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1 General review

1.1 General overview of agricultural and national economy developments

During 2004, Poland's economy continued on the growth path established in 2003. The first half of 2004 saw GDP grow by 6.5% in comparison to the previous year, mainly due to an increase of 5.4% in domestic demand. The main economic indicators were positive with the exception of high unemployment and the imbalance of the national budget. The registered unemployment rate at the end of June 2005 was 18.0% of the economically active civilian population (19.4% in the previous year). However, inflation was somewhat higher than expected and higher than in 2003. The value of the zloty fell continually against the euro and the US \$ throughout 2003 but in the early spring of 2004 the zloty appreciated and by the end of the year its value had returned to that of the end of 2002.

The rapid appreciation of the zloty was almost certainly caused by Polish Accession to the EU. The accession influenced economic growth which was expected to rise by 1 percentage point. The process of enlargement influenced also foreign trade. Membership in the EU has meant easier access to European markets and higher foreign agri-food trade turnover. In the period January to November 2004, the balance of payments in agri-food trade was positive at 853.5 million euro. The financial situation of enterprises improved and growth in investment occurred. The competitiveness of enterprises increased. The structure of prices improved, possibly due to adjustments to European norms and standards and easier access to credits.

In 2003, the utilised agricultural area totalled 16.2 million ha, accounting for 51.7% of the country's total area. In Poland agriculture is the main source of income for more than 600000 households. The share of agriculture, forestry and hunting in GDP in 2004 was 2.9%. Almost 17% of the working population people were engaged in the agricultural sector. The situation of agriculture improved in 2004: global agricultural production grew by 7.6% in comparison to previous years (see: Attachment: Tab. 1). For the first time in three years the index of output prices relative to input prices was favourable to agricultural producers at 102.6%.

Increased exports to the EU as well as to third countries has been one of the most important signs of growing competitiveness of Polish agricultural products. The share of Agri-food commodities in overall exports was 8.7% in the period January-November 2004. The value of exports of agri-food products increased by 30.2% to 5.22 billion euro, whilst the value of agri-food imports grew by 22.8% to 4.37 billion euro, resulting in a record favourable balance. The growth of agri-food exports resulted from growing demand for Polish products in both European Union markets and from other major trading partners (Russia).

1.2 Overview of agricultural and rural sector development

1.2.1 Production

Total agricultural output rose by 7.6 in terms of value in comparison to the previous years, with an increase in plant production of 16.8%, but a 2.7% fall in livestock production. The increased crops output was due to relatively high yields of main crops, particularly cereals (up 26.7%) and was mainly due to good weather conditions. Cereals output in 2005 is expected

to be smaller by 8 to 12% than in recent years. Still the cereal supply in the 2005-2006 season is likely to remain unchanged due to the high level of opening stocks.

Table

Total grain balance sheet* for the period of 1996/97-2004/05 and forecast for 2005/2006 ('000 t)

	2002/03	2003/04	2004/05	2005/06 forecast	2004/05 = 100
Opening stocks	3768	2603	817	4572	559,3
Area sown	8258	8126	8325	8212	98,6
Yield	3,25	2,87	3,55	3,19	89,8
Crop	26838	23347	29562	26184	88,6
Imports	811	1056	1018	806	79,2
Total supply	31417	27006	31397	31562	100,5
Domestic use	27614	26051	26089	27179	104,2
- food	5792	5762	5765	5741	99,6
- seeds	1799	1838	1839	1808	98,3
- industrial uses	1161	1121	1180	1210	102,5
- feed	17612	16420	16050	17250	107,5
- wastes and losses	1251	909	1255	1170	93,2
Exports	1200	137	737	635	86,2
Carryover stocks**	2603	817	4572	3743	81,9
Stocks/use ratio (%)	9,0	3,1	17,0	13,5	-

*) Including maize (corn) but excluding buckwheat and millet

***) Including intervention stocks from 2004/05 onwards

Source: 1996/97-2003/04 - CSO, 2004/05, 2005/06 authors' estimations and forecast.

Animal production fell in 2004 due to economic factors with a noticeable decline in pork production and a declining cattle herd due to low beef prices over a number of years. A slight increase in pork production is expected in 2005 and following EU Accession, cattle prices, especially for young stock began to rise.

1.2.2 Prices

The predicted adjustment of food prices in Poland occurred after EU Accession but some agricultural product prices (of animal products: beef, pork, milk and dairy products) rose more rapidly than had been expected, reflecting the competitiveness of Polish agricultural products on the European market. European consumers have perceived Polish food as safe and as of high quality. Despite the price rises, the prices of agricultural products in Poland remain among the lowest in the EU.

Due to the bumper crop, cereal prices in 2004/05 were below the level reached in the previous year and the usual pre-harvest price rise has not been seen in 2005. Grain processors gained due to relatively high output prices coupled with lower raw material prices. It is expected that the market in the 2005/2006 season will be dominated by supply pressure. However due to increase in domestic use the scope of surpluses would be lower than in 2004/2005. Therefore

wheat prices at the end of 2005 may average 370-380 PLN/t and 400-420 PLN/t at the end of the 2005/2006 season. At the same time rye prices are expected at 300-310 PLN/t 310-330 PLN /t respectively.

Procurement prices of pork in the first half of 2004 gradually increased and in June 2004 were 49% up on June 2003. Retail pork prices were higher by 12.4%. The second half of 2004 brought stabilization at the level from June 2003. Retail prices were growing by October: when 21.7% up on December 2003. This growth influenced the demand and caused decrease of consumption. In the first quarter of 2005 they were between 3.86 PLN per kg – 3.95 PLN per kg while in December 2004 it was 4.4 PLN per kg. In the second half of year 2004 the prices of pork in Poland were higher than in European Union. It caused a decline in exports and growth of imports. In the first half of 2005 Polish pork was cheaper than European. This situation is expected to be continued in 2006.

Average prices of beef in the first months of 2005 varied between 4.10 PLN and 4.20 PLN per kg, while in the first half of 2003 were at 2.62 PLN per kg and at 3.04 PLN per kg in 2004 respectively. Retail level of beef prices also increased: in July 2004 they were 40% higher than in December 2003. Then they started to stabilise and by March 2005 the prices were 1% higher in comparison with prices in December 2004. This price level is expected to remain similar by the end of 2005 and 2006. (See: Attachment: Tab. 2)

The decline in cereal prices negatively affected the farmers' incomes (despite direct support). On the other hand the processors and livestock farmers benefited from lower costs of raw material and feed. So did the milling sector but only at the beginning (after some time the prices of flour also started to decline). Finally the consumers benefited from relatively lower prices at the retail level. Due to lower prices and mainly because of an access to export refunds Poland may export significant quantities of cereal on a regular basis. Regarding processed cereal products Polish exporters already were competitive on the EU market, which is mirrored in growing exports. So now the situation in this respect is even better.

The situation in the livestock sector was reverse. Since prices started peaking up (due to rising demand for exports) livestock farmers were the first group to benefit from that. The price increases negatively affected meat processors that were not able to offer such high prices as it was the case in exports. Such price developments negatively affected the exports of processed products and resulted in a rise in retail prices.

1.2.3 Agricultural Trade

In 2004 livestock and livestock product exports grew in value terms by 40% to above 2 billion euro. The biggest growth was in dairy products, live animals, meat and meat products. The value of crop products exports increased by a quarter to 2.8 billion euro, mainly due to growth in exports of sugar and its products, vegetable and vegetable products, alcohol and tobacco. The growth seems to have continued in 2005, although at a reduced rate. Total agri-food exports are estimated to rise by about 9% to 5.7 billion euro whilst imports are expected to rise by 2% to 4.4 billion euro. (See Tables. 3 and 4)

The most important exported crop products in Poland are fresh and processed fruits and sugar. Poland exports mainly apples and soft fruits, such as strawberries and raspberries, as well as frozen fruits and fruit juices (mainly apple). An increase in fresh fruits exports took place as a result of increasing demand from the EU and former Soviet Union countries. In 2004 the

volume of sugar exported increased slightly, but the foreign trade earnings almost doubled as after EU Accession almost half of the sugar was exported to other EU countries, benefiting from the high prices in the protected EU sugar market.

Animal products also play a significant role among Polish agri-food exports. In terms of value, cattle and their products accounted for 67 % of these exports; horses 18%, pigs and pigmeat 6%. Livestock and livestock products are mainly exported to the EU countries (mostly to Italy), but pigs, pork and bacon go mainly Russia, Lithuania, Latvia, Belarus, Ukraine and Romania. The European Union was the destination for most of Poland's poultrymeat exports.

As a result of joining the EU, there has been a significant increase in dairy exports, milk and cream for processing, as well as of yoghurts and milk drinks. The growth of demand for Polish raw materials took place especially on the German and Dutch markets. The largest amounts of butter were exported to Belgium, Germany and the Netherlands.

1.3 Agricultural and rural policy developments

Almost 94% area of Poland is of rural character with almost 40% of the total population living there. Therefore rural development policies are crucial to the country's socio-economic growth. The main problems facing Poland's rural areas are high unemployment, hidden unemployment in agriculture and a low level of education which poses obstacles to getting jobs outside agriculture. Another barrier for development is the low level of technical infrastructure in rural areas.

In the period of 2004 to 2006 policy supporting rural areas is being implemented within the framework of the Rural Areas Development Plan, to which 3.6 billion euro has been allocated, 2866 million euro from the EU budget and 726 million euro from the national budget. The Plan consists of seven programmes:

- structural disability pensions,
- support for semi-subsistence farms,
- support for farming activity conducted on areas with unfavourable natural conditions,
- support for agri-environment measures and improvement of animal welfare,
- reforestation of agricultural land,
- harmonization of agricultural holding standards with those of the European Union,
- agricultural producer groups.

1.4 Issues related to the enlargement

The adjustment process to the EU norms and standards was a great challenge for the Polish economy, in particular for the agricultural sector. Pre-accession programmes, co-financed by the EU budget (Phare, ISPA and SAPARD) have been used to support implementation of the *acquis communautaire* in Poland. These programmes have aimed improving infrastructure, improving the competitiveness of agriculture and the processing industries, adaptation of the agri-food sector to requirements of the European market and the development of multifunctionality in rural areas.

Before Accession significant adjustments had taken place, with considerable investment in the modernisation of food-processing and measures necessary for the adaptation of EU sanitary, veterinary, quality and environmental protection standards. As a result of the pre-Accession activity, currently 1700 plants can sell their products on the European market. Nearly 2300 plants produce goods for the domestic market. . Some meat and dairy product factories are also allowed to export their products for the US, Canadian and Korean markets.

2 Assessment and Outlook

2.1 Wine sector

Poland does not produce grapes for marketed wine production. Consumption of wine represents only a relatively small share of the consumption of alcoholic beverages accounting for some 3.3% of “pure” alcohol consumed, compared with 15.4% for other fermented beverages (other than table wine), 49.5% for beer and 31.8% for spirits. Nevertheless, the consumption of wine has been steadily increasing in recent years. The import of wine (CN 2204) amounted 648000 hl in 2004. The supply of wine is composed of imports from EU and non-EU countries of bottled wine and young wine for further processing and bottling. The Act of Accession enables the production of “Polish wine” from imported grape juice and concentrated grape juice. Given the tradition of grape production in certain regions, Poland has applied to be classified in the zone A producing member states which should enable production up to 25000 hectolitres per year.

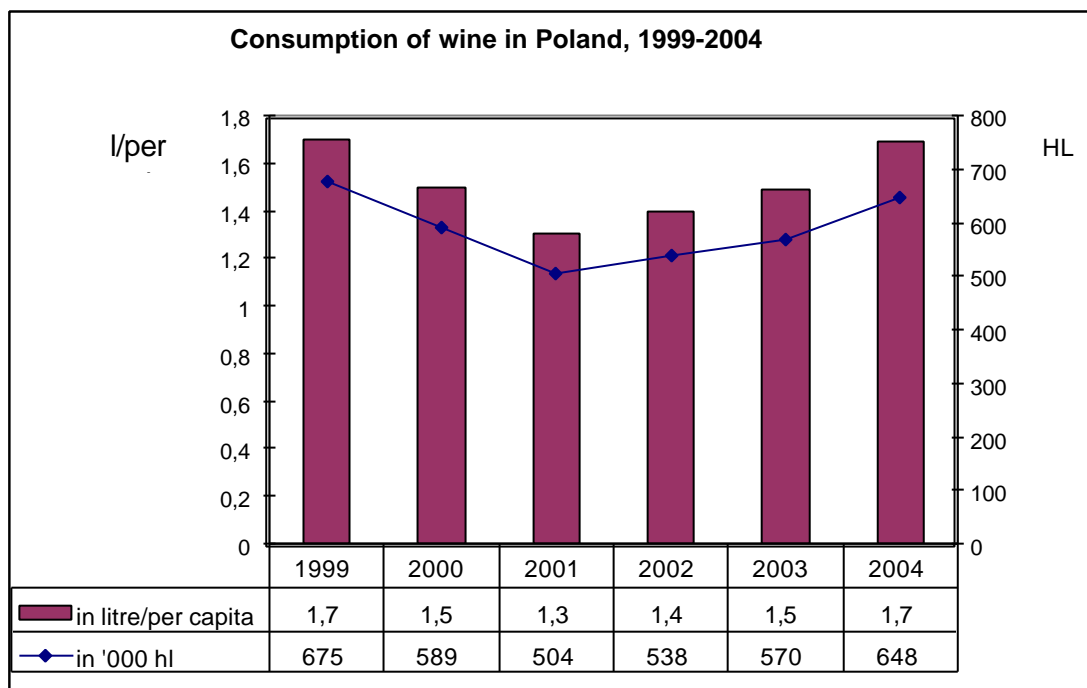
There is a lack of consistent statistics on this sector in Poland because from 2003, mainly due to EU Accession, the terminology and statistics have been adjusted to those applied in the UE. Before 2003 the notion of “wine” was applied to a much broader group of products including wine itself and “wine” produced from fruits and meads. Consequently, in the present report the statistics on consumption, production (only available for 2003 and 2004) and trade (only available for 2002, 2003 and 2004) have been complemented by the data published by the International Organisation of Vine and Wine (O.I.V.) and experts’ estimations.

2.1.1 Wine consumption

Wine popularity is growing in Poland. Poles believe that wine represents a healthy lifestyle. According to the Central Statistical Office (CSO) per capita consumption of wine in Poland in 2004 amounted to 2.7 litres¹. Such statistics do not exist for previous years since only total consumption of the broader category including wine and “wine” produced from fruits and meads have been recorded. According to the estimates of the International Organisation of Vine and Wine (O.I.V) which considered total imports of wine (CN 2204) as the total consumption, per capita consumption of wine in Poland in 1999 equalled 1.7 litres and declined to 1.3 in 2002 and was 1.4 litres in 2003. Following the O.I.V. approach of calculating the consumption of wine in 2003 and 2004 a steady growth can be seen in total and per capita wine consumption to 648000 hl and 1.7 litres respectively in 2004.

¹ However taking into account the level of import of wine this figure covers also the Polish Wine consumption (see footnote 2).

Figure 1.



Source: International Organisation of Vine and Wine and own calculations

According to the Demoskop poll (Poradnik handlowca, 2005) half the adult Poles declare themselves regular consumers of wine, however, only 5% consume wine at least once a week, the remaining consume wine less regularly: 17% once a month, 20% several times a year and 10% even less frequently. The same poll indicates also that sales are dominated by cheaper categories of wine; in particular wine with prices below 2.5 euro per bottle account for about 50% of retail wine sales, wine priced between 2.5 and 5 euro a bottle for 40% and wine above 5 euro for only for 10%.

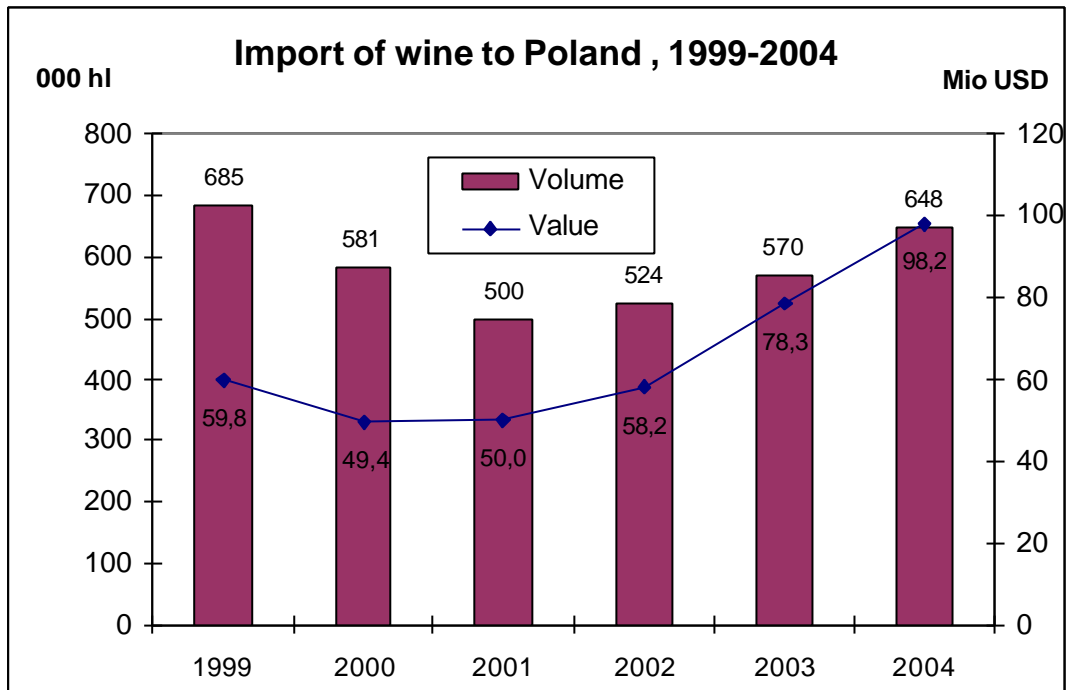
When considering wider category of “wines” the largest share by volume of consumption is dessert wines and vermouths at 40% followed by table wines 32% and sparkling wines and champagne 28%. However, table wines constitute the most dynamic market segment with an 8% increase in sales in 2004.

Within the table wine category the most popular wine is Bulgarian Sophia – white (bought by 35% of table wine consumers) and red (17.7%), followed by Tokaj (10.1%), Bordeaux (8.5%), Cambras (7.6%), Hungarian wine Egri Bikaver (7.3%), Fresco (6.3%), Balzac (5.4%) and Chianti (4.4%).

2.1.2 Wine imports

Imports of wine (CN 2204) in 1999 amounted to 685,000 hectolitres. The volume declined to 500,000 hl in 2001 and since then has steadily increased to 648,000 hl in 2004.

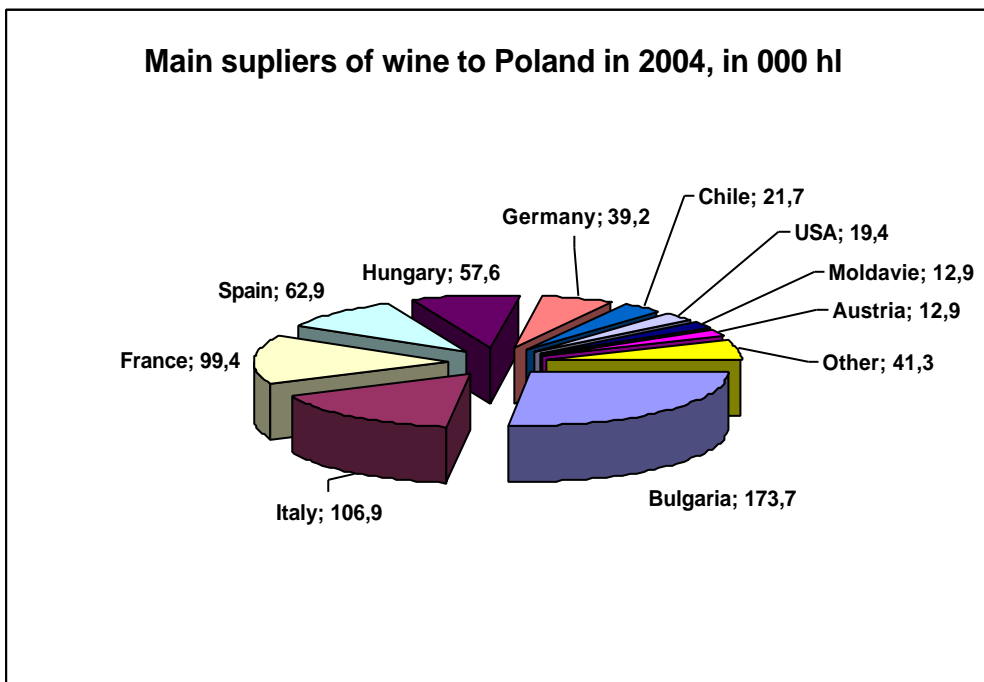
Figure 2.



Source: Own calculations based on CIHZ data

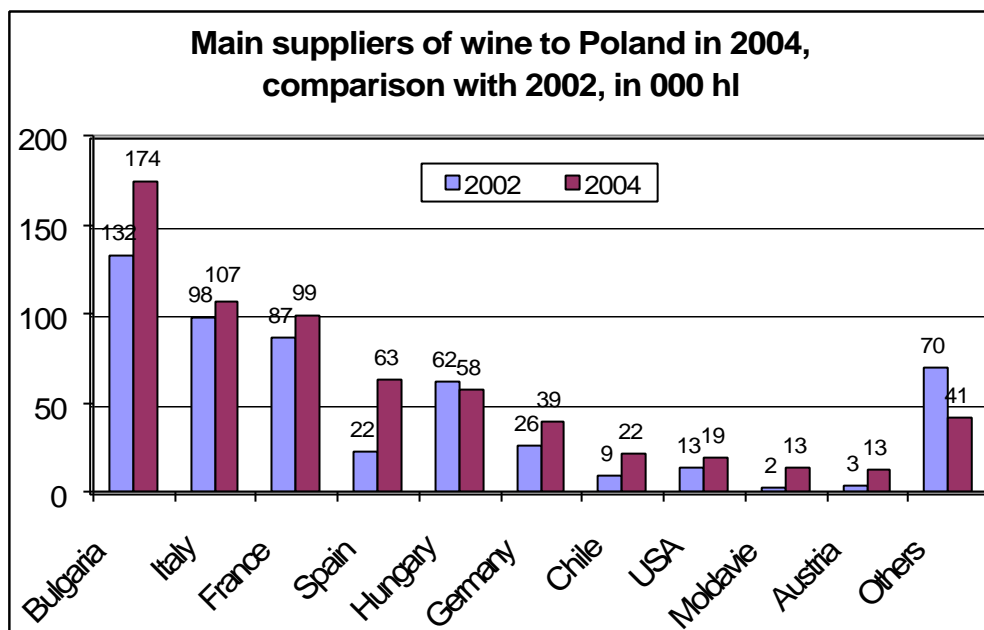
The main suppliers of wine are Bulgaria, Italy, France and Spain, which together accounted for more than 440,000 hl in 2004.

Figure 3.



Source: Own calculations based on CIHZ data

Figure 4.



Source: Own calculations based on CIHZ data

In the recent years the greatest increase of wine imports has been from Bulgaria (+31%) and the EU countries – France (+14%), Spain (+180%) and Germany (+51%). There was also significant rise in imports of wine from Chile, USA and Australia but starting from a very low level. Poland’s accession to the EU in May 2004 has increased the competitive advantage of European wine in the Polish market due to the internal duty free trade. However, Poland’s membership in the EU and adoption of the common external tariff also significantly reduced import duties on non-EU wines.

2.1.3 Wine production

Although there are several hundreds of wine processors and importers in Poland, the wine market is characterised by a high degree of concentration since more than 60% of sales are in the hands of the three market leaders: AMBRA, Bartex and Vinpol.

The table 1 presents official statistics on domestic wine production which includes the marketing activity only (distribution of bottled wine), bottling of wine imported in bulk and processing and bottling of young wine.

Table 1. Production of grape wine in Poland in 000 hl

	2000	2001	2002	2003	2004
Production of wine	396,34	302,91	267,6	247,8	199,6

Source: Central Statistical Office, 2005

It is important to mention however, that the official statistics in the table 1 concern only enterprises employing at least 10 people. There are a large number of smaller firms that

account for a considerable volume of production. When analysing the data on wine production in Poland it should also be taken into account that up to 2003 these figures included also “Polish Wine”² – product which is not comparable with the EU definition of wine - it was allowed to be marketed according to the Act of Accession. This Polish Wine is mainly produced from grape juice and concentrated grape juice.

Production of wine in Poland is based on imported by-products. Expert estimates indicate that around 70% of wine is imported in bottles and 30% in bulk. The latter is imported either in the form of young wine for further processing. 20% (Polish Wine, liquor grape wines or others) or is ready for bottling. 10%.

The wine sector, despite the small volume and value of sales (in comparison with beer and spirits), is one of the fastest developing parts of the alcoholic beverages sector. This is driven by the overall trend of changing the consumer preferences as well as an increasing role of super and hypermarkets in sales of alcoholic beverages. It should be stated however, that the sale of table wine is mostly concentrated in big cities.

2.1.4 Policy issues

According to the agricultural census carried out by the Central Statistical Office in 2002, 155 hectares of grapes were grown on a total of 1933 agricultural holdings. Thus, Poland is not yet a wine producing country within the meaning of the EU regulations since during the Accession negotiating process there no reliable statistics were available to prove the grape production. The Act of Accession provides for the possibility of the EU deciding to include Poland in the zone A producing Member States. In April 2004 Poland applied to the European Commission for inclusion in zone A producing countries and acceptance would enable wine production from domestic grapes (in accordance with the rules applicable to that producing zone) of up to 25,000 hectolitres per year. This would correspond to about 3% of current domestic consumption and have only a marginal impact on market equilibrium. The economic value of marketed wine production would mainly come from its contribution to the enhancement of the attractiveness of rural areas, e.g. in the context agritourism development.

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² The Polskie Wino/Polish Wine” base – is a mixture prepared with the use of at least one of the following ingredients: grapes, grape must, grape juice, concentrated grape juice whether or not with added water, sucrose, in form of semi-white sugar, white sugar, refined white sugar, invert liquid sugar, glucose, glucose syrup, fructose, fructose syrup or yeasts, fermentation nutrients, or food-industry acids.

2.2 Sugar sector

Sugar beet production and processing have a long tradition in Poland. Poland is a net sugar exporting country with total production of around 2 million tonnes and consumption of around 1.6 million tonnes. Thus net exports amount to some 20% of domestic production. Sugar beet accounts for 2 % of total agricultural land utilisation. It is concentrated in several locations/regions with best soil and climatic conditions. Since the mid-1990s, agricultural policy for the sector has been aligned with the instruments of the EU sugar CMO, including high market price support and production quotas.

2.2.1 Production of sugar beet and its structure

In 2004 the area of sugar beet amounted to 293000 hectares, which is 21.5% below the 1999 level. This decrease was accompanied by an increase in yield from 3.38 tonnes/ha in 1999 to 4.27 tonnes/ha in 2004. The volume produced in 2004 amounted to 12.5 million tonnes which is similar to that in 1999 (12.6 million tonnes). Over that period there were fluctuations in the volume produced attributable mainly to changes in weather conditions (**table 1 in annex**). During that period, the average sugar content of the beet was 17.1% while sugar yield (effectively extracted sugar) averaged 15.3%.

Sugar production in 2004 amounted to 2 million tonnes. Over the last seven years, production dropped substantially below 2 million tonnes, only in 1999 and 2001 primarily due to adverse weather conditions.

Preliminary estimates of the sector performance in the marketing year 2005/06 indicate that the sugar beet area was 270000 ha, which is 7.5% below the level of the previous year. It is estimated that average yield will amount to 43 tonnes/ha, thus the total volume of sugar beet production should reach 11.6 million tonnes and with an effective sugar yield of 15.5% the resulting sugar production will be 1.8 million tonnes.

2.2.2 Sugar consumption

Out of the 2 million tonnes of domestic sugar production in 2004 1.65 million tonnes was utilised domestically. Direct (household) consumption accounted for 745000 tonnes, while 860000 tonnes were processed and 45,000 tonnes utilised in other ways. The total (including processed products) per capita consumption of sugar equalled 40.5 kg. The following tendencies have occurred since 1999: (i) increase in total domestic utilisation (from 1.58 to 1.65 million tonnes), (ii) decrease in direct (household) consumption (from 800000 tonnes down to 740000 tonnes), (iii) increase in the volume of sugar used in processing (from 735000 up to 860000 tonnes). At the same time per capita consumption decreased from 42.5 kg to 40.5 kg.

2.2.3 Foreign trade

Over the period 1999 to 2004 average yearly exports amounted to 358667 tonnes and the average yearly import amounted to 59500 tonnes. In the calendar year 2004 Poland exported 428000 tonnes of sugar and imported 44000 tonnes. The lowest volume of exports was in 2002, some 208000 tonnes. Traditionally the Commonwealth of Independent States (former Soviet Union's republics) represented the major outlets for Polish sugar exports, taking 71% of Polish exports In 2003. However in 2004, the first year of Poland's EU membership the CIS share declined to 48%, whilst the share of EU-15 countries increased from 5.7% to 38%.

In recent years exports of processed products containing sugar, such as chocolates, cakes, ice-creams, jams and processed fruits have been systematically increasing. The value of these exports increased in 2004 to 105000 tonnes (sugar equivalent) valued at 505.9 million Euro. In this product group Poland is a net exporting country (value of imports amounted to 241.3 million Euro in 2004). The most significant increase in exports in 2004 was reported for products containing cocoa. The value of exports of this product group to the EU-15 more than doubled from 55.4 million Euro in 2003 to 113.5 million Euro in 2004.

2.2.4 Structure of sugar beet production

The Polish sugar sector has undergone significant restructuring in both sugar beet production and processing. In 2004 there were 78000 farms growing sugar beet. Yet in 1999 there were 137000 farms, while in 1993 there were as many as 295000 farms. Since the fall in the total sugar beet area is less than that of the number of farms, there has been a steady increase in the sugar beet area per farm (from 2.71 ha in 1999 to 3.75 ha in 2004). Taking into account that the average yield increased from 3.38 tonnes/ha of sugar beet in 1999 to 4.27 tonnes/ha in 2004, the estimated production of sugar beet per farm has increased by 75%, from 9.16 to 16 tonnes. This structural change is mainly attributable to the: (i) ongoing restructuring at the processing level (see the text below), (ii) technological change, (iii) price/cost pressure.

2.2.5 Structure of sugar beet processing

In the marketing year 2004/05 sugar beet processing was carried out in 43 factories. The Institute of Agricultural Economics in Warsaw (IERiGZ) estimates that in 2005/2006 there will be 40 factories operating. The number of processing factories has fallen from 76 factories in 1999. This decline has been driven by rationalisation of production and has improved the efficiency of the sector. The factories that closed were those with outdated technology and the smallest scale of operation. Only 17 of the remaining factories can be categorised as large scale and they still are much below the size typical in EU-15 countries (**table 2 in annex**).

Foreign owned companies play a major role in the sector: three German (Nordzucker, Sudzucker and Pfeifer und Langen) and one British (British Sugar Overseas) together accounted for 60% of sugar production in the marketing year 2004/05. The Polish Sugar Company (Krajowa Spółka Cukrowa) accounts for the remaining 40%. This ownership structure originates from the privatisation process carried out in the mid-1990s. The foreign owned factories are concentrated in the west and south regions of the country while the Polish Sugar Company's factories are located in the central, north and east regions. Details of the sector structure: (i) number of processing factories, (ii) sugar production and (iii) the length of the processing period for each of the above companies in 2001/02 and in 2004/05 is presented in the **table 3 in annex**.

2.2.6 Production of isoglucose

Isoglucose has been produced in Poland since 1998 by one enterprise (Cargill) in one factory located in south of the country. Production in the years 1999 to 2004 is presented in **table 9 in annex**. Before EU Accession the production quota amounted to 62200 tonnes but since the 2004/2005 season, in accordance with the Act of Accession, it was reduced to 26780 tonnes. In Poland isoglucose is produced from wheat. In 2004 exports of isoglucose amounted to 6100 tonnes, mainly (3400 tonnes) to Croatia, while imports were 9100 tonnes - from Germany (5000 tonnes), Slovakia (3200 tonnes) and Belgium (800 tonnes).

2.2.7 Indications of production costs and competitiveness

At the beginning of Poland's economic transformation, the sugar sector was characterised by significant fragmentation and low concentration of production both at the farm/sugar beet level and in processing. To improve its international competitiveness the sector required improvements in scale and technical efficiency and upgrading of technologies. The privatisation process which started at the mid-1990s was meant to provide for progress in this regard.

As in the EU-15, the sugar sector in Poland, to stay profitable, required substantial subsidisation in the form of market price support based on the quota system. While in the EU the internal sugar price was maintained at the level which on average is three times the world price level in Poland pre-Accession the price was twice as high as the world market price. Over recent years the restructuring process resulted in improvement in several technical and technological parameters, suggesting a substantial progress in production efficiency and thus in cost competitiveness. This, in particular, includes:

- At the farm level (**table 1 in annex**):
 - o Increase in the yield of sugar beet,
 - o Increase in the average area of sugar beet farm (scale),
- At the processing level:
 - o Expansion of the period of processing and volume produced (scale),
 - o Decrease in average energy use,
 - o Decrease in losses of sugar beet during processing,
 - o Reduced numbers employed, thus reducing labour costs (**table 6 in annex**).

The above improvements have been mainly achieved by the concentration process. At the farm level the number of farms producing sugar beet declined by two thirds since the mid-1990s. and by half since 1999.

Similarly, sugar beet processing is now carried out in 43 factories compared to 73 in 1999 and 93 in 1994. This process of concentration is not finished yet and there are still substantial efficiency improvements to be made, particularly in the processing efficiency of the Polish Sugar Company.

An analysis of the investment activities carried out by the sugar companies operating in Poland suggest that they were rather moderate and only focused on the indispensable replacement investments, usually associated with the movement of production to a smaller number of locations. Since 1988 the rate of investment (as measured by the relation of investment expenditure to the value of depreciation) was only half of that for the whole agri-food industry as a whole..and in the years 1999-2003 (except for 2001) investment remained below depreciation . Large scale modernisation expenditure has been postponed awaiting reform of the EU sugar CMO.

Comparisons with other EU member states suggest the Polish sugar sector has the following:

- significant cost competitiveness in sugar beet production. For example recent estimates by IERiGZ suggest that variable cost per ton of sugar beet correspond to about 80% of that in Germany (**table 4&5 in annex**);
- lower technical efficiency in sugar beet processing, taking into account relatively higher labour intensity and, in particular, output per factory (scale efficiency) (**tables 7 in annex**). However, these technical deficiencies are, to a large degree

compensated by lower labour and other unit cost in Poland, including effects of movements in the exchange rate;

- relatively high joint cost competitiveness of sugar beet production and processing. Recent analyses by the EU Commission and F.O. Licht's International Sugar and Sweetener Report (No 26), of the likely effects of the Commission's reform proposals suggest that Poland remains competitive above the sugar price level of 425 to 475 Euro/t., similar to the sugar sectors in Germany, Great Britain, Austria and Sweden.

2.2.8 Policy issues

Since the mid-1990s, Poland's sugar policy has been aligned to the EU wine CMO, including high market price support (roughly double the world market price) and production quotas: A – matching domestic consumption, and B – destined for subsidised export. The Act of Accession provides for A quota amounting to 1.58 million tonnes and B quota of 91930 tonnes (**table 8 in annex**).

Poland's EU accession and implementation of the CAP have resulted in significant improvements in the sector's financial situation.. According to IERiGZ estimates, in 2004 the sugar industry's profits reached 10.7% of turnover compared to a loss of 11.4% in 2003. This enabled enhanced modernisation efforts - in 2004 the rate of investment (relation of investment expenditure to depreciation) rose to 1.29 from 0.87 in 2003.

Similarly, procurement prices of sugar beet within A and B quotas in 2004 corresponded to relevant prices in other EU countries. The average procurement price in 2004 amounted 187 PLN/t (40-45 Euro/t), which was 50% up from 2003. Given the decrease in prices of grains, including wheat, sugar beet production remains one of the most profitable crops in Polish agriculture.

The CAP is being regarded by the sector practitioners as a major factor in the technological catching up process, which is necessary to match competition from the sugar industries of EU-15 member states. The official Polish position on the Commission proposed sugar reforms supports the main reform mechanism namely reducing market price support and giving compensatory direct aid to sugar beet farmers. At the same time Poland criticised reform solutions which determine the allocation of sugar production in accordance with current cost competitiveness at sugar beet processing rather than sugar beet production.

Statistical Annex

Table 1

Number of sugar beet producers

		1999	2000	2001	2002	2003	2004	2005
Number of farms growing sugar beet	units	137,1	111,9	99,4	91,5	85,9	77,9	70,1
Sugar bet area	000 ha	372	333	317	303	286	292	270
Sugar beet area per farm	ha/farm	2,71	2,98	3,19	3,31	3,33	3,75	3,85

Source: Central Statistical Office and Institute of Agricultural Economics

Table 2

Number of processing factories

		1999	2000	2001	2002	2003	2004	2005 (estimates)
Number of processing factories	units	76	76	76	65	57	43	40
Sugar production per factory	000 tons	23,8	26,5	20,3	31	34,1	46,6	45,0

Source: Institute of Agricultural Economics

Table 3

Ownership structure of sugar beet processing industry in Poland

Sugar processing companies	Number of factories		Production of sugar		Period of processing per year	
	Units		000 tons		Days	
	2001/2002	2004/2005	2001/2002	2004/2005	2001/2002	2004/2005
Krajowa Spółka Cukrowa	27	20	629	799	51	66
Slaska Spółka Cukrowa	16	12	244	518	48	85
Sudzucker	6		105		40	
British Sugar Overseas	10	4	153	207	66	91
Nordzucker	6	2	137	159	55	93
Pfeifer und Langen	11	5	273	320	51	100

Source: Institute of Agricultural Economics, Rynek Cukru, 25/2005

Table 4

Comparison of sugar beet production in Poland and EU-15 (2003/2004)

	<i>Unit</i>	Poland	EU-15
Production area	<i>000 ha</i>	297	1704
Number of farms	<i>000</i>	83	224
Average sugar beet area	<i>ha</i>	3,6	7,6
Average sugar beet yield	<i>t/ha</i>	40,3	55,3
Average sugar yield per ha	<i>t/ha</i>	6,48	8,66

Source: J.Rybski, *Sugar industry in Poland- condition and perspectives*, (Gazeta Cukrownicz 2/2005)

Table 5

Comparison of variable costs of sugar beet production in Poland and Germany in 2004

	Poland	Germany	
		PLN/ha	
Yield (t/ha)	41	45	60
Seeds	500	697	697
Mineral fertilisers	645	1072	1207
Pesticides	545	904	904
Insurance		89	119
Mechanical services	160	995	1071
Total of direct costs	1850	3757	3998
Costs of machinery and transport	1200	1105	1280
Land cost		34	34
Interests		110	123
Total of variable costs	3050	5006	5435
Total unit variable costs (PLN/t)	74,4	111,2	90,6
- including direct costs (PLN/t)	45,1	83,5	66,6

Source: Urban, et.al. *Analiza wpływu reformy rynku cukru w UE na polskich producentów żywności* (2005)

Table 6

Employment in the sugar beet factories

Marketing year	2002/2003	2003/2004	2004/2005
During processing period	24679	21288	15174
<i>change in %</i>		-13,7%	-28,7%
Outside processing period	13618	10235	8646
<i>change in %</i>		-24,8%	-15,5%

Source: J.Rybski, *Sugar industry in Poland- condition and perspectives*, (Gazeta Cukrownicza 2/2005)

Table 7

Comparison of sugar industry in Poland and Germany, 2003

	Poland	Germany
Total sugar production (in 000 tons)	1945	3743
Number of factories	55	27
Total employment	21288	6778
Sugar output per factory (in tons)	35364	138630
Sugar output per employee (in tons)	91	552

Source: J.Rybski, Sugar industry in Poland- condition and perspectives, (Gazeta Cukrownicz 2/2005)

Table 8

Production quota in Poland before and after EU accession in 000 t

Marketing year		2003/2004	2004/2005
Quota A:	sugar	1529,00	1580,00
	isoglucose	60,00	24,91
Quota B:	sugar	102,20	91,93
	isoglucose	2,20	1,87
Quota A+B:	sugar	1631,20	1671,93
	isoglucose	62,20	26,78
Sugar beet production		1945,50	2008,38

Source: MARD, Warsaw

Table 9

Production of isoglucose in Poland , 1999-2005

	1999	2000	2001	2002	2003	2004	2005*
Production of isoglucose in thousand tonnes	6.5	16.8	27.6	40.5	60.4	30.0	30.0

Source: Institute of Agricultural Economics, Rynek Cukru, 23/2003 and 27/2005

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Table 10

Major statistics on sugar sector in Poland, 1999-2005

Year	Unit	1999	2000	2001	2002	2003	2004	2005*
Sugar Beet								
Total Area	000 ha	372	333	317	303	286	292	270
Yield	tonnes/ha	33.8	39.4	35.8	44.3	41.0	42.7	43.0
Production	000 t	12564	13134	11364	13432	11739	12499	11600
Processed	000 t	12564	13134	11364	13432	11739	12499	11600
Feed	000 t	0	0	0	0	0	0	0
Sugar (Total Raw Equivalent)		99/00	00/01	01/02	02/03	03/04	04/05	05/06
Sugar content in s.beet (polarisation)	%	16.9	17.56	15.89	16.42	18.00	17.67	17.40
Yield (a) %	%	14.37	15.33	14.10	15.11	16.60	16.02	15.52
Production	000 t	1805	2013	1602	2030	1949	2002	1800
Imports	000 t	51	45	85	85	45	46	n/a
Exports	000 t	385	402	113	408	394	450	n/a
Processed	000 t	780	815	825	835	860	905	n/a
Consumption	000 t	800	780	765	755	740	745	n/a
Stock Changes	000 t	-11	+14	+15	+13	+13		n/a
Consumption pc (b)	000 t	42.5	41.6	41.2	43.6	40.5	40.5	n/a
Value of Trade ©								
Imports	Mio PLN	3	63	75	107	83	92	
Exports	Mio PLN	355	400	334	206	383	727	n/a
Balance of Trade	Mio PLN							

SOURCE: Institute of Agricultural Economics, based on CSO and other data sources, Rynek Cukru (various issues)

Notes: (a) effective yield

(b) per capita per annum

© in local currency (millions) and state approximate euro equivalence

	1999	2000	2001	2002	2003	2004
Exchange rate 1 USD = PLN	3.9675	4.3464	4.0939	4.0795	3.8889	3.654

* estimates for 2005

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