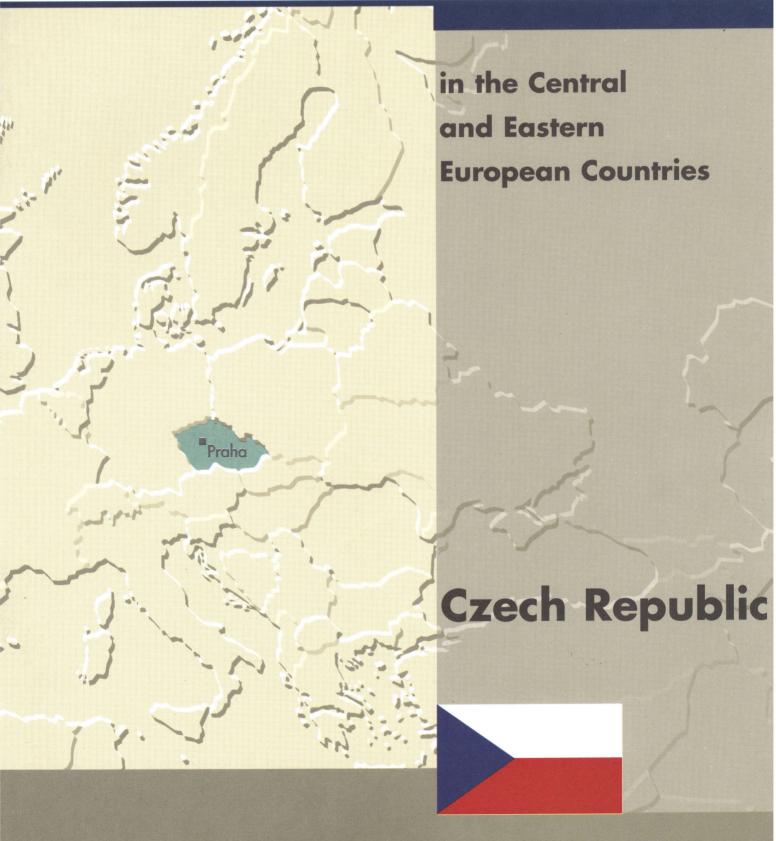


European Union Agriculture and rural development

Agricultural Situation and Prospects



Working Document May 1998



European Commission Directorate General for Agriculture (DG VI)

Czech Republic

Agricultural Situation and Prospects in the Central and Eastern European Countries Working Document

This report has been prepared by DG VI in close collaboration with Director Josef Kraus and his colleagues Tomas Doucha and Frantisek Vanicek of VÚZE, the Czech Institute of Agricultural Economics in Prague, and with the help of Professor Matthias Schneider of the Austrian Institute of Economic Research (WIFO) in Vienna as adviser. Assistance was given by DG II, DG IA, EUROSTAT and TAIEX.

The manuscript has been prepared by Rob Peters. The author accepts full responsibility for any errors which could still remain in the text. The closing date for data collection was April 1998.

MAY 1998

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (http://europa.eu.int).

Cataloguing data can be found at the end of this publication.

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In 1995 DG VI published a series of ten country reports and a summary report on the agricultural situation and prospects in the associated countries of Central and Eastern Europe (CECs). The reports provided an analysis of the transition agriculture and the agro-food sector in these countries were going through in the first half of the nineties and an assessment of the outlook for the main agricultural commodity markets till the year 2000.

With three years more of information the current publications, which cover Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia, provide an update of the 1995 reports and take the outlook horizon till 2003. The underlying working hypothesis for the reports is that the first CECs will join the Union and will start to be integrated in to the single market and the Common Agricultural Policy after 2003. The accession process was officially launched on 30 March 1998 with the submission to the applicant countries of the Accession Partnerships, which for each country set out the principles, priorities, intermediate objectives and conditions leading up to accession. A main priority is adoption of the "acquis", the body of Community legislation, including for agriculture the sensitive areas of veterinary and phytosanitary legislation.

As was the case in 1995 the individual country reports have been prepared by the services of the Commission in close collaboration with national experts of the countries concerned and with the help of scientific advisers.

The country reports and the summary report attempt to provide an objective analysis of the current situation in agriculture and the agro-food sector and an assessment of where the candidate countries can be expected to be in their agricultural development by the time of the next enlargement.

About the data...

The data used in the country reports are derived from a CEC dataset established by DG VI in cooperation with other services of the European Commission and with external experts. Data originate from various sources, mainly national statistics and economic institutes, FAO, OECD, and the European Commission (DG II, Eurostat).

For agriculture, in general the FAO data 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. For the commodity supply balance sheets a simpler approach than by the FAO was used, taking into account trade in agricultural commodities up to the first processing stage, but not in further processed products.

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

Despite all efforts to create a coherent, reliable and up to date dataset, all figures presented in the country reports 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 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. More recently many CECs have undertaken serious efforts to start to harmonise data collection and processing methods with EU practices.

With three more years of data and experience the original 1995 dataset has been improved and further adapted to DG VI's analytical needs.

General economic situation

The Czech economy contracted sharply in the first years of transition, but started to recover in 1993 reaching steady growth in 1995 and 1996. In 1997, however, economic growth dipped considerably as a number of underlying structural problems started to surface.

A lack of structural change in the enterprise and financial sectors, combined with excessive growth of wages and private consumption, caused increasing tensions that became manifest during 1997.

The Czech authorities took several initiatives to counter the problems. The Czech National Bank abandoned the policy of pegging the currency to the dollar and the DM and let the currency depreciate, giving the economy some air in the short term. Of a more structural nature were moves to accelerate the privatisation of banks, to limit the extent of direct ownership of enterprises by banks and investment funds and to amend the bankruptcy law.

As the restructuring of enterprises and in the banking sector takes hold a modest recovery of economic growth starting in 1998 and continuing in 1999 can be expected.

Agriculture in the national economy

The contraction in agriculture was longer and deeper and the recovery has been virtually non-existent compared to the economy in general. The share of agriculture in GDP has dropped to around 3% in recent years, as has the share in employment to around 4%.

The agricultural economy

In volume terms agricultural output has dipped further in 1997 according to the latest estimates. After a certain stabilisation in 1995 and 1996 it reached its lowest point at 70% of the pre-transition level, in particular due to a further drop in livestock production, which has been most affected and stood at less than 65% of the 1989 level. Crop output seems to have stabilised at around 80% of its 1989 level in recent years, after hitting a low in 1994.

In addition to the reduction in quantities produced agriculture has suffered from a worsening terms of trade. Input prices have tended to increase faster than producer prices, increasing the cost-price squeeze and leading to a negative income situation for the agricultural sector. Although the farm sector has cut its losses to a certain extent in recent years, it has not yet managed to return to profitability.

Agricultural production and consumption

Over half of the arable land is planted to cereals, mainly wheat and barley, and about a quarter to fodder crops, mostly maize silage for cattle, although fodder area and its share have been declining as livestock production went down.

Cereals area has remained fairly stable with a tendency to increase in recent years under the influence of favourable producer prices. With an average yield of around 4.2 t/ha production has fluctuated in the range of 6 to 7 million t, close to domestic needs.

Oilseeds area expanded rapidly during the first half of the nineties, but has tended to stabilise in recent years. Over 80% of oilseed production is rape seed with some increase in sunflower seed in recent years. The domestic crush has steadily risen as the demand for vegetable oils and fats has grown.

Sugarbeet area declined from its pre-transition level and has fluctuated between 90,000 and 100,000 ha in recent years. Sugar yields (as a measure of the combined efficiency at farm and plant level) have improved, but at 5 to 6 t/ha are still below the EU average of 7.5 to 8 t/ha. Production has tended to exceed domestic use, leading to exportable surpluses.

The livestock sector has been relatively hard hit during the transition process. In particular cattle (including dairy cows) and sheep numbers have dropped considerably to around 50 and 20% respectively of pre-transition levels with no signs as yet to an end in the downward trend. Poultry and to a lesser extent pig numbers have started to recover and are at around 10 to 15% below pre-transition levels.

In the dairy sector the large drop in domestic use of milk of nearly 40% compared to pre-transition levels has been reflected in a downward adjustment of production of a similar magnitude. In particular less milk has been used for butter and skimmed milk powder (SMP), of which production and consumption continue to decline, while production and consumption of cheese has been recovering to close to pre-transition levels. For butter and skimmed milk powder the Czech Republic is a net exporter, while for cheese exports and imports have been more or less in balance in recent years.

In the meat sector the continued liquidation of the cattle herd has led to a significant drop in beef production, which has followed the strong downward adjustment in consumption. After relatively high exports in the first years of transition, when production peaked following the initial herd liquidation and consumption dropped significantly as consumption subsidies were abolished, the Czech Republic has become a smaller net exporter in recent years.

Both pigmeat and poultrymeat production have started to recover as consumption again started to increase in recent years. In particular poultry production has not kept up with the rise in demand, leading to increasing net imports in recent years. The most preferred meat is still by far pigmeat. Production and consumption of pigmeat have been more or less in balance in recent years, with a slight tendency to net imports.

Agricultural trade

While agro-food exports have stagnated, imports have continued to rise in recent years, leading to a rapidly increasing deficit, the largest part of which is with the EU. The EU is the Czech Republic's biggest trading partner with a share in Czech imports of around 50% and in Czech exports of around 35%, although with a declining tendency for both in the last three years.

The main import items are (tropical) fruit and animal feed, which together account for over 20% of imports, while the main export items are dairy products, beverages and oilseeds, which together account for 30 to 40% of export value.

Farm structures

The privatisation of Czech agriculture, which in the pre-transition period was dominated by very large scale collective (the "old" cooperatives) and state farms, has led to the emergence of basically three new forms of farming: the transformed coops, other companies (joint stock or limited liability) and individual farms (family or otherwise).

Still 43% of agricultural land is in hands of the newly formed cooperative farms. Although the average size has decreased from over 2500 ha in the pre-transition period to around 1450 ha, these farms in general show a conservative and reluctant attitude to further restructuring.

The joint stock and limited liability companies, which have been created from the former state farms and

from property withdrawn from the former coops, farm about 32% of agricultural land on average 690 ha (compared to an average size of the former state farms of over 9000 ha).

The remaining quarter of agricultural land is farmed by individual producers, often on very small plots of less than 3 ha, producing mainly for own consumption and local markets. Of the individual farms exceeding 3 ha, the average size is above 30 ha, with quite a number of larger farms of over 100 ha operating on leased land and with hired labour.

Rural development

About 25% of the population (2.6 mio) live in rural communities with less than 2000 inhabitants. The rural areas are characterised by an insufficient technical and social infrastructure such as limited public transport, an underdeveloped communications network and a lack of schools. A tendency to depopulation has negatively affected the demographic structure of rural areas, leading to an overrepresentation of the 55+ age class.

The less densely populated regions tend to have the highest share of agricultural land and also the highest share of agricultural employment. In rural communities the average share of agricultural employment reaches 25% (compared to less than 5% for the national average).

About 46% of agricultural land lies in Less Favoured Areas (LFAs) with natural handicaps such as hills and mountains.

Agriculture and environment

The main environmental problems related to agriculture are erosion, water pollution by agro-chemicals and manure disposal in areas with a heavy concentration of animal production. During the transition the application of fertilisers and agro-chemicals decreased substantially, with some delayed effect on pollution levels. In more recent years there has been a slight tendency to again increase the use of inputs, but still remaining at less than half of the pre-transition level.

Up- and downstream sectors

In the upstream sector, the input supplying industries (chemicals, machinery, seeds, feed, animal breeders) although now privatised, still have a monopoly position on the domestic market, but are subject to increasing import competition.

In the downstream sector, in the course of the subdivision and privatisation process the total number of food processing enterprises jumped from 69 large state-owned companies in 1989 to many hundreds of private companies currently. The former state monopolies were mostly vertically integrated, covering the purchase of raw material, the processing and the distribution of food products, and often regionally based. After the break-up of the state owned conglomerates the reestablishment of market based links in the food chain has been a slow process. Although ownership has changed, in particular in the first processing stage many enterprises are still struggling with overcapacity.

Market policy

The main instruments for market price support are border measures (tariffs, import/export licensing and export subsidies) and direct (through the state agency) or indirect (through market agents) intervention in the market. The main institution for market support is the State Fund for Market Regulation (SFMR). In the period 1994-96 support was mainly limited to wheat (of bread making quality) and dairy products. More recently the SFMR has introduced more indirect forms of intervention, as has also the Support and Guarantee Fund for Farmers and Forestry (SGFFF), thus far mainly dealing with structural adjustment.

Expenditure on market support has tended to decrease over the last couple of years, but for 1998 more than a doubling is foreseen compared to 1997, in particular due to increased expenditure on cereals.

When comparing price support levels the gap between the Czech Republic and the EU would seem to be decreasing, more rapidly so for wheat than for milk. Also for beef (supported until 1994 and then only in 1997) the gap has decreased.

The border measures, which underpin market support, are to a large extent conditioned by the Czech Republic's Uruguay Round commitments on market access and export competition.

Most Czech tariffs are considerably lower than the EU-15 ad valorem equivalents with the exception of poultry, potatoes and oilseeds, which enjoy a higher protection, and of pigmeat, which has a similar level of protection.

On the export side the Czech Republic is allowed to subsidise a limited range of products.

Against the background of policy interventions and domestic and world market developments producer prices have generally moved up in recent years, somewhat more so for crop products than for animal products, but have also in most cases not kept up with general inflation. Expressed in ECU the domestic price rises have been to some extent mitigated by the depreciation of the Koruna. Nevertheless, the price gaps at farm gate level with the EU have tended to decline over time.

Structural policy

Credit subsidies and loan guarantees, which are administered by the Support and Guarantee Fund for Farmers and Forestry (SGFFF), play an important role in facilitating structural adjustment. The credit facilities are available for investment as well as working capital needs. Credit policy has shifted away from providing interest-free loans to farmers towards loan guarantees and partial interest subsidies.

In 1995 direct payments in the form of headage and area payments were introduced to encourage specialised beef production in less favoured areas (LFAs). In 1998 these measures were taken up in a new scheme. A generalised agricultural area payment was introduced, the level depending on the administrative land price and intended as a support to farming in general (maintenance of the landscape), organic farming and afforestation in particular, and in LFAs also to livestock activities (beef cattle and sheep). In addition an annual headage payment for dairy cows in LFAs was introduced.

In total expenditure on direct payments could increase by 117% in 1998 compared to 1997, overtaking credit subsidies as the largest structural expenditure item.

Medium term outlook

On the policy front the expectation is that, in the period up to accession, the Czech Republic will gradually adapt its market and structural policy instruments to the foreseeable Community acquis, but that level of support and of border measures will not increase much above or remain at current levels due to budgetary constraints and GATT commitments, and will only be aligned after accession.

For the general economic background the assumption is that with the structural problems which have surfaced it will take the economy some years to again reach its full growth potential. Modest income growth will lead to some limited further growth in food demand, in particular for certain livestock products. The increased demand will be partly met by imports, but will also offer opportunities for the domestic agro-food sector in as far as it is able to improve its competitiveness in price and quality.

In the food processing industry restructuring and rationalisation of capacity can be expected to continue at a gradual pace, slowly improving efficiency and allowing for more remunerative prices to be paid upstream.

In the farm sector itself the cooperatives can be expected to remain dominant over the period under consideration. The reorganisation of management and a reduction in overmanning can be expected to continue to a certain extent to restore profitability. Some of the redundant agricultural workforce can maybe be absorbed elsewhere as the economy recovers its growth potential and as economic diversification in rural areas is encouraged. Private farming can be expected to continue to grow, but will also continue to be hampered by a lack of economies of scale, in particular in crop activities.

Under these conditions a modest growth in agricultural output over the projection period could be expected. In the crop sector the exportable surpluses for cereals and oilseeds would be in the same order as in recent years. In the livestock sector the Czech Republic would continue to be a net exporter of dairy products and more or less self sufficient in meats.

General economic situation

1.1 Macro-economic environment

The Czech economy contracted sharply in the first years of transition¹, but started to recover in 1993 reaching steady growth in 1995 and 1996. In 1997, however, economic growth dipped considerably as a number of underlying structural problems started to surface.

A lack of structural change in the enterprise and financial sectors, combined with excessive growth of wages and private consumption, caused increasing tensions that became manifest during the spring of 1997. Weakening of output growth and a ballooning trade deficit, plus a perceived lack of political stability, led to a crisis of confidence in the currency in May.

In May 1997 the Czech National Bank (CNB) was forced to abandon the policy of pegging the currency to a basket consisting of the dollar and the DM and the currency initially depreciated by around 12%, but has since recovered to a certain extent. The CNB has said that it will now only monitor currency developments against the DM, although it no longer has an explicit target range for the currency.

Inflation followed a downward trend between 1994 and 1997, moving into single digits. However, there has recently been a pick up in inflation due to the devaluation of the currency and an increased price deregulation. One important development at the end of 1997 was the CNB's decision to switch to direct inflation targeting from targeting of the money supply. The central bank now targets "net" inflation, which is inflation adjusted for administrative price changes. The 1998 target has been set at 6 plus or minus 0.5%.²

Lower economic growth has hit budget revenues, and despite two additional packages to cut spending in 1997, the government missed its balanced budget target. For 1998 it is again aiming at a zero deficit, although low growth and increasing unemployment will make this target difficult to meet.

		1990	1991	1992	1993	1994	1995	1996	1997(e)	1 998(f)	1999(f
GDP	% change	-1.2	-11.5	-3.3	0.6	2.7	6.4	3.9	1.0	1.9	2.6
private sector/GDP	%	12.3	17.3	27.7	45.1	56.3	66.5	74.7	83.0		
consumer price	% change	9.6	56.7	11.1	20.8	10.0	9.1	8.8	8.5	9.5	8.4
unemployment	%	0.8	4.1	2.6	3.5	3.2	3.0	3.5	5.2	5.9	6.8
budget balance	% GDP	-0.2	-2.1	-0.2	0.1	1.0	0.6	-0.1	-1.0		
government debt	% GDP				17.2	15.3	13.1	33.1	42.0		
exchange rate	CZK/ECU	22.9	36.5	36.6	34.2	34.2	34.7	34.5	35.9	42.0	44.1
current account	% GDP			-1.1	2.1	-0.1	-2.9	-8.2	-7.2		
trade balance*	bio ECU	-0.5	-0.4	-1.4	0.3	-0.6	-2.8	-4.6	-4.1		
foreign debt	bio ECU	5.0	5.8	5.9	7.9	9.0	12.7	16.3	19.6		

¹ A recent revision by the Czech Statistical Office of the GDP series now puts the drop over the period 1990-92 at 16%, somewhat less than the previous figure of nearly 23% over the period 1990-93.

² In this respect the first inflation figures for 1998 have been disappointing. Inflation in January 1998 rose by 4% month-on-month, and 13.1% year-on-year, from 10% year-on-year inflation in December 1997. Although some of the increase is related to administrative price measures in January, the results for "net" inflation were not very promising; inflation adjusted for price deregulation and increases in excise taxes also grew by 1.5% month-on-month, and 7.5% year-on-year.

Registered unemployment in the Czech Republic has started to increase as large firms start to accelerate restructuring; indeed the fact that it was very low by international standards in recent years suggests that enterprise restructuring still has some way to go (Table 1).

The current economic unease in the Czech Republic has served to highlight the fact that even the most rigorous macroeconomic management will ultimately face difficulties in the absence of significant structural reform. One of the issues at the heart of the problem remains the relationship between the banking sector and enterprises. Banks own a substantial proportion of Czech enterprises either directly or indirectly through the intermediary of investment funds. Firstly, this often results in enterprises having passive shareholders, which do not actively encourage the restructuring of enterprises and their turnaround to efficiency and greater profitability. Secondly, banks have an incentive to prop up ailing enterprises with soft loans.

In 1997, the Czech authorities took several initiatives to counter this problem. First, there were moves to accelerate the privatisation of the banks in which the state still has a majority stake. It is argued that once banks are in private hands they will be answerable to shareholders for their actions, and that this should reduce the incentive to indulge in soft lending. Secondly, the government proposed changes to the banking and investment companies act to limit the extent of direct ownership of enterprises by banks and investment funds and certain amendments to the bankruptcy law.

Despite the poor economic data for 1997, some positive trends emerged towards the end of 1997. There was an improvement in both the trade balance and the dynamics of trade - full year import growth was 13.7% and export growth was 20.2%. Industrial output also started to record an improvement.

However, at the end of 1997 economic developments were overshadowed by political events. At the end of November 1997, following a scandal over party financing, the government of Vaclav Klaus resigned. In its place an interim government, led by the former central bank governor Josef Tosovsky, has been installed until elections in June 1998. This interim government, made up of both technocrats and politicians, has only a very limited mandate - for example, it is not able make any decisions about the privatisation of strategic enterprises, including the three remaining large bank privatisations. The difficult political situation is likely to constrain economic policy management until the middle of 1998.

As the restructuring of enterprises and in the banking sector takes hold a modest recovery of economic growth starting in 1998 and continuing in 1999 can be expected.

1.2 Agriculture in the national economy

The contraction in agriculture was longer and deeper and the recovery has been virtually non-existent compared to the economy in general. The share of agriculture in GDP has dropped to around 3% in recent years, as has the share in employment to around 4% (Table 2).

Table 2: Importan	ce of agric	ulture							
		1 99 0	1991	1992	1993	1994	1 995	1996	1997(e)
GDP	% change	-1.2	-11.5	-3.3	0.6	2.7	6.4	3.9	1.0
ag. prod.	% change	-2.3	-8.9	-12.1	-1.2	-1.9	4.3	-4.3	-5.8
share ag/GDP	%	6.2	5.0	3.4	3.3	3.0	3.1	2.9	2.9
share ag/employm.	%	9.6	8.1	6.3	5.6	5.0	4.4	4.1	4.1
share agro-food/exp .	%	6.6%	8.8%	7.1%	8.4%	7.0%	6.2%	5.7%	5.4%
share agro-food/imp. Source: CSO, CNB; RIAE.	%	7.8%	7.3%	6.3%	8.4%	9.3%	7.1%	7.5%	6.9%

The total number of persons employed in agriculture (including self-employed) dropped by more than half from 533,000 in 1989 to a little over 200,000 in 1997³, about half of which are still in the agricultural cooperatives.

While the share of agricultural and food imports in total imports has remained stable at around 7% in recent years, the share of the agro-food sector in total exports has tended to decline. The balance in agro-food trade has shifted from a surplus in the first transition years as surplus production was disposed of, to a rapidly increasing deficit in the latest years.

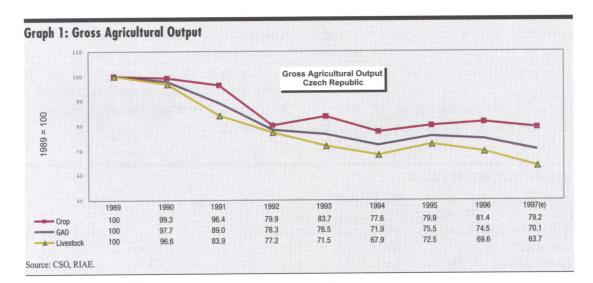
Agriculture is the biggest land user. Of the total area of 7.9 million ha over half is used for agricultural purposes and a third is covered with woods. Agricultural area has remained fairly stable (Table 3).

Table 3: Land use			
000 ha	1985	1997	
Total area	7887	7887	
inland water	153	159	
land area	7734	7728	
wooded area	2627	2632	
utilized agric. area	4327	4278	
Source: CSO, RIAE			

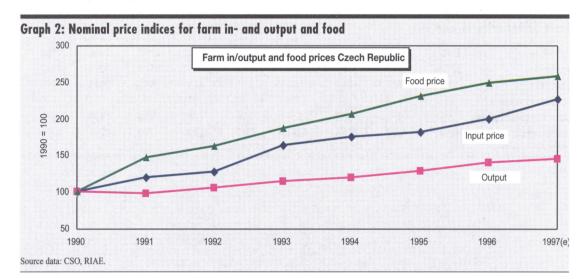
1.3 The agricultural economy

In volume terms agricultural output has dipped further in 1997 according to the latest estimates. After a certain stabilisation in 1995 and 1996 it reached its lowest point at 70% of the pre-transition level, in particular due to a further drop in livestock production, which has been most affected and stood at less than 65% of the 1989 level. Crop output seems to have stabilised at around 80% of its 1989 level in recent years, after hitting a low in 1994. As the livestock sector has continued to contract its share in total output has declined from close to 60% in the pre-transition period to 53 %, while the crop sector saw its share increase from 40 to 47% (Graph 1).

In addition to the reduction in quantities produced agriculture has suffered from a worsening terms of trade. Input prices have tended to increase faster than producer prices, increasing the cost-price squeeze and leading to a negative income situation for the agricultural sector. Input prices moved quickly to international levels (more than doubling over the period 1990-97), while the downstream sector has only recently been exposed to restructuring pressures. Prices paid to farmers have remained relatively flat (increasing by less than 50% over the period), while



³ The decline in agricultural employment in the early transition years is partly a statistical effect as staff of the former cooperative and state farms engaged in non-agricultural activities were reclassified as working in other sectors (eg industry and services).



prices paid by consumers rose more than 2.5 fold over the same period (Graph 2).

Although the farm sector managed to cut its losses in recent years, it dropped into the red again in 1997. The second biggest cost item remains the pay-roll (Table 4).

If in addition to the poor profitability a debt overhang, estimated at around 50 bio CZK related to the privatisation process⁴, is taken into account, it is clear that the sector itself can generate very little resources for investment in restructuring and modernisation. According to some estimates the agricultural sector is receiving about 1 bio CZK per month to keep afloat, further increasing the sector's indebtedness.

Agricultural land use has remained relatively stable, although there has been some shift from arable land to grassland. The former still accounts for about 72% of agricultural land use (Table 5).

Table 4: Agricultural acco	ount					
bio CZK, current prices	1992(p)	1993	1994	1995	1996	1997(e)
gross ag output	96.9	95.3	93.9	99.5	114.1	110.9
intermediate consumption	70.1	65.6	62.9	60.8	72.8	75.5
gva mp	26.8	29.7	31	38.7	41.3	35.4
depreciation	8.3	9	9.4	10.5	11.8	10.7
nva mp	18.5	20.7	21.6	28.2	29.5	24.7
taxes	2	2.3	2.3	2.4	2.5	2.5
subsidies	1.6	1.3	2.3	4.6	6.3	7.3
nva fc	18.1	19.7	21.6	30.4	33.3	29.5
salaries	23.1	22.1	22	21.4	23.9	24
rents	0.9	0.9	1.6	1.4	1.6	1.6
interest	3.9	4.3	4.5	5	4.9	5.1
profit/loss	-9.8	-7.6	-6.5	2.6	2.9	-1.2

Source: CSO, RIAE. 1992 unofficial RIAE calculation, 1997 RIAE estimate. Gva=gross value added; nva=net value added; mp=at market prices; fc=at factor cost

⁴ In part these are the transformation shares of non-members in the newly formed agricultural cooperatives (see also § 2.3).

Table 5: Agriculture	l land us	•			
000 ha	1989	1990	1991	1992	1993 1994 1995 1996 1997(e)
arable area	3232	3219	3185	3175	3173 3158 3143 3098 3089
grassland	828	833	864	872	873 886 901 945 953
permanent crops	78	78	78	78	77 77 77 77 77
other (eg garden plots)	156	158	158	158	158 158 159 159 159
utilized agric, area Source: CSO, RIAE.	4294	4288	4285	4283	4281 4279 4280 4279 4278

2. Agriculture and rural society

2.1 Agricultural production and consumption

2.1.1 Arable crops

Over half of the arable land is planted to cereals, mainly wheat and barley, and about a quarter to fodder crops, mostly maize silage for cattle, although fodder area and its share have been declining as livestock production went down. The other arable crops - oilseeds, sugarbeet and potatoes - are of lesser importance in land use terms. Oilseeds, however, have expanded rapidly and more than doubled their area and share over the period (Table 6).

Cereals area has remained fairly stable with a tendency to increase in recent years under the influence of favourable producer prices. With an average yield of around 4.2 t/ha production has fluctuated in the range of 6 to 7 million t, close to domestic needs (Table 7).

Yields have been affected by low input levels, in particular in the early transition years, and have only

		1989	1990	1991	1992	1993	1994	1995	1996	1997(e)
Arable area:	000 ha	3232	3219	3185	3175	3173	3158	3143	3098	3089
cereals	000 ha	1662	1640	1612	1583	1606	1654	1576	1581	1686
% arable		51%	51%	51%	50%	51%	52%	50%	51%	55%
fodder	000 ha	1050	1067	1029	1000	978	889	875	861	786
% arable		32%	33%	32%	31%	31%	28%	28%	28%	25%
oilseeds	000 ha	122	130	162	166	192	249	325	277	276
% arable		4%	4%	5%	5%	6%	8%	10%	9%	9%
sugarbeet	000 ha	127	118	119	124	107	91	93	104	92
% arable		4%	4%	4%	4%	3%	3%	3%	3%	3%
potatoes	000 ha	115	109	113	111	103	77	78	86	73
% arable		4%	3%	4%	3%	3%	2%	2%	3%	2%
other Source: CSO, RIAE.		157	155	150	191	188	199	196	191	176

	1989	1990	1991	1992	1993	1994	1995	1996	1997(e)
area (000 ha)	1662	1640	1612	1583	1606	1654	1576	1581	1686
yield (t/ha)	4.69	5.46	4.87	4.15	4.11	4.36	4.19	4.20	4.14
production (000 t)	7793	894 7	7845	6565	6600	7210	6602	6644	6983
domestic use	7840	8232	7219	7040	6395	6859	7097	6842	6797
o.w feed	5222	5210	4796	4550	4016	4366	4390	4399	4272
exports	131	6	420	493	43	462	873	12	323
mports	214	14	8	139	501	239	127	865	131
anding stocks	993	1716	1930	1101	1765	1893	652	1307	1301

⁵ For the crop sector years indicated in the tables are marketing years (July to July).

slowly been recovering. At around 4.6 t/ha wheat yields are considerably below average EU yields of 6 to7 t/ha, while barley yields of around 3.8 t/ha are closer to average EU yields of around 4 t/ha. Wheat and barley make up the bulk of cereals production (around 90%). Traditionally, a significant proportion of barley, ie 15 to 20%, is used for malting and exported.

Oilseeds area expanded rapidly during the first half of the nineties, but has tended to stabilise in recent years. Over 80% of oilseed production is rape seed with some increase in sunflower seed in recent years. The domestic crush has steadily risen as the demand for vegetable oils and fats has grown. Although pretransition rape seed yields were comparable to EU yields, they dropped quite sharply and have only been slowly recovering (Table 8). Part of oilseed processing capacity is used for (detaxed) biofuel production (up to 130,000 t of oilseeds per year).

Sugarbeet area declined from its pre-transition level and has fluctuated between 90,000 and 100,000 ha in recent years. Sugar yields (as a measure of the combined efficiency at farm and plant level) have improved, but at 5 to 6 t/ha are still below the EU average of 7.5 to 8 t/ha. Production has tended to exceed domestic use, leading to exportable surpluses (Table 9).

Potato area has been declining from its pre-transition levels and although yields have more or less recovered to pre-transition levels, they are still significantly below average EU levels of around 30 t/ha. Still a large quantity of potatoes is fed to the animals (pigs), in particular in years with good harvests (Table 10).

Table 8: Oilseeds	* supply b	alance							
	1989	1990	1991	1992	1993	1994	1 995	1996	1997(e)
area (000 ha)	106	112	144	151	180	207	273	247	238
yield (t/ha)	3.03	2.83	2.67	2.12	2.27	2.34	2.55	2.27	2.45
production (000 t)	322	317	384	320	408	483	695	561	584
domestic use	322	320	375	318	395	436	538	527	569
exports	0	21	27	23	51	82	177	68	65
imports Source: CSO. RIAE	0	24	18	21	38	35	20	34	50
*Rape seed, sunflower seed	l and soya beans								

Table 9: Sugar supply balance

		1989	1 99 0	1991	1992	1993	1994	1995	1996	1997(e)
sugarbeet	area (000 ha)	127	118	119	124	107	91	93	104	92
	yield (t/ha)	35.5	34.0	33.7	31.2	40.4	35.6	39.9	41.6	40.5
	production (000 t)	4497	4017	4009	3871	4308	3240	3712	4316	3722
sugar yield	t/ha	4.5	4.6	4.8	4.4	5.4	4.1	5.1	5.9	5.8
sugar	production (000 t)	567	540	571	545	576	375	477	610	532
	domestic use	495	480	469	433	422	424	454	468	450
	exports	106	60	136	70	155	50	30	132	100
	imports	47	0	23	1	3	29	26	9	10
	ending stocks	61	61	50	93	95	25	43	62	54
	pc use (kg)	47.8	46.3	45.5	42.0	40.8	41.1	44.0	45.3	43.6
Source: CSO, RL	AE. Stocks include the natio	nal reserve.								

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	1989	1990	2.	1991	1992	1993	1994	1995	1996	1997(e)
arca (000 ha)	115	109		- 113	111 -	103	, 77 -	78	86	73
yield (t/ha)	21	. 16		18	18	23	· 16.	17	21	19
production (000 t)	2422	1755	۰.	2043	1969	2396	1231	1330	1800	1402
domestic use	2176	1659		1864	1791	2354	1312	1411	1809	1412
o.w. feed	548	248	`.	432	424	978	186	253	567	282
exports	340	150		292	229	51	5	14	3	10
imports Source: CSO, RIAE.	94	54	. '	113	51	9	86	95	12	20

Table 11: Fruit and vegetable production

т., , С	· .	1989	1990	1991	1992	1993	1994	1995	1996	1997(e)
fruit	production (000 t)	615	429	497	409	46 1	386	379	406	415
· .	o.w. apples	428	268	339	236	308	244	226	251	291
•	soft fruit**	65	62	59	58	51	55	51	52	46
vegetables	area (000 ha)	35	36	36	34	37	34	35	36	34
	production (000 t)	629	608	647	481	573	523	548	613	541
	o.w. cabbage	156	127	139	85	119	113	116	153	133
	onions	95	94	103	83	88	78	94	100	83
	carrots	85	81	78	54	76	68	73	91	74
	tomatoes	53	54	61	37	37	36	38	28	23

2.1.2 Permanent crops and horticulture

Fruit production, mainly apples, has declined over the period under consideration, although there has been some recovery in the last two years. Domestic apple production has been under pressure from more expensive, but better quality imports from the EU (see also § 3.2.3). Production of soft red fruit, mainly strawberries, has also tended to decline.

Vegetable area and production have remained relatively stable over the period under consideration (Table 11).

Wine grapes are cultivated on around 11,000 to 12,000 ha with an annual production of 450,000 to 500,000 hl in recent years. The Czech Republic is a net importer of wine, the main suppliers being Austria, Hungary, Slovakia and Spain and Italy.

2.1.3 Livestock

The livestock sector has been relatively hard hit during the transition process. In particular cattle (including dairy cows) and sheep numbers have dropped considerably to around 50 and 20% respectively of pre-transition levels with no signs as yet to an end in the downward trend. Poultry and to a lesser extent pig numbers have started to recover and are at around 10 to 15% below pre-transition levels (Table 12).

In the dairy sector the large drop in domestic use of milk of nearly 40% compared to pre-transition levels has been reflected in a downward adjustment of production of a similar magnitude. With milk yields recovering and even overtaking pre-transition levels, the number of dairy cows dropped even more sharply. At close to 4500 kg per cow, milk yields are below the EU average of 5300 to 5400 kg (Table 13).

Table 12: Livestock	numbe	rs .							· · · ·	
(000)* 1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	98/89
cattle 3481	3506	3360	2950	2512	2161	2030	1989	1866	1690	48,6
o.w. cows 1248	1236	1195	1036	932	830	768-	751	702	644	51,6
pigs 4685	4790	4569	4609	4599	4071	3867	4016	4080	3995	85,3
o.w. sows 312	311	313	326	324	295	295	318	322	318	102,1
poultry 32479	31981	33278	30756	28220	24974	26689	27875	27572	290 10	89,3
o.w. lay. hens 15699	15437	15215	14894	13385	12556	12029	12030	11833	12280	78,2
sheep 399	430	429	342	254	196	165	134	121	94	23,5
o.w. ewes 205	216	220	180	120	86	74	60	55	43	20,9
Source: CSO, RIAE. *beginning of year			· · · ·		•			· .		· ,

Table 13: Milk supply balan		 . •	÷.,
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Sele Sele -			· ·			1.11				
		1989	1990	1991	1992	1993	1994	1995	1 996	1997(e)
dairy cows	000	1242	1216	1116	984	881	799	75 9	707	619
yield	kg/cow	4018	3944	3749	3860	3986	3999	4072	4385	4454
production	000 t	4991	4794	4182	3798	3512	3196	3092	3100	2757
deliveries		4562	4469	3588	3282	2964	2699	2615	2585	2467
	% of prod.	91%	93%	86%	86%	84%	84%	85%	83%	89%
domestic use	000 t	3570	3470	328 9	2942	2596	2588	2354	2462	2208
exports		1421	1324	919	910	942	745	850	791	660
imports		2	3	26	51	85	85	104	143	107
ending stocks		51	54	54	51	110	58	50	40	36
Source: CSO, RIAE. The	e supply balance is e	xpressed in 1	nilk equivaler	nt of 3.6% fat	content.					

Table 14: Dairy product supply balances

	000 t	1989	1990	1991	1992	1993	1994	1995	1996	1997(e)
SMP	production	119	104	100	86	97	67	67	53	37
	domestic use					22	22	17	15	13
	exports					70	52	51	38	25
	imports					2	0	1	0	1
	ending stocks				2	9	2	2	2	2
BUTTER	production	120	120	105	86	86	75	73	71	62
	domestic use			63	55	55	55	47	46	41
	exports			42	31	32	20	25	26	22
	imports			0	0	0	0	0	1	1
	ending stocks		2	2	2	1	1	2	2	2
CHEESE	production	104	102	90	77	72	68	74	86	97
	domestic use			77	70	63	63	75	85	90
	exports			14	11	15	16	12	15	18
	imports			1	2	7	9	13	15	12
	ending stocks	1	5	5	3	4	2	2	3	4
Source: CSO, RIAE.	-									

In particular less milk has been used for butter and skimmed milk powder (SMP), of which production and consumption continue to decline, while production and consumption of cheese has been recovering to close to pre-transition levels. For butter and skimmed milk powder the Czech Republic is a net exporter, while for cheese exports and imports have been more or less in balance in recent years (Table 14).

able 15: Beef supply balan	(8								
	1989	1990	1991	1992	1993	1994	1995	1996	1997(e)
roduction 000 t	272.2	268.35	301,4	220.5	204.9	164.5	169.5	163.0	152.7
omestic use	253.4	244.9	209.4	180.8	182.4	164.8	166.2	162.2	142.3
kports	18.8	23.4	96.4	40.6	29.4	16.4	12.9	8.1	14.0
nports	0.0	0.0	1.4	2.0	3.2	9.2	8.6	7.3	2.2
nding stocks	18.6	18.6	15.5	16.7	13.0	5.6	4.5	4.5	3.2
c consumption kg	24.5	23.6	20.3	17.5	17 .7	15.9	16.1	15.7	13.8

Table 16: Pigm	eat supply	balance	4			1				
		1989	1990	1991	1992	1993	1994	1995	1996	1997(e)
production	000 t	552.4	548.1	489.9	525.4	504.1	465.1	461.5	491.3	482.8
domestic use		542,5	546.7	479.7	497.0	490.2	479.5	473.4	496.1	471.3
cxports		9.9	1.4	14.2	28.4	17.0	4.7	0.2	1.1	13,4
imports		0.1	0.0	0,4	0.5	0.4	11.7	8.5	6.0	2.4
ending stocks		23.5	23.5	20.0	20.4	17.8	10.3	6.7	6.8	7.3
pc consumption Source: CSO, RIAE.	kg	52.4	52.8	46.5	48.2	47.4	46,4	45.8	48.1	45.7

Table 17: Poultrymeat supply balance												
		1989	19 9 0	1991	1992	1 993	1994	1 995	1996	1997(e)		
production	000 t	149.3	157.5	156.0	133.7	122.3	123.8	135.0	133.5	142.5		
domestic use		135.0	141.0	132.8	126.0	118.5	120.5	134.1	140.4	154.9		
exports		9.9	16.1	19.6	15.6	10.5	7.7	7.7	8.0	6.1		
imports		0.0	0.0	0.0	0.5	1.5	4.8	8.8	13.7	17.0		
ending stocks		12.6	13.0	16.7	9.2	4.0	4.4	6.4	5.3	3.8		
pc consumption Source: CSO, RIAE.	kg	13.0	13.6	12.9	12.2	11.5	11.7	13.0	13.6	15.0		

kg cwe	1989	1990	1991	1992	1993	1994	1995	1996	1997(e)
BEEF	24.5	23.6	20.3	17.5	17.7	15.9	16.1	15.7	13.8
PIGMEAT	52.4	52.8	46.5	48.2	47.4	46.4	45.8	48.1	45.7
POULTRY	13.0	13.6	12.9	12.2	11.5	11.7	13.0	13.6	15.0
total	89.8	90.0	79.7	77.9	76.6	74.0	74.9	77.4	74.5
share in total									
BEEF	27%	26%	25%	22%	23%	22%	21%	20%	19%
PIGMEAT	58%	59%	58%	62%	62%	63%	61%	62%	61%
POULTRY Source: tables 15-17.	15%	15%	16%	16%	15%	16%	17%	18%	20%

In the meat sector the continued liquidation of the cattle herd has led to a significant drop in beef production, which has followed the strong downward adjustment in consumption. After relatively high exports in the first years of transition, when production peaked following the initial herd liquidation and consumption dropped significantly as consumption subsidies were abolished, the Czech Republic has become a smaller net exporter in recent years (Table 15). Per capita consumption of beef has dropped by nearly 11 kg over the period under consideration and has lost its second position after pigmeat to poultry (Tables 16 & 17).

Both pigmeat and poultrymeat production have started to recover as consumption again started to increase in recent years. In particular poultry production has not kept up with the rise in demand, leading to increasing net imports in recent years. Per capita consumption of poultrymeat has overtaken pre-transition levels. The most preferred meat is still by far pigmeat, consumption of which seems to stabilise at around 46 kg per capita. Production and consumption of pigmeat have been more or less in balance in recent years, with a slight tendency to net imports (Table 18).

2.2 Agricultural trade

While agro-food exports have stagnated, imports have continued to rise in recent years, leading to a rapidly increasing deficit, the largest part of which is with the EU. The EU is the Czech Republic's biggest trading partner with a share in Czech imports of around 50% and in Czech exports of around 35%, although with a declining tendency for both in the last three years. The EU is followed by the other CEFTA countries, in particular Slovakia with which it still forms a custom union and which absorbs about a quarter of Czech exports. Recently exports have shifted somewhat away from the EU towards other CECs and the NIS, which together take up 50% of Czech exports.

The main import items are (tropical) fruit and animal feed, which together account for over 20% of imports, while the main export items are dairy products, beverages and oilseeds, which together account for 30 to 40% of export value. The exports of tobacco (products) have increased considerably in value, more than doubling in 1997 and overtaking beverages as the second largest export item. Trade with the EU tends to exhibit the same patterns. For the commodity and geographical breakdown of Czech agrofood trade see annex.

2.3 Farm structures

The privatisation of Czech agriculture, which in the pre-transition period was dominated by very large scale collective (the "old" cooperatives) and state farms, has led to the emergence of basically three new forms of farming: the transformed coops, other companies (joint stock or limited liability) and individual farms (family or otherwise).

According to the latest available data (CSO Agrocensus 1995, CSO Register of Firms 1996) still 43% of agricultural land is in hands of the newly formed cooperative farms (based on the pooling of the land and the assets of the individual members plus land and other assets of non-members). Although the average size has decreased from over 2500 ha in the pre-transition period to around 1450 ha, these farms in general show a conservative and reluctant attitude to further restructuring and are to a large extent still run as in the pre-transition days. A smaller number of the producer cooperatives have entered a second phase of reorganisation, restructuring ownership, management and labour force (sometimes by changing ownership form or splitting off activities) and diversifying into downstream activities.

The joint stock and limited liability companies, which have been created from the former state farms and from property withdrawn from the former coops, farm about 32% of agricultural land on average 690 ha (compared to an average size of the former state farms of over 9000 ha). Although generally Czech farms have mixed crop and livestock production, the degree of specialisation is higher in this category of farms, because former collective or state enterprises, which specialised in animal production (pigs, poultry and eggs) were mostly transformed into joint stock companies. Also recently the number of joint stock companies has been growing due to the so called second wave of transformation of coops aimed at elimination of old debts and concentration of productive assets, as mentioned above.

The remaining quarter of agricultural land is farmed by individual producers, often on very small plots of less than 3 ha, producing mainly for own consumption and local markets. Of the individual farms exceeding 3 ha, the average size is above 30 ha, with quite a number of larger farms of over 100 ha operating on leased land and with hired labour.

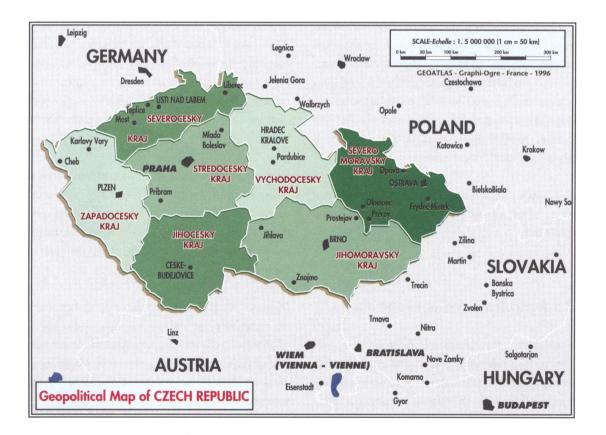
The reestablishment of property rights in agriculture through the restitution of state owned land and the transformation of coops has led to a fragmented ownership (much as it was in the pre-Communist era), but not necessarily to a fragmented use of land. Many farms operate on leased land, but most contracts are only short to medium term (1-4 years), inhibiting longer term investment.

Still pending is the sale of around 500,000 ha of state owned land, which are held in portfolio by the Land Fund. For the time being the land (about a quarter of all farm land) is being rented out. A further outcome of the privatisation process has been a relatively large debt overhang for most of the farm sector, estimated at around 50 bio CZK (1.35 bio ECU), in part to the owners of transformation shares (which for non-members of the coops have to be settled in 1999) and in part to the state for starting loans and purchase of agricultural assets. A little over half of the overall debt is owed by the cooperatives.

2.4 Rural development

Administratively the Czech Republic is split into 8 kraje (7 plus the city of Prague) or regions (Nuts 2 level), 77 districts (Nuts 4) and over 6000 local municipalities (Nuts 5).

About 25% of the population (2.6 mio) live in rural communities with less than 2000 inhabitants. The rural areas are characterised by an insufficient technical and social infrastructure such as limited public



transport, an underdeveloped communications network and a lack of schools. A tendency to depopulation has negatively affected the demographic structure of rural areas, leading to an overrepresentation of the 55+ age class.

The most densely populated areas are the capital city region (1.2 mio), North Moravia and North Bohemia. The second biggest city is Brno in South Moravia with 400,000 inhabitants. The Prague region has the highest per capita GDP (75% of the average EU GDP/capita in purchasing power terms) and the lowest unemployment rate (virtually non-existent), while in the other regions per capita GDP varies between 45 and 50% of the EU level. A high level of economic activity has also developed in the border regions with Germany and Austria (West and South Bohemia). The highest unemployment rates can be found in North Bohemia and North Moravia (due inter alia to a declining mining industry and the dismantling of state farms, which were in particular set up in the more peripheral northern border areas).

The less densely populated regions tend to have the highest share of agricultural land (with the exception of West Bohemia) and also the highest share of agricultural employment (up to nearly 12% of total employment in South Bohemia, compared to a national average of less than 5%). In rural communities (villages up to 2000 inhabitants) the average share of agricultural employment however reaches 25%.

About 46% of agricultural land lies in Less Favoured Areas (LFAs) with natural handicaps such as hills and mountains.

2.5 Agriculture and environment

Agriculture is the dominant form of land use, over 55% of total land area, and an important factor in managing land, water and air resources (including bio-diversity) and in shaping the countryside.

On the positive side agriculture can contribute to environmental quality, as plants fix carbon dioxide and serve as a filter of air, while soil and crops absorb some of the pollution emitted by other sectors. It can contribute to maintaining bio-diversity and ecological balances and to the aesthetic quality of the landscape in many parts of the country.

The main environmental problems related to agriculture are erosion, water pollution by agro-chemicals and manure disposal in areas with a heavy concentration of animal production.

About one third of agricultural area (1.4 mio ha) is affected by erosion by wind and water of topsoils: 13% of area is mildly eroded, 10% moderately and 9% seriously, due to inadequate or unadjusted cultivation techniques. The erosion has led to the silting of rivers and water reservoirs, floods, eutrophication of surface water and loss of soil fertility.

The quality of ground and surface water has been influenced by overuse of fertilisers and chemicals and by a high concentration of animal production. About 20% of ground water is affected by nitrate pollution, exceeding the level of 50 ppm (parts per million). High concentrations of ammonia are emitted from manure produced by livestock, which together with methane contribute to air pollution and global warming.

During the transition the application of fertilisers and agro-chemicals decreased substantially, with some delayed effect on pollution levels. In more recent years there has been a slight tendency to again increase the use of inputs, but still remaining at less than half of the pre-transition level (Table 19).

In general, acid rain is the most severe pollutant affecting agriculture and forestry. Air pollution has affected about 60% of forests, covering the whole northern half of the Czech Republic, especially mountainous areas, and created the image of "dying forests" in the worst affected areas.

Table 19: Ferti	liser and pe	sticide us	;e				· ·			
		1989	1990	1991	1992	1993	1994	1995	1996	1997(e)
nitrogen	1000 t	420.6	418.1	297.4	226.0	180.2	203.2	229.3	190.1	205.8
-	kg/ha	98.8	98. 5	73.3	56.6	55.8	67.1	66.8	58.9	67.0
phosphate	1000 t	291.2	269.4	104.8	66.9	47.8	53.1	61.2	51.2	50.4
	kg/ha	68.4	63.5	25.8	16.7	14.8	17.7	18.2	15.9	16.0
kalium	1000 t	282.9	237.1	92,1	54.5	36.7	36.5	43.0	37.2	35.8
	kg/ha	66.5	55.9	22.7	13.6	11.4	12.1	12.2	11.5	12.0
Total NPK	kg/ha	233.7	217.9	121.8	86.9	82.0	96.9	97.2	86.3	95.0
Tot. pestic. use Source: RIAE	89=100	100.0	81.3	57.0	43.2	35.7	34,7	35.7	36,9	

2.6 Up- and downstream sectors

In the pre-transition era the up- and downstream sectors of agriculture were predominantly in the hands of very large state-owned monopolies. A small percentage (mostly smaller enterprises) was privatised by way of restitution to the original owners. Most other state agricultural input and food processing industries were taken up in the two general waves of voucher privatisation in 1992 and 1994 and a certain number of state enterprises was liquidated.

The direct participation of foreign capital in privatisation remained limited (to the tobacco industry, confectionery and the vegetable oil sector, and to the retailing sector, i.e. supermarket chains) as the approach chosen was to privatise before trying to attract foreign investors.

The state owned enterprises were converted into joint stock companies and split up into smaller entities before being privatised through the voucher scheme. The majority of shares in agricultural and food processing enterprises ended up in the hands of investment funds, which in turn are to a large extent owned by the banks.

2.6.1 Upstream

In the upstream sector, the input supplying industries (chemicals, machinery, seeds, feed, animal breeders) although now privatised, still have a monopoly position on the domestic market, but are subject to increasing import competition.

One of the larger joint stock companies and successor to the state "Agricultural Supplies and Procurement" monopoly is Agropol, a grouping of 68 private enterprises with a dominant market position.

For financial services the agricultural sector is largely dependent on the general banking system, although the government has implemented policies to facilitate access to credit (see § 3.3.1).

2.6.2 Downstream

In the course of the subdivision and privatisation process the total number of food processing enterprises jumped from 69 large state-owned companies in 1989 to many hundreds of private companies currently. The former state monopolies were mostly vertically integrated, covering the purchase of raw material, the processing and the distribution of food products, and often regionally based. After the breakup of the state owned conglomerates the reestablishment of market based links in the food chain has been a slow process.

Although ownership has changed, in particular in the first processing stage many enterprises are still struggling with overcapacity.

In the cereals sector privatisation and restitution initially led to a large increase in the number of mills and in milling capacity exceeding domestic requirements. In recent years many (smaller) mills (and bakeries) have again closed down, but excess capacity is still estimated at 15 to 20% and further consolidation in the sector is needed. The keen competition between mills for cereals has led to a relatively low ratio of factory-gate flour prices to wheat prices compared to the EU, resulting in much lower flour and bread prices.

In the sugar processing sector at plant level the number of beet factories in operation has dropped from 55 pre-transition to 26 in 1997⁶ as domestic demand declined and export possibilities decreased after the government decided to stop export subsidisation in 1993. Although field and factory efficiency is lower than in the EU total per unit costs of sugar production are lower due to lower labour costs. Czech prices are however still considerably above world market levels, limiting the possibilities for surplus disposal. Further rationalisation of the sugar industry is being helped by the investments of leading western European companies, which seem to be positioning themselves for the advent of the quota system when the Czech Republic joins the EU. In 1997 the French sugar cooperative Union SDA, active in the Czech Republic since 1992, acquired 67% of the leading Czech sugar holding Ceské Cukrovary and now controls about 50% of Czech sugar production.

In the milk sector the number of dairies has dropped from 113 pre-transition to 89 currently, with still an unused capacity exceeding 40%, following the drop in domestic demand. The gap between Czech and EU prices for dairy products is relatively large, given the smaller gap in the raw material (i.e. milk) price, which could be an indication that the selling prices for butter and cheese are not economically viable (see also $\S3.1.2$). The slaughtering and meat processing sector is still dominated by about 50 former state enterprises, which handle about 60% of animals slaughtered and of meat and meat product output. Due to the large drop in meat consumption slaughterline capacity is only about 60% used. It is estimated that four to five slaughterlines would be sufficient to meet national needs. Apart from the former state enterprises, many new meat processing companies have emerged, which handle the remaining 40% of output. In part these have been set up by big primary producers in reaction to what were seen as excessive margins in slaughtering and processing and to long delays in payments for livestock.

⁴ For 1998 further closures are scheduled, reducing the number of plants in operation to 19. Only factories producing at least 100,000 t of sugar per season would seem viable in the longer run, which would imply that 4 to 5 sugar factories would be sufficient to cover domestic requirements.

The main policy objectives are set out in the Law on Agriculture adopted in the autumn of 1997. They relate to the provision of basic food security, environmental protection and resource management (soil, water, air and landscape).

The main categories of support to agriculture are market price support, direct payments and credit subsidies. After a sharp drop in 1993 total expenditure has again been increasing. For 1998 a rise of 36% on 1997 is expected, in particular due to sharp increases in direct payments and market support (Table 20). by purchasing/exporting surpluses and selling/ importing in case of shortages. Its council, chaired by the minister of agriculture, decides on the products to be regulated and the mode of intervention. In the period 1994-96 support was mainly limited to wheat (of bread making quality) and dairy products. More recently the SFMR has introduced more indirect forms of intervention, as has also the Support and Guarantee Fund for Farmers and Forestry (SGFFF), thus far mainly dealing with structural adjustment (see §3.3.1).

3.1.1 Cereals

3.1 Market support

The main instruments for market price support are border measures (tariffs, import/export licensing and export subsidies) and direct (through the state agency) or indirect (through market agents) intervention in the market. The main institution for market support is the State Fund for Market Regulation (SFMR). Its stated objective is to stabilise agricultural markets (i.e. to prevent large price movements either downwards or upwards in the interest of producers and consumers) For bread wheat in 1995/96 and 1996/97 the SFMR set in advance of the marketing year a target minimum price (procurement price) and a maximum volume it was intending to purchase on the domestic market based on expected market developments⁷. Producers entering a contract with the SFMR received an advance payment of roughly 40% of the procurement price, with the remainder being settled after the harvest. The high cereals world prices in this period limited SFMR purchasing, in particular in 1996/97⁸, and

Table 20: Budget expenditure on agriculture and the agrifood sector							
mio CZK	1 992	1993	1994	1 995	1996	1 997(p)	1998(e)
market (price) support	4373	2923	3782	3740	3047	2404	5565
credit subsidies	721	462	1529	1 977	2958	4181	3500
direct payments	1022	144	473	1431	1891	2059	4463
disaster payments					318	973	100
general services	589	428	1735	1558	1188	798	800
tax concessions	4000	100	100	369	630	827	900
total	10705	4057	7619	9075	10032	11242	15328
fees (for air pollution)			-56	-60	-90	-100	-100
Source: RIAE							

For the 1994/95 marketing year the SFMR announced before the harvest it would purchase 500,000 t at a price of 3240 CZK/t for high quality wheat with an advance payment of 50% of the minimum price. In practice contracts were entered for 424,000 t. At harvest time it announced it would purchase a further 300,000 t at a price of 2700 CZK/t for lower quality wheat. In practice 232,000 t were purchased, with producers receiving an additional 65 CZK/t on delivery.

The SFMR also announced a special purchase of 150,000 t of wheat at a fixed price of 4000 CZK/t to replenish the state reserves, but only managed to buy 6000 t.

export licences for certain cereals and wheat flour were suspended from October 1995 onwards in an attempt to keep a lid on domestic prices. The import tariff for cereals was temporarily reduced from 24% to zero for a limited quantity. The Chamber of Agriculture was fined by the Czech Competition Authority for urging farmers not to sell wheat to the SFMR at the procurement price. Despite these measures, the domestic market price rose above the already increased procurement price (+30%) in 1996/97. It did, however, not attain world market price levels (Table 21).

Table 21: SFMR interventions for (bread) wheat

		1994/95	1995/96	1996/97	1997/98
minimum price	CZK/t	3240/2700	2700	3500/4000	3900-4140
advance payment	CZK/t	1620	1000	1500	3000
market price (farm)	CZK/t	2983	2780	3980	4331
announced purchase	000 t	500+300	500	500+150	
effective purchase	000 t	424+232	354	74.5+6	
Source: RIAE. The 1997/9	8 market	price is a RIAE fo	recast.		

For the 1997/98 marketing year the system was changed. A target minimum price for bread wheat was set starting at 3900 CZK/t from the beginning of the harvest till end of October, followed by monthly increases of 30 CZK/t, leading to a price of 4140 CZK/t at the end of the marketing year in June. Intervention purchases would be triggered if the market price (established as the average of the last three weekly CSO prices) dropped below 95% of the target price. In addition, instead of the advanced purchases by the SFMR, a private storage aid was offered to millers willing to enter a pre-harvest contract with cereal growers, including an advance payment of 3000 CZK/t for bread wheat or rye for human consumption. For an effective purchase in January (settled at at least the minimum price for bread wheat after deduction of the advance payment) the storage aid amounted to 330 CZK/t, increasing monthly up to 530 CZK/t in June. Private storage aid was made

available for a total amount of bread wheat of 425,000 t and 75,000 t of rye. Agreements were concluded for 180,328 t of bread wheat and 7150 t of rye.

For feed cereals an interest rate subsidy for selected purchasers obtaining a bank credit was introduced on condition of entering a pre-harvest contract with cereal growers, including an advance payment of 3000 CZK/t. The interest rate subsidy, paid by the Support and Guarantee Fund for Farmers and Forestry (SGFFF), was available for a total amount of 1 million t. Total interest subsidies amounted to 202 million CZK in 1997.

3.1.2 Dairy

For milk the SFMR annually sets a minimum price (best quality, 3.6% fat), based on the production costs of above average performing producers. Since the introduction of price support for milk in 1991 the minimum price has risen by 39% from 5.4 to 7.5 CZK/I.

To be eligible for export subsidies dairies have at least to pay the minimum price for the milk delivered. The SFMR on a quarterly basis determines the maximum subsidised export volumes for butter and other dairy products, based on expected surpluses. Dairies can then tender^o for subsidies recalculated on a per litre milk exported basis, with the subsidies awarded to the lowest bidders. The average export subsidy has been in the range of 1.4 to 1.6 CZK/l.

The milk prices producers have been receiving have tended to be well above the minimum price, which could be a reflection of the competition for raw material between the dairies with overcapacity and of the level of export subsidy, which allows dairies to pay a higher price for the milk (Table 22).

^{*} The tender system was introduced from 1994 onwards. Before that fixed export subsidies were used. As from 1996, advance payments on the export subsidy are made with the final rate of subsidy fixed after the exports have taken place, based on world market price developments. To benefit from the subsidy, dairies have to pay farmers within a month of milk delivery. Prior to that, dairies often had delayed payments to farmers for milk deliveries until the dairy products had been exported.

		1994	1995	1996	1997	1998
minimum milk price	СХКЛ	5.70	6.00	6.30	6.80	7.50
market price (farm)	CZK/I	5.87	6.48	6.90	7.15	8.10
av. export subsidy	CZKA	1.43	1.35	1.56		
subsidised exports of:						
butter	000 t	18.0		26.8	21.6	
milk powder	000 t	22.1		15.2	15.5	
cheese	000 t	0.0		13.6	13.5	

Table 23: SFMR interventions for beef

		1994	1995	199 6	1997	1998
minimum price (lw)	CZK/kg					
	bulls	28.0	-	-	35.0	
	heifers	28.0	-	-	32.5	-
	COWS	-	-	-	26.0	-
market price (farm. lw)*	CZK/kg	33.1	35.6	35.8	35.5	40.5
av. export subsidy (lw)	CZK/kg	5.7			12.3	
subsidised exports of:						
beef (lw basis)	000 t	4.7	-	-	10.5	
Source: RIAE. The 1998 market price	ce is a RIAE forecast.					
*bulls, class A						

3.1.3 Other products

In 1997 the SFMR reintroduced export subsidies for beef (which were last given in 1994). Recalculated per kg live weight exporters received an average subsidy of 12.3 CZK, on condition of paying at least the minimum price to beef producers (Table 23).

In view of the large potato harvest in 1996 export subsidies for potato starch were approved by the SFMR at a level of 5500 CZK/t for a total volume of 6000 t (about 33,000 t of potatoes) in 1997. To be eligible starch producers had to pay at least the minimum price of 1500 CZK/t to potato growers.

Also in 1997 an export programme financed by the SGFFF was introduced providing a 10% interest rate subsidy on bank credit to exporters of agricultural commodities (with exception of exports to Slovakia). Eligible commodities were sugar, eggs and poultry, mustard and poppy seeds, margarine and vegetable oils (produced from at least 70% domestic inputs), malt, fruit and vegetables (fresh and processed), flax and plant and animal genetic material. Total cost of the programme has been estimated at 450 million CZK for 1998.

Table 24 presents an overview of expenditure on market support in recent years.

Expenditure on market support has tended to decrease over the last couple of years, but for 1998 more than a doubling is foreseen compared to 1997, in particular due to increased expenditure on cereals.

When comparing price support levels the gap between the Czech Republic and the EU would seem to be decreasing, more rapidly so for wheat than for milk. For beef Czech support levels in 1994 were about 55% of the EU level, increasing to about 66% of the EU level in 1997, when beef was again supported (Table 25).

Table 24: Exp	penditure on market suppor	F faith			· ·	
mio CZK		1994	1995	1996	1997 (p)	1998 (e)
SFMR total		3782	3740	3047	2078	. 5115
	export subsidies	1238	1064	1126	1274	1311
	o.w. for dairy	1050	1064	1126	1112	1200
	beef	27			129	
	potatoes(/starch)	117			33	44
	malt/hop	44	``			67
intervention	· · ·	2516	1230	1310	763	3625
۰.	o.w. for cereals	2417	1230	1310	763	3625
	dairy	96				
	pigmeat	. 3				
other (incl. adm	. costs)	28	1446	611	41	179
SGFFF total					326	450
export (interest	subs.)				124	450
feed grains	,				202	
total market su Source: RIAE	pport	3782	3740	3047	2404	5565

Table 25: Effective support prices CR-EU

			1995/96	1996/97	1997/98
Wheat	CR	ECU/t	77.6	102.1	103.2
	EU	ECU/t	124.9	127.5	123.1
	CR/EU	%	62%	80%	84%
Milk	CR	ECU/t	172.7	180.7	178.7
	EU	ECU/t	290.5	288.4	286.5
	CR/EU	%	59%	63%	62%
exchange rate		CZK/ECU	34.8	34.3	38.9
Source: DG VI calcul	lations.				

For a comparison of producer price levels for the main commodities see below.

3.2 Trade policy

Trade policy in the agri-food sector is governed by a number of multilateral and bilateral agreements.

3.2.1 WTO

The border measures, which underpin market support as discussed in §3.1, are to a large extent conditioned by the Czech Republic's Uruguay Round commitments on market access and export competition.

Tariffs and minimum access tariff rate quotas replaced the variable import levy system in 1995 (Tables 26 & 27).

Most Czech tariffs are considerably lower than the EU-15 ad valorem equivalents¹⁰, with the exception of poultry, potatoes and oilseeds, which enjoy a higher protection, and of pigmeat, which has a similar level of protection.

¹⁰ While the Czech Republic mostly applies ad valorem tariffs, the EU has opted for specific tariffs for many agricultural products, which for the comparison have been converted to ad valorem equivalents, based on projected EU border prices for 2000/01, the end of the GATT Uruguay Round implementation period.

In total 24 tariff rate quotas were opened as from 1995. Most used have been the import quotas for poultry, potatoes, ice cream and wine (the latter being increased in 1996). In addition zero tariff quotas were opened for cereals in 1996 and 1997 (for respectively 750,000 and 350,000 t). For oilseeds the tariff quota was increased to 65,000 t in 1997, because of an increase in domestic demand.

Table 26: Bound tariffs for selected products						
%	1997	(2000)	2000			
		CR	EU			
wheat, rye, barley	23.1	21.2	50 - 90			
sugar (refined)	64.8	59.5	168			
skimmed milk powder	43.3	37.0	70			
cheese	9.5	8.5	87			
Source: RIAE; DG VI calculation	S	-				

		1997	L,		2000	· .
	quantity (t)	tariff rate (%)	quantity (t)	tariff rate (%)	MFN rate (%)	EU rate (%)
bcef	8900.	30	11125	30	34	108
pigmeat	19776	25-30	24720	25-30	28.6-38.5	38
poultry	2778	24	3471	24	43	25
butter	2225	32	2781	32	68	136
potatoes	29570	50	33583	50	- 100	11.5
oilsceds	14013	10-20	17901	10-20	40-60	0

On the export side the Czech Republic is allowed to subsidise a limited range of products (Table 28).

The subsidised exports of dairy products in the period 1995-97 remained well below the value and quantity ceilings, as for beef in 1997. The indirect export subsidies introduced in 1997 through the SGFFF export programme (see $\S3.1.3$) might be breaching the Czech Republic's GATT commitments, in particular for sugar (value and quantity) and possibly for vegetable oils and fats (value).

Quantitative restrictions on exports of rape seed, milk powder, hops, sugar and live cattle were applied in 1996. Export licences for cereals and flour were completely suspended from October 1995 onwards.

3.2.2 Czech-Slovak Customs Union

The customs union was formed at the beginning of 1993 when Czechoslovakia split up. Slovakia is the Czech Republic's most important agro-food trade partner after the EU, in particular for exports. In recent years there have been difficulties over the payment

Table 28: Export commitments

		1997		2000
	mio CZK	000 t	mio CZK	000 t
beef	397.0	56.4	309.8	49.8
pigmeat	91.8	11.5	71.7	10.1
poultry. eggs. poultry prod.	300.2	25.8	234.3	22.8
sheep meat	8.6	0.6	6.7	0.6
milk powder	1596.5	75.8	1246.0	66.9
other dairy products	1640.0	71.2	1280.0	62.8
fruit & veg. (products)	103.1	9.8	80.4	8.6
(oil)seeds. hops	181.7	10.9	141.8	9.6
fats/veg. oils	41.3	8.2	32.2	7.2
sugar	81.4	5.6	63.5	4.9
wine	20.0	4.2	15.6	3.7
spirits. beverages	88.3	63.7	68.9	56.2
beer	70.9	168.7	55.3	148.9
starch	62.3	13.5	48.6	11.9
malt	690.4	277.0	538.9	244.2
cereals. flour	189.1	74.2	147.6	65.5
Total	5562.2		4341.3	
Source: RIAE				

clearing system (abolished in 1995), certification procedures, the Slovak import surcharge (10% in 1995, reduced to 7.5% in following years) and a range of products deemed as sensitive by the Slovak side (including beer and wine). For cereals an agreement to limit exports was reached in 1996 to avoid circumvention of the export ban.

3.2.3 Europe Agreement

The Europe Agreement with the Czech Republic was ratified in 1995¹¹. In the field of agriculture the Europe Agreements with the associated countries grant trade concessions, mainly in the form of tariff quotas at a preferential rate. The agreements have been modified to take into account the Uruguay Round Agreement of 1994 and the EU enlargement of 1995.

For the adjustment to the GATT agreement the inquota preferential rates were set to 20 % of the MFN tariff rate (instead of 40 % of the import levy at the end of the first five year period before). For the second five year period the EU decided to increase the tariff rate quotas by 25% (compared to 50% in the first period).

For the EU enlargement to Austria, Finland and Sweden, the former preferences enjoyed by the CECs in their trade with the EFTA-3 were included.

As most other associated CECs the Czech Republic has increased its use of preferential quotas over time. Fully used or to a large extent have been the quotas for dairy products and poultry and some of the import quotas managed by DG XXI (e.g. certain fruit and vegetables and wine). Underused have been the quotas for the other meats and live animals (beef, sheep, pigmeat) and for eggs. The quotas for malting barley and malt were fully utilised in 1994/95 and 1995/96, but only to a very limited extent in 1996/97.

In March 1998 the EU decided to partially suspend the Czech Republic's trade preferences in reaction to a unilateral Czech measure to considerably limit imports of apples from the EU¹².

An import deposit scheme, introduced by the Czech Republic in the spring of 1997, was again suspended in August, after protests from the EU side.¹³ In 1996 and 1997 also certain veterinary and phytosanitary measures were taken affecting EU imports (i.e. in relation to potato imports from the EU¹⁴ and to the swine fever epidemic in the Netherlands).

3.2.4 CEFTA

The Central European Free Trade Agreement was signed in December 1992 and replaced the "Visegrad Agreement" of February 1991 between Poland, Hungary and former Czechoslovakia. It came into force in March 1993 between four countries (after the split of Czechoslovakia into the Czech and Slovak Republics).

In November 1995 Slovenia became member with a transition period till the end of 1999 and Romania joined in July 1997 with a transition period till end 1998. Bulgaria has applied for membership and will likely join in 1998. Several other countries have also started negotiations to become CEFTA members such as Latvia, Lithuania, FYROM (Former Yugoslav Republic of Macedonia) and Croatia. However, under

[&]quot; It was preceded by an Interim Agreement on trade covering the period 1992-1995.

¹² In January 1998 the Czech government decided to implement an apple import quota of 24,000 t per year (compared to imports of nearly 50,000 t in 1997) to protect domestic apple producers, who claimed that 15,500 t of Czech grown apples went unsold in 1997. Any imports in excess of the quota would be subject to a 95% tariff. From EU side it has been pointed out that, although EU apples are more expensive, Czech consumers seem to prefer these to the lower quality domestic apples. The protective measures are clearly not compatible with the Europe Agreement (or WTO rules). From the EU side the preferential quotas for pigs, pigmeat, poultry and apple juice were withdrawn with the possibility of a further extension to dairy products. The suspended trade preferences are targeted to match the losses the Community suffers on its apple exports.

¹³ The scheme, intended to deal with a worsening trade deficit, required importers to make an interest free deposit worth between 20 and 60% of the value of imports, returned after 180 days. The measure acted as an import tariff estimated at 1-3% and was applicable to consumer goods, including processed food and drinks, but excluding agricultural commodities.

¹⁴ The Czech Republic required treatment of EU potatoes against "ring rot" with a product not registered in the EU. The issue held up the signing of the veterinary and phytosanitary equivalence agreement, to be added as a protocol to the Europe Agreement, until the end of 1997.

CEFTA rules, only candidates that have an Association Agreement with the EU and are members of the WTO are eligible for membership.

CEFTA encompasses all merchandise trade. For industrial products all barriers will be abolished by the end of 2000. For agricultural and food products the initial agreement introduced a system of preferential quotas. Preferences were given for selected commodities on a bilateral basis, for which parties had to decrease tariffs by 10% annually, until a 50% preference was reached. It was later decided to introduce the 50% tariff reduction at once and in some cases an even higher reduction (of 70 %).

In December 1995 agreement was reached on further gradual liberalisation of agrofood trade until, after further negotiations, eventually full liberalisation would be reached. However, the original deadline of 1998 was postponed and finally at the CEFTA summit meeting in Warsaw in December 1997 changes were agreed to the grouping of products in different categories with different degrees of liberalisation:

- A listing: duty free and quota free commodities as from 1.4.1998 (breeding animals, horses, rabbits, durum wheat and oilseeds);
- A1 listing: duty free and quota free commodities as from 1.1.2000 (from 1.4.1998 until 1.1.2000 still within quotas; sheep and goats, live and meat);
- B listing: common preferential tariffs (poultrymeat 28%, wheat 15%, barley 18%, flour 15%, pastry 20%, some fruit and vegetables 5 to 10%);
- B1 listing: common preferential tariffs still within quotas till 1.1.2000 (cattle, pigs, poultry 10 to 15%, carcase beef and pigmeat 25%, beef and pigmeat cuts 20%, milk powder 37%, all canned meat 15-18%, hops 5%);
- C and D listings with bilateral preferences between CEFTA members.

			1993	1994	1995	1996	1997
Wheat	CR	ECU/t	87.5	92.0	83.1	98.1	115.8
	EU	ECU/t	157.8	143.7	138.4	138.0	125.5
	CR/EU	%	55%	64%	60%	71%	92%
Maize	CR	ECU/t	93.6	98.3	99.6	120.3	120.0
	EU	ECU/t	166.2	149.0	157.4	155.2	133.7
	CR/EU	%	56%	66%	63%	77%	90%
Barley	CR	ECU/t	65.5	71.2	63.7	73.3	90.0
(feed)	EU	ECU/t	145.0	138.2	132.7	128.5	118.7
	CR/EU	%	45%	51%	48%	57%	76%
Rapeseed	CR	ECU/t	149.4	156.6	157.4	165.8	173.9
	EU	ECU/t	189.3	215.4	189.3	207.6	204.1
	CR/EU	%	79%	73%	83%	80%	85%
Sugarbeet	CR	ECU/t	24.2	21.8	22.1	25.9	24.8
	EU	ECU/t	46.6	47.1	46.4	49,5	50.4
	CR/EU	%	52%	46%	48%	52%	49%
Tomatoes	CR	ECU/t	324.4	442.0	469.4	526.3	561.0
	EU	ECU/t	357.7	391.0	380.0	432.7	401.2
	CR/EU	%	91%	113%	124%	122%	140%
Apples	CR	ECU/t	213.9	189.5	219.5	299.1	281.4
	EU	ECU/t	308.1	370.9	377.5	425.1	391.2
	CR/EU	%	69%	51%	58%	70%	72%
Source: DG VI calculations	based on RIAE and Eurostat	price information.					

Table 29: Producer prices CR-EU selected plant products

Sugar and certain dairy products remained outside of the listing.

Against the background of the policy interventions described in §3.1 and §3.2 and domestic and world market developments producer prices have generally moved up in recent years, somewhat more so for crop products than for animal products, but have also in most cases not kept up with general inflation. Expressed in ECU the domestic price rises have been to some extent mitigated by the depreciation of the Koruna. Nevertheless, the price gaps at farm gate level with the EU have tended to decline over time (Table 29).

In the arable sector Czech prices for cereals and oilseeds have moved to 80 to 90% of the average EU level, while sugarbeet is still at only half the EU level. In the fruit and vegetables sector Czech tomatoes are relatively expensive, while apples are at around 70% of the EU level (Table 30).

In the livestock sector Czech dairy prices have moved to around 65% of the EU level, while beef prices have

Table 30: Producer prices CR-EU selected animal products

gradually increased to over 70% of the EU level. Despite the still existing cereals price differential Czech pigmeat prices are close to what could be considered normal EU prices (in the absence of swine fever), while poultrymeat prices at 70 to 80% of the EU level more or less reflect the difference in feed costs.

3.3 Structural and rural policy

3.3.1 Credit subsidies

Credit subsidies and loan guarantees, which are administered by the Support and Guarantee Fund for Farmers and Forestry (SGFFF), play an important role in facilitating structural adjustment. All credit projects are subject to economic evaluation by commercial banks before they are approved by the SGFFF. The credit facilities are available for investment as well as working capital needs.

			1993	1994	1995	1996	1997
Milk	CR	ECU/t	169.6	166.8	181.4	194.4	193.4
	EU	ECU/t	300.1	300.0	296.2	299.2	297 .1
	CR/EU	%	57%	56%	61%	65%	65%
SMP	CR	ECU/t	1200.9	1128.3	1342.2	1368.0	1377.2
	EU	ECU/t	2141.9	2109.0	2190.1	2090.4	2129.8
	CR/EU	%	56%	53%	61%	65%	65%
Butter	CR	ECU/t	1974.5	1987.6	2155.0	2244.9	2311.5
	EU	ECU/t	3567.1	3555.6	3704.9	3615.9	3625.5
	CR/EU	%	55%	56%	58%	62%	64%
Beef	CR	ECU/t	1538.7	1847.0	1956.3	1978.8	1884.3
	EU	ECU/t	3127.9	3118.4	2929.3	2607.7	2661.7
	CR/EU	%	49%	59%	67%	76%	71%
Pigmeat	CR	ECU/t	1092.5	1310.9	1397.0	1451.0	1393.3
-	EU	ECU/t	1264.9	1278.3	1348.6	1618.7	1672.1
	CR/EU	%	86%	103%	104%	90%	83%
Poultrymeat	CR	ECU/t	893.7	952.2	854.2	914.7	995.8
(chicken)	EU	ECU/t	1359.8	1343.5	1169.6	1328.4	1289.7
. ,	CR/EU	%	66%	71%	73%	69%	77%

Credit policy has shifted away from providing interest-free loans to farmers towards loan guarantees and partial interest subsidies. As a result, subsidies for interest-free loans have declined, while the budgetary cost of loan guarantees and partial interest subsidies has increased. Increasingly, farmers have found themselves unable to repay the loans entered into during the period of economic transition. The amount of mature guaranteed loans that could not be repaid has increased significantly. The government partially wrote off debt and extended the repayment period for interest-free loans provided in the 1991-93 period. Farmers in disadvantaged areas could postpone repayment of debt contracted in connection with the privatisation of agricultural assets. Moreover, farmers in these regions benefited from a 90 per cent reduction in rents for land leased from the Land Fund in 1996 and 1997.

The state also provided grants for erosion control and for the cleaning of ponds on farms. These grants were provided on a competitive basis and covered up to 80 % of the investment costs, but have been phased out. Payments for afforestation, the restoration of vineyards, hop-gardens and orchards have been reduced, while the payments for the conversion of arable land to grassland were stopped after 1995.

3.3.2 Direct payments

In 1995 direct payments in the form of headage and area payments were introduced to encourage specialised beef production. Farmers in less favoured areas (LFAs), which for this purpose are defined as areas where the "official" land prices are below certain limits, could receive 4000 CZK per cow for conversion to suckler cows and 3000 CZK per calf of a beef race. For grassland the hectare payment amounted to 3300 CZK (on condition of a stocking density not exceeding 1 livestock unit/ha and in 1997 for farms with at least 0.15 livestock units). In addition an annual headage payment for dairy cows in LFAs¹⁵ producing more than 4500 litres per year of up to 2500 CZK was introduced (on condition of a maximum stocking density 1 livestock unit/ha and a minimum of 5 cows per holding).

Direct payments are also available for bee keeping and flax production. In total expenditure on direct payments could increase by 117% in 1998 compared to 1997, overtaking credit subsidies as the largest structural expenditure item.

3.3.3 Rural development

Rural development measures focus mainly on village infrastructure and communal services, but policy tends to be fragmented and in the hands of different ministries, although a new ministry for regional and rural development (the Ministry of Local Development) was established in 1996. An inter-ministerial commission manages the Programme for the Restoration of Villages, aiming to promote socio-economic diversification in rural areas. About 200 million CZK yearly in 1996-97 was spent on the programme. The subsidies of the Ministry of Agriculture on water and sewage equipment in villages amounted to 343 million CZK in 1997.

In 1998 the latter measures were discontinued and taken up in a new scheme. A generalised agricultural area payment was introduced, the level depending on the administrative land price and intended as a support to farming in general (maintenance of the landscape), organic farming and afforestation in particular, and in LFAs also to livestock activities (beef cattle and sheep). The support for farms in LFAs is conditional on an animal density between 0.1 and 1 livestock unit/ha (with pigs and poultry not making out more than 50% of all livestock units). The total budget for area payments was more than doubled to 3.5 bio CZK.

 $^{^{15}}$ $\,$ Regions where the official land price is below 4 CZK/m 2

An overview of structural expenditure is given in table 31.

3.3.4 Environmental measures

A specific agri-environmental programme has not been developed. Taxes are levied on ruminant animals to reduce ammonia emissions (see also Table 20). In water, nature and landscape protection areas, use of fertilisers, pesticides and manure is restricted. The grassland payments mentioned under § 3.3.2 were viewed as a support to maintenance of certain landscape features, as are the newly introduced generalised area payments.

3.3.5 Other measures

Several tax concessions are accorded to farmers and the processing industry, including for the production of biofuel.

The government subsidises agricultural training, research and extension, and plant and animal breed-

ing, but expenditure on general services to agriculture has tended to decrease (see Table 20). Most of plant and animal breeding and part of the extension work is now undertaken by private firms.

3.4 Veterinary and phytosanitary legislation

In the veterinary field a new act entered into force in late 1997, preparing the ground for approximation to EU legislation, while secondary legislation is underway.

The Czech Republic has a well established infrastructure for veterinary control and inspection, both at the borders and internally. The facilities at border inspection posts and testing laboratories appear to be adequate to carry out appropriate control and testing according to internal market requirements. Procedures, frequencies and results of veterinary checks at the external borders are similar to those applied in EU member states. There is, however, a need to upgrade testing and inspection facilities.

mio CZK	1994	1995	1996	1997(p)	1998(e)
credit subsidies	1529	1977	2958	4181	3500
o.w. interest subsidies (SGFFF)		722	1819	2702	
interest subsidies processing ind.		136	175	310	
interest free loans (agriculture)		927	727	725	
interest free loans (proc. ind.)		32	82	88	
debt write-offs				164	
grants*		160	119	92	
other (interest subs. old debts)			36	100	
direct payments	473	1431	1891	2059	4463
o.w. beef		265	355	278	
milk					850
bee keeping	35	75	64	76	80
flax				6	15
grassland	438	1091	1452	1669	
general area payments					3518
other (e.g. Min. of Environment)			20	30	
land rent concessions			92	92	
oan defaults (mature guarantees) Source: RIAE		21	90	262	
*afforestation, restoration vineyards etc., anti-erosion, ponds.					

Although the legislation under preparation appears to a large extent to be consistent with the acquis, further adaptation would be needed in particular with regard to identification and registration of animals, the licensing system, introduction of HACCP (Hazard Analysis Critical Control Panel) and self-control systems and veterinary checks. Furthermore, it appears that some of the basic principles of the internal market, such as the concept of safeguard measures and import rules, have not been reflected entirely in the current primary legislation.

There will be a need to upgrade certain food processing establishments in particular for the national market, to develop acceptable veterinary audit and certification procedures, and to maintain an adequately structured, staffed and trained veterinary sector (for a more detailed description of the Czech veterinary sector see annex).

In the phytosanitary field the framework legislation on plant health for approximation to EU legislation came into force in January 1997. As regards regulation on plant protection products, harmonisation of legislation with Community legislation began in 1997, while for legislation on animal nutrition, pesticide residues and organic farming further work on approximation to Community rules would seem needed. The Czech Republic will need to ensure that EU legislation for the latter is implemented in national legislation.

The Czech Republic has concluded an additional protocol to the European Agreement on transparency and equivalency in the veterinary and phytosanitary sector.

4. Medium Term Outlook

4.1 Policy developments

In the first years of transition the main focus was on completing the privatisation of agriculture and the agro-food sector and on balancing the main commodity markets after the fall in demand during transition.

In more recent years different forms of market intervention were tried out. The main aim of the latest changes with less direct intervention by the SFMR in the market would seem to be to maintain the cash flow to the farm sector by encouraging advance contracting with the downstream sector. Delayed payments have been a major problem, in particular in view of the difficult financial situation in which the farm sector still is. A persistent feature throughout has been, however, a concentration of market support and the related budget transfers on cereals and dairy.

In the run up to EU membership the Czech Republic will have to adapt its market policy by putting in place the same instruments (but not yet necessarily applying them, or applying them at the same level). In the following the main implied changes for some of the main commodity sectors will be reviewed. As a benchmark the Agenda 2000 proposals for reform of the EU's agricultural policy will be used. The time horizon adopted as a working hypothesis for the minimum pre-accession period is up to 2003.

For cereals and oilseeds the preparation for membership would imply introducing a base area and hectare payments based on a fixed reference yield, a set aside instrument and intervention for the main cereals (not only wheat). On accession border protection for oilseeds would have to be abolished, while for cereals it would likely have to be adjusted upwards¹⁶.

For sugar it would imply introduction of production quotas, an intervention price for sugar and a basic price for sugarbeet¹⁷. On accession border protection would have to be adjusted upwards¹⁸. The current system of indirect export subsidisation also used for sugar would have to be replaced by direct export subsidies.

Also for dairy milk production quotas and replacement of the minimum price system by intervention for butter and skimmed milk powder and a less binding target price for milk producers would be needed. In addition a dairy cow premium (also outside of LFAs) based on quota rights would have to be introduced. On accession border measures (tariffs and export subsidies) would have to be adjusted upwards and export subsidies linked to products (not recalculated on a milk equivalent basis).

For the beef sector generalised (for the whole territory) headage payments for suckler cows, bulls and steers, stocking density limits, individual references (suckler premium rights) and regional ceilings (male premia), and an aid to private storage system with trigger price would have to be introduced. The support system (including export subsidies and price recording) would have to move from a live weight to a carcase weight basis. On accession border measures would have to be aligned to EU levels.

On the structural side a persistent policy feature has been the provision of credit (mainly in the form of interest rate subsidies and loan guarantees) for oper-

[&]quot; If and by how far would also depend on the outcome of the next WTO negotiations on agriculture.

¹⁷ These are the main features of the current Community regime for sugar, which expires in 2001. Proposals for the future of the regime have not yet been tabled, but can be expected to be closely linked to the next WTO negotiations.

¹⁸ In general the speed of alignment of border measures to EU levels would depend on the speed of integration into the single market and on the existence of transition periods or arrangements.

ational as well investment needs to the farm sector channelled through the banking system. More recently the importance of direct payments to support the farm sector, in particular in less favoured areas, has increased. In the run up to EU membership some of the existing instruments (e.g. investment aids, LFA scheme) will have to be adapted to the Community format, while new ones such as an agri-environmental programme will have to be introduced. The generalised area payments scheme outside of LFAs could maybe be adapted and fitted into the national envelopes proposed for the dairy and beef sectors under Agenda 2000. In addition a more integrated regional and rural policy will have to be developed fitted to the EU's structural fund instruments.

In the field of approximation to EU legislation further work is needed on the implementation and enforcement of veterinary and phytosanitary requirements and on the upgrading of establishments to meet EU standards.

The underlying assumption for the commodity projections that follow and which cover the period up to a possible accession, is that the Czech Republic will gradually adapt its market and structural policy instruments to the foreseeable Community acquis, but that level of support and of border measures will not increase much above or remain at current levels due to budgetary constraints and GATT commitments¹⁹, and will only be aligned after accession.

4.2 Commodity projections

The general economic background to the projections is the assumption that the structural problems which have surfaced in the economy will take some years to overcome and that only during the second half of the 6 year projection period the economy will again reach its full growth potential of 4 to 5% per year. Modest income growth will lead to some limited further growth in food demand, in particular for certain livestock products.

The increased demand will be partly met by imports, but will also offer opportunities for the domestic agrofood sector in as far as it is able to improve its competitiveness in price and quality.

In the food processing industry restructuring and rationalisation of capacity can be expected to continue at a gradual pace, slowly improving efficiency and allowing for more remunerative prices to be paid upstream.

In the farm sector itself the cooperatives can be expected to remain dominant over the period under consideration. The reorganisation of management and a reduction in overmanning can be expected to continue to a certain extent to restore profitability. Some of the redundant agricultural workforce can maybe be absorbed elsewhere as the economy recovers its growth potential and as economic diversification in rural areas is encouraged. Private farming can be expected to continue to grow, but will also continue to be hampered by a lack of economies of scale, in particular in crop activities.

A gradual return to profitability of the farm sector could be further enhanced by a solution to the debt problem, possibly by a conversion of some of the transformation debts into long term obligations.

Under these conditions a modest growth in agricultural output over the projection period could be expected.

As far as land use is concerned a slight reduction in agricultural area is projected due to a continued reduction in arable land. Some of the freed up land could go into the afforestation programme. The increase in grassland seen in recent years is expected to more or less stop as the aid for conversion of crop land in to

¹⁹ It is assumed that GATT commitments will stay at the level reached after full implementation of the Uruguay Round.

grass has been stopped. Less arable land will be needed as cereals area stabilises at slightly lower levels due to slightly less favourable prices than in recent marketing years, while also fodder crop area will be further adjusted to reduced livestock numbers. Some increase in oilseeds area is foreseen as additional domestic processing capacity for biofuel comes onstream and prices remain favourable (Table 32).

	1995	1996	1997	2003
agric. area:	4280	4279	4278	4236
arable land	3143	3098	3089	3040
perm. crops	77	· 77	77	77
perm. grassl.	901	945	953	960
other (eg garden plots)	159	159	159	159
arable land:	3143	3098	3089	3040
cereals	1576	1581	1686	1650
fodder crops	875	861	786	750
tot. oilseeds	325	277	276	300
sugar beet	93	104	92	95
potatoes	78	86	73	70
other	196	191	176	175

In the crop sector the modest recovery in input use experienced in recent years can be expected to continue, leading to modest increases in productivity in the order of 1% per year.

With cereals area stabilised at slightly below current levels production would amount to about 7.3 million t by the end of the projection period. As domestic use of cereals would also increase, mainly due to a rise in feed demand from the pigmeat and poultry sectors,

Table 33: Cereals projection

	1 995	1996	1997 (e)	2003
area (000 ha)	1576	1581	1686	1650
yield (t/ha)	4.19	4.20	4.14	4.43
production (000 t)	6602	6644	6983	7317
domestic use	7097	6842	6797	6886
o.w feed	4390	4399	4272	4327
exportable surplus	-368	667	317	561

the exportable surplus²⁰ would remain in the same order of magnitude as currently. In view of the limited subsidised export possibilities under GATT, exports would take place at world market prices as has been the case until now (Table 33).

For oilseeds some further increase in area from current levels and a yield growth of 1% per year would lead to production levels somewhat above the peak year 1995, which combined with an increase in domestic processing capacity would result in an exportable surplus of around 100,000 t. The annual processing of oilseeds for biofuel production is t o expand further from 130,000 to 200,000 t (Table 34).

Table 34: Main oilseeds projection

	1995	1996	1997 (e)	2003
area (000 ha)	273	247	238	260
yield (t/ha)	2.55	2.27	2.45	2.76
production (000 t)	695	561	584	718
domestic use	538	527	569	665
exportable surplus	177	68	65	104

For sugar a stabilisation of area and some further growth in average field and plant productivity (also under influence of foreign investment) would lead to a production level of around 565,000 t. Combined with a per capita consumption steadying at around 42 kg, the exportable surplus would amount to around 140,000 t. This sugar would have to be shipped to (possibly CEFTA) markets willing to pay a higher than world market price, in view of the relatively high cost of Czech sugar production (Table 35).

Table 35: Sugar projection

	1 995	1996	1997 (e)	2003
area (000 ha)	93	104	92	95
yield (t/ha)	5.12	5.88	5.78	5.94
production (000 t)	477	610	532	564
domestic use	454	468	450	434
pc use (kg)	44.0	45.3	43.6	42.0
exportable surplus	48	151	92	141

" It is assumed that GATT commitments will stay at the level reached after full implementation of the Uruguay Round.

For milk a further gradual reduction in surplus production is expected. With a continued increase in milk yields the number of dairy cows is projected to drop to 540,000. Continued decreases in, in particular, skimmed milk powder and butter production and consumption will be offset by increased use of milk for cheese and fresh products. The overall surplus expressed in milk equivalent would drop to 370,000 t, which would allow to remain well within GATT limits for exports of dairy products processed from this milk (Table 36).

Table 36: Milk projection

		1995	1996	1997 (e)	2003
dairy cows	000	759	707	619	538
yield	kg/cow	4072	4385	4454	5090
production	000 t	3092	3100	2757	2736
deliveries		2615	2585	2467	2462
% of prod.	85%	83%	89%	90%	
domestic use	000 t	2354	2462	2208	2486
export. surplus		842	781	656	370

If for beef, which is clearly not the preferred meat of Czech consumers, per capita annual consumption were to stabilise at current levels of around 14 kg, production to meet domestic demand would increasingly have to come from a specialised beef herd. Based on the projected dairy herd development beef production would drop by a further 30,000 to 40,000 t by the end of the period under consideration (Table 37).

Table 37: Beef projection

		1995	1996	1997 (e)	2003
production	000 t	170	163	153	146
domestic use		166	162	142	145
pc consumption	kg	16.1	15.7	13.8	14.0
export. surplus	000 t	12	8	13	12

For pigmeat, for which per capita consumption already stands at a high level, only a slight further increase in consumption is expected. A relatively high access commitment of 25,000 t would tend to push the Czech Republic into a net import position, given that pigmeat prices are not very competitive internationally (Table 38).

Table 38: Pigmeat projection

		1995	1996	1997 (e)	2003
production	000 t	462	491	483	495
domestic use		473	496	471	495
pc consumption	kg	45.8	48.1	45.7	47.9
export. surplus	000 t	-3	1	14	10

Poultry per capita consumption has been rapidly increasing and is expected to continue its growth. Production will follow increased demand, but not as rapidly, leading to continued net imports (Table 39).

Table 39: Poultry projection

		1 995	1996	1997 (e)	2003
production	000 t	135	134	143	175
domestic use		134	140	155	185
pc consumption	kg	13.0	13.6	15.0	17.9
export. surplus	000 t	10	7	5	6

Glossary/Abbreviations

- CECs Central and Eastern European Countries
- CEFTA Central European Free Trade Agreement
- CNB Czech National Bank
- CSO Czech Statistical Office
- cwe carcase weight equivalent (for supply balance sheet calculations)
- CZK Czech koruna or crown, the national currency
- GAO Gross Agricultural Output, value of sold production plus own producer consumption
- GAP Gross Agricultural Product, a measure of value added in agriculture (GAP=GAO-IC)
- IC Intermediate Consumption, costs of inputs of materials and services used by agriculture
- LFAs Less Favoured Areas

NIS Newly Independent States (from the former Soviet Union)

live weight (in tables)

o.w. of which (in tables)

lw

- pc per capita (in tables)
- RIAE Research Institute of Agricultural Economics in Prague (VÚZE in Czech)
- SGFFF Support and Guarantee Fund for Farmers and Forestry, credit guarantee fund
- SFMR State Fund for Market Regulation, main market support body
- SMP Skimmed Milk Powder
- TAIEX Technical Assistance Information Exchange Office of the European Commission.

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ENSA.M-INRA Montpellier/Ministere des Affaires Etrangeres, Appui a la mise en place d'un observatoire permanent des exploitations polonaises et tcheques, rapport final de l'etude "analyse du fonctionnement et de la dynamique des exploitations agricoles polonaises et tcheques", September 1997.

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Annex 1: Czech agrofood trade average 1995-97

C	IMPORTS FROM:				ĸ				
	Value in mio CZK	world	EU-15	SR	o, CEFTA	other CEC	NIS	NAFTA	other
1	Live animals	659	515	90	11	0	4	26	13
2	Meat and offals	1089	569	77	118	4	0.	57	264
3	Fish, crustaceans, etc.	1364	661	25	102	5	28	25	517
4	Dairy products, eggs, etc.	1598	1050	333	100	4	24	57	30
5	Other animal products	663	376	10	8	· 0	6	79	183
6	Live plants, cut flowers	1037	775	58	60	0	1	10	133
7	Vogetables	3896	2192	684	438	108	5	136	333
8	Fruit and nuts	6848	3391	123	228	33	- 22	149	2901
9	Coffee, tea, spices	3062	537	29	136	2	1	49	2309
10	Cereals	2394	1251	334	230	1	9	201	367
11	Miling products, malt, starch	408	140	222	6	0	0	24	17
12	Oilseeds	1550	797	185	71	5	17	57	419
13	Plant extracts, resins, etc.	330	255	1	18	0	2	27	27
14	Plant fibres	70	33	0	0	0	14	3	19
15	Flats and oils								
	(vegetable or animal)	2177	1576	222	79	11	5	3	281
16	Meat/fish preparations	1422	672	35	251	77	6	9	373
17	Sugar and confectionary	1382	973	215	103	3	1	19	68
18	Ccoa (preparations)	2481	1276	397	134	0	1	2	670
19	Cereals preparations	2154	1393	442	246	0	6	8	58
20	Vegetable/fruit preparations	3142	1756	180	299	14	8	76	809
21	Miscellaneous food								
	preparations	4565	2768	394	810	1	26	214	351
22	Beverages, spirits	2676	1559	322	177	10	24	141	43
23	Food industry waste,								
	animal feed	5211	3136	67	201	4	1	167	1635
24	Tobacco (products)	4342	895	793	15	8	0	1059	15763
	TOTAL (1-24)	54522	28948	5237	3840	290	212	2600	13395

CR EXPORTS TO:		5						
Value in mio CZK	world	EU-15	SR	o. CEFTA	other CEC	NIS	NAFTA	othe
1 Live animals	1489	893	217	111	1	28	1.	238
2 Meat and offals	950	645	203	13	10	17	0	62
3 Fish, crustaceans, etc.	843	635	160	25	0	2	2	19
4 Dairy products, eggs, etc.	5873	2595	520	262	117	733	14	1633
5 Other animal products	138	106	19	6	0	2	1;	3
6 Live plants, cut flowers	114 -	66	39	6	0	1	0	1
7 Vegetables	683	480	127	35	5	5	0	32
8 Fruit and nuts	759	622	90	23	2	16	1	4
9 Coffee, tea, spices	641	98	258	67	63	49	3	104
10 Cereals	1617	438	180	774	12	32	0	181
11 Miling products, malt, starch	1799	269	128	508	62	246	6	580
12 Oilseeds	2979	1697	413	132	9	178	58	492
13 Plant extracts, resins, etc.	85	22	22	28	0	10	0	3
14 Plant fibres	5	2	2	0	0	0	0	(
15 Flats and oils								
(vegetable or animal)	1613	287	686	280	90	205	1	64
16 Meat/fish preparations	695	4	322	14	25	301	0	28
17 Sugar and confectionary	1605	428	484	206	43	367	4	73
18 Ccoa (preparations)	1467	149	623	41	19	593	14	28
19 Cereals preparations	1829	249	726	133	89	528	4	101
20 Vegetable/fruit preparations	1385	277	413	62	15	567	14	37
21 Miscellaneous food								
preparations	1238	196	576	127	54	226	1	57
22 Beverages, spirits	4040	1673	1234	114	65	612	211	132
23 Food industry waste,								
animal feed	1329	953	256	94	1	19	0	6
24 Tobacco (products)	2998	740	1295	12	0	0	41	910
TOTAL (1-24)	36172	13522	8992	3073	684	4738	375	4788

The body of the legislation on Agriculture is over 40% of the acquis communautaire. Within this sector, veterinary legislation is represented by more than 80 basic directives and regulations. Approximation of veterinary legislation therefore presents an enormous workload. Moreover, the intensive trade with the EU in live animals and products of animal origin and the importance of consumer protection has meant that the Czech Republic (CR) has given the veterinary sector a high priority for the accession negotiations. This can also be seen by the fact that the CR is the only Associated Country (AC), which has concluded an additional protocol to the Europe Agreement on transparency and equivalency in the veterinary and phytosanitary sector.

In a functional analysis of the veterinary sector at least five sub-sectors can be distinguished:

1. Veterinary Education and Training Sector

1.1 The Veterinary qualification in the CR can only be obtained at the Veterinary and Pharmaceutical University of Brno. About 110 students graduate per year, representing 0.001% of the Czech population, which is sufficient to cover the future needs of the veterinary profession. The two veterinary faculties at Brno have already undergone an evaluation concerning equivalency with the requirements of the corresponding EU legislation by the European Association of Establishments for Veterinary Education (EAEVE). The different results and outcome of this evaluation should carefully be taken into account in any future decision on the existence of the two faculties. 1.2 To be employed by the State Veterinary Service, it is obligatory for veterinarians to pass the first and second degree of postgraduate qualification. Further intensive in and out country training for State veterinary officials is provided by TAIEX workshops and Phare programmes. This should be systematically continued regarding the implementation and application of the EU veterinary acquis.

2. The State Veterinary Sector

- 2.1 In general terms, the present structure of the State Veterinary Service has been satisfactory. There is a direct chain of command from the CVO to the local veterinary level, enough trained veterinary staff, competence to supervise the veterinary sector and a proper veterinary budget. A new veterinary Act is due to enter into force in 1998. This Act will include a change to the structure of the present veterinary service by the addition of a veterinary service at a regional level. The Act will also incorporate the additional protocol to the Europe Agreement.
- 2.2 Veterinary legislation is in good progress towards approximation to the EU veterinary acquis. The detailed negations on this additional protocol mentioned above were most helpful in this regard. It is worthwhile to note that in the CR, two information centres, belonging to the SVA, are operational, one for veterinary public health items (Brno). These centres translate each EC text and collect, process and publish statistical data in the veterinary field.

^a The veterinary annex was prepared by TAIEX.

- 2.3 At the moment, the State Veterinary Administration (SVA: central veterinary service head-quarters) and the District Veterinary Offices form the structure for the enforcement of veterinary legislation, including internal and border controls. This includes 8 State veterinary institutes (laboratories), the Institute of State Control of Veterinary drugs and biologics and 21 Border Inspection Posts (BIPs). The State Veterinary Administration is headed by a Director General (the Chief Veterinary Officer), who is reporting to the Minister of Agriculture. A central Commission for struggle against infectious diseases exists and acts as a common platform to discuss animal health issues with involved parties.
- 2.4 It is evident that all 19 present BIPs at road and rail will become superfluous following accession of all the neighbouring ACs and the CR to the EU. Only the CR BIPs at the international airport(s) and port(s) at the international waterways would remain.
- 2.5 For the time being, the State employs 400 veterinary officers and 600 meat inspectors; the veterinary service does not seem to be overstaffed particularly as the CR veterinary service will have competence for all sectors of the veterinary acquis.
- 2.6 The computerised network between the veterinary BIPs and the central veterinary services is well established; however, the completion of this communication tool involving the district veterinary offices and in future the regional veterinary services is missing at present, but completion of the network is foreseen under the Phare 1998 programme.
- 2.7 The animal health situation is excellent. Apparently there are no serious disease outbreaks other than two Classical Swine Fever (CSF) cases in 1997 and some cases of Newcastle disease in unvaccinated backyard flocks. CSF seems to be a concern only in the southern part of the CR on

the border to Slovakia and Austria (wild boar problem). The oral vaccination of foxes has helped to decrease Rabies cases. The cattle population is free of Tuberculosis, Brucellosis and Erzootic Bovine Leucosis (EBL). For Infectious Bovine Rhinotrachitis (IBR), there is an eradication scheme established but when discussed in the negotiations on the additional protocol mentioned above, this was not considered compatible to programmes approved for Member States. The pig population is completely under control for Aujeszky's disease.

- 2.8 Monitoring and surveillance plans as well as a contingency plan have already been elaborated and are operational. It would be very wise, to review them against the EU requirements
- 2.9 An animal welfare Act of the CR already exists and about 10.000 inspections on animal welfare are carried out each year by the veterinary services. However, animal welfare technical standards completely in line with the EU standards for keeping pigs, calves, laying hens and laboratory animals as well as for transport and slaughter of animals are intended but require the introduction of further legislation.
- 2.10 One of the priorities of the SVA in the field of public veterinary health is to introduce the technical standards laid down by the relevant EU directives including the application of CP/HACCP concepts. Zoonosis control plans particularly on Salmonella enteritidis and Salmonella typhimurium are elaborated and applied in the poultry sector. The residue monitoring and sampling plan has been approved by the European Commission. About 330.000 samples are tested annually, collected from 10.000 supervised establishments.

3. The Private Veterinary Sector

3.1 Veterinary practices were privatised in 1991. With the decrease of agricultural production, 30% of former veterinarians changed their profession or retired. At present, 1970 veterinarians are registered by the Chamber of Veterinary Surgeons, the self-governed regulatory professional body. The income of private practitioners does not appear to be problematic; Nearly 90% of private veterinarians are involved in official duties, such as in animal health schemes, and being reimbursed for their work by the State Veterinary Administration. Furthermore, 95% of all veterinary drugs and biological products are supplied to farmers by private veterinarians. The private veterinary sector is not however involved in self-controlling systems of the industry; such controls are still supervised by the State Veterinary Administration (SVA).

4. Agriculture Livestock Sector

- 4.1 A register of holdings/herds is available and the veterinary services have access to this information. Concerning animal identification, only cattle and sows are individually tagged. National movement control is based on certificates issued by the private veterinarians under reimbursement schemes with the SVA and through a central database recording identification, births and residence of the animals.
- 4.2 However, the whole system is under discussion for improvement with regard to the special requirements laid down by Regulation (EC) 820/97 and modern geographical information systems for disease control purposes. The capacity of a modern electronic processing system for identification, registration and movement control will have to take into account a population of 1.7 mio bovines, 4 mio porcine, 94.000 sheep and goats and 21.000 horses. The estimated number of poultry is 29 mio.

4.3 A national animal health trust fund is desirable. Currently State compensation following an eradication measure (like slaughter out) is only up to 60% of the value of the animal, which is not satisfactory for farmers. Private insurance schemes are available, but they are seen as too expensive.

5. Sector of Industry under EU Veterinary Legislation

- 5.1 In terms of value, live animals and products of animal origin like dairy, eggs and fish are the most important exports of the CR to the EU in agriculture. In terms of volume, the CR produces around 2.8 mio tons of milk and around 780.000 tons of red and white meat. A lot of the establishments, operated under veterinary legislation still need to be upgraded in order to fulfil the technical standards laid down by the relevant EU directives on meat, fish, milk, eggs and all other products of animal origin. This applies not only to EU trade, but also for industries supplying the national markets. As mentioned above, there are around 10.000 establishments in question, including SME plants.
- 5.2 The introduction of CP/HACCP concepts as part of self-controlling systems for the industries involved have just started as well as the application of good manufacturing/good laboratory practices.
- 5.3 Substantial funds need to be foreseen in planning the investment budgets for upgrading the industries under veterinary legislation.

6. Conclusion

For the Czech Republic, the veterinary sector has a high priority within agriculture. Therefore, work on approximation to the EU veterinary acquis is being carefully prepared and the necessary structures for enforcement of the legislation are in place. Nevertheless, significant investment is required for continuous training of the enforcement administration and on the development of the involved livestock and other industries under EU veterinary legislation.

ANNEX 3: Phare assistance to Czech agriculture²²

1. General Framework and Background

An allocation of 2 MECU for Phare assistance to the Czech Cadastre Office was made in 1992.

The first full-scale programme of Phare assistance to the Agriculture sector of the Czech Republic was set up in 1994.

In the 1997 Programme, Phare agricultural support was targeted to key sectors to prepare and to support the Czech Republic for legislative and institutional integration into the EU. veying, digital mapping and publication of maps, data base etc. all aiming at clearing the backlog of land restitution claims and issuance of land, housing and other fixed asset ownership titles.

The 1997 assistance supports the Czech Office for Surveying, Mapping and Cadastre in the development and implementation of a national cadastre policy. This is achieved through the execution of strategic studies (detailed investigation of the current situation, including legal background, institutional framework and organizational issues, with explicit consideration of the implication of the accession process), leading to policy formulation and their implementation via the

Phare Assistance to Agriculture and Land Registration (MECU)			
Item	1 992	1994	1997
Land Registration	2	3	0.5
Agriculture		1.5	1.8

2. Programme and projects

2.1. Land Registration

The Phare assistance in Land Registration for 1992 and 1994, was oriented to strengthen the Czech Cadastre Office in order to develop the land registration, information and sales system needed for the emergence of a well functioning market in privately owned land through expert assistance.

Specifically, the TA was directed to review, design and develop the system and the equipment for land sur-

enhanced cadastre system (an integrated environment of the information files and property boundary definition). This is addressed to the areas of land and property valuation, marketing and products, land consolidation policies and methodologies, urban and municipal policy contributing to the creation of a sustainable national cadastral policy.

2.2. Agriculture

The 1994 assistance consisted of: strengthening the capabilities of the Ministry of Agriculture, to analyze the market-economic agricultural and rural sector reforms, to develop sub-sectoral competitive policies,

²² This annex was prepared by DG IA.

to introduce an agricultural statistics and market information system, oriented towards private farming and agro-industrial (small and medium) enterprises.

The 1997 Phare budget of 1.8 MECU is currently being used to finance:

■ the continuation of the Policy Advisory Unit, to provide specialized experts to assist the Ministry in developing a better understanding of CAP and to provide assistance in the area of policy and economic analysis;

■ to develop producer marketing organizations, to increase efficiency in the agriculture market by allowing farmers to better interpret market signals;

■ to assist the development of a national advisory service, to replace the present rather ad hoc system of advice for farmers which varies substantially in quality and coverage from region to region;

■ to support the adoption of the acquis in the veterinary and phyto-sanitary sector.

As this country report was in the process of being finalized, preparations were underway for programming the 1998 PHARE activities.

The Phare programme is the main financial instrument of the reinforced pre-accession strategy as it was set out in the Agenda 2000. The Phare assistance focuses on the adoption of the Community acquis in particular on the priorities identified in the Accession Partnership and in the National Programme for the Adoption of the acquis.

On the basis of the Accession Partnership, the short and medium priorities and intermediate objectives for agriculture include reinforcement of phytosanitary and veterinary administrations, particularly as regards facilities at external borders, setting up of structures needed for regional and structural policy, alignment with the agricultural acquis, attention to environmental aspects of agriculture and biodive. sity. Furthermore, they include development of the capacity to implement and enforce the CAP, in particular the fundamental management mechanisms and administrative structures to monitor the agricultural markets and implement structural and rural development measures, adoption and implementation of the veterinary and phytosanitary requirements, upgrading of certain food processing establishments and testing and diagnostic facilities and restructuring of the agrifood sector. European Commission

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