market, increased significantly.

**Table 2.10**  
**poultry meat production**

	1990	1991	1992	1993	1994
number of animals (000 heads)	17486	16815	16994	8259	8728
meat production (000 t)	56	44	32	22	25 ass
egg production (000 t)	71	70	53	37	42

sources: National Department of statistics; ass= assumption

**The Sheep** inventory declined by 50%, from 80 000 heads in 1989 to approximately 40 000 in 1993. Sheep meat and wool are equally important, but the quality of both is low compared to Western European standards. The **goat** inventory increased to 12 000 heads mainly in line with the establishment of small family farm enterprises which use goats for on farm consumption. Generally, sheep and goat keeping might be profitable in those areas where low productive grass land cannot be used for beef production. The number of **horses** also increased due to private farms who use horses as draught animals (as in Poland). Some horse meat is also exported.

## 2.7 Forestry

Forest occupies 1.86 mio ha, or 28% of the total land area. Timber production reached 3.3 Mio m<sup>3</sup> in 1993, lower than the annual growth, which is about 5.5 Mio m<sup>3</sup>. This shows, that the potential is not fully used and the yearly sustainable cut could be increased. The log harvest remains in particular relatively low as a result of low domestic demand and little export activities. As a proportion of tree growth, softwood production (pine and spruces) dominates with (60%) and broadleaves (mainly birch) accounting for the rest.

Until independence, the forests were managed by the Ministry of Forestry (70%), the municipal authorities, by the military or by collective farms. Since 1992, the whole forest management has been concentrated under the responsibility of the ministry of forestry.

The privatisation of forests is envisaged but only to a limited extent. It is expected that altogether 20% of Lithuanian forest will be privatized, the remainder staying in state property.

The wood processing industry has a long tradition accounting for 6% of industrial output. Main products are furniture, sawn wood, paper pulp, soft fibreboard, plywood and veneer. Compared to 1989, the industry runs at only 50% of its capacity. The raw wood quality is good and should give rise to some prospects for an improvement of the wood processing industry. In order to support the domestic processing industry and to prevent supply shortages, exports of oak and ash wood are banned for the moment.

Another important prospect is the use of wood and wood waste as a substitute for fossil fuels. Some pilot operations are in their testing phase and the potential of the Lithuanian forest should be sufficient to replace some of hard currency based energy imports, at least in rural areas.

## **2.6 Fishery**

Fish has been a major component of the diet in all the Baltic Republics. Catches, based on ocean fishing, were 326 000 t in 1989. The entire fleet of 130 fishing boats almost disappeared. The main problems are the international fishing rights, which have been kept by Russia, this means Lithuania has to negotiate with individual countries in order to gain access to attractive waters.

Inland water catches, including Baltic coastal fishing, declined only modestly from 5 900 t in 1989 to 5 000 t in 1993. The main products are herring, sprat and carp, mainly consumed on local markets. In 1993 roughly 1 500 t were exported to Poland, Latvia and Russia. Inland fish are produced on 22 privatized fish farms which in 1994 suffered from high energy costs and poor quality of fish feed. The low profitability of fish farming may have some impact on 1995 production.

The fish processing industry is still of enormous importance but the production capacity exceeds by far the available supply of fish, meaning that raw fish for further processing is imported.



## **3.Processing Industry**

### **3.1 General situation**

The Lithuanian processing industry formed part of the agricultural sector of the FSU, and was centrally planned and organized by Moscow. Meat, dairy and fish processing industries were dominating and a significant share of the total output of the sector was delivered to the Russian market. Wool and cotton from Central Asia was processed in the spinning industry in Kaunas. Otherwise berries, some vegetables and potatoes play an important role for the processing industry.

The output of the processing industry dropped in line with contracting agricultural production, leading to high overcapacities and indebtedness. The major part of the processing industry can be described as inefficient and energy wasting. Machinery is generally outdated and product quality does not meet Western standards. This limits its competitiveness on EU and other Western markets. Employment in the sector has shrunk in recent years but it can be assumed that there is still considerable overemployment. A law on bankruptcies does exist in principle, but presently is not implemented. This is leading to delayed payments to farmers which suffer not only from low producer prices but also from further devaluation through high inflation. Altogether the processing industry is one of the major factors inhibiting an improvement of the situation of agriculture.

Of the 142 larger processing plants, 43 are milk processing plants and 20 slaughterhouses. The rest can be mainly allocated to sugar processing (7), flour mills (11), beer breweries (9) and canned fruits and vegetables (9). The food industry employed about 65 000 persons in 1990 but this is estimated to have declined to 40 000 in 1993.

The privatisation of the processing industry proceeded in two steps. At first it was intended to privatize the processing industries through a voucher scheme. The response however was rather limited. Following this, suppliers of agricultural products were given preferential conditions in the privatisation process. A certain concentration of shares can already be observed, but without new capital a fundamental change cannot be expected in the short run. At present it can be estimated that approximately 30% of the capital of the processing industry is still in state hands.

Some of the enterprises have been sold for cash to foreign investors, particularly from EU countries. By mid- September 1994, 4000 joint ventures and foreign investments had been registered, accounting for a total amount of LT 460 million ( ECU 97.6 million).

### **3.2 Meat processing**

The meat processing industry faces a significant under-utilisation and ran at only 40% of its capacity in 1994. Each of the bigger cities had a slaughterhouse of its own, assuring the meat supply to its inhabitants. In addition there were about 200 smaller slaughterhouses, mainly for local production. The big pig producing units had processing facilities of their own. At the end of 1994, out of nine of the biggest slaughterhouses, 5 had already gone bankrupt. The

quality of the raw material is fairly good, even if the pigs are too fat for Western standards. Quality control requires improvement and integrated management is required for the entire production chain.

Some of the slaughterhouses are in a rather poor condition but others are relatively close to EU hygiene standards. At present however, no Lithuanian meat processing plant has an EU certificate. Foreign investment in the sector is small, suggesting little change in the short-term.

### **3.3 Milk processing**

Between 1989 and 1993 the total output of the dairy industry declined by 41% to 1.7 million t and is forecasted to contract even further in 1995. More than 50% of the 43 major processing plants have already been privatized but still milk processing lives through a very difficult phase of adjustment and overcapacities and high indebtedness are common to most of the enterprises. It has been reported, that some of the enterprises run at only 20 to 30% of their capacities. It is likely that the number of dairies will contract significantly in the coming years.

Some of the dairies are nevertheless technically well equipped and begin to produce higher value added products, such as mozzarella cheese and other fresh dairy products, both for the domestic market as well as for export. These dairies can also pay higher prices to producers, giving them incentives to increase their production and to make the investments which are necessary to improve the milk quality.

A considerable share of production costs is due to high payments on credits and is a major reason for low profitability so that bankruptcies cannot be excluded for the foreseeable future. At the same time, the quality of raw milk delivered declined dramatically due to the fragmentation of milk producers, who do not have the necessary equipment for cooling and milking. Production of high quality dairy products in many cases is therefore not possible.

Exports are still an important outlet for dairy products especially butter, concentrated milk and skimmed milk powder. In 1994, exports of dairy products, namely SMP, still accounted for 25% of total agricultural and food exports.

### **3.4 Sugar processing**

Sugar beet is processed in 4 sugar factories, all of them outdated and inefficient. Due to high prices for alcohol, some of the sugar produced was transformed into alcohol, but due to a recent drop in alcohol prices, distillation has become less rewarding.

### **3.5 The retail sector**

The retail sector was the first to be privatized and an increasing number of shops are emerging, by the end of 1993, 75% of the retail sector was in private hands. Recently some supermarket chains have opened, which is leading to stronger price competition to the benefit of consumers.

## **4.Upstream Sector**

The use of practically all variable inputs has been reduced substantially since independence, which reflects the changed economic situation of the farm sector.

### **4.1Seeds**

Before independence seeds were produced on specialized states farms and distributed mainly through state-owned organisations. But due to the difficult financial situation of agriculture there is a strong tendency to use certified seed less frequently. This applies mainly to vegetables, but also to cereals. The price difference between non-certified and certified seeds is relatively important (1 to 5) meaning that high quality seeds simply cannot be afforded by many farmers.

Seeds for sugar beet production are imported by the sugar factories and distributed to producers.

### **4.2 Fertilizers**

Total fertilizer use contracted significantly from 700 000 t in 1988 to roughly 140 000 t in 1992 resulting in the significant decline in total crop production. The two Lithuanian fertilizer plants (nitrogen and phosphate) produced traditionally for the domestic market but increased their exports from 1991 onwards due to the lack of domestic demand. These two plants are reported to be inefficient, environmentally dangerous and outdated. The raw phosphorus for fertilizer production is imported from Russia and Estonia. Distribution of fertilizer used to be concentrated into one single state company, which tried to use its market position to charge higher prices. Farmers consequently started to buy directly from the factories. Through the involvement of foreign enterprises however, competition on the fertilizer market has recently increased.

**Table 4.1**  
**Development of fertilizer use**

	1990	1991	1993	Change 90/91-93
N	248	200	31	-86 %
P	145	137	18	-87 %
K	276	272	96	-65 %
All	669	609	145	-78 %

Source: World Bank

### **4.3 Compound feed**

Compound feed is produced in 16 large feed mills. They are run as share holder companies, which in the main are still in state ownership. In addition there is a number of smaller feed mills producing at local level. More than 50% of their output is used in the pig sector and another 25% in the poultry sector. Prices for compound feed vary to a large extent (in 1993 prices ranged between ECU 91 and 127 per ton) but are well under the price levels within the EU. Feed quality however is low, mainly due to a lack of proteins in the feed mixture. The domestic potential to grow protein crops is rather limited, so that the major part has to be imported.

### **4.4 Pesticides**

Pesticides are not produced in Lithuania and used to be imported mainly from the FSU. In recent years however imports from Western countries has become more common. Trade in pesticides is carried out by private enterprises. The use of pesticides declined significantly from over 13.000 t in 1988 to little more than 2.300 t in 1992.

### **4.5 Machinery and equipment**

In general terms, the stock of machinery and equipment seems to be sufficient but especially in smaller farms there is a lack of adequate mechanisation adapted to small scale farming. The utilisation of horses in farming has increased in recent years, especially on small farms. The larger farms are relatively well equipped and have sufficient machinery.

Most tractors come from Belarus. They cost only a fraction of comparable Western machinery. In recent years, second hand machinery, mainly from Scandinavian countries, has helped to improve the situation.

National statistics indicate that there is one tractor for every 50 ha, but this figure says nothing about the real distribution of machinery, which in many cases seems to be

unsatisfactory. Totally insufficient, however, are the milking installations on farms and the lack of sufficient transport facilities between farms and the dairy processing plants.

Almost 80% of the agricultural land is drained. The drainage installations are still working but they would require continuous attention, which however is often missing, in order to maintain the productivity of the land.

## 5 Production costs

Before independence, agricultural production centred on the livestock sector, based on cheap imports of feedstuff from the FSU and home-grown feed grains. After independence, prices for imported inputs increased enormously, resulting in increasing costs of production. The same happened to the arable sector, where prices for fertilizers, pesticides and energy increased enormously.

Due to a lack of data it is not possible to calculate more than the variable costs. In the **arable sector**, labour costs do not play a major role, so that a possible competitive advantage on this basis is rather limited. On the other hand the costs for other inputs especially for fertilizers, pesticides and seeds do not differ so much from world market prices. Energy costs and especially the costs for machinery (Russian type) are far below the EU level. Taking into account that actual yields, but also potential yields, and grain quality are fairly low, cereal production would certainly not be viable if inputs had to be purchased at EU prices. For the time being, at least the variable costs, which lie around 60 ECU/t are covered by the domestic market prices, which are still slightly beneath the import parity price.

For the **livestock sector** production costs depend to a large extent on the cost and quality of available feedstuffs. One problem for the moment is that the feed quality - and especially the protein content - is rather low, resulting in equally low conversion rates. If the conversion rates stay at their present low level this will eliminate to some extent the advantage of cheaper feed prices.

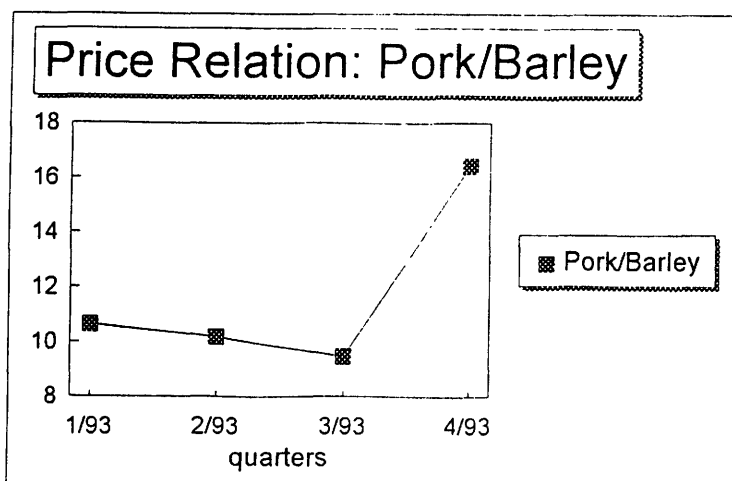


Figure 5

**Pig production** seems to be viable also for the future especially if feed quality could be improved, which would again lead to higher conversion rates. Taking into account that wages are very low, labour costs do not play a major role in pig production for the moment, even if pigs are produced in smaller more labour intensive production units. Compared to Western European standards, pig fattening involves labour inputs far above EU levels, so that in the longer

run increasing wages would have an immediate impact on production costs. Price ratios between feed grains (barley) and pig meat are around 1:11, which is comparable to Western Europe, but the conversion rate is much lower, meaning that the advantage of cheaper feed is at least partly eroded. The future of pork production will largely depend on how far an improvement of the feed quality can be achieved.

**Milk production** has to cope with producer prices which lie well under comparable world market prices, even when a comparatively low quality is taken into account. As a consequence of the restructuring process, production units have become very small and milking and cooling equipment is missing. This is resulting in increasing costs for milk collection and a deteriorating quality. In the longer run however milk production, which is a key element of Lithuanian agriculture, seems to have a chance to recover, especially when low labour costs are taken into account and domestically produced green fodder and silage can provide a suitable feed base. A support scheme which has been introduced in 1995 can also help to improve the economic situation of milk production.

**Beef production** in specialized beef fattening enterprises, which was put forward in the seventies had to close down after liberalization due to decreasing prices, lower demand and comparatively high production costs. Due to the low prices for beef meat the relationship between feed grain price and meat price is only 1:7, which would suggest poor profitability for an intense form of beef meat production. Beef production as a by-product of milk production and as an extensive form of land use may certainly continue to play a role. Prices for the moment are very low, lying below the price for pork. This will be to some extent a consequence of the destocking and sell-off process, but consumer preferences also play a major role. The gross margin for the beef sector is determined to a large extent by the cost for feed.

## **6 Agricultural Policy**

Total budgetary spending on the farm sector amounted to LT 212 million in 1994. In 1995, expenditure on agriculture is expected to increase significantly to LT 332.5 million, which will be about 10% of the national budget. In the first years following independence a coherent agricultural policy did not exist. In 1994 the "Law on State Regulation of Economic Relations in Agriculture" was adopted, which set the general framework for price and income support measures, support of investments by soft credits, trade regulations and quality control of agricultural production.

### **6.1 Price support measures**

Immediately after independence, producer prices as well as consumer prices stayed officially regulated. In 1991 and 1992 price regulations were lifted step by step and phased out at the end of 1992. Since that time prices in principle are uncontrolled but the state still exerts an important influence, mainly by limiting profit margins on the processing and retail level. In the beginning of 1995 however, these limitations were phased out.

Present legislation has increased the market control of the state. For the most important commodities, such as milk, grain and beef meat, procurement quotas and "minimal marginal prices" have been fixed, which may be supplemented by additional premiums from the state budget. Total expenditure for these price support programmes account for **50% of the total agricultural budget**. Minimum prices are set by the "Product Procurement and Regulation Board" of the Ministry of Agriculture, which is formed of representatives of producers, the processors and the Government.

To give an example: the minimal marginal price for milk for 1995, which should be respected by the dairies, has been fixed at Lt 400-500/t, depending on the quality, on top of which the government pays a premium of 30 LT/t. In practice, however it seems to be difficult to achieve the foreseen price levels, since there is no instrument in the regulations, obliging the processing industry to pay the envisaged price level.

For cereals, minimum prices were introduced in 1994 for a quota of 400.000 t. For 1995 the same quota has been earmarked and prices between 350 and 500 LT depending on the quality, have been fixed. In 1994, this quota however could not be filled, since procurement prices are often not respected by the purchasing enterprises and in addition, payments are often delayed by several months. As a result, (illegal) exports to neighbouring countries were more profitable.

## **6.2 Agricultural Credit**

Most important are the "Agricultural Support Fund" and "The Farmer Support Fund", which are mainly financed by the budget, and provide subsidised credit for the agricultural sector. Credits are managed by the regional branches of the "Bank of Agriculture", which is the most important commercial bank in Lithuania not only for agriculture.

The interest rates charged by the "Farmers Support Fund" are presently fixed at 15%. Five percent of which covers the bank expenses, while 10% flows back to the fund. Interest rates on the free market are considerably higher. It must be noted that credits are granted only to farms exceeding 15 ha. The majority of the credit is for short term credits to buy necessary inputs. A smaller part is reserved for investments. Most of the money is given to the co-operatives, only a little to private farms. Purchasing and agro-service enterprises can also benefit from subsidized credits, provided by the Farmers Support Fund.

Serious difficulties have occurred in paying back the credits and bad debts are becoming a problem. At the end of 1994 30% of credits by the "Bank of Agriculture" were reported to be overdue.

## **6.3 Direct support**

In order to improve the situation of mechanisation, agricultural partnerships having long term contracts with private farmers, can receive a 30% payment on the purchase price of combine

harvesters. In addition farmers and agricultural partnerships can benefit from reduced energy tariffs.

Within the "Farmers Support Fund" the Government is also running a programme to improve the rural infrastructure. LT 34 million was spent in 1994 mainly for road building and for electrification.

## **6.4 Taxation**

A three-year tax break for farmers was agreed in 1990, which helped firstly the farmers who set up business under the Law of peasant farming in 1989. Since 1994 a 10% profit tax has been applied on all farms. Enterprises with an income share from agriculture of less than 60% will have to pay a profit tax of 29%.

A revision of the VAT law exempts agricultural inputs (such as machinery, energy and services provided to farmers by agricultural companies) from VAT charges until 1 January 1996. Foodstuffs and domestically produced compound feed are at present subject to a reduced VAT tax rate of 9%, but following an agreement with the IMF the general VAT rate of 18 % will be applied from 1996.

## **7 Agricultural Trade**

### **7.1 General situation**

In Soviet times the agricultural sector in Lithuania produced a large surplus of meat and dairy products, which were delivered for the Russian market. Approximately one-third of meat production and around 40% of milk production were exported mainly to Moscow and other markets in Russia. Other important export commodities were fish and leather products, whereas large amounts of feed ingredients and cereals were imported from Russia and other Soviet Republics to supply the large livestock sector.

The trend since independence has been for exports to contract, while imports of agricultural products increased but agricultural trade has remained an important element of the Lithuanian economy. Official trade statistics indicate that in value terms agricultural commodities and food products, including fish, accounted in 1993 for 13% of total exports and some 7% of total imports. For 1994, exports stay around the same level, whereas imports increased. As a consequence of Lithuania's geographical situation, transit trade plays an important role.

Following independence, statistics were based on declarations of exporting enterprises and from 1994 on customs statistics. Until 1992 only part of the real trade flow was covered by the statistics, but although these trade statistics are now starting to improve there still seem to be data problems and available sources differ to a large extent. This is partly due to black market activities which are sometimes included in the trade figures and sometimes not, but there are also methodological and technical problems of data collection and data processing, which lead to strongly differing trade figures.



In order to illustrate the point, table 7.1 compares trade figures from the Lithuanian Statistical Department with DG VI estimate. In the case of the DG VI estimate, the Lithuanian figures for imports from Western industrialized countries have been replaced by export figures from these countries to Lithuania. Correspondingly, Lithuanian figures for exports to these partners have been replaced by their import figures.

**Table 7.1**  
**Importance of Agricultural Trade**

(million Litas)

	1993		1994	
	Lithuanian Statistical Department	DG VI estimate	Lithuanian Statistical Department	DG VI estimate
Exports	1153	1194	1054	1070
Imports	621	1180	915	1278
Balance	532	14	139	-208

No major differences appear as far as exports from Lithuania are concerned, but considerable differences exist on the import side, where imports in particular from the EU would appear to be under-recorded by Lithuanian statistics. As a consequence the overall trade surplus in 1993 would appear to be much smaller than on the basis of national statistics and in 1994 the trade balance would become even negative.

### 7.1.1 Main Trading partners

Trade with Russia was particularly hard hit by the decrease in trade volumes. High import taxes and increasing prices for Lithuanian products, declining purchasing power in Russia, the appreciating exchange rate of the Lithuanian Litas and continued subsidisation of food products in Russia, made Lithuanian products less competitive on the Russian market. Despite this, Russia still remains the most important trading partner, accounting for 50% of Lithuanian agricultural exports and 22% of registered imports. The MFN (most favoured nation status), that in January 1995 has been agreed between Russia and Lithuania, may be an important factor for improving their bilateral trade. The EU is the second most important trading partner and accounts for roughly one quarter of Lithuanian agricultural exports and one third of imports. Imports from the EU have in particular showed an increasing tendency over the last few years. Trade volumes and especially imports from Scandinavian countries increased by some 15% in 1994. The remainder is mainly trade with other Eastern European countries, particularly Poland and Latvia.

### 7.1.2 Main export commodities

Agricultural exports in general terms have dropped significantly over the last few years, in line with contracting agricultural production. Important commodities for export are dairy products, such as SMP (most of it to the EU) , butter and cheese (the latter mostly for the Russian market) and despite the drop in production there is still a considerable surplus of dairy products for export. Due to the massive destocking in the livestock sector which still has not come to an end, exports of live bovine animals to Poland and beef meat to the FSU have stayed at a rather high level, while exports of pig meat have dropped to a very low level, and nearly ceased in 1994. The drop in animal production has also led to a considerable surplus in cereal production, so that large quantities of cereals, mostly low quality, were exported in 1994. The export price however was very low, so that grain exports did not contribute more than 3.3% of the total value of agricultural exports.

The above mentioned products account for little less than half of total agricultural exports, the other half being distributed among many of different product groups. It should be noted that exports from Lithuania comprise an important share of reexports especially of commodities like beverages, vinegar, spirits, and milk powder.

**Table 7.2**  
**Main agricultural trade commodities**

<b>exports</b>	1993	1994	<b>imports</b>	1993	1994
0102 Live animals	7.7	8.1	0203 Pork fresh, frozen	0.8	2.6
0201/02 Bovine meat fresh and frozen	12.6	7.1	0402 Concentrated milk	7.1	
0402 Concentrated Milk	15.6	10.1	08 fruit	4.6	9.6
0403/ 05 Butter milk, cream and butter	13.6	7.9	09 Coffee, tea	5.5	2.7
0406 Cheese	7.1	7.1	10/11 Cereals, Malt	9	1.2
10 Cereals	0.6	3.3	1208 flour and meals	0.8	9.1
			17 sugar and sugar confectionary	2.6	1.7
			24 Tobacco and cigarettes	12.5	8.3
<b>Total</b>	<b>57.2</b>	<b>43.3</b>		<b>43.0</b>	<b>35.3</b>

source: Lithuanian Department of Statistics

### **7.1.2 Main import commodities**

Imports of agricultural products have increased in recent years. In the last two years they accounted for 7% of total imports in 1993 and 10% in 1994. Feed grains were traditionally imported from the FSU in large quantities, but between 1988, when livestock inventories were at their peak and 1992, imports of feed grains and feed concentrates shrunk to one fifth of their former volume in line with the massive drop in livestock numbers. Imports of grain in 1994 consisted mainly of flour for human consumption. Apart from cereals, the most important import commodities in the last two years have been fruit and vegetables. Beginning in 1993 pork which used to be an important export commodity started to be imported in increasing quantities, the EU being one of the main suppliers.

## **7.2 Trade Policy**

In the Soviet era foreign trade was regulated by quotas, licences and import and export bans, which were applied whenever they were thought to be necessary. Indeed this kind of trade regulation was continued until the beginning of 1993.

Since 1993 however tariffication of trade has been applied and by the beginning of 1994 all quantitative restrictions had been phased out. As far as imports are concerned, the levels of tariffs were frequently changed and high duties were applied particularly on processed products like sugar, butter, potato starch and alcohol in order to protect the inefficient processing industry. All tariff regulations are set by government resolutions, which do not require formal legislation.

A differential system of tariffs which distinguishes between conventional, preferential and autonomic (sanctional) tariffs came into force from April 1995. Average tariffs are now between 30% and 40% but high tariffs on a number of products remain.

**Table 7.3**  
**Conventional import tariffs on main agricultural commodities**

Commodity	import tariff %
meat	20-30
milk	20-30
butter	50
cereals, flour, combined fodder	30
preserved meat	40
sugar	70
eggs	35

On the export side, restrictions were phased out recently except for raw hides and skins, and oak and ash wood on which export duties of 50% are imposed. For the time being agricultural exports are not subsidised.

Lithuania has observer status in GATT and has applied for full membership. The GATT schedules however are not yet decided and it is difficult to judge future constraints for both, domestic support and export subsidisation. In the dairy sector however, where the surplus situation is likely to continue, Lithuania could face problems one day, if export subsidies were to be established for which the GATT schedules will probably not leave much scope.

Lithuania has concluded free trade agreements with EFTA countries but agricultural products do not play an important role. More important has been a contract with the City of Moscow. The city is allowed to conclude trade agreements on its own, thus avoiding import barriers which were imposed by Russia. In January 1995 Lithuania and Russia granted each other "Most Favoured Nation" status, leading to significant reductions of Russian import tariffs on Lithuanian products.

Most Favoured Nation status has also been agreed with Azerbaijan, Bulgaria, Belarus, the Czech and Slovak Republics, Hungary, Poland and a number of other countries. Trade volumes with these countries, except for Poland, however have been very small in recent years. Free trade agreements with the Ukraine and Iceland still wait ratification of their respective Parliaments.

A trilateral trade agreement has been agreed with the two other Baltic republics, Latvia and Estonia. Until now agricultural commodities have been excluded, but negotiations to extend the agreement to this sector have already started. This will require trade and price policies will be brought closer together.

### 7.3 Free Trade agreement with the EU

An association agreement with the EU was signed in June 1995. A free trade agreement between Lithuania and the EU had already been signed in the middle of 1994 and entered into force in January 1995.

The agreement foresees duty reductions to 60% for limited imports into the EU, namely for pork, chicken, skimmed milk powder, butter and cheese. For skimmed milk powder the quantities actually delivered exceed by far the existing quotas, whereas the quotas for butter and for pig meat will probably not be fulfilled.

A common quota for Lithuania, Estonia and Latvia for live bovine animals foresees imports of 3500 bovine animals (duty rate at 25% of normal duty) and 1500 t of beef meat (duty rate reduced to 40% of the normal duty).

Reduced duties without quantity restrictions have been agreed for black currants, natural honey, apple juice and some vegetables. For black currants however, minimum prices have to be respected.

The free trade agreement foresees tariff reductions also for exports of the EU to Lithuania, which generally are between 5 and 20% of the MFN tariffs and are limited by quotas.

**Table 7.4**  
**Main concessions of the Free trade agreement with the EU**

	quantity (t)			tax or levy reduction
	year 1	year 2	successive	
pork	1000	1000	1000	60% of MFN
poultry	500	500	500	60% of MFN
SMP	2900	3200	3500	60% of MFN
butter	100	1100	1200	60% of MFN
cheese	1400	1400	1400	60% of MFN
apples	800	900	1000	60% of MFN
live cattle*	3500 heads	3500 heads	3500 heads	25% of full amount of duty
beef meat*	1500 t	1500 t	1500 t	40% of full amount of duty

\* Common quota for all Baltic countries

## **8 Perspectives, Evolution, Conflicts and Problems**

### **8.1 Development of the macro-economic Situation**

In 1994 the overall economic situation showed the first signs of recovery. GDP increased albeit slowly and is forecasted to grow further in the coming years. This could then lead to increasing purchasing power and growing internal demand.

The budget deficit foreseen for 1995 budget should represent 1.6% of GDP, which would not be a major problem if budget revenues reach the forecasted level (which was not however the case in 1994).

The rate of inflation has declined to 45% in 1994 and is expected to fall to 25% in 1995. For the following year a further reduction is expected.

The industrial sector is still facing major difficulties and there is lack of investment. The restructuring of the sector, which will require a number of years to complete, should reduce overemployment. It can be expected that the oversized and inefficient production units will be replaced by smaller and more flexible ones and that investments in the existing plants will be rather limited. Bankruptcies of the former state enterprises are still to be expected.

As a consequence of the restructuring process, the rate of unemployment will probably rise further in the coming years, even if industrial production should increase. Small scale farming will continue to play an important role in this context and serve as a basis of living for many families in rural areas so long as employment in other sectors is not available. It cannot be expected that the labour market situation will improve very quickly.

In 1994 as well as in 1993, the trade balance was negative primarily due to rising imports. Trade has been affected by the overvalued currency, which in spite of high internal inflation is still pegged to the US \$ at a rate of 1:4. (There is already a black market exchange rate of 6 Litas for one dollar). The negative impact on exports might however be compensated to some extent if the exchange rate of the US \$ stabilizes at its current low level. Trade with the FSU and namely Russia will maintain its importance.

### **8.2 General perspectives for Agriculture**

Farm structure is still changing and should continue to change in the foreseeable future. It can be expected that in the next five years the movement from cooperative farms towards private farms will continue. But also within the "Agricultural Partnerships" the re-organization process will be continued. A further splitting up of the partnerships however, will also lead to increasing rural unemployment .

As long as the overall economic situation remains difficult and an important share of family income has to be spent on food, household plots will remain important as a basis for nutrition as well as for additional income and employment. A large number of household plots

are managed by people who have already reached pension age. In the longer term these plots will be available for younger farmers willing to enlarge their farms.

The establishment of legal titles to the land is proceeding slowly and can be seen as a major obstacle to the restructuring process. As long as the ownership rights are not identified, land can neither be sold nor used as collateral for credits. In addition, low land values and the unfavourable situation of the agricultural sector as a whole do not favour the establishment of a land market which could accelerate the restructuring process.

**Production costs** are marked by low costs for labour and mechanization but also by a low labour efficiency. On the other hand all kinds of purchased inputs are expensive compared to farmgate prices. Due to the low fertility of the soil and the climatic conditions, achievable yields are rather low which limit possibilities for an intensification of crop production. In the livestock sector, production costs are to a large extent determined by the costs for animal feed. Cereal prices are at present low but the same applies for feed conversion rates, which mitigates some of the potential benefit of cheaper animal feed.

**Farm Gate Prices** have been low in recent years and especially for beef meat and dairy products it can be expected that farm gate prices were below the costs of production. The difference between farm gate prices and retail prices increased however, leaving scope for higher margins for the processing industry and for the retailers.

The bad condition of the **processing industry** represents a major obstacle for an improvement of the whole agricultural sector. Large overcapacities as a consequence of declining agricultural production, overemployment, quality problems and high indebtedness are its main characteristics. A series of bankruptcies within the next few years is highly probable. Demand on the Lithuanian market is limited by low purchasing power but also by the small size of the population (3.71 million inhabitants). This will make investments in the sector less attractive due to the likelihood of low returns, at least in the foreseeable future. It is therefore doubtful whether the sector will recover very quickly. It is more likely that the recovery of the sector will be initiated by the establishment of new smaller production units, than by investments in the existing old fashioned and oversized ones.

**Trade** will remain important for Lithuanian agriculture. Even if agricultural production will not recover very quickly from its present low level, there will be exportable surpluses at least in the dairy sector. Due to the collapse of the livestock sector, cereal production shows already a surplus and grain production is likely to stay in surplus until the turn of the century despite a declining grain area.

Russia and the FSU will probably remain the most important trading partners. The trade agreement which has been concluded between Lithuania and Russia provides a "Most Favoured Nation" status for Lithuania and should facilitate transit trade. **Trade with the EU** is regulated by a free trade agreement, but the agreed quantities are of little importance compared to Lithuanian surplus production especially in the dairy sector. In the short term the hygiene standards will pose problems for exports to the EU at least for meat and meat products.

Due to the fact that existing trade figures are not satisfactory, it is very difficult to assess possible future GATT constraints. Difficulties might however occur in the dairy sector, which until now has not benefited from any export subsidies.

### **8.3 Impact of Agricultural policy measures**

Compared with the two other Baltic republics, Lithuania has the highest level of support for its agricultural sector but it is rather limited. Budgetary expenditure for the agricultural sector, however, increased in 1994 and further in 1995. A price support scheme with guaranteed prices and additional premiums has been established for milk, beef meat and for cereals. Budgetary constraints however remain and guaranteed prices can not always be carried through, so that the incentive for higher production will probably not be very high. The main impact of existing agricultural policy is still through the application of import tariffs.

### **8.4 Possible development for the main commodities until the year 2000<sup>3</sup>**

#### **8.4.1 The cereal sector**

The cereal sector has traditionally been a net-importer. The following reasons however have led to a recent surplus of production, which will be continued in the foreseeable future.

- The area planted to cereals has increased since independence, despite a drop in consumption. In the coming years however, the area might drop again and marginal land will probably go out of production.
- Support to the cereal sector via minimum prices might stabilise cereal production, but due to high prices for fertilizers and other inputs some marginal areas will go out of production, yields should increase. In this context, unlike the other two Baltic republics, Lithuania has not afforested as much agricultural land in recent decades and has retained a higher potential for grain production.
- Due to the massive destocking in the livestock sector, consumption of feed grains has declined and will regain momentum at a rather slow pace from its present low level. Some improvement of feed conversion rates may also slow down the upwards trend for feed grain consumption.
- Human consumption of cereals will stabilize at its current level or even slightly decrease in line with an improvement of consumer purchasing power, since this would allow increased purchases of processed and more expensive food.

---

<sup>3</sup>Due to the weak data basis, the figures for consumption and trade, which are used for the projections are not identical with the official data. The net trade has been calculated as residual of the balance; stock changes have not been taken into account.



**Table 8.1**  
**Projections for Cereal Production**

	1993	1994	2000
Population (million)	3.7521	3.739	3.717
area (000 ha)	1241	1178	1033
yield (t/ha)	2.1	2.0	2.5
production (000 t)	2561	2412	2622
utilisation (000 t)	2230	2076	2278
- of which feed	1378	1239	1481
- of which human cons.	465	460	439
exportable surplus (000 t)	331	336	344

#### 8.4.2 Potatoes

Potato production, particularly on the small farms and household plots has increased in recent years. It can be assumed that potato production will remain at its present level, both to ensure family nutrition, and to provide the necessary basis for pig feeding on household plots.

#### 8.4.3 Other arable crops

Due to high border protection, **sugar beet** production has proved to be profitable in recent years in spite of relatively low yields and sugar content. It is not likely that sugar production will increase very much further in the coming years however since the area suitable for sugar beet production is limited. Most of the sugar factories are also outdated .

Production of **fruit and vegetables** on household plots and small scale farms will probably continue to increase slightly in the coming few years. Production is mainly used for own consumption but is also sold on local markets to improve the family budget.

**Flax** production might gain some importance in the future but the processing facilities are in a poor condition and will limit the possibilities for a rapid recovery of the sector.

#### 8.4.4 The dairy sector

The dairy sector has historically been export oriented and production still far exceeds domestic consumption. Farm gate prices however are not satisfactory although the support scheme which was introduced in 1995 might improve the situation. The desolate condition of the dairy processing industry is however a serious obstacle for an improvement of the dairy sector, so that the recovery of milk production will proceed rather slowly.

The available grass land and pastures, and the large amount of less fertile arable land which could be transferred into grassland would favour dairy and beef meat production under extensive conditions of production, using as little purchased inputs as possible.

Per capita consumption of dairy products declined significantly after liberalisation. Growing purchasing power could lead to higher demand of dairy products and to higher producer prices. Production will continue to exceed domestic consumption in any case leaving an important exportable surplus. Actual prices are still below the world market level, so that export subsidies would not be necessary at the moment. The problem of the overvalued currency could nevertheless hamper exports to the very important Russian market.

**Table 8.2**  
**Projections for milk production**

	1993	1994	2000
production (000 t)	2067	1660	2209
number of dairy cows (000)	738	678	734
yield per cow (kg/year)	2801	2448	3009
consumption (000 t)	1507	1247	1611
- cons per capita (l/year)	319	267	344
exportable surplus (000 t)	560	413	598

#### **8.4.5 The beef meat sector**

The beef meat sector is closely linked to the dairy sector. Production is likely to recover but probably at a rather slow pace. The price support measures, which have recently been introduced, could stimulate an increase in production. Beef meat however has a low consumer preference and a lower price compared to pork. Increasing purchasing power may therefore lead to rising pig meat consumption at the expense of beef meat. Given the present low level of meat consumption, some increase in beef meat consumption could still be expected. But beef will probably stay in surplus for the coming years and will have to be exported. Traditionally the FSU and Poland have been important export markets for beef meat and bovine animals. Due to missing EU approval of the Lithuanian slaughterhouses, exports to the EU will probably not be possible within the next few years.

**Table 8.3**  
**Projections for beef meat production**

	1993	1994	2000
production (000 t)	146	120	181
cattle number (000)	1701	1384	1605
carcass weight (kg)	128	142	200
consumption (000 t)	83	82	89
- cons per capita (kg/year)	22	22	24
exportable surplus (000 t)	63	38	92

#### 8.4.6 Pig meat

Pork production has contracted dramatically especially in the large scale production units. It can be expected, however that the surplus situation in the cereal sector could lead to a recovery of pig meat production. It is probable that at least in the short term production on small family farms, with the main target of self sufficiency and based mainly on feeding of potatoes, will gain further importance. The present price levels for pig meat compared to cereals would also open a good perspective for a professional, market oriented production, which could speed up the pace of recovery in the pig meat sector.

**Table 8.4**  
**Projection for pork production**

	1993	1994	2000
production (000 t)	93	83	110
livestock number (000)	1360	1196	
carcass weight (kg)	85	89	90
consumption (000 t)	92	86	99
- cons per capita (kg/year)	24.5	23	27
exportable surplus (000 t)	1	-3	11

#### 8.4.7 Poultry

Poultry production has traditionally been concentrated in some big production complexes, which have now been privatized. Recent figures suggest that the decline in production has now bottomed out. Production increased in 1994 and it can be expected that this trend will continue in the coming years.

**Table 8.5**  
**Projections for poultry meat production**

	1993	1994	2000
production (000 t)	22	25	34
consumption (000 t)	11	15	27
- cons per capita (kg/year)	3	4	7.4
exportable surplus (000 t)	11	10	6

## **Glossary**

<b>DG VI</b>	European Commission, Directorate General VI
<b>ECU</b>	European urrency Unit
<b>EFTA</b>	European Free Trade Association
<b>EU</b>	European Union
<b>FAO</b>	Food and Agriculture Organisation
<b>FSU</b>	Former Soviet Union
<b>GAO</b>	Gross agricultural output
<b>GAP</b>	Gross agricultural product
<b>GATT</b>	General Agreement on tariffs and Trade
<b>GDP</b>	Gross domestic product
<b>LDLP</b>	Democratic Labour Party
<b>LT</b>	Litas
<b>MFN</b>	Most favoured nation
<b>OECD</b>	Organisation for economic Co-operation and Development
<b>PECO</b>	Pays d'Europe Centrale et oriental
<b>SMP</b>	Skimmed milk powder
<b>UAA</b>	Utilized agricultural area
<b>VAT</b>	Value added tax

## **Bibliography (main Documents)**

- (1) EIU The Economist Intelligence Unit; **Country Report Baltic Republics**; various editions
- (2) European Bank for Reconstruction and Development 1994; **Lithuania Country Strategy**
- (3) FAO Working Party on the Economics of the Agri-Food Sector and Farm management, September 1994, **Rural Employment: Problems and Prospects**
- (4) Field Drainage Research Society 1995, **Agriculture Sector Reform in the Baltic Republics**, Research Publications 19, ISSN 0783-392X
- (5) Ministry of Foreign affairs of the Republic of Lithuania 1994; **Lithuania - Partner in a World Economy**
- (6) Lithuanian Department of Statistics, 1994, **Lithuanias Statistics Yearbook**
- (7) OECD Ad Hoc Group on East/West Relations in Agriculture September 1994 **Agricultural Policy and Trade Development in 1993 -1994**
- (8) OECD Ad Hoc Group on East/West Relations in Agriculture February 1995 **Agricultural Policy and Trade Development in 1994**
- (8) Statistisches Bundesamt 1994; **Länderbericht Litauen 1993**
- (9) The World Bank September 1994; **Lithuania, Agriculture and Food sector Review**

## **ANNEXES**

### ***Annex 1 PHARE Programme in Lithuania***

## 1. General Framework and Background

From 1991 to 1994 Phare programmes for agriculture in Lithuania were in the form of General Technical Assistance Facilities (GTAF) ; there was no specific sectoral programme for Agriculture.

The GTAF permits to adapt and respond quickly to the rapid changes in the countries ; its flexibility allows the financing of short and medium term technical assistance to core areas, and of limited exploratory studies in other sectors. The general objective of GTAF in all the 3 Baltic States is to assist the authorities to develop appropriate institutions are required where the necessary amount of Phare support does not justify a separate system of management.

### Phare agricultural commitments for Lithuania (Mio ECUs)

1990	1991	1992	1993	1994
0	1.5	0.6	5	4.6

In each of the three Baltic States, the co-ordination of the different component of the General Technical Assistance Facilities is under the overall responsibility of the National Aid Coordination Unit, in liaison with the European Commission.

## 2. Specific Actions

In 1991, Phare assistance has been available only since the end of the year ; 1.5 Mio ECUs has been provided for

- economic analysis support for development of fisheries strategies and reforms : 0.9 Mio ECUs ;
- fish processing industry restructuring studies : 0.3 Mio ECUs ;
- establishment of Project Implementation Unit : 0.3 Mio ECUs.

The 1992 GTAF in the agricultural field consisted of national agricultural and food reform strategies which made use of domestic and imported resources in an open market, with two major heading in the programme :

- improvement of winter wheat production, restructuring hothouse sector, private enterprise support : .0.35 Mio ECU ;
- programme management, aid coordination and training : 0.3 Mio ECUs.

Wherever possible, private farmers and rural enterprises were eligible to receive advisory and financial assistance under other Phare programmes (*Small and Medium*



*Sized Enterprises Development Programme* and possibly from *Privatisation Initiatives*). Pilot projects covered cadastration requirements, provision of business and technical advisory services for private farmers.

In 1993, it has been focusing on restructuring and privatisation of agro-processing industry, agricultural extension and livestock efficiency. 5 Mio ECUs has been allocated from the GTAF for :

- improvement of extension and export advisory services : 0.4 Mio ECUs ;
- improvement of arable crops (flax, grass) : 0.4 Mio ECUs ;
- improvement of feedingstuff and livestock production efficiency : 2 Mio ECUs;
- land cadastration, privatisation : 2 Mio ECUs ;
- programme management, aid coordination, training : 0.2 Mio ECUs.

The 1994 programme continued the previous one with improvement of livestock production (1 Mio ECUs), land cadastration technical assistance and equipment (0.3 Mio ECUs), and aid coordination (1.1 Mio ECUs). It also provided 1.2 Mio ECUs for trade promotion and information, and 1 Mio ECUs for rural financial training.

## **Annex 2**

### **Price comparison between the Baltic States**

#### **Price relations in the Baltic Republics**

In spite of price differences between the Baltic Republics that are to a large extent due to the way the exchange rates of the different currencies are fixed, which has led to an overvaluation of the Latvian and to a minor extent also of the Estonian currency. Nevertheless in principle the relations between the prices for major products are similar for all of the three Baltic Republics.

For the main products the following observations can be made on the producers level:

- Milk prices are very low and reaching approximately 20% of EU price levels.
- Pig meat prices are relatively high compared to prices for beef meat, but reach only between 40% and 60% of EU prices. Compared to prices for cereals there are differences between the three countries. The best relation between prices for cereals and prices for pig meat can be observed in Lithuania, whereas this relation is much worse in Latvia (high prices for cereals) and Estonia (relatively low prices for pig meat).
- beef meat has a low consumer preference and has a rather low price, not reaching more than some 10% of the EU price level. The low price is partly also due to the destocking during the last few years.
- prices for cereals lie around the World market price levels. They are the lowest in Lithuania and the highest in Latvia, where they exceed the World market price. (to a large extent a consequence of the overvalued currency).

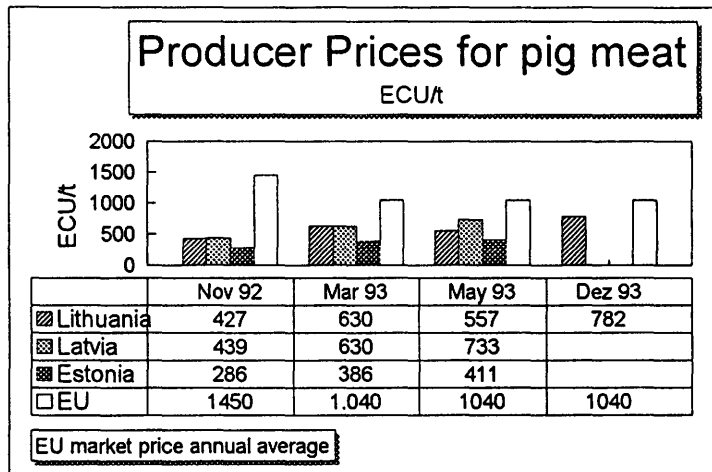
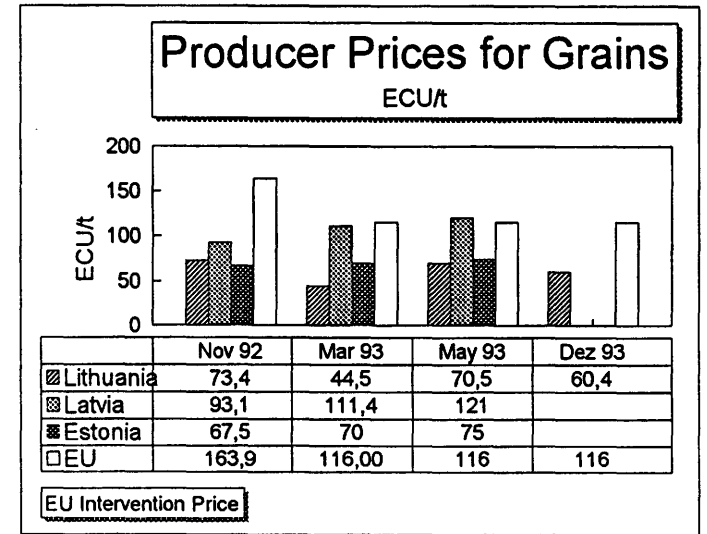
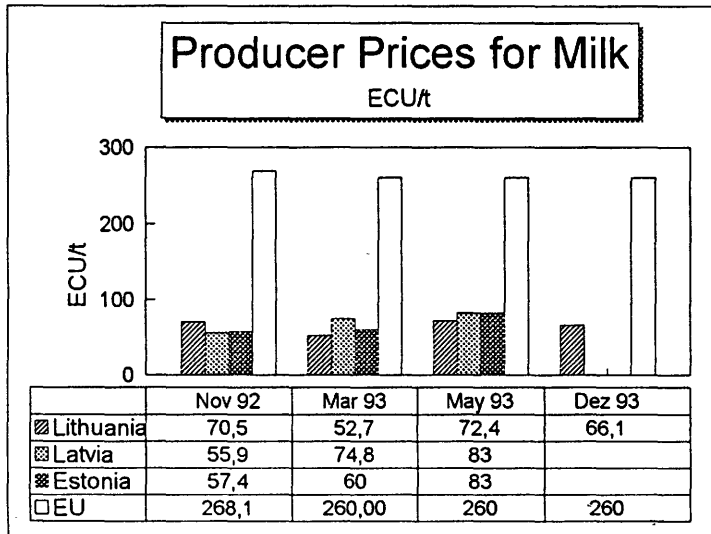
Even if prices which have been collected from different sources and may be subject to distorting effects through high rates of inflation, the following conclusions concerning the agricultural production can be drawn:

For the time being **Pig meat** can be produced at reasonable costs, at least in Lithuania, even when conversion rates for the feed are a good deal lower than in Western Europe (due to missing protein) For Lithuania the price relation between feed grain and meat is lying around 1:10. It can be assumed, that pig meat production will stay an important agricultural product but it can be doubted whether it will on the long run have a big comparative advantage, if prices for cereals and feed which make up for the bulk of the production costs tend towards the world market level, both in the Baltic states and in the EU.

**Beef meat** as a specialised production line and base on cereals seems not to be very profitable, since the price relations between cereals and beef meat lie only between 1:5 and 1:7. Beef meat production under current price constellations can only be profitable as a by product of milk production.

**Milk:** milk production based on purchased feed is totally excluded from an economic point of view. Only a very extensive form of milk production, taking a maximum of feed from pastures and meadows and involving a minimum of purchased inputs can be envisaged under the actual price relations. Taking into account that with ongoing economic recovery the price for milk will rise in relation to prices for inputs higher returns for the farmer can be expected. In principle the dairy sector seems to be the most promising one for the future development of agriculture in the three countries in question, but for the time being low prices at producer level and the difficult situation of the dairy processing industry the present situation is very difficult.

**Grains:** on the long run the climatic conditions and relatively poor soil quality do not favour intensive cereal production. Due to missing or very low prices for land, cheap Russian type machinery and negligible costs for labour, and reduced usage of fertilizers and other inputs, gross margins for grain production are lying around the world market levels, however without taking capital- and other fixed costs into account. For the future development it should be kept in mind, that high prices for the grain sector do have an important impact on the key sectors of agriculture in the Baltic Republics, dairy and pig meat production.



### Annex 3 Production cost estimates

Lithuania production costs for cereals per ton based on prices of 1993, yield 3.5t/ha

	Unit	No	cost/Unit	Cost/ha	%
<b>Cost per ha</b>					
<b>Variable costs</b>					
seeds	kg	200	0,11	22	11,9
fertilizer total <sup>2</sup>	kg	225	0,2	45	24,4
Agrochemicals	ECU	25	1	25	13,6
Tractor hours	hour	10	6,8	68	36,9
Harvesting costs	ha	1	22,5	22,5	12,2
Labour	hour	15	0,125	1,875	1,0
<b>variable and labour costs</b>	ECU/ha			184	100
<b>Variable and labour costs per ton</b>	ECU/t			53	
farm gate price				84,5	
<b>margin</b>				28,7	

<sup>2</sup> active substance

Production costs milk Lithuania costs per ton; based on 40 cows unit

	Unit	No	Cost/unit	Cost /cow	costs/l 3200l/year	%
<b>Variable costs</b>						
Concentrated feed	ton	0,8	111	88,8	0,03	21,6
Grazing and winter forage	t/cow	4,4	21	92,4	0,03	22,4
Veterinary and med.	ECU	25	1	25	0,03	6,1
Energy	ECU	67	1	67	0,02	16,3
Other variable costs	ECU	8,3	1	8,3	0,00	2,0
labour	hour	50	0,125	6,25	0,00	1,5
<b>total variable and labour costs</b>	ECU			287,75	0,11	69,90
<b>fixed costs</b>						
Cost of Capital invested in livestock	ECU	400	0,1	40	0,01	9,7
Amortization of Buildings	ECU	55	1	55	0,02	13,4
Depreciation of cow	ECU	28,9	1	28,9	0,01	7,0
Capital costs	ECU					0,0
Taxes	ECU					0,0
<b>Total costs</b>	ECU			411,65	0,13	100,0
<b>price</b>	ECU/t				0,08	
<b>margin</b>	ECU/t			-411,65	(0,05)	160,8

**Production costs pigs Lithuania costs per ton; conversion factor 4.5**

	Unit	No	Cost/unit	Cost	%
<b>Variable costs</b>					
Concentrated feed	ton	4,5	111	499,5	72,7
Veterinary and med.	ECU	16	1	16	2,3
Energy	ECU	66	1	66	9,6
Other variable costs	ECU	8,3	1	8,3	1,2
labour	hour	72	0,125	9	1,3
<b>Total variable and labour</b>	ECU			598,8	87,2
<b>fixed costs</b>					
Cost of Capital invested in livestock	ECU	29	1	29	4,2
Amortization of Buildings	ECU	59	1	59	8,6
Capital costs	ECU			0	0,0
Taxes	ECU			0	0,0
<b>Total costs</b>	ECU			686,8	100,0
<b>price</b>	ECU/t			792	
<b>margin</b>	ECU/t			105,2	86,7

**Production costs pigs Lithuania costs per ton; conversion factor 6.0**

	Unit	No	Cost/unit	Cost	%
<b>Variable costs</b>					
Concentrated feed	ton	6	111	666	78,0
Veterinary and med.	ECU	16	1	16	1,9
Energy	ECU	66	1	66	7,7
Other variable costs	ECU	8,3	1	8,3	1,0
labour	hour	72	0,125	9	1,1
<b>Total variable and labour</b>	ECU			765,3	
<b>fixed costs</b>					
Cost of Capital invested in livestock	ECU	29	1	29	3,4
Amortization of Buildings	ECU	59	1	59	6,9
Capital costs	ECU			0	0,0
Taxes	ECU			0	0,0
<b>Total costs</b>	ECU			853,3	100,0
<b>price</b>	ECU/t			792	
<b>margin</b>	ECU/t			-61,3	107,7

**Annex 4**  
**Balance sheets for main commodities**

**CEREALS BALANCE SHEET**

<b>all cereals</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>2000</b>
Population Mio	3.723	3.751	3.761	3.752	3.739	3.717
area (000ha)	994	1015	1135	1241	1178	1033
yield (t/ha)	3.07	3.09	1.94	2.06	2.05	2.54
production (000t)	3047	3132	2198	2561	2412	2622
<b>UTILIZATION (000 t)</b>	<b>3753</b>	<b>3550</b>	<b>3007</b>	<b>2230</b>	<b>2076</b>	<b>2278</b>
- human	402	450	451	465	460	439
- human per capita	108	120	120	124	123	118
- feed use	2975	2694	2173	1378	1239	1481
- seed use	223	250	273	259	257	227
other use and losses	152	157	110	128	121	131
exports	0	0	0	331	336	344
imports	706	418	809	0	0	0

**Milk and Dairy Products Balance**

	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>2000</b>
<b>milk</b> production (000 t)	3157	2916	2245	2067	1660	2209
number of dairy cows (000)	848	842	832	738	678	734
yield per cow (kg)	3723	3463	2698	2801	2448	3009
<b>utilization (000 t)</b>	<b>2261</b>	<b>1938</b>	<b>1593</b>	<b>1507</b>	<b>1247</b>	<b>1611</b>
- human (000 t)	1787	1500	1256	1197	998	1280
- per capita (kg)	480	400	334	319	267	344
- feed use (000 t)	474	437	337	310	249	331
exportable surplus	896	978	652	560	413	598
<b>butter</b> production (000 t)	74	67	49	45	33.0	
utilization (000 t)					19.8	
consumption per head					5.3	
exports (000 t)					13.2	
imports (000 t)					0	
<b>smp</b> production (000t)	19	22	26	20	19	
utilization (000 t)						
exports (000 t)						
imports (000 t)						
<b>cheese</b> production (000t)	26	25	18	20	19	
utilization (000 t)						
exports (000 t)						
imports (000 t)						

	1990	1991	1992	1993e	1994e	2000	
<b>beef</b>	production (000 t)	231	185	203	146	120	181
	slaughter number (000)	1200	982	960	1141	843	904
	average weight (kg)	193	188	211	128	142	200
	utilization (000 t)	95	99	113	83	82	89
	utilization per capita (kg)	25.4	26.3	30.0	22.0	22.0	23.8
	exports (000 t)	136	86	90	63	38	92
	imports (000 t)	0	0	0	0	0	0
<b>pork</b>	production (000 t)	241	203	160	93	83	110
	slaughter number (000)	2620	2256	1798	1094	933	1226
	average weight (kg)	92	90	89	85	89	90
	utilization (000 t)	149	128	105	92	86	99
	utilization per capita (kg)	40.0	34.0	28.0	24.5	23.0	26.7
	exports (000 t)	92	75	55	1	0	11
	imports (000 t)					3	
<b>poultry- meat</b>	production (000 t)	56	44	32	22	25	34
	utilization per capita (kg)	9.0	7.0	5.0	3.0	4.0	7.4
	utilization (000 t)	34	26	19	11	15	27
	exports (000 t)	22	18	13	11	10	6
	imports (000 t)	0	0	0	0	0	0
<b>eggs</b>	production (000t)	71	70	53	37	42	54
	utilization (000 t)	60	54	47	38	34	46
	utilization per capita (kg)	16.1	14.5	12.5	10.0	9.0	12.4
	exports (000 t)	11	16	6	0	8	8
	imports (000 t)	0	0	0	1	0	0
<b>total meat utiliz. per capita (kg)</b>	<b>74.4</b>	<b>67.3</b>	<b>63.0</b>	<b>49.5</b>	<b>49.0</b>	<b>57.9</b>	



## Lithuania Cereal production

cereals			1990	1991	1992	1993	1994
<b>all cereals</b>	Population Mio	n	3,723	3,751	3,761	3,752	3,739
	area(000ha)	n	994	1015	1135	1241	1178
	yield(ha)	k	3,1	3,1	1,9	2,1	2,0
	production(000t)	n	3047	3132	2198	2561	2412
<b>soft wheat</b>	area(000ha)	f	350	273	284	372	264
	yield(ha)	k			2,9	2,4	2,5
	production(000t)	f	1184	855	834	884	650
<b>barley</b>	area(000ha)	f	399	523	612	582	653
	yield(ha)	k	3,0	3,2	1,6	2,0	2,0
	production(000t)	f	1197	1699	955	1159	1285
<b>rye</b>	area(000ha)	f	168	138	164	231	203
	yield(ha)	k	2,8	2,5	2,1	1,9	1,9
	production(000t)	f	470	345	342	434	380
<b>oats</b>	area(000ha)	f	77	81	62	43	53
	yield(ha)	k	2,5	2,9	0,8	1,8	1,7
	production(000t)	f	196	233	51	78	90
<b>others</b>	area(000ha)	f			13	13	5
	yield(ha)	f			1,2	0,5	1,4
	production(000t)	f			16	6	7

## Annex 5 Europe Agreement

31. 12. 94

Official Journal of the European Communities

No L 375/45

### ANNEX VII

#### Goods referred to in Article 11 (1)

Goods for which the Community retains an agricultural component in the duties

CN code	Description
2905 43	Mannitol
2905 44	D-glucitol (sorbitol)
ex 3505 10	Dextrins and other modified starches, excluding starches, esterified or etherified of subheading 3505 10 50
3505 20	Glues with a basis of starches, dextrins or other modified starches
3809 10	Dressings and finishing agents with a basis of amylaceous substances
3823 60	Sorbitol, other than that of subheading 2905 44

### ANNEX VIII

#### Goods referred to in Article 11 (2)

Goods for which Lithuania retains an agricultural component in the duties

CN code	Description
ex 3505 10	Dextrins and other modified starches, excluding starches, esterified or etherified of subheading 3505 10 50

## ANNEX IX

## List of products referred to in Article 14 (2)

Imports into the Community of the following products originating in Lithuania shall be subject to the duties set out below

CN code	Description (1)	Duty rate
	Live horses:	
0101 19 10	Horses for slaughter	Free
0101 19 90	Other	11,5 %
0206 22 90	Edible offal of bovine animals, swine, sheep, goats, Horses, asses, mules or hinnies, fresh, chilled or frozen	Free
0206 41 99		Free
0207 31 00	Fatty livers of geese or ducks, fresh, chilled or frozen	Free
0207 50 10		
0409 00 00	Natural honey	17,3 %
0601 10 00	Bulbs, tuberous roots, corms, crowns and rhizomes, dormant	5,1 %
0707 00 19	Cucumbers, fresh or chilled (from 16 May to 31 October)	16 %
0709 51 30	Chanterelles	Free
0810 30 10	Blackcurrants, fresh	8,8 % (2)
1502 00 91	Fats of bovine animals	3,2 %
	Apple juice, of a density not exceeding 1,33 g/cm <sup>3</sup> at 20 °C:	
2009 70 30	Of a value exceeding ECU 18 per 100 kg net weight, containing added sugar	12 %
2009 70 93	Of a value not exceeding ECU 18 per 100 kg net weight, with an added sugar content not exceeding 30% by weight	12 %
2009 70 99	Not containing added sugar	12 %

(1) Notwithstanding the rules for the interpretation of the combined nomenclature, the wording for the description of the products is to be considered as having no more than an indicative value, the preferential scheme being determined within the context of this Annex by the coverage of the CN codes. Where ex CN codes are indicated, the preferential scheme is to be determined by application of the CN code and corresponding description taken together.

(2) Subject to minimum price arrangements contained in the Annex hereto.

*Annex to Annex IX***Minimum import price arrangement for certain soft fruit for processing**

1. Minimum import prices are fixed for each marketing year for the following products:

CN code	Description
0810 30 10	Blackcurrants, fresh

The minimum import prices are fixed by the Community in consultation with Lithuania taking into consideration the price evolution, imported quantities and market development in the Community.

2. The minimum import prices shall be respected in accordance with the following criteria:
- during each three-month period of the marketing year the average unit value for each product listed in paragraph 1, imported into the Community, shall not be lower than the minimum import price for that product.
  - during any period of two weeks the average unit value for each product listed in paragraph 1, imported in the Community shall not be lower than 90% of the minimum import price for that product, in so far as the quantities imported during this period are not less than 4% of the normal annual import.
3. In case of non-respect of one of these criteria the Community may introduce measures ensuring that the minimum import price is respected for each consignment of the product concerned imported from Lithuania.

—

## ANNEX X

## Products referred to in Article 14 (2)

Arrangements for imports of live bovine animals, bovine meat, sheep- and goatmeat into the Community

1. Independently of the balance sheet arrangements foreseen in Regulation (EEC) No 805/68, a global tariff quota of 3 500 head of live bovine animals for fattening or for slaughter, with a live weight of not less than 160 kg and not more than 300 kg, falling within CN code 0102, shall be opened to imports from Latvia, Lithuania and Estonia.

The reduced levy or specific duty rate applicable to animals under this quota shall be fixed at 25 % of the full amount of the levy or the specific duty rate.

2. In case forecasts show that imports into the Community may exceed 425 000 head for any given year, the Community may take safeguard measures in accordance with Regulation (EEC) No 805/68, notwithstanding any other rights given under the Agreement.
3. A global tariff quota of 1 500 tonnes of meat of bovine animals, fresh, chilled or frozen, falling within CN codes 0201 and 0202, shall be opened to imports from Latvia, Lithuania and Estonia.

The reduced duty rate and levy or specific duty rate applicable under this quota shall be fixed at 40 % of their full amount.

4. Within the framework of the autonomous import arrangements provided for in Regulation (EEC) No 3643/85, a global quota of 100 tonnes of meat of sheep or goats, fresh, chilled or frozen, falling within CN code 0204, shall be reserved for Latvia, Lithuania and Estonia.

## ANNEX XI

## Products referred to in Article 14 (2)

Imports into the Community of the following products originating in Lithuania will be subject to a 60% reduction of the variable levy, the *ad valorem* duty and/or the specific duty rates within the limits of the indicated quantities (tariff quotas)

CN code	Description <sup>(1)</sup>	Year 1	Year 2	Successive years
		(Tonnes)		
ex 0203	Meat of domestic swine, fresh, chilled or frozen <sup>(2)</sup>	1 000	1 000	1 000
0207 10 15 0207 21 10 0207 10 19 0207 21 90 0207 39 21 0207 41 41 0207 39 23 0207 41 51	Chicken carcasses; breasts of chicken; legs of chicken	500	500	500
0402 10 19 0402 21 19	Skimmed-milk powder Whole milk powder	2 900	3 200	3 500
0402 29 99	Milk or cream, concentrated, added sugar	200	200	200
0405 00 11 0405 11 19	Butter	1 000	1 100	1 200
0406 10 80	Cheese fresh, fat content > 40%	700	700	700
0406 30 31 0406 30 39 0406 90 11	Processed cheese, fat content < 48% Processed cheese, fat content > 48% Other cheese for processing	700	700	700
0702 00 90	Tomatoes	100	100	100
0703 20 00	Garlic	100	100	100
0808 10 10	Cider apples in bulk	800	900	1 000

<sup>(1)</sup> Notwithstanding the rules for the interpretation of the combined nomenclature, the wording for the description of the products is to be considered as having no more than indicative value, the preferential scheme being determined within the context of this Annex by the coverage of the CN codes. Where ex CN codes are indicated, the preferential scheme is to be determined by application of the CN code and corresponding description taken together.

<sup>(2)</sup> Excluding tenderloins presented alone.



Achévé d'imprimer en juillet 1995  
dans les ateliers de la Commission Européenne