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**AGRICULTURAL SITUATION AND PROSPECTS IN THE CENTRAL AND  
EASTERN EUROPEAN COUNTRIES**

**BULGARIA**

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## Introduction

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 publication, 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 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 report and the summary report attempt to provide an objective analysis of the current situation in agriculture and the agri-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 this country report are derived from a CEEC dataset established by DG VI in co-operation with other services of the European Commission and with external experts. Data originate from various sources, mainly national statistics and economic institutes, FAO, OECD, World Bank and the European Commission.

For agricultural 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 the FAO's was used, taking into account trade in agricultural commodities up to the first processing stage, but not 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 an over-estimation of the decline in economic activity in general and of agricultural production in particular in the first years of transition. Data up to and including 1989 and before being somewhat inflated and data after 1989 under recording 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.

## **About the exchange rate**

Facts and analysis contained in this report are made on the basis of the money values found in the original sources. The conversion into ECU's has been made to facilitate allow comparison with other CEECs. When this conversion has been made, the value in ECU has been calculated using the exchange rate included in the statistical annex at the end of the report. Monthly data has been converted using the average monthly exchange rates. The author stresses the fact that in numerous cases, the consulted sources contain values in US\$ converted from BGL with no indication of the exchange rate used. The Bulgarian BGL suffered a devaluation process during the transition period. For this reason data converted into a foreign currency with no mention of the exchange rate should be used cautiously. The table with the prevailing exchange rates at the end of each month has been included in the statistical annex and is given for information.

## **Executive summary**

### **General overview**

The transition process towards a free market economy began following the fall of the Communist regime in 1989. This process began in Bulgaria in particularly unfavourable conditions due to the previous decades of very poor economic planning and the legacy of an extensive inefficient industrial sector and a systematic neglect of the agricultural sector. At the same time, the process of economic reforms in the other CEEC also had a negative effect on the Bulgarian economy due to the close integration it had within the CMEA. At the end of 1997, the cumulative drop of GDP reached 30% in comparison with 1990. The failures to match economic reforms and stabilisation plans with adequate progress on structural reforms are at the origin of this long and persistent crisis. The situation worsened towards the end of 1996 and the beginning 1997 with the collapse of the whole banking system, dramatic currency depreciation, an escalating inflation and massive public protests against the worsening economic development. The GDP contracted by 11% in 1996 and by 6.9% in 1997. The political repercussion of the crisis was the downfall of the government of the Bulgarian Socialist Party after only two years in office. As a result of the early parliamentary elections, a new centre-right government was formed by a coalition of parties under the leadership of the UDF, which took office in May 1997.

As the seriousness of the crisis heightened the urgent need for deep reforms, the new government adopted a radical economic programme supported by the IMF and WB. The programme operated around the establishment of a currency board arrangement, the reinforcement of the financial discipline in the budget and a series of commitments on economic liberalisation and privatisation of the state-owned enterprises. The programme was initiated in July 1997.

After one year of operation of the currency board and implementation of the new economic programme, the economy appears to be stable in Bulgaria. The BGL has stabilised and the foreign currency reserves have increased. Inflation for 1998 is estimated at 11%, interest rates remained stable between 5.3 - 5.5% during the first half of 1998 and the budget balance have become positive since February 1998.

However, despite the positive performances of some economic indicators, the economic recovery has been weak and the confidence has not been totally regained. There is still concern in the industrial sector, which was still in recession in the first half of 1998. The level of privatisation (27% of the state assets at the end of 1997) is considered low and there are serious doubts that the objective of privatising 50% of the total state assets will be reached in 1998.

The socio-economic situation is poor and difficult. Living standards have declined in recent years. According to official figures, about 25% of Bulgarians live below the poverty line and the financial restrictions in state budgets create difficulties for

implementing programmes to alleviate poverty. Current average salaries are approximately ECU 90 per month while the average pension is ECU 26 per month. The average proportion of incomes spent on food is estimated at 48%. Poverty affects a significant part of the population, although household plot production eases the situation for many families in rural areas. Official figures show 14% of the population have registered as unemployed, with the long-term unemployment figure continuing to increase.

Nevertheless, the overall situation may, in fact, be slightly better due to the size of the underground economy, which creates a certain dynamic but makes it more difficult to have a clear picture. Privatisation and the adaptation to a modern market orientated economy are generally acknowledged as the solution to Bulgaria's problems. The government in office appears to have the political will to continue the implementation of the economic policy aiming to achieve these objectives.

### **Agriculture in the economy**

Agriculture, which accounts for 11%-13% of GDP, has become an important sector within the Bulgarian economy. After the financial crisis of 1996, agriculture was the only sector that grew (30% in 1997 compared with 1996). This improvement has partly recovered the decline in the agricultural output observed between 1989 and 1996, which has been estimated at 30%. Agriculture is also an important source of employment in Bulgaria, 23% of the working population works in the agricultural sector.

There are various reasons for the important decline in the agricultural output in the post-reform period. Since price liberalisation, agricultural producers have been affected by a large increase in input prices, a reduced demand, and by a government intervention aimed at slowing down the increase of consumer prices of the main foods and at ensuring food security by limiting exports. The failure to co-ordinate the process of land restitution to former owners with the liquidation of state controlled co-operatives increased the difficulties of the transition. The combination of this pressure with the hardship resulting from land reform gives an explanation to the slump in agricultural output. In addition, serious policy mismanagement during 1995 and 1996 and poor weather conditions gave rise to a grain shortage in those years with very negative effects for the agricultural sector and the food industry. The decline in production was accompanied by a drop in domestic demand and a change in consumption patterns, mainly from animal products to cereals, due to the general loss of purchasing power and the high share of incomes spent on food. In 1997, the agricultural recovery was due, mainly, to the favourable yields of the 1997-grain harvest.

### **Land use and crop productions**

Agricultural land accounts for about 6.2 Mio Ha (55% of the country's area), of which 4.2 Mio Ha is arable and 1.7 Mio Ha is permanent grassland.

Approximately 15% (700.000 Ha) of agricultural land is currently uncultivated. Most of the crops have been very sensitive to the changes experienced in Bulgarian agriculture and the process of transition has meant a reduction in areas or in production levels. In the case of tobacco, sugar and wine the decline has been very significant. Cereals and sunflower seeds appeared to be the main substitute crops of the transition period. The relative share of the latter two in crop output has increased. Cereals are the most important crops produced in Bulgaria. They usually represent 30% of the total crop output. In 1997, 2 Mio Ha were cultivated with cereals. Sunflower seeds are one of the few crops where production has increased substantially.

## **Livestock**

Since 1989, the livestock sector has suffered, on average, a stronger contraction than crop production (more than 50 % in livestock numbers). At the end of the eighties, livestock was highly concentrated in large state controlled co-operatives and in intensive state livestock complexes. The liquidation process of state controlled co-operatives and the fall of domestic demand marked the start of a decapitalisation phenomenon. The consolidation of small-scale farms, which are now the main farm structures for livestock, has not compensated for the effects of the downward trend in livestock numbers. The decline in livestock has been persistent and there are no signs of recovery. Pig production is the most important livestock animal and it still has still a relative importance in complexes, which have not yet been privatised, however most of them will be privatised in the near future.

## **Agricultural trade**

In 1997, agricultural products accounted for 14% of total exports compared to 8.8% of total imports. The main exported commodities are tobacco, wine, processed fruit and vegetables and animal products (mainly dairy products). In 1997 the main imported commodities were sugar and cereals. Prior to the transition, more than half of the agricultural trade was with CMEA countries, with a much higher volume than at present. Until 1989 Bulgaria followed a similar trend to other CMEA countries as regards trade: foreign trade was controlled by state monopolies and a high volume of it was with these countries. With the break up of the communist regimes, Bulgaria, like other CMEA countries, had to change its trade patterns. The share of trade with Western countries has been reinforced during the transition period but since 1993 a recovery of the agricultural exports to the FSU can be observed. OECD countries import about 32% of the Bulgarian agricultural exports and the EU import about 23%. Trade with the EU has significantly developed. Agricultural exports to the EU increased from 6% of total exports in this sector in 1989 to 23% in 1997. Agricultural imports from the EU increased from 18% in 1989 to 21% in 1997, although they rose as high as 54% in 1992. Like other CEECs, Bulgaria signed an Association Agreement with the EU in late 1993 in order to benefit from trade with western markets.

Bulgaria is a GATT and WTO contracting party since 1997. It has also become a CEFTA member on 17 July 1998.

## **Structures**

New types of associative farming units are the dominant farming structures emerging from the land reform. There are mainly private production co-operatives (with an average of 700 Ha per co-operative), producing essentially annual arable crops. Private individual farms are also numerous. They are mainly small-scale (up to 10 Ha), of which 86% are household plots with less than one hectare (13% of the agricultural land). They account for a significant share of production, mainly in the livestock and fruit and vegetables sectors. Some middle-size farming structures have (100-400 ha) also started to appear. Most of these structures are transitional, subject to further evolution, and many of them are informal, i.e. not registered.

## **Upstream and downstream sectors**

These sectors are very much at a standstill mainly due to their low efficiency, due to the delay in the privatisation process and to the lack of competition on the domestic market.

The food-processing industry is the second in importance of the total industry and it accounted for about 21% of the total industry output. In 1996, the food industry worked to 40% or less of its capacity. The food industry is characterised by the presence of two types of enterprises. On the one hand there are the former large enterprises, many of them with financial difficulties, and on the other, small private units with a small but growing share of the market.

The agricultural machinery sector has suffered due to the transition. The production capacity of the sector has declined considerably and the machinery available is now largely obsolete and probably to a significant extent unused. Fertilisers and plant protection chemical productions have dropped considerably since 1989. The use of these inputs also declined drastically in the same period for two main reasons: 1) a generalised lack of finance and, 2) users have responded to the changes in relative prices with a more rational economic approach than in the past, currently leading to extensive levels of production.

## **Agricultural policy**

Agricultural policy during the transition period was mainly characterised by short-term measures, like subsidised campaign credits, aimed at ensuring production in the turmoil of land reform. Price liberalisation started in early 1990. Price policies and other related measures have had, however, a depressing effect on producer prices but not on retail prices. The massive price adjustments, resulting from price liberalisation induced a negative profit margin for producers. Whereas input prices have more or less increased to world prices, prices of basic agricultural products remained below.

The new economic programme that followed the grain shortage and the banking sector crash of 1996 has also affected the agricultural policy. Since mid-1997 the agricultural policy pursues the creation of a competitive and export-led agricultural regime with measures based on price and trade liberalisation, the completion of the land ownership restitution and other initiatives aiming to accelerate the privatisation of the food industry and the definitive liquidation of insolvent state-owned enterprises. Due to the short period of implementation is difficult to evaluate the outcome of this programme.

Price intervention is limited to two types of mechanism. A "negotiated price system" applied to a total of 15 products and compulsory for the retailer and a minimum price for wheat of about US\$ 130 per tonne. Although this price has been an incentive for cereal producers, the unsold grains stored in the state-owned purchasing companies is creating a financial problem and may undermine the short-term perspectives in this sector.

In addition to these kinds of intervention, tax exemptions and credit subsidies for working capital are the two other measures supporting agricultural producers.

The state monopoly on foreign trade ended as part of the transition. Although Bulgaria used to be a food export orientated country before 1989, trade border measures applied during the transition were restrictive for agricultural exports. Until 1997 the import regime was controlled through customs duties and minimum specific duties. At the present moment, the trade policy is governed by a number of bilateral and multilateral agreements (Europe Agreement, CEFTA agreements and GATT - WTO). Since these trade commitments have come in force, the border measures and the external trade policy has been applied with more discipline and rationality.

The approximation process of Bulgaria's veterinary and phytosanitary legislation to the EU's is at the initial stage. Thus Bulgaria has a long way to harmonise the legislation to the EC requirements.

### **Outlook (2003 horizon)**

Forecasting the future of the Bulgarian economy is an exercise fraught with uncertainty. Nevertheless, assuming a scenario of a general economic recovery and institutional stability, coupled with the progressive removal of the main constraints remaining in the agri-food sector, some predictions for the main agricultural commodities can be made.

The main assumptions are that the government will keep the political commitment to pursue the implementation of the reform programme as agreed with IMF and WB and simultaneously it will face the initial reforms needed for EU accession. These actions and the effects of the stabilisation programme initiated in 1997 will generate a period of stable and moderate economic growth. Under this moderate growth and progress of privatisation, foreign and domestic investors should

initiate the recovery of the confidence in the Bulgarian economy. Nevertheless, the low purchasing power of a large part of the Bulgarian population constraints the possibilities of a more rapid recovery based on the progress of the internal demand. It will remain also a factor of potential instability, in the case of further deterioration of the standard of living for this part of the Bulgarian society.

The need for stabilisation of farming structures will, in the short term, prevent large shifts towards capital demanding activities or the development of long cycle productions such as permanent crops or cattle.

The forecasts are based on balance sheets, taking into account foreseeable increases in domestic production and utilisation. In the 2003 horizon, *they show only net trade figures as a balance*. Trade volume is not reflected in this exercise, as taking into consideration trade opportunities would add another speculative element. Indeed there is scope for quick development of some profitable exports, as Bulgaria benefits from some comparative advantages, but it is assumed that such operations would be limited to moderate quantities, as currently there are only a few entrepreneurs who have enough capacity to invest, to satisfy international standards and to compete on international markets.

On the basis of these assumptions, the outlook for the *2003 horizon*, could be estimated as follows:

#### Cereals

Moderate increase in the area and yield. The export capacity will be recovered by the end of the outlook period.

#### Oilseeds

Area will stabilise. Slight increase of yield. The net export capacity will be maintained.

#### Sugar

No sign of recovery. The dependency on imports will increase.

#### Fruits and vegetables

Moderate recovery in area and production. Recovery of some traditional external markets.

#### Wine

Limited increase of production and of net exports.

#### Milk

The number of cows will increase slightly. Milk yield may recover to the 1989 level.

#### Cattle

Volume of cattle and beef meat production will recover very slowly. Bulgaria will remain a net importer of meat for the processing industry.

### Pigs

Small increases in pigmeat production and moderate consumption recovery. A net export capacity will be maintained or even increased.

### Poultry

Possibility of significant increases in production and consumption if the price relationship with pigmeat is favourable to poultry meat. Bulgaria will maintain the present net export capacity.

## **1. GENERAL OVERVIEW**

### **1.1. Situation, climate and geographical characteristics**

The territory of the Republic of Bulgaria covers a total area of 110.994 km<sup>2</sup>. It lies south of the river Danube between latitudes 41° and 44° north in the eastern part of the Balkan Peninsula. Its maximum length (from east to west) is 520 Kms and its maximum width is 330 Kms. The country is bordered to the north by Romania, to the west by Serbia and former Yugoslav republic of Macedonia, to the south by Greece and Turkey, and to the east by the Black Sea.

The climate, with well-defined seasons, is temperate, moderately continental in the north and of a Mediterranean type in the south, with the exception of the mountainous regions. The average annual temperature is 10.5°C. January is the coldest month with an average temperature of -2.0°C and July is the warmest with 25.0°C. The average annual precipitation has traditionally been in the region of about 637-mm due to humid air masses from the Mediterranean Sea and the Atlantic Ocean. The average annual precipitation ranges from 2000 mm in high mountainous regions to 500 mm in Northeast Bulgaria. The annual distribution of the precipitation has the maximum peak in spring (April-May) and the minimum point at the end of the summer (July-September).

Mountainous and semi-mountainous regions cover more or less one third of the country. This feature divides the country into three parallel east-west zones: the Danubian plain in the North, the Balkan Mountains in the centre and the Maritsa plain in the central-southern region, one of the most fertile and productive parts of the country, with the Rhodope and Pirin Mountains in the South.

There are few natural resources in Bulgaria. The main energy resource is coal with an annual production of 30 million tons, including 25 millions of lignite but with one of the lowest calorific value in the world and a high percentage of ash and sulphur. Four million tons are brown coal and 1 million of black and anthracite coal. The production of crude oil is about 30 - 40,000 tons and 50 - 60,000 m<sup>3</sup> of gas, which meets barely 1% of the country needs. The quality of some minerals such as iron, copper, lead and zinc is below the international average with a two to five times lower metal content.

### **1.2. The population and its distribution.**

Bulgaria has a population of 8.28 million with a density of 74.6 inhabitants per km<sup>2</sup>. Population figures show a constant decrease since 1990 mainly due to the high emigration of ethnic Turks and other groups, who left Bulgaria in search of better living conditions after the regime for foreign travel was facilitated.

Approximately 44% of the total population live in cities of more than 50.000 inhabitants. In industrialised areas such as Ruse, Plovdiv and Varna the population

density exceeds 100 inhabitants per km<sup>2</sup>, on the contrary there are less than 50 inhabitants per km<sup>2</sup> in some agricultural areas. The Sofia City district, which accounts for 13% of the total population, with 1.1 million inhabitants, has an average density of more than 900 inhabitants per km<sup>2</sup>. The number of other cities with more than 100,000 inhabitants rose between 1978 and 1995 from seven to nine (Plovdiv, Varna, Burgas, Ruse, Stara Zagora, Pleven, Dobrich, Sliven, Sumen). With its present urban population of about 68% of the population, Bulgaria is heavily urbanised compared to other countries in south-eastern Europe. This urbanisation brought about a demographic distortion in the rural areas, i.e. depopulation of villages and ageing of the population, leading to the erosion of social and cultural services, and encouraging further migration. However, the economic reforms, particularly land restitution and the deterioration of employment facilities in urban areas, have temporarily halted this trend and have provoked, during the first year of the transition, a modest de-urbanisation phenomenon. Three quarters of the people employed in rural areas work in the agricultural sector.

Within the agricultural sector there are many auxiliary activities connected with services and up- and downstream sector occupations, which can absorb some of the better-qualified incoming. Possibly, due to the long time needed for stabilisation and achieving of growth in the whole country economy and especially in the industrial sector (there is no specific comparative advantages for this), we could expect the stabilisation of the current rural/urban ratio, i.e. preservation of the results of the de-urbanisation phenomenon.

### **1.3. Political background and present situation**

Following the fall of the communist regime, in 1989, the political monopoly of the Bulgarian Communist Party quickly disappeared and the new democratic scenario allowed the appearance of new political parties representing a wider range of ideologies and interests. The more significant anticommunist politicians grouped into the Union of Democratic Forces (UDF), while the Agrarians quickly asserted their independence, forming the Bulgarian Agrarian National Union. As a reaction to the repression suffered by ethnic Turks in the late 1980s, the Movement for Rights and Freedoms (MRF) also emerged onto the political scene. The left wing is led by the Bulgarian Socialist Party, formed from the former Communist Party, which remained significantly stronger than most of its Central and East European counterparts.

Since 1989 the political situation has been characterised by instability. There were four) parliamentary elections (1990, 1991, 1994, and 1997) and nine changes of government, with alternation of BSP and UDF seconded by other minor parties depending on the circumstances of each moment. Between 1989 and 1997 the electorate has been evenly balanced between these two main political forces. As a result, the legislative process has been difficult and subject to substantial compromises, which partially explains the erratic character of the adopted

legislation, the delay in its implementation and the failure to undertake deep structural reforms.

The necessity of implementing radical reforms based on a market economy and the new democratic reforms in the Bulgarian society has been recognised by the main political parties in their mandates since the beginning of the transition. Nevertheless the policy to achieve these objectives has been, for the whole transition, ineffective. The fair political will to undertake rapid reforms together with the failure to setting up priorities in the political actions and the hesitation in implementation of measures, which may have been unpopular, ended by undermining the confidence in governments and provoking, in the short run, their downfall. This was the case of the Bulgarian Socialist Party, which after winning the elections of 18 December 1994 with an absolute majority, was not been able to maintain a minimum level of political stability for the four years election mandate. After only two years on office the government of the BSP had to resign as a consequence of the gross mismanagement of the economy during this period. The applied economic policy resulted in a dramatic currency depreciation, runaway inflation and contraction of the economy followed by unprecedented public protest against the worsening economic development.

The United Democratic Forces, better organised and less divided than in the past, benefited from the popular backlash against the BSP and won a substantial majority in the early parliamentary elections on April 19, 1997. This victory was preceded by the presidential elections at the end of 1996, won by the centre-right candidate, Peter Stoyanov. The UDF and its coalition benefited from the creditable performance of the caretaker government of Stefan Sofianski, which maintained stability during its short stay in office. The trade unions were also supportive, urging their members to support the caretaker government.

**Table 1 .- Composition of the Bulgarian Parliament as result of the 1997 elections**

	Elections on 19/04/1997	
	Seats	%
United Democratic Forces	137	57,1%
Democratic Left	58	24,2%
Alliance for National Salvation	19	7,9%
Euroleft	14	5,8%
Bulgarian Business Bloc	12	5,0%
Total	240	

The United Democratic Forces, despite a parliamentary majority, made a cross-party consensus on its reform programme. It proposed to sign a joint declaration including a general agreement on the key areas considered of national interest. The agreement covered such aspects such as IMF' support for the reforms, provision for the social costs of reform, fight against corruption and organised crime, wide-ranging measures for the stabilisation, privatisation and restructuring of the economy, a more pro-Western foreign policy pursuing membership of the EU and NATO and increasing democracy in the Bulgarian society and in the functioning

of the administration. Despite having some reservations in certain aspects, the minority parties in the new parliament expressed their support for such a declaration.

Since then the country has been politically stable and the current central-right government is in no immediate danger of breaking up into factions. However, this climate may be threatened by emerging tensions brought by the increasing feelings of civic insecurity due to organised crime, in particular the large scale economic illegal structures. In this aspect, the official policy regarding fight against organised crime has not achieved very positive results. Dissatisfaction of the effectiveness of the security and judicial forces to combat crime and the corruption are mounting in the society. Getting positive results in this area would contribute to create an environment of social stability and would alleviate difficulties to small entrepreneurs to do business.

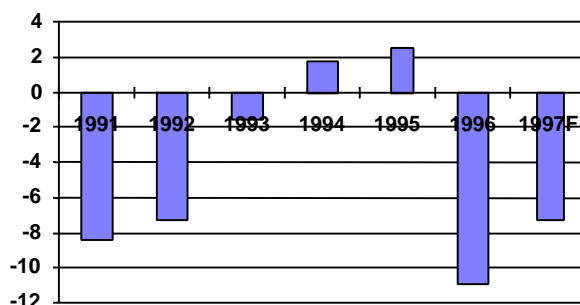
#### 1.4. The Bulgarian economy

##### 1.4.1. Economic crisis and stabilisation

Due to the political changes of 1989, the transition to a market economy began. Democracy was part of the political change. At the end of 1997, the cumulative drop of GDP reached 30% in comparison to 1990. With the exception of 1994 and 1995, all the years have registered a negative growth. The marked difference between Bulgaria and the rest of the CEEC, has been the worsening of the situation since 1996 and the serious social repercussions of the last two years.

This deep crisis reflects the main problem of Bulgaria's transition to a market economy: the failure to match economic reforms and stabilisation plans with adequate progress on structural reforms. On each occasion that Bulgaria succeeded in stabilising the economy, the lack of progress in structural reforms resulted in a new and more intensive economic crisis. This process culminated causing the severe crisis of 1996/1997.

**Figure 1. - GDP Growth (annual variation)**



It is true that Bulgaria began the transition to a market economy in particularly unfavourable conditions. The previous decades of very poor economic planning

and the legacy of central planning included an extensive heavy industrial sector based on cheap oil and coal imports from the former Soviet Union and the systematic neglect of the agricultural sector. In addition, since 1990, the situation deteriorated due to a number of serious external shocks:

- the collapse of trade with the CMEA and in particular the former USSR, on which Bulgaria was particularly dependent;
- the need to import energy at world prices to replace cheap Soviet supplies;
- the lack of access to commercial credit as a result of the unilateral moratorium on external debt declared in March 1990;
- the problems resulting from the international embargo on trade as a consequence of the Gulf and Yugoslav wars;
- an exceptionally high external debt (127% of GDP in 1990).

This particularly difficult starting point would have required a specific political and social consensus in favour of reforms, but on the contrary, economic instability exacerbated political instability and vice-versa. The lack of political consensus eroded the base of the economy and, very often, undermined social confidence. At the same time, microeconomic restructuring and macroeconomic adjustment did not proceed in a satisfactory way. The absence of coherent structural reform and the protection of the interest of specific groups had negative effects in all the branches of the Bulgarian economy but in particular, on agriculture.

Reforms in 1991 were not sufficient to secure the economic progress. The measures that were taken included substantial liberalisation of prices and foreign trade. A system of floating exchange rates was introduced at the same time that the currency was made convertible. But the genuine structural reforms were small and overtime the situation started to deteriorate progressively. The excessively large budget deficits were financed directly by the Central bank, which enabled economic agents to transfer profits from the state enterprises to the private sector. The continuing refinancing by the Central bank contributed to persistent inflation. The inflation process caused the exchange rate crisis, which culminated in the spring 1994 with serious consequences for the domestic economic situation.

A fiscal adjustment and the imposition of a tight income policy were introduced to overcome the 1994 crisis. Also with the agreement with its external commercial creditors Bulgaria solved the 1994-crisis, and enjoyed two years of modest GDP. There were some promising signs that the economy was beginning to recover. In 1994 and 1995, GDP growth rate was positive in real terms at 1.8% and 2.6% and inflation, after peaking in April 1994, declined considerably in the same period. The stability of the exchange rate helped considerably to reduce inflation. The restoration of confidence in the currency was sustained by loans from the international community to support the debt restructuring agreement and by a

good external performance, which enabled the Central bank to reconstitute its reserves.

However, the economic recovery was short lived. The Government failed to maintain confidence and the political factions raised concerns on the direction that reforms should go. Thus this provoked a new halted to structural reforms. While the public sector budget deficit was being reduced, the losses of the state owned companies continued to increase. According to the World Bank, in 1995 alone, the 3800 state owned companies had losses of more than 6% of GDP. Despite this these companies continued to receive financial support from the banking sector, which was itself generating considerable operating losses. This process provoked the collapse of the whole Bulgarian banking system. The result was that GDP contracted by 11% in 1996 and by 6.9% in 1997, the national currency depreciated by 85% and hyperinflation increased to 311% and to 579% in 1996 and 1997, respectively.

The seriousness of this recent crisis heightened the urgent need for radical reforms in Bulgaria. The post-socialist caretaker government adopted a radical economic programme in April 1997. The IMF and WB supported this programme. The programme turned around two main keys:

- The establishment of a Currency Board Arrangement (CBA),
- The reinforcement of the financial discipline in the budget, companies and banks.

This programme was to serve as a support mechanism to deeper structural reforms based on concrete objectives of acceleration and the extensive of reforms in the banking and commercial sectors, accompanied by an ambitious privatisation programme, and measures to liberalise further trade and prices, in particular in the agricultural sector. All the prominent political parties backed this programme. It began to be implemented in May 1997 and the currency board arrangement came into force on 1st July 1997.

The introduction of the currency board was a precondition for market stabilisation. A fixed exchange rate with the Deutsche mark (1000 BGL = 1 DM on 1st July 1997) was an important pre-requisite for overcoming the crisis.

**Table 2. - Main macro-economic indicators**

		1991	1992	1993	1994	1995	1996	1997
GDP at market prices	US\$ Mio	5872,4	8605,0	10812,1	9688,1	13106,0	9946,0	10202,0
<i>GDP at market prices</i>	<i>ECU Mio</i>	<i>4739,0</i>	<i>6628,9</i>	<i>9233,3</i>	<i>8144,6</i>	<i>10019,8</i>	<i>7833,0</i>	<i>8996,2</i>
GDP per capita at PPP	US\$ Mio	4076,0	4106,0	4195,0	4407,0	4648,0	nd	nd
<i>GDP per capita at PPP</i>	<i>ECU Mio</i>	<i>3289,3</i>	<i>3163,1</i>	<i>3582,4</i>	<i>3704,9</i>	<i>3553,5</i>	<i>nd</i>	<i>nd</i>
GVA by economic sector (total economy)	US\$ Mio	6246,0	8301,6	10096,1	9034,9	12422,0	9386,0	9089,0
-Agriculture	US\$ Mio	903,7	999,6	1074,0	1113,1	1658,8	1443,0	2378,0
-Industry	US\$ Mio	2334,3	3359,9	3534,0	2900,7	4060,0	2832,0	2674,0
-Services	US\$ Mio	3008,0	3942,1	5488,1	5021,0	6703,0	5112,0	4036,0
GVA private sector / GVA total economy	%	16,6	25,4	35,9	40,7	47,1	55,0	66,0
Real GDP growth	%	-8,4	-7,3	-1,5	1,8	2,9	-10,1	-6,9
Growth by economic sector:								
-Agriculture	%		-14,6	-30,2	9,5	14,5	-18,1	26,0
-Industry	%		-6,4	-6,2	6,0	-5,4	-8,3	-13,1
-Services	%		-26,9	0,6	-3,1	-0,7	-6,5	-23,6
Consolidated Government Budget:								
-Revenues	% of GDP		40,5	37,2	40,2	36,1	37,0	32,6
-Expenditures	% of GDP		46,0	48,1	46,0	41,8	43,8	35,7
-Balance	% of GDP		-5,6	-10,9	-5,8	-5,7	-11,5	-3,1
Current Account Balance	US\$ Mio	-76,9	-360,5	-1097,9	-31,9	-43,0	81,8	445,7
Trade balance (fob-cif)	US\$ Mio	734,0	-546,2	-1036,1	-1121,1	-302,9	-183,7	28,1
Consumer price index	end-year preceding	473,7	79,5	63,9	121,9	32,9	310,8	578,6
Consumer price index (average annual):	year = 100							
Food		475,8	170,6	155,6	191,2	158,8	221,3	1224,6
Non-food		392,6	185,9	150,8	190,3	161,6	221	1137,6
Services		514,6	188	176	159,3	161,2	242,3	1098,5
Nominal exchange rate	Lv/USD	16,68	23,34	27,65	54,25	67,17	175,82	1676,50
	US\$							
Gross Foreign Debt	Billion	12,3	13,9	13,9	11,4	10,2	9,6	9,7
Gross Foreign Debt/GDP	%	161,9	161,1	131,0	118,9	78,7	102,8	97,0

Sources: NSI, BNB, OECD, Eurostat

After one year of operation, the currency board has proven to be a valuable mechanism for economic stability in Bulgaria. The BGL has stabilised and hard currency reserves of the country have increased. Inflation in the first quarter of 1998 was 3.8% and the objective for 1998 is set out between 15-20%, but some optimistic estimate that it could be around 11%. Basic interest rate has become lowest (5.32% in May 1998) and the budget balance has become positive since February 1998 (BGL 272 billion in May 1998). However, in spite of the stability reached for a good number of economic indicators, the optimism and the confidence in the system not seems installed in a clear and definitive way and a large preoccupation about the situation of the real economy still exists. The industrial recession is still present during the first half of 1998. The productive capacity of industry is only used at about 50% and the indices of industrial production continued falling during the first months of 1998. The tax policy is considered inadequate and punitive for the small and medium-sized businesses. The level of privatisation reached is slow (27% of the state assets were privatised by the end 1997) and there are serious doubts that the objective of privatising 50% of the total state assets will be reached in 1998.

The medium-term vision in crucial areas of market economy such as institution building, public administration reform and preparation for EU membership is still unclear. Under these circumstances, in the medium term, these lacks may

compromise the chances to set irreversibly the country into a successful market economy.

#### 1.4.2. Labour market

Since the initial phase of the transition process the demand for labour fell due to the decline in global output. However, the drop in employment has been lower than the decrease of output, partially due to the process of job creation operated in the private sector but also due to the lack of decision in eliminating the overmanning capacity.

Employment in the industrial sector has decline the most, in absolute and relative terms. By the end of the communist period the percentage of the work force in the industrial sector was 35%. By the end of the 1997 this percentage dropped to 25% as a consequence of the process of restructuring of the Bulgarian industrial sector. This sector, heavily oriented to CMEA's industrial products demand and fully integrated in the state sector, has need to change its orientation towards new markets and new products. This development is far from complete. Employment in the industrial private sector represents only 17% of the total employment in the industrial sector. Employment in the sector of services is also declining in absolute terms. With the exception of employment in trade activities, all the other main activities have reduced their labour force. On the contrary, the agricultural sector is the only that has experienced an increase in employment since 1991, mainly due to private agriculture.

The Public sector employed at the end of 1997 about 1.3 Mio people, mainly concentrated in industry (27%). Social services, such as education and health-care represent 30% of the public sector employment. These sectors have been the least affected by the job reductions during the transition: -11% and -14% since 1991, respectively.

The total number registered as unemployed at end 1997 was approximately 550,000 people, which represents 15% of the active population. Two thirds of this number are out of any labour market protection measure. The number of registered as unemployed stabilised at between 14.5-15%, in the second half 1997 after jumping from 12% at the end-1996 to 14.8% in May-1997, as result of the banking crisis. This average rate conceals the enormous differences between districts. In the city of Sofia the percentage of those registered as unemployed varies at between 5-6%, while in the Montana district the recorded rate is 24%.

**Table 3. - Evolution of the number persons registered as unemployed**

	1991	1992	1993	1994	1995	1996	1997
Registered as unemployed (%)	11,1	15,3	16,4	12,8	11,1	12,5	14,6

Source: NSI

Despite these figures of above, it is difficult to assess the volume of the excess labour supply in Bulgaria. Firstly, because a significant percentage of the labour force in the state sector remains under employed at present levels of state sector output. Secondly, there is no precise information about the volume of people that are self-employed or not declaring their activities. Thirdly, two thirds of those unemployed are not subject to any protective measures and their registration in labour offices is just a formality. At the end-1996 (see statistical annex) there were 4.7 Mio people within the working age, of which 3.3 Mio were employed and 0.5 Mio unemployed. There remains 0.9 Mio, which includes all other unregistered cases, either active or inactive. With the stabilisation plan that followed the 1996/97 crisis, it is possible that the official unemployment figure will still increase due to the plans to close state companies that are making a loss. The growth of employment in the private sector is primarily result of the transformation of some companies from state-owned into private than from the opening of new productive jobs. The emergence of new private enterprises is curtailed due to the poor demand and to the weakness of the economic recovery. However, in the medium and long term, the private sector will be, practically, the only sector expected to expand and thus to absorb a certain number of the unemployed. In the short term, the high level of unemployment without any social welfare and the problem of the long-term unemployed may heighten social problems at a time that the stability is needed to increase the confidence in the recovery of economy.

#### *1.4.3. Social Conditions*

The decline of living standards has worsened in the recent years. The last crisis and the stabilisation plan implemented in the mid-1997 are hitting the most depending persons on social security payments. A national representative poll of the National Statistic Institute carried out in 1997 found that between 20 and 25% of Bulgarians live below the poverty line. The financial restrictions in state budgets create difficulties for implementing programmes to alleviate poverty. The social sector is not running smoothly due to the difficult economic situation and the lack of finance. Social support payments are made late (3-4 months of delay). Social activities like patronage, canteens for the poor, etc are being closed. The increasing cost of medical services and rising educational expenses have created serious problems for families on low incomes. Schools and hospitals are running out of basic supplies including meals, life-saving drugs, state welfare offices lack funds for payments.

The data on household income and expenditure demonstrates how the fall in real income has begun to affect living standards. The proportion of income spent on food increased throughout the period, accounting for over 50% in 1997. With inflation rises while people have been spending relatively more on

food, the food purchasing power was less: compared with the same period of 1994, in 1997 per capita consumption of main foods were some 50% lower.

The consumption capacity of the households is considerably limited by the low income of the population. Data of May 1998 shows that the average monthly gross wage was BGL 175.095. In state-owned sector the average monthly wage was BGL 192.830 and in the private sector BGL 145.789. The minimum monthly salary was fixed at BGL 50.940 in May 1998. The average pension (for aged, invalidity and survival) is estimated at around BGL 50.000. There are 2 Mio people depending on pension revenue. This amount is insufficient to cover the minimum living cost, estimated at BGL 75.400 in March 1998 (NSI). These poor social conditions for an increasing number of Bulgarians could be, in the medium term, a serious source of social tension and very difficult to manage without a general consensus between the political representatives and trade unions.

#### *1.4.4. Foreign trade*

Due to the collapse with its traditional trading partners, trade fell drastically between 1990 and 1993. Imports plummeted from about USD 13.4 billion to USD 3.7 billion in 1993 while exports dropped from USD 13.1 billion to USD 3.7 billion in the same period. This dramatic fall reflects also the conversion of values from a non-convertible currency (1990) into a convertible currency (1991) and the major devaluation of the BGL against Western hard currencies.

From 1992 onwards there was an upsurge in Bulgaria trade flows, which continued until 1995 before a substantial drop in 1996. Between 1991 and 1996, Bulgaria's imports grew, on average, at an annual rate of 10.8%, which was much higher than the exports (3.5%). This allowed to recover some of the lost ground.

**Table 4. - Foreign trade turnover (in US\$ and ECU)**

<b>FOREIGN TRADE TURNOVER (in US\$ Mio)</b>					
	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
<b>Turnover</b>	8478,0	8170,1	11012,3	9964,1	9799,7
Exports fob	3721,0	3985,4	5354,7	4890,2	4913,9
Imports cif	4757,1	5106,5	5657,6	5073,9	4885,8
<b>Imports fob</b>	<b>4612</b>	<b>3952</b>	<b>5224</b>	<b>4702,6</b>	<b>4518,0</b>
<b>Balance (fob-fob)</b>	<b>-891,0</b>	<b>33,4</b>	<b>130,7</b>	<b>187,6</b>	<b>396,0</b>
<b>Balance (fob-cif)</b>	<b>-1036,1</b>	<b>-1121,1</b>	<b>-302,9</b>	<b>-183,7</b>	<b>28,1</b>

Source: NSI, BNB

<b>FOREIGN TRADE TURNOVER (in Mio ECU)</b>					
	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
<b>Turnover</b>	7240,0	6868,4	8419,1	7847,3	8641,4
Exports fob	3177,6	3350,4	4093,8	3851,3	4333,1
Imports cif	4062,4	4292,9	4325,4	3996,0	4308,3
<b>Imports fob</b>	<b>5400,7</b>	<b>4701,0</b>	<b>6833,0</b>	<b>5971,1</b>	<b>5123,5</b>
<b>Balance (fob-fob)</b>	<b>-2223,1</b>	<b>-1350,6</b>	<b>-2739,3</b>	<b>-2119,8</b>	<b>-790,4</b>
<b>Balance (fob-cif)</b>	<b>-884,8</b>	<b>-942,5</b>	<b>-231,6</b>	<b>-144,7</b>	<b>24,8</b>
Exchange rate used 1 ECU = ... US\$	1,17100	1,18952	1,30801	1,26975	1,13404

Provisional data for 1997 shows that exports are up 0.5% from the previous year, while imports are down 4%. The expected increase in exports, due to the devaluation of the national currency during the first months of 1997, has not been observed. Trade developments in 1997 and mainly the shrinkage of imports, brought about, for the first time since 1991, a trade surplus of USD 396 million in FOB terms.

Although Bulgaria's share of world trade amounted to only 0.12% in 1996, the Bulgarian economy has remained very much orientated to international trade, with its imports and exports accounting for about 50% of GDP (in 1996, imports 54.8% and exports 49.5%).

Collectively the member states of the OECD represent the largest market for Bulgarian products. They absorbed, in 1997, 57.8% of total exports, up 12% from 1996. They were also the largest suppliers, accounting for 46% in 1997, up from 42% in 1996.

The trade with the other CEECs declined in 1997. Exports dropped by 16% and imports by 12%. The decline in exports was more substantial to Russia (-18%), Ukraine (-12%) and FYROM (-34%).

Manufactured products represent 70.2% on 1997 and the remaining 30% were raw materials (including agriculture). Chemical products and other manufactured products account for about 47% of the total exports.

The composition of imports is more balanced: 46% are raw material and 51% are manufactured products. The high share of raw material is due to the mineral fuel that represents 30% of the total imports.

**Table 5. - Origin and destination of foreign trade (in US\$ Mio, % and ECU Mio)**

	1993	1994	1995	1996	1997
Exports (US\$ Mio)	3721,0	3985,4	5354,7	4890,2	4913,9
OECD	43,2%	49,9%	50,3%	51,6%	57,8%
EU	28,2%	35,6%	37,7%	39,1%	43,3%
EFTA	3,0%	2,7%	1,5%	1,0%	0,9%
CEEC	35,1%	39,0%	32,1%	31,9%	26,7%
FYROM	6,1%	10,3%	8,1%	3,0%	2,0%
CIS	13,6%	13,5%	10,0%	9,8%	8,0%
Yugoslavia	3,5%	3,6%	1,6%	4,7%	2,5%
Pecos	11,9%	11,5%	12,3%	14,3%	14,2%
Arab countr	7,2%	5,1%	6,0%	5,9%	3,3%
Imports (US\$ Mio)	4757,1	4184,8	5657,6	5073,9	4885,8
OECD	47,6%	45,2%	44,7%	42,3%	46,2%
EU	31,7%	32,8%	37,2%	35,1%	37,3%
EFTA	8,7%	6,2%	1,9%	1,7%	1,8%
CEEC	43,0%	40,4%	40,6%	43,2%	39,6%
FYROM	1,6%	3,1%	3,1%	0,6%	0,5%
CIS	29,3%	26,4%	28,1%	33,4%	28,1%
Yugoslavia	0,1%	0,0%	0,1%	1,1%	0,8%
Pecos	11,9%	10,9%	9,4%	8,0%	10,2%
Arab countr	4,7%	1,7%	1,8%	1,0%	1,9%
Exports (ECU Mio)	3177,6	3350,4	4093,8	3851,3	4333,1
Imports (ECU Mio)	4062,4	3518,0	4325,4	3996,0	4308,3

## 1.5. The agricultural economy

### 1.5.1. Share of agriculture in the economy

Even if Bulgaria has been traditionally considered as an industrial country, the agricultural sector has become an important sector within the Bulgarian economy. The agricultural sector used to account for 11-13% of GDP, but after the 1996/97-crisis agriculture was the only sector in which the gross value added increased by about 30% compared with 1996. The importance of agriculture to social and structural equilibrium, food security and the role accorded to the sector to regain international markets, justifies the priority given to agriculture by the government. The revival of Bulgarian agriculture is one of the objectives of the governmental programme<sup>1</sup>.

<sup>1</sup> "Bulgaria 2001", programme of the Government of the Republic of Bulgaria (1997-2001).

**Table 6. - Importance of agriculture**

		1991	1992	1993	1994	1995	1996	1997
Real GDP growth	%	-8,4	-7,3	-1,5	1,8	2,9	-10,1	-6,9
Agric. Production change	%	4,3	-15,7	-31,3	10,0	14,4	-18,6	30,0
Share Agric./ GDP	%	15,2	11,3	10,6	12,3	13,4	13,1	26,2
Share of Private Agric.	%			82,7	80,0	72,9	94,0	97,5
Share Agric./ Employm.	%	19,1	20,7	21,7	22,8	23,4	24,2	24,3
Share Agric./ Exports (1)	%	22,0	25,4	20,4	22,1	21,8	18,8	14,1
Share Agric./ Imports (1)	%	7,3	8,3	9,5	10,8	8,1	8,0	8,8

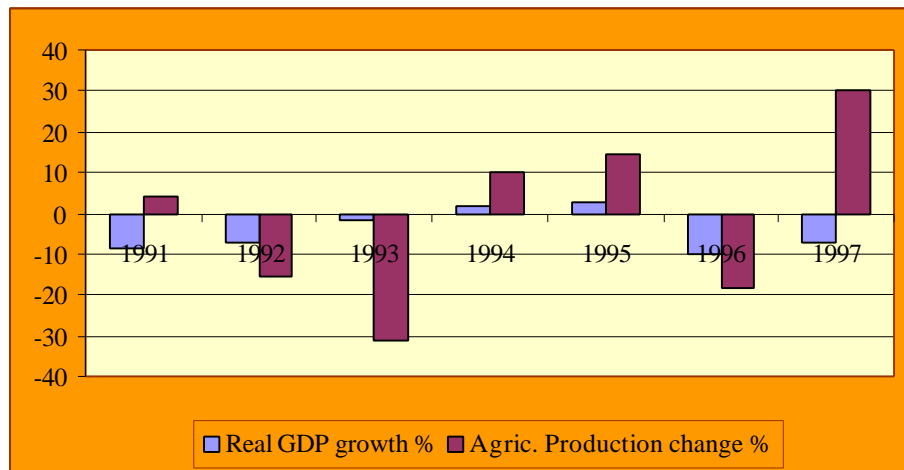
<sup>(1)</sup> Manufacture of food, beverages and tobacco included

Source: NSI

The transition to a market economy has had substantial effects on the whole economy and in agriculture in particular. In the period 1990-1996, agriculture dropped by 30%, while the whole economy dropped by 21%. The reasons for the contraction of the agricultural sector are the following:

- The deep crisis in the whole economy, causing a fall on domestic demand and in financial resources for agriculture (lack of individual capital, scarcity of credit and limited possibilities for subsidies).
- The fall in external demand, caused mainly by the collapse in trade with other former CMEA countries.
- The failure to co-ordinate the process of land restitution with the liquidation of state controlled co-operatives, and the slow pace of land restitution that blocked the creation of a market for land.
- The bottlenecks in the upstream and downstream sectors.
- The absent of a coherent structural reform which has been limited to protect interests of particular groups negatively affected by reforms.
- The contraction is also result of the structural adjustment as a reaction to the removal of the pre-reform price distortions and subsidies.

Figure 2 .- Annual variation of GDP and Agricult. Prod.



The introduction since mid-1997 of the economic measures mentioned in §1.4.1 was an essential requirement for economic stabilisation. In this context, the agricultural sector has responded positively with a better performance in comparison to the other economic sectors. In fact, the data available for 1997 indicates an important contribution of the agricultural product to the total national economy. The agricultural recovery in 1997 was due, mainly, to the favourable yield results of the 1997-grain harvest. With the results of 1997, the accumulative drop of agriculture in the period 1990-1997 is reduced to 9%, while the total economy drop by 26.7%.

#### 1.5.2. Structure of agricultural output

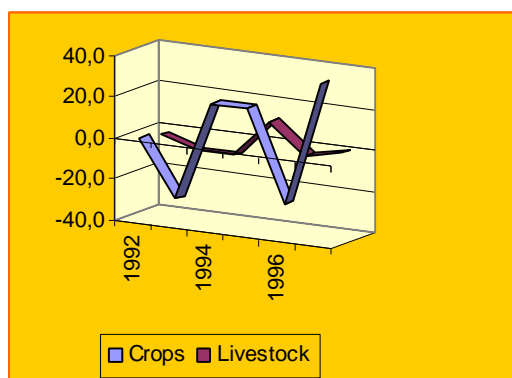
There have been large variations on the dynamics of the agricultural output since the beginning of the reform process. Up to 1993 the trend was negative. Favourable perspectives were opened in 1994 and 1995 about a slow but permanent recovery in agriculture. However, they were undermined by the inadequate economic policy carried out by the government in office in those years. The contradictions between words in favour of liberalisation and a real policy based in consolidating and maintaining a productive structure unfeasible in the medium term placed the country in 1996/97, its economy and its agriculture on the edge of a collapse with painful consequences for the population. In addition, two consecutive years of poor weather conditions had a negative effect on crop output and aggravated the problems.

**Table 7 .- Structure of agricultural output**

		1992	1993	1994	1995	1996	1997
Gross Output <sup>(1), (2)</sup>	% change	-6.3	-18.3	6.8	16.4	-11.8	20.2
Crops	% change	0.2	-27.4	21.0	21.9	-22.6	38.3
Livestock	% change	-2.7	-7.8	-7.5	10.7	-3.0	0.7
Share of crops	%	47.4	44.4	52.1	49.1	40.8	59.7
Share of livestock	%	43.2	50.8	43.1	46.0	53.5	34.4
<sup>(1)</sup> Calculated at constant prices. <sup>(2)</sup> Incl. Agricultural services.							
Source: NSI							

In 1997, agricultural output increased to 20% compared with 1996. The contraction in 1996 was reversed in the second half of 1997, thanks to the good crop production. On the contrary livestock continued to stagnate.

**Figure 3. - Evolution of agricultural output (%)**



Although some sectors like tobacco or vegetables have been strongly hit in the first years of the transition, the crop sector, in general, has had a larger relative share. This was reversed in 1993 and 1996 due to the grain crisis.

The evolution of the crop sector has been marked by big fluctuations in output. In the context of deep structural reforms, with lack of credits and low levels of inputs used, the crop sector is very vulnerable to adverse weather conditions. In these circumstances and until the moment in which a veritable structural reorganisation take place in Bulgaria, weather conditions and meteorological fluctuations will play an important role in the final crop results.

The livestock sector has experienced a more continuous disintegration as a consequence of liquidating the state-controlled co-operatives and the state companies (the big intensive livestock units). This more pronounced decrease in the livestock sector is partly due to the fact that this sector was artificially boosted in the centrally planned economy. The cost-price squeeze, the changes in support policy and in the animal-crops price ratio have had an immediate negative effect on production and consumption, the latter being exacerbated by the fall in purchasing power of the population. On the

structural side livestock production, especially intensive units, has been more sensitive to disruptions than arable crops, due to the major changes taking place in farming structures.

A problem, which is observed in the recent years, refers to the significant imbalance between crop and livestock production. The decrease in crop production in 1996 affected severely the 1995 economic recovery and caused the stagnation of livestock in 1997, mainly in the pig and the poultry sector.

Private farms are responsible for producing 75% of the country. The share of the private sector represents 62% in crops and 87% in livestock. Individual farms are the major producers of vegetables, fruits, corn, tobacco and potatoes. Private co-operatives are specialised mainly in the production of grain and oilseeds. In livestock, the private sector produces 81% cattle, 78% pigs, 94% sheep and 83% of poultry.

### *1.5.3. Domestic consumption*

Since 1989, food consumption patterns have changed noticeably, primarily due to the general loss in purchasing power and the high proportion of incomes spent on food. In 1992, the average proportion of expenditures in food was 43%. In 1996 this figure has increase to 48.2%. The NSI divided consumers onto 10 income groups. The lowest income group spent 52.4% on food, while the highest income group spent 42.8% on food. In 1997, the percentage increased to 55% for the average but it is higher for the lowest income groups (an important part of the population, see §1.4.3). This share includes expenditure on food purchases plus a valuation of the food produced for self-consumption. This process of production to increase the self-sufficiency in food is typical only for the part of the population living in rural areas and the proportion of town population closely connected with villages, i.e. having close relatives living in village and producing agricultural products. In general, consumption patterns shifted to a staple diet based on cheap basic food, of which bread and other cereal products are one of the main elements.

According to official sources (NSI), the figures of human consumption display decreasing levels for most of main agricultural products. Only fresh fruits, fresh vegetables and potatoes have maintained their level of consumption. Alarmingly, beef and veal meat has practically disappeared from the Bulgarian diet.

**Table 8 .- Average annual household consumption of main foods**

		<b>1989</b>	<b>1996</b>	<b>1997</b>
Bread and paste products	Kg/person/year	160,5	145,8	141,7
Fresh fruits	Kg/person/year	35,4	22,6	28,4
Vegetables	Kg/person/year	59,8	55,6	46,7
Potatoes	Kg/person/year	28,3	26,4	24,4
Sugar	Kg/person/year	12,0	8,2	7,7
Meat	Kg/person/year	35,8	24,9	17,3
Meat products	Kg/person/year	17,5	11,9	8,1
Milk	Kg/person/year	53,0	34,7	31,7
Eggs	number/person/year	170,0	125,0	110,0

Source: NSI

The apparent contradiction between the increase in food expenditure and the drop in the per capita consumption for the most important food groups is explained by the fact that food-expenditure elasticity is relatively low. Nevertheless this conclusion is based on the analysis of figures based on Household Budget Surveys which consider exclusively quantities purchased and, in Bulgaria they are not identical to quantities consumed. There are empirical studies<sup>2</sup> that show the importance of intra-household consumption in Bulgaria, mainly due to the fact that many household grow and process a substantial portion of their food requirements. As an example, the purchased quantity of milk has been only 59% of the quantity consumed, for meat 60% and for cheese 81%. Regarding the purchasing power of Bulgarian households, the decrease in the level of food consumption is also evident (see table 9).

**Table 9 .- Purchasing power for the main food products (1994 = 100)**

	<b>1997</b>
Bread, wheat flour	42
Potatoes	53
Tomatoes	46
Milk	66
Cheese	54
Pork meat	52
Poultry meat	52
Henn eggs	51
Sugar	66
Butter	56

#### *1.5.4. Domestic prices*

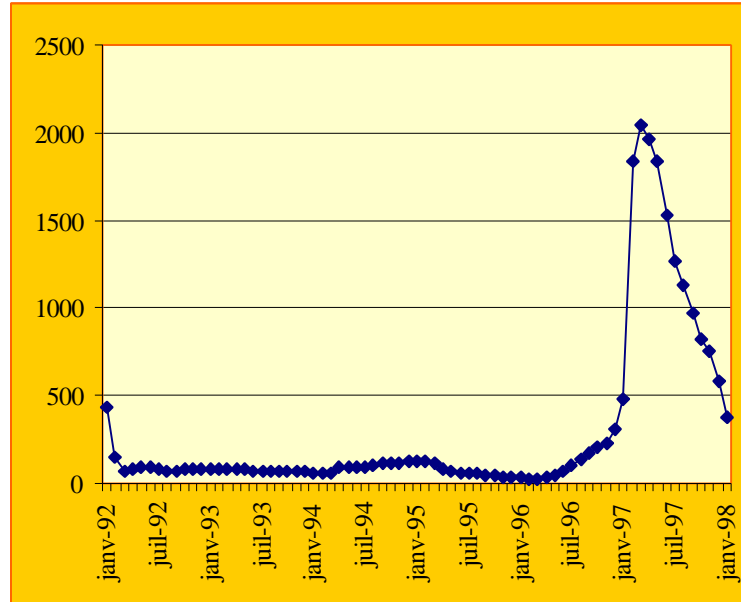
The process of dismantling of the central planned economy and the liberalisation of the agricultural sector in a framework of structural imbalances

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<sup>2</sup> Balcombe, Davidova, Morrison, 1997. Consumer Behaviour in a Country in Transition with a Strongly Contracting Economy: The case of Food Consumption in Bulgaria

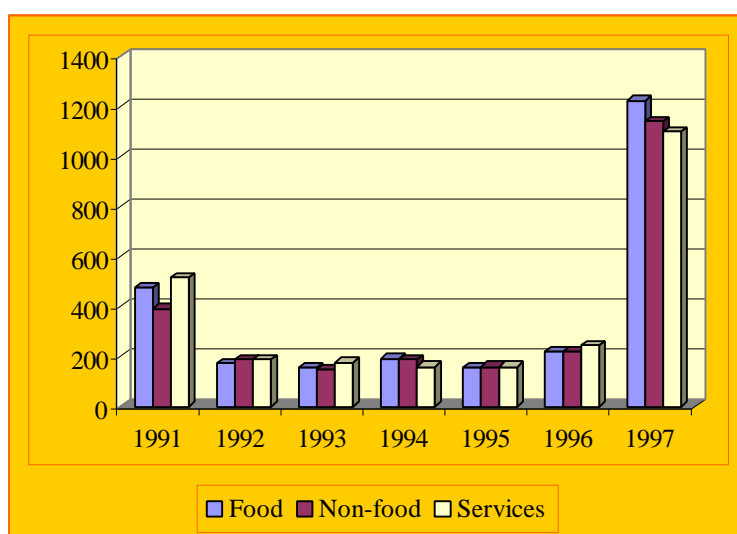
and successive economic crisis have had immediate effects on the levels of prices, which have been submitted, since 1990, to a constant inflation process that has reached, in many occasions, very high levels.

**Figure 4 .- Change in consumer prices**



This inflationary process has affected, generally, in an identical way all sectors of the economy, but has had a slightly greater effect on the price of food products, in spite of the government policy of keeping the prices of these products stable. In 1996, the prices of food products increased by a factor of four. This increase only was only exceeded by the prices of energy products, transport and domestic equipment. In 1997, the price of food products increased above the total average. Meat products, milk, fruit, fresh vegetables and some processed products increased the most drastically. For the first quarter of 1998, there is a tendency to the general price stability, although food products are still generating inflationary pressures with rises above the general average.

**Figure 5 .- Consumer price index by commodity groups**



#### *1.5.5. Employment in agriculture*

The importance of agriculture as a source of employment is still significant in Bulgaria. In 1997 the number of registered people working in agriculture amounted to 744.600 persons. This corresponds to 23.3% of the total working population.

The slow but typical downward trend that has been observed in agricultural employment up to 1992 has stopped and has recovered since then. The number of persons engaged in agriculture decreased from 789.093 in 1989 to 676.715 in 1992 (-14%). Since then employment in agriculture has grown year by year to reach, in 1997, 744.600 (+ 17% than in 1992). However, the employment figure for the economy as a whole has not yet stopped decreasing. Total employment has decreased by 25% since 1989 (but by -30% excluding agriculture).

Recovery in agricultural employment is due to the emergence of the private sector. It represented, in 1997, 97% of those registered as employed in agriculture (9.7% in 1992). The industrial private sector employed in the same year 17% and the average for the rest of the economy was 28%.

This data should be interpreted in the way that agricultural sector has been able to keep similar employment levels than in the pre-reform period by the conversion of personnel employed in the public sector (mainly in former state controlled co-operatives, state public enterprises and other state controlled organisations) into people working in the agricultural private sector. But, at the same time, agriculture has attracted some people ejected from other sectors in restructuration.

Changes brought about by the transition, however, suggest the need for caution in the interpretation of the data. It is not clear what is included under the agricultural sector, as farming structures are in a process of transformation. Distinction between household plots, many of which have gardening-type activity for domestic consumption, and real private farms is one problem. The manpower employed in co-operative structures, whose members now include landowners, is equally difficult to assess. Nevertheless, there are other elements which light that the importance of agriculture for employment is probably higher than showed by figures. There is still an important share of the working population accounted as non-salaried for which official statistics do not give a distribution by sector but that surely include people working full or partial time in agriculture, such a new land owners, household plot farms and other undeclared or hidden workers. This non-salaried labour force represented, in 1995, 22% of the active population. Estimations by the BNB (Bulgarian National Bank) point out that between 150-200.000 are representing the number of hidden employment in agriculture.

In agriculture, the decrease was quite important in the state controlled co-operatives as a consequence of the liquidation, i.e. of the disruption in former labour intensive activities (livestock units, tobacco, fruit and vegetables). A transfer of some of this work force to the sectors of household plots and new co-operatives alleviated it. It is likely that this transfer has increased the hidden unemployment in the countryside. The pace and the path of land restitution have influenced the dynamic of agricultural employment.

## 2. AGRICULTURE AND RURAL SOCIETY

### 2.1. Land Use

According to official data (see table 10), the total utilised agricultural area (arable land, permanent crops and grassland) remains stable at 6.2 millions hectares or 55% of the country's area. During the last fifty years, the total utilised agricultural area has increased by half a million hectares. The current total utilised agricultural area appears to be at a maximum figure considering the natural features of Bulgaria. The former centrally planned system with its objective to maximise output, brought marginal land into cultivation. It is likely that marginal agricultural land will not present such an interest and will be progressively abandoned due to low yield. In 1997, about 69% of the agricultural land was arable, 3% permanent crops and the remaining 28% grassland.

**Table 10 .- Land uses (000 Ha)**

	1980	1990	1991	1992	1993	1994	1995	1996	1997
Total area	11091	11099	11099	11099	11099	11099	11099	11099	11099
Inland water	36	36	36	36	36	36	36	36	36
Land area	11055	11063	11063	11063	11063	11063	11063	11063	11063
Wooded area	3845	3871	3873	3873	3877	3876	3876	3876	3876
Utilized agr. Area	6185	6159	6159	6159	6159	6159	6164	6164	6203
Arable land	3827	3856	3864	4047	4063	4001	3998	4203	4298
Permanent crops	349	296	293	279	244	216	204	200	199
Perm. grassland	2009	2007	2002	1833	1852	1942	1962	1761	1706
Perm. meadows	292	287	289	291	278	270	276	277	294
Pastures	1717	1720	1713	1542	1574	1672	1686	1484	1412
Other Area	1025	1033	1031	1031	1027	1028	1023	1023	984

Source: NSI

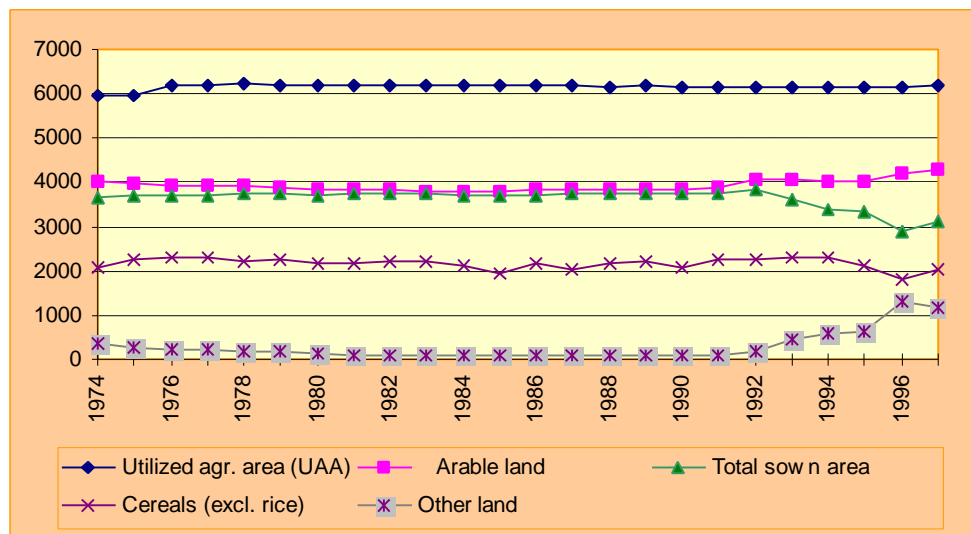
About 15% (about 700.000 Ha) of the agricultural land is currently not cultivated, However in 1996, this percentage reached 30%. Several factors may have induced this non cultivation:

- The decrease in domestic demand, as a consequence of the fall of the purchasing power, the difficulties of exporting some agricultural products, due to the loss of traditional markets. Moreover the low level of agricultural prices and the delay in the payments of the transactions in a situation of high inflation reduce the motivation to produce.
- Most the present production structures do not have a working capital to buy seeds, fertilisers or pesticides. These structures are mainly small-scale farms with very small size and temporary co-operatives, which have no long-term strategies.
- There is a general lack of capital and the farmers have difficult to access to investment credit. The banking sector offers only short-term loans for

variable inputs, because the problems of unclear ownership of property titles and the absence of a land market limit the possibilities of collateral.

- The still incomplete land restitution process raises uncertainties about ownership of land and the emergence of a land market or long land leases. Some of the new owners are cautious about to renting out land for which they have not yet received full guarantees of ownership. It is estimated that half of the total number of households with land did not make use of it in any form during those recent years and showed no interest in renting it out. In many regions land ownership is very small and renting is generally seasonal, therefore for these owners the transaction costs of renting out will offset the rent benefits.

**Figure 6 .- Evolution of the land use since 1985**



## 2.2. Irrigated land

Irrigation is important to understand past or to forecast future performance of the Bulgarian agriculture. As the fertile arable land is situated in the plain where precipitation is low in summer, irrigation is an important factor for normal yields in the climate and soil conditions of the country. As an example, a comparison is given in table 11 of the average yield for irrigated and naturally watered crops yield for the 1971-1978 period, made by the Ministry of Agriculture.

**Table 11. - Comparison of average yields for irrigated and non-irrigated crops**

Crop	Yield		
	Rained t/ha	Irrigated t/ha	Irr/Rain %
Wheat	3.5	3.8	109
Maize, grain	3.3	4.9	148
Maize, silage	12.8	18.3	143
Sugarbeet	24.2	34.2	141
Tobacco, oriental	1.1	1.3	118
Alfalfa, hay	5.1	7.3	143
Peaches	6.5	10.9	168
Apples	4.7	10.2	217
Tomatoes		29.3	n.a.
Peppers		19.0	n.a.

Source: MOA/IMA. While for wheat the average yield is not very sensitive to irrigation for growing maize, sugarbeet or alfalfa are crucial.

For this reason the improvement of agricultural production in Bulgaria by the use of irrigation techniques has been considered always a necessity. With this rationale, in the 60's an extensive programme to increase the area of irrigated land was launched. In thirty years (from 1960 to 1989), the percentage of irrigated land rose from 14 to 27 per cent. In 1989 there existed 1.25 Mio Ha of land technically equipped with irrigation facilities, 50% of which was water supplied from reservoirs, 47% from running water and 3% from groundwater. The irrigation methods used were as follows: 50% -long furrow, 49% -sprinkler and 1% -trickle. For several reasons closely linked to the process of transition, the irrigated land decreased drastically. According to the last inventory survey, carried out in 1995, approx. 690,000 Ha were under irrigation.

The reduction of irrigated land is result of several factors:

- The liquidation of the big state-owned farms and at the same times the very slow process of land privatisation.
- The removal of cropping patterns in recent years and the considerable increases in water costs.
- The lack of a land market acts as a disincentive for investing in the rehabilitation or effective management of the land equipped for irrigation.
- The poor maintenance of the irrigation networks lead to a large part of them becoming dysfunctional. In some cases, this is due to vandalism or theft (part of pumps, sprinklers, pipes are believed to be stolen and sold as scrap metal). In other cases, land claimants destroyed or damaged the

systems in order to escape payment for re-purchasing the installations on the lands claimed.

- The lack of structures (after closure or bankruptcy of existing state firms) to manage the irrigation systems in the new conditions of large number of landowners and potential water resource users. There are free rider problems, mismanagement of the common or joint property rights, non-functioning of the land markets that can serve a more efficient land consolidation and reallocation of the ownership. There is a tendency to create new structures such as water boards in order to manage the irrigation systems spread over large area and including many users.

Remarkable changes in cropping patterns have taken place during the transition process. Crops such as winter cereals (mainly wheat), sunflower and maize, crops that yield relatively good and reliable harvests under normal climatic conditions and demand little labour have had a positive evolution trend in last years. Other crops with a greater dependence on irrigation and/or requiring a high labour input such as soybeans, sugar beets, vegetables, etc., are now cultivated only to a limited extent. It is considered that this trend is temporary. Future use on irrigated land will depend largely on economic factors, market opportunities and on the structure of the farms. Large private and co-operative farms probably will concentrate large-scale mechanised cereal and industrial crop productions and small family farms will specialise in labour intensive vegetable production and livestock rearing.

Double cropping is very limited in the country due to relatively long winters and confined to some planting of early maturing fodder (e.g. maize for silage) after winter cereals and the cultivation of two successive vegetable crops. As, however, the predominant vegetable crop is tomatoes with a long growing season, double cropping is only of limited importance.

Regarding potential development, it may be concluded there is considerably room for improvement through timely and appropriate cultural practices, input use and irrigation.

### **2.3. CROPS**

Since 1989 the impact of the structural change, the economic recession that have accompanied this change and the chaotic policy development resulted in a lack of confidence in the agricultural sector, which has been reflected in a decrease in the areas under cultivation and in the output.

The combined effects of all these factors in area and output for the period 1989-1997 is demonstrated in table 12.

**Table 12 .- Area and Production evolution for main crops**

	Area (000 Ha)			Production (000 t)		
	Averages			Averages		
	1987-89	1995-97	% Var.	1987-89	1995-97	% Var.
Cereals	2123	2044	-4	8226	5413	-34
Sunflower	248	513	107	414	580	40
Tobacco	83	21	-75	110	30	-72
Vegetables	104	92	-12	1627	1113	-32
Orchards	93	75	-20	1792	1081	-40
Vineyards	138	112	-20	869	579	-33

Source: NSI

As areas are concerned, the changes in land use patterns, with the decline of summer crops, that are more demanding in agro-chemical treatment and irrigation, economic uncertainty, insufficient input and lack of maintenance of the irrigation network resulted in substitution of wheat and sunflower for maize, sugar beet, soya, etc. Due to the lack of an appropriate institutional legal framework private producers have not invested in intensive or pluri-annual activities. The movement towards a more market-oriented agriculture has influenced the land allocation among different crops, e.g. tobacco, fruits and vegetables, which were grown for export especially to the CMEA markets under the Communist regime are now reduced to supply mainly the domestic market.

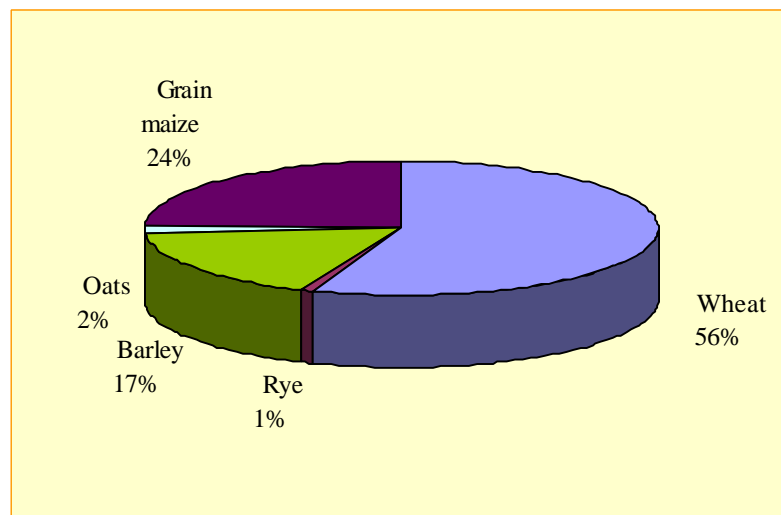
The decrease in yields, the uncertain financial possibilities and the deteriorating input/output price ratios for some crops, has resulted in a more accentuated decline in production than in areas under cultivation. The technology applied in last years is characterised as low and back-to-the-traditional-way of farming due to the lack of financing to renovate, deterioration of the existing stock. The decline in the production of perennial crops (orchards, vineyards) is significant and it is due to market difficulties during three first years of transition and then to the lack of care during the land restitution process. Also some years of successive droughts and the absence of irrigation during all the period have had a significant effect on yields of summer crops. The shortage of working capital, coupled with the low opportunity cost of labour has encouraged the substitution of labour for machinery in agricultural tasks, where this is feasible (mainly in small-scale farms).

### 2.3.1. Cereals

Cereals are the most important group in Bulgarian crop production. They account for about a half of the arable land. The main cereal crop is wheat, followed by far by barley and maize. The cultivation of other cereals represents less than 5% of cereal production (see figure 6). In normal economic conditions cereal output used to be lightly above 30% of the final crop output but in 1996, as a consequence of the grain shortage its contribution to final crop output dropped to below 20%. However, in 1997,

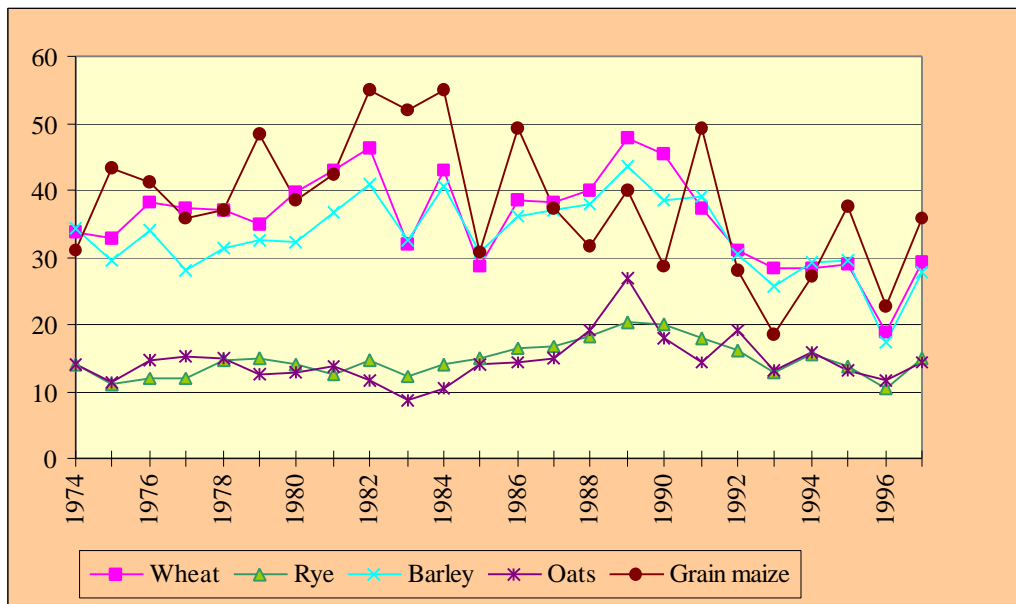
cereals have contributed to the recovery in agricultural output (see §1.5.1 and Table 5). During practically the whole transition period the area under cereals increased from the temporary use of land allocated within the framework of the land restitution process in comparison to pluri-annual crops. In 1994 the area under cereals reached a maximum of 2.3 million hectares (+9% compared to 1989). This tendency in favour of cereal changed in 1996 when area under cereal fell to 1.8 Mio. Ha, the minimum recorded in the recent history of Bulgaria. This drop in area together with a very low yield and serious policy mismanagement led to bread shortages and a steep rise in consumer prices. The policy-induced drop in grain prices in order to support consumers, discouraged producers (mainly in the private sector) from sowing grain and created a strong economic incentive for exports. The grain shortage crisis affected the whole agricultural sector, especially for consumers and for the international image of the country. This grain crisis ended in a political reversal that opened the door to new policy orientations that has probably produced as first result a little recovery in cereal in 1997. In this 1997 year area under cereals increased by 14% and production by 80%.

**Figure 7. - Land destined to cereal by type of cereal.**



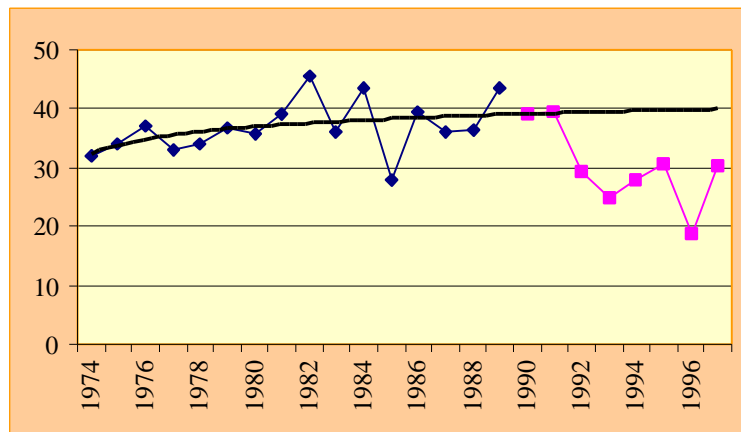
The yield evolution during the last 25 years is displayed in the figures 8 and 9. Yields have decreased in recent years due to both weather (drought) and economic reasons (decreased use of inputs).

**Figure 8 . - Yield evolution of the main cereal in Bulgaria**



Under the current situation of macroeconomic instability, drastic reductions of input levels and lack of incentives to private holdings, a recovery of yields in the medium term is unlikely without an improvement general economic and financial situation. It is probable that for the next few years, yield evolution will be erratic and production will strongly depend of weather conditions.

**Figure 9 . - Yield evolution of cereals in Bulgaria (100 Kg/Ha)**



Figures from supply balance sheets (see the statistical annex) show that the domestic consumption of cereals has decreased, in absolute terms, by 2 Mio tonnes since 1992. Almost 80 % of this contraction operated in the animal consumption mainly due to the recession in livestock production. Nevertheless there are ground to think that supply data accounted in balance sheet may be overestimated and demand underestimated. The raises of domestic prices for

bread and flour during the recent grain crisis contribute to this affirmation. Production might be overestimated because unaccounted fallow land. Elements like private storage and consumption at farm level may be deficiently registered due to uncompleted statistical surveys. Storage and processing could also be underestimated. It should be also noted that official balance sheet are elaborated only with primary products, excluding processed products what give an uncompleted view of the real levels of supply and demand.

The marketing year 1997/98 has been better than the disastrous previous one. The political debate about the possible liberalisation of exports of grain created some incentives for producers to sow more land for grain. As weather conditions were good, wheat production reached 3.8 Mio tonnes and barley 840 thousand tonnes. Wheat yield has reached the 2.0 tonnes per Ha, while barley quoted 1.8 tonnes per Ha.

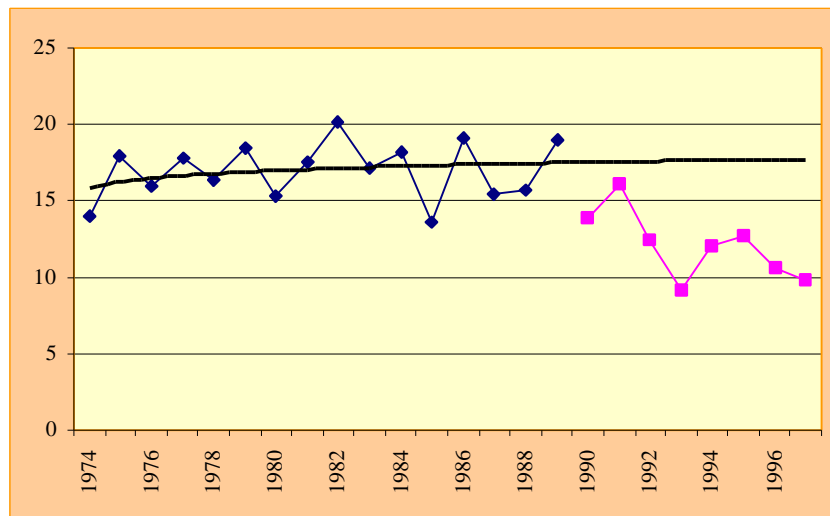
### 2.3.2. *Oilseeds*

Traditionally, the main oilseed crop in Bulgaria is sunflower, where it finds good cultivation conditions. Rapeseed and Soybean cultivation is marginal. Growing sunflower seeds is attractive for the new co-operatives similarly to growing cereals. The export regime, however, limits trade of seeds because the government favours the export of processed products, i.e. oil, although external demand is more for seeds. There is also strong lobbying from the processors to maintain this policy. In fact, more than 90 percent of sunflower seed production is crushed in Bulgaria. The domestic production of sunflower oil is practically all consumed internally and little is exported.

The area under sunflower seeds has practically doubled since 1989. It oscillates between 450,000 and 500,000 Ha with a peak of 586,000 Ha in 1995. The production of sunflower seed has risen since 1989, but at a lower pace than area. Sunflower production is practically 100 % in private farms.

Yields have declined in recent years, being affected by the same constraints as for cereals. Yields oscillate between 1.0 and 1.4 tonnes per hectare.

**Table 13. - Evolution of sunflowerseed yield**

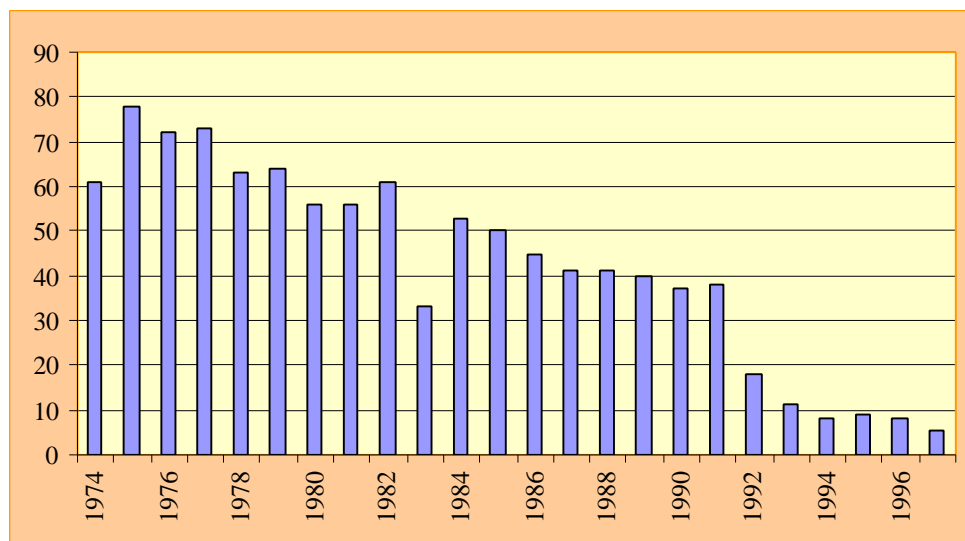


The State Agricultural Fund provided BGL 5 billions for spring sowing of sunflower partly as aid and partly as credit with low interest rates. The Government guarantee credits for purchasing sunflower to oil producing companies with state participation over 60%. Exports of sunflower oil are currently impossible due do the high export tax, although this could be lifted by the end of the year if the state reserves are replenished.

*2.3.3. Sugarbeet and sugar*

Sugarbeet area has dramatically decreased in Bulgaria (5,000 Ha in 1997 from a peak level of 70-80 thousand in the period 1975-77).

**Figure 10. - Evolution of sugarbeet area (000 Ha)**



The drop in area and production of sugarbeet are linked to insufficient irrigation and massive inefficiencies at all production and processing level. In parallel, the production of sugar fell sharply from 966,000 tonnes in 1989 to 90.000 in 1997. Sugar yield per hectare is low if compared with other countries but it is far lower than it was 25 years ago (over 3 t of sugar/ha in 1967-71 and less than 1 t/ha in 1997) and cannot compete with imports of raw cane sugar.

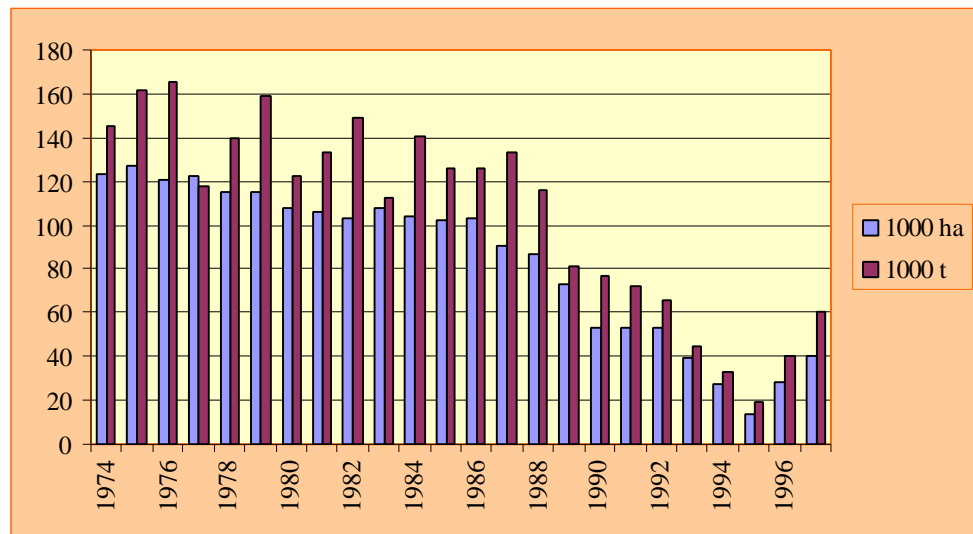
Bulgaria used to be a strong importer of sugar under CMEA arrangements. Even after the CMEA dissolution, Bulgaria needs large imports to have a sizeable balance. Despite the fact that the production of sugar beet has been targeted for protection in the Law of financing the agricultural sector the interests of refiners are better defended than those of sugar beet producers.

Bulgaria's sugar beet crop is around 80.000t in 1997, according to official data. This production is well short of the official target of 120.000 t. The shortfall compared with the target is due to the fact that the areas sown of beet have been very low at only 4.900 ha (official target 8.000 ha). The expected harvest is likely to provide Bulgaria's sugar refineries with less than 10% of their raw material requirements. In 1995 there were 13 sugar factories in the country, most of them still state owned. Nevertheless questions arise about the real capacity of sugar factories to support a highest tonnage. To recover previous the former production standards it is needed to rebuild or replace many infrastructures, but this does not seem likely to be an immediate development.

#### *2.3.4. Tobacco*

Bulgaria used to produce a high share of the cigarettes marketed in the former CMEA. Even if the production has been severely hit by the collapse of traditional markets, tobacco still plays an important role in the country because it is the main product in many rural areas with mixed populations (mainly the ethnic Turks. Tobacco was also the first sector for which a public management regime was introduced and it remains now the most regulated crop. However, approved regulatory measures have not always been fully implemented, due to the lack of financial resources and administrative capacities.

**Figure 11. - Evolution of tobacco area and production**



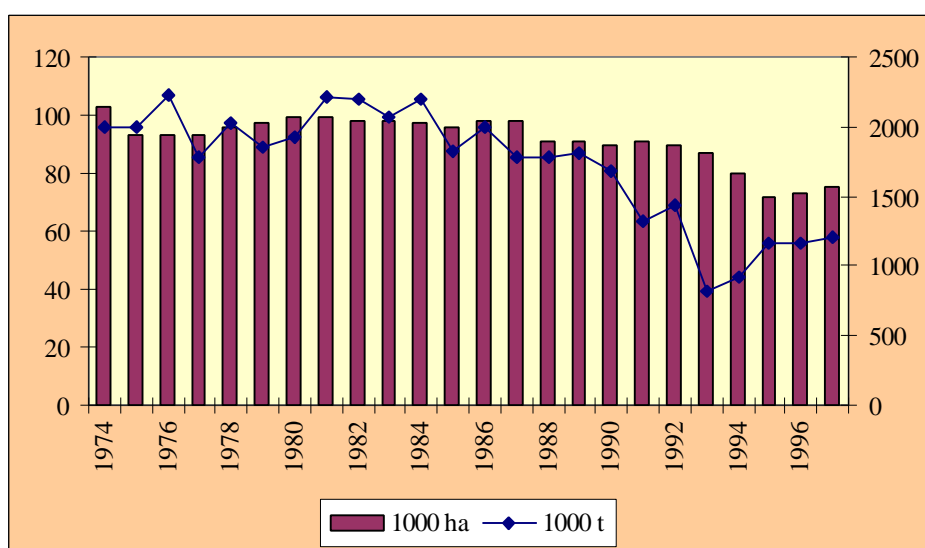
Although there was since the Seventies slight downtrends, tobacco crops area dropped considerably since the massive departure of ethnic Turks and Central European in 1989. At the same time, other factors, as the reduction of the Russian markets, have accelerated the downward tendency in the area devoted to this product.

Tobacco output doubled from 39,700 in 1996 to some 81,000 in 1997. Future recovery for this sector requires the reactivation of exports, particularly to Russia, and changes in the varieties produced (oriental and Virginia) in order to adapt to the changes in consumer preferences and to compete with western products. It keeps the biggest share of agricultural exports in terms of value (40% as an average for 1996-97), even if the quantitative drop is important. Tobacco and tobacco products accounted for 5% of total Bulgarian exports in 1996 (3% in 1997). Its trade has been essential for a positive trade balance in agriculture.

### 2.3.5. *Fruit*

Altogether, area and production have dropped 20% and 35%, respectively, when compared with 1989. The main fruits produced are apples (15% of total production), plums (10%), cherries (6%) and peaches (5%).

Figure 12. - Evolution of fruit area and production



Fruit production was traditionally oriented towards CMEA market. From 1989, Bulgaria tried to find other export markets mainly Western Europe. It has been adversely hit by the difficulties encountered on these international markets, i.e. strong competition and high quality standard requirements. The viability of the production chain is still in question. This has been worsened by the difficulties brought about by the land restitution process. Temporary use of land, which usually is for one year, is unsuited to perennial productions and orchards suffered from a serious lack of care and from the collapse of irrigation arrangements. Rational exploitation implies also the maintenance of correctly sized plots and grouping of producers.

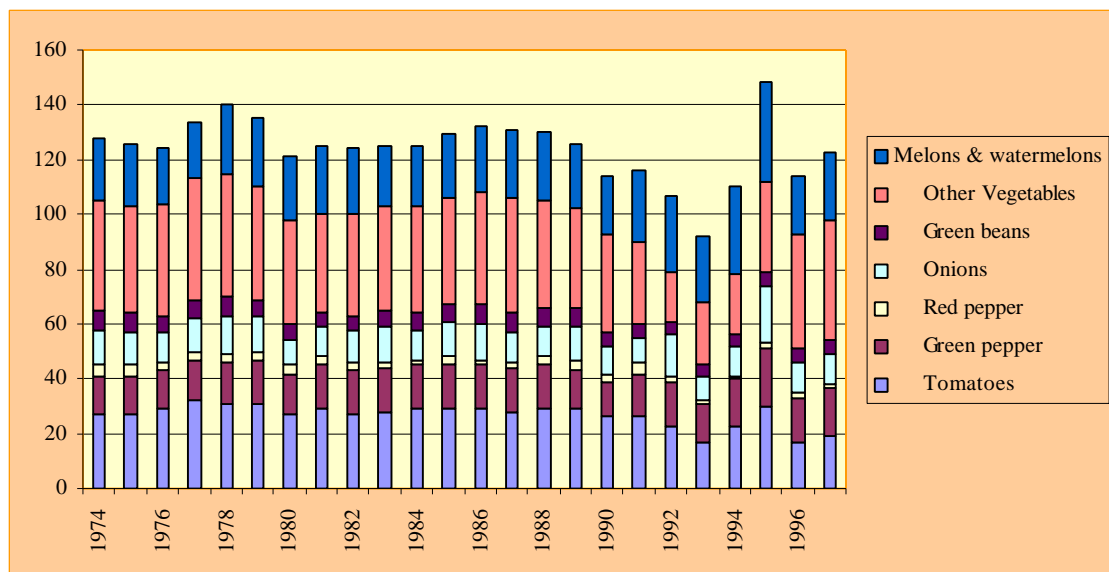
Restitution of orchards has been linked to the payment of fees to the state, to cover the value of plantings carried out during the pre-reform period that produced negative reactions from the claimants. Since the beginning of the transition, 30% to 40% of the orchards are estimated to be uncropped, some of them already abandoned for a few years and no longer suitable for production. In order to stop this degradation a series of measures to oblige the owners to maintain orchards and to allow collective production until the depreciation of the plantation has eased the situation what explain the slow, but constant recovery of fruit productions since 1995.

### 2.3.6. Vegetables

Vegetables have been one of the rare sectors that has recovered, in terms of area. In the period 1989-94 the area under vegetables decreased because part of the area shifted to arable crops such as sunflower seeds or wheat. This switch is due partly to the availability of land for temporary use, partly because of marketing difficulties in the canning chain and the need to compete on international markets. The full liberalisation of this sector, the crisis

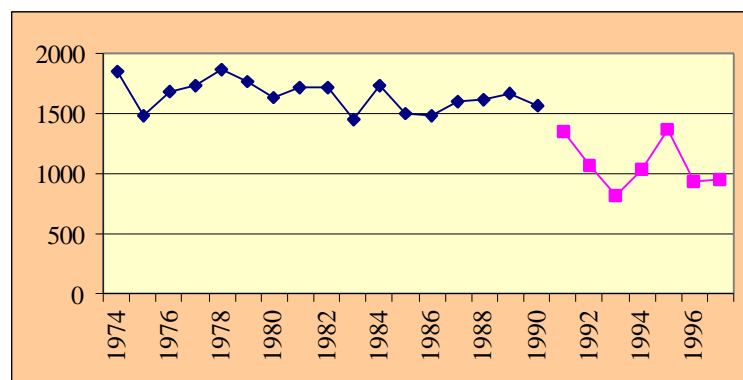
affecting cereal crops and the proliferation of small private household plots are the origin of the recovery. This recovery is not so much based on market efficiency. The general crisis and the drop in the standard of living have encouraged people to use all their available land to growth vegetables –also fruits- for self-consumption and to alleviate, on this way, the penury and the scarcity of other agricultural products. Another factor of recovery is coming from the fact that Bulgaria has strengthen its exporter position of processed vegetables to Russia and other FSU republics, where there is still a demand for these Bulgarian products.

**Figure 13. - Evolution of area of the main vegetables (000 Ha)**



The cultivation of vegetables is carried out in poor land with few added nutrients. This is the reason for which for many vegetables the yields have been low. The main vegetables produced are tomatoes, peppers and onions (see statistical annex).

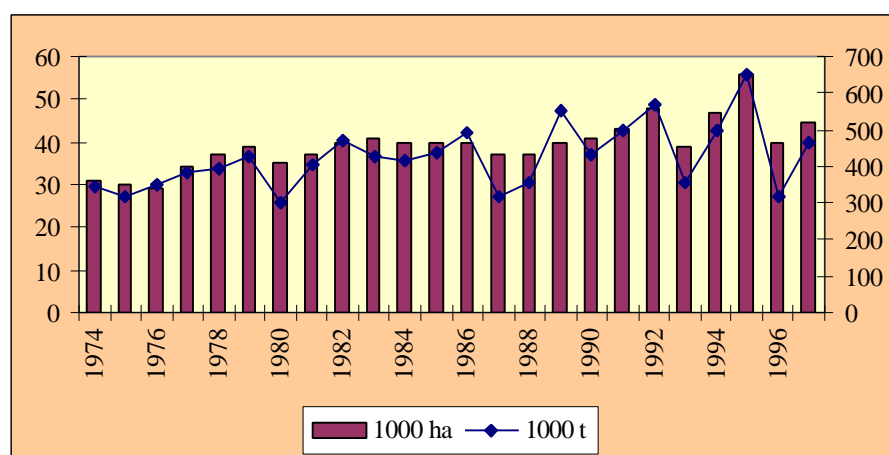
**Figure 14. - Evolution of the production of vegetables**



### 2.3.7. Potatoes

In general terms, the area under potato cultivation were not severely affected by the shock of the reform process, at least until the 1996-crisis. The increase in domestic prices for potatoes, the suitability of this production for household plots and the growing interest emerging from the processing industry, have maintained the interest of both household plots and private farms to produce this crop. On the production side, potato crop has suffered, like the other agricultural products because of the lack of inputs and financial means to maintain an adequate productivity. This explains the erratic evolution on yield and production in the post-reform period.

Figure 15. - Evolution of potato area and production



A recovery has observed in 1997 (area +14%, production +45%). There is potential for further expansion due the interesting domestic prices for potatoe producers, the suitability of this production for household plots and the growing interest that the emerging processing industry shows in buying it.

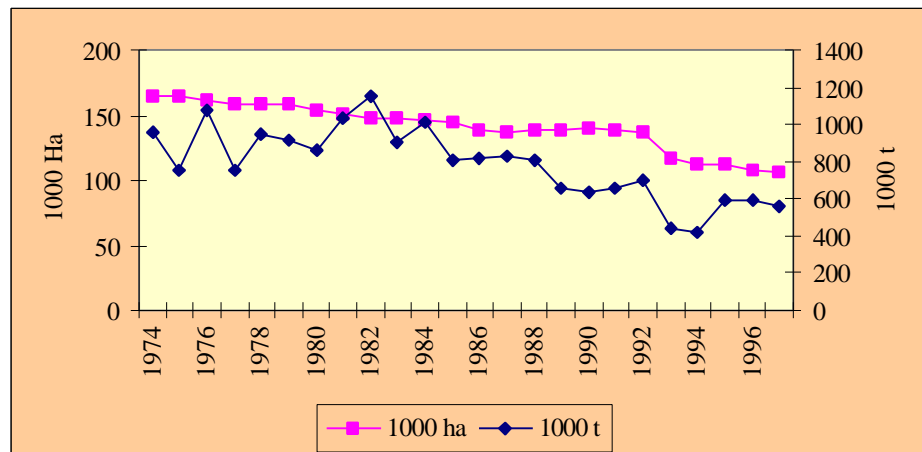
### 2.3.8. Vineyards, table grapes and wine

In the late Eighties, vineyards covered about 140.000 Ha and grape production was stabilised at approximately 800.000 tonnes, of which 10% represented table grapes. Between 1989 and 1994 there was a slight decline in the vine growing areas and a more accentuated drop in grape production. In 1994 grape production was only 50% of the level of the pre-reform period. The reasons of this decline are linked to the land restitution problems and trade difficulties. As far as land restitution is concerned, the reasons mentioned for fruit and vegetables also apply to vineyards.

As for trade, there was a heavy dependence on the export of wine, principally to Russia, Poland and former East Germany. Bulgaria traditionally exported

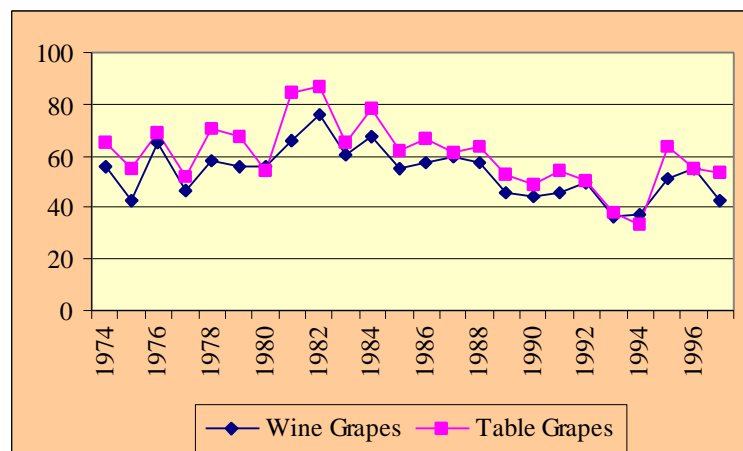
more than 50 % of its wine production. The disorganisation of some marketing channels and the contraction of these traditional CMEA markets, mainly for table wines, caused disruption. New planting appears to have stopped as farmers are unable to invest, especially as they need to wait a further three years for the plants to bear fruit and to get a return on their investment.

**Figure 16. - Evolution of vineyard area and production**



A similar downward trend occurred for yields. Traditionally, the yield of table grapes has been slightly higher than the yield for wine grape. Table grape benefited of irrigation on a greater extends than wine grape. However, since 1991, the poor irrigation and the decrease in inputs have severely affected both types of grapes, but most severely table grapes. In the last couple of years although the drop in area, better yields have improved the wine and table grape productions.

**Figure 17. - Evolution of yield of vineyards**



The wine industry is the only sector in the Bulgarian food industry that has registered a growth in the last few years. Nevertheless, the Bulgarian's wineries are working at less than 50% of production capacity, mainly as a result of a short supply of adequate quality grapes and a lack of capital for procurements. In the post-reform period, the international demand requires mainly quality wines, but in Bulgaria there is a shortage of high quality grape supply for such types of quality wines. As far as wine production is concerned, the production is now around 2.3 Mio hl, of which practically two thirds is exported and the remainder sold in the domestic market.

The main trading partners of Bulgarian wine are Russia (about 40%), the European Union, USA, Japan and Australia. Within the European Union, UK and Germany are the main importers. The volume trade was not so much affected by the transition shock, except in 1991, and is likely to develop. According to the opinion of international traders, wine is one of the agricultural products for which Bulgaria has comparative advantages. In 1997 the EU quota was fully utilised.

It is difficult to estimate the Bulgarian potential of wine production. Average yield over the past ten years has oscillated around 30 Hl per Ha. The average ranged between 15.6 Hl per Ha in 1993 and 25.3, in 1996. These low figures are in line with the poor weather conditions during this 1993-1996 period. No detailed indication is available on the share of vineyard area that used to benefit from irrigation facilities. One can estimate that the present level of yield of the producing vineyards remains comparable to its previous value and, therefore, that around half of the declared vineyards have probably not been harvested during the last two crop years. It is furthermore likely that a significant part of this non-harvested vineyard has no longer any production capacity. Quality vineyards could account for an estimated 20% of the plantations, although such data are currently not available.

## **2.4. LIVESTOCKS**

### *2.4.1. Inventories*

The economic changes that have taken in place since 1989 also affected the livestock sector. Significant changes have occurred in the numbers, structure of husbandry and in ownership.

Two basic trends may be identified from data for the period 1989 to 1997. The first is a sharp reduction in the number of all types of animals. The second is the transfer of ownership animals from the state and collective sector to the private sector.

The number of cattle, pigs, sheep and poultry have decreased between 40% and 65%, if compared with the pre-reform years<sup>3</sup>. The official registered livestock levels are too low to meet a traditional level of domestic supply. Other minor animal (such as ducks and geese) has also decreased but not the same extent as the most important groups. Turkeys, rabbits goats and horses figures remained stable or slightly increased.

**Table 14 Evolution of livestock number (1989-1998)**

	Average 1985-89	1991	1993	1995	1997	1998	% Variation since pre-reform
Cattle	1679	1457	974	638	582	611	-63,62%
ow cows	661	609	489	351	358	389	-41,13%
Pigs	3970	4187	2680	1986	1500	1479	-62,74%
ow sows			271	219	157	183	
Sheep & Goat	9904	8436	5426	4193	4374	3814	-61,49%
Poultry	27998	27998	19872	19126	16227	14766	-47,26%
Ducks	297	200	200	417	200		-32,75%
Geese	448	300	250	299	300		-33,04%
Turkeys	591	500	400	588	600		1,59%
Rabbits	357	351	384	517	517		44,82%
Horses	121	115	114	133	133		10,16%
Asses	339	329	303	276	276		-18,73%
Mules	26	19	21	16	16		-38,19%
Beehives	600	595	429	248	248	296	-50,66%
Source: FAO and NSI							

The reasons for this severe drop and the crisis in the livestock and meat industry- are manifold but the most important are:

- The over-hasty liquidation of the old agro-industrial complexes which destroyed a significant proportion of the herds.
- The sharp reduction in people's living standards and revenues and the shrinkage of the domestic market for animal products.
- The worsening of 'terms of trade' in stockbreeding; livestock producers were squeezed out by large producers, processing plants and importers of agricultural inputs in the other.
- The changes, which occurred in Central and Eastern Europe, meant that Bulgaria lost its traditional external markets for meat products. This factor is less important for livestock than for crops.

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<sup>3</sup> Comparison is giving for measuring impacts. To the extent that incentives were distorted in the pre-reform regime, the contraction of the sector is just an adjustment to the new market situation. For this reason the pre-reform livestock population is a misleading landmark to judge the recession or recovery of the sector. Davidova

- The unfinished process of land restitution has limited the volume of land available for fodder production and in turn has introduced an element of uncertainty. Thus owners generally do not lease land for the long-term. Obviously, this is an important constraint for the private sector development.

This decline has been persistent and there are no signs of recovery. The biggest drop in livestock number took place during 1991-1994 when the chaotic elimination of the production structures that operated in Bulgaria during recent decades provoked a rapid diminution of the number of animals in the state-controlled sector. The Bulgarian livestock sector was highly concentrated, in large state controlled co-operatives and in intensive livestock complexes with a very high level of vertical concentration. At the end of 1989, the relative share of cattle in state hands was about 82%, 80% for pigs, 70% for sheep and 62% for poultry. The remaining amounts were in household plots.

During the liquidation process of state controlled co-operatives, animals were distributed among employees. This led to a dramatic decrease in the number of animals and to a large fragmentation, partly because the new owners, mainly small farmers, had limited space and feeding facilities. Also, feed had been relatively expensive and the opportunities to buy agricultural land (land market or long term lease) were scarce or non-existent. These elements blocked the reconstitution of herds in the new private farming structures and limited the scope for adaptation in the remaining state livestock complexes.

The presence of efficient, modern, private farms is not one of the characteristics of the private sector as most of the animals are kept in village yards.

#### 2.4.1.1. Cattle

The privatisation at farm level of cattle and buffaloes is almost completed. Approximately 80% of the cattle population have been dispersed into private small-scale farms. However, the numbers have not regained the pre-transition levels. Also, the low profitability of beef meat and dairy sectors has incited producers to send a large proportion of the stock for slaughtering, including breeding animals and thus decreasing the herd number. The loss of export markets and forage shortages have amplified this phenomenon.

Rural households have about 85% of the cows with less than two cows at average. In 1997 only one international firm had 40 thousand cows in dairy farms. The largest herd was about 700 cows. There were around 90 farms with 20 cows and 109 co-operatives and private farms with between 25 and 400. The average private dairy farm has 25-50 cows.

In the present moment fragmentation is one of the main problems of the cattle sector, increasing the transaction costs of the beef and dairy chains and impeding the improvement of breed structure.

#### 2.4.1.2. Pigs

Pig production is still important in not yet privatised complexes. But the privatisation has progressed in the last years. Approximately 40% of the pig population remains in large state controlled complexes (67 in 1997). Approximately half of these complexes are under privatisation procedures. Unlike the privatisation of the cattle sector, the privatisation of pig herd is not producing too much fragmentation and approximately 50% of the pigs in private sector are housed in big units and the rest in smaller farms. Many of these big farms have integrated, feeding, slaughtering and meat processing facilities.

#### 2.4.1.3. Poultry

Poultry inventories fell by 42%, from 28 Mio heads to 16 Mio over the period 1991 to 1997. The most important decrease occurred between 1991 and 1993 when the numbers of state poultry farms decreased rapidly. The total number of state-owned complexes, in 1989 was 39, this figure was reduced to 8 in 1997. About 95% of the present poultry inventory are in private farms. As for cattle, poultry were also affected by the shortage of grain, resulting in an increase of slaughtering and in a later diminution of the inventories.

#### 2.4.1.4. Sheep & goat

The rearing of sheep has traditionally been significant in Bulgaria. Sheep are mainly used for the production of milk for cheese. In the Eighties sheep rearing reached 10-11 Mio of heads. But since 1989, the number of heads contracted at around 6 Mio (-60%). As for beef, it suffered of a strong reduction between 1989 and 1995 as consequence of the liquidation process.

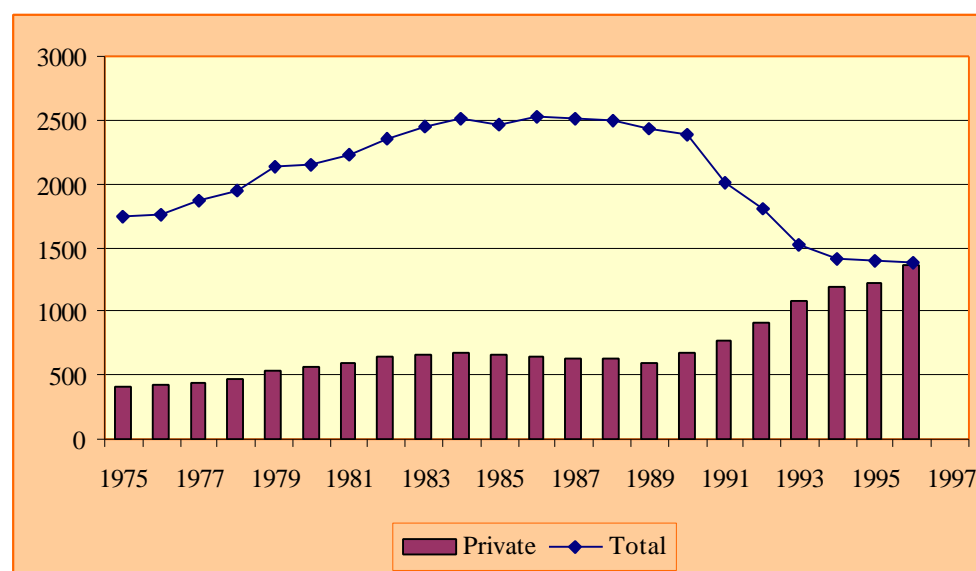
### 2.4.2. *Animal products*

Before 1989, state-run meat processing plants were very large and inefficient. Following the transition, and for the reasons already evoked, production fell drastically due to the dramatic loss of international markets and the recession of domestic demand. As the quality of livestock products fell and the new companies that emerged were not enforced to apply quality control standards, Bulgaria could not replace Central and Eastern European markets by EU or other Western markets. Only a few meat-processing plants have reached the required stringent sanitary standards of the EU, thus they have licensed for exports to the EU. Since 1997, dairy products from Bulgaria can not be exported to the EU due to the failure to achieve the necessary standards.

### 2.4.2.1. Dairy

The production of milk was dramatically affected by the post-reform recession. The decrease in output in this period was about 30%. As previously mentioned for cattle, this is due mainly to the disintegration of the supply side after the reallocation of the cattle herd to individual households and the taxation of dairy farmers.

**Figure 18 Evolution of milk production (,000 Lt)**



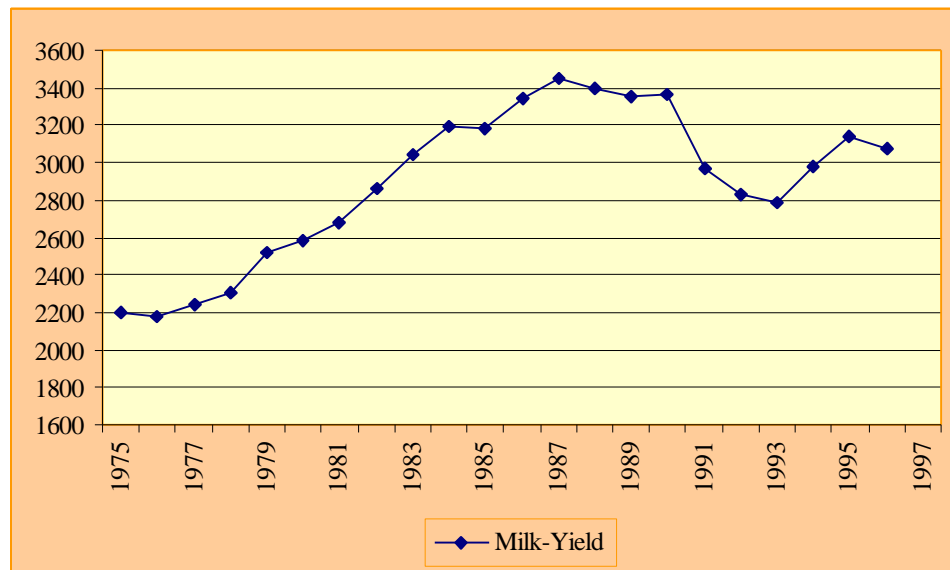
Milk was traditionally produced by state co-operatives, while butter and cheese were produced in state processing plants. With the disappearance of the state co-operatives, the primary production is almost totally into private hands (individual farms, household-plots, co-operatives or farming companies). Rural households keep about 85% of the cows, the rest being kept in dairy farms (co-operatives and private farms) with normally between 25 and 400 cows.

As a result of the fragmentation process on the cattle sector, the volume of milk on the domestic market has decreased. In 1996, the share of marketed milk was only 44%. Self-consumption, direct sales and parallel markets are developing in Bulgaria in the dairy sector. The drop in the domestic prices has encouraged small producers to value their milk productions directly using these alternative ways.

The reallocation of the meat and milk production, especially by small-scale private producers, around big consumption centres such a big cities is in pace with the search for easier and with less transaction costs market realisation. Many private farms sell their own production, mainly milk and eggs, every day at the nearby town markets.

According to official figures, cow milk productivity has stabilised at approximately 3000 Kg per head per year, with a slight trend to increase. Regarding long-time data, the maximum milk productivity in Bulgaria was fairly below 3500 Kg per head per year. Although this productivity is 14% lower than that top value, it is still considered too much optimistic due to the lack of breeding following the grain crisis, which should have deteriorated productivity and quality.

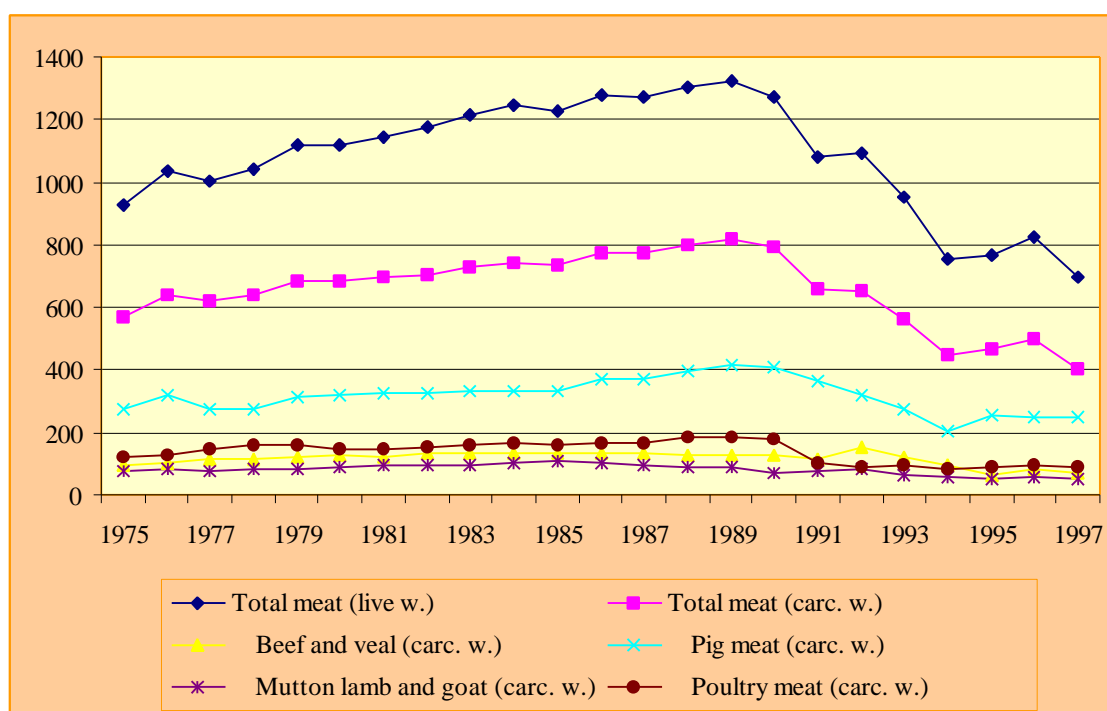
**Figure 19 Evolution of milk yield (Lt/cow/year)**



#### 2.4.2.2. Meat

After 1989, meat production has, in general, dropped as displayed in the graphic below. After an apparent bottom out in 1994 and an increase for two years, there was another drop in 1997. To rescue the livestock sector from this situation, the government is planning until 2001 a pluriannual breeding programme and a restructuring process.

Figure 20 Evolution of meat production (1975 - 1997)



The production of meat has contracted by more than 50% since the beginning of the political transition. This decrease is due to a severe shortage, which is a result of herd liquidation. The shortage pushed up meat prices mainly since mid-1994. As a consequence of the increase in prices and the reduction of real incomes the consumption of meat decreased.

Concerning to consumer's preferences, beef (red meat) has never had a wide consumption in Bulgaria because it is not on the consumer preferences. What it is consumed in Bulgaria is veal that is now concentrated in-groups with the highest income. For most of the post-reform period retail prices of beef was lower than pigmeat. Due to the lack of consumer preferences for red meat, Bulgaria has never produced high quality beef. Cuts of low quality beef have been for processing industry, mainly for sausages and salami. The shortage of domestic supply has pushed up beef meat imports, but mainly for processing industry. The problems encountered in this sector during the transition have exacerbated these traditional trends: less consumption of beef meat, mainly through less consumption of processed meat and because this decreasing demand, the supply has also dropped. As a consequence, imports of beef meat are pushing up.

Similar to cattle production, pig meat production has decreased significantly as result of the drop of pig population during the liquidation process. This decrease has been less severe in the pig sector, however, in contrast to the cattle sector, the contraction bottomed in 1994 and since then production started to recover slightly to equate supply and demand. Following the grain

shortage of 1996, producers reduced their inventories by increasing, temporarily, the number of pigs slaughtered and decreasing the selling price. This more advantageous situation has stimulated domestic demand. Following the increase in demand, the supply is being directed to the populated areas, where consumption is more concentrated. The change in the geographical distribution is one indirect sign of new investment, which is determined by market demand.

The consumption of poultry meat decreased by 50% between 1989 and 1992, since then it has stabilised with a light tendency to increase.

There is a traditional high demand of sheep milk in Bulgaria, which is very appreciated by consumers and it is consumed in fresh state or transformed in yoghurt, white or yellow cheese.

Production of mutton and lamb is now of approximately 50 thousand tonnes per year, of which 10% is exported. Similar to pigmeat, the processing plants are being re-located around places with high demand (Sofia, Burgas, Lovech) or good export infrastructures (Burgas, Varna).

## **2.5. AGRICULTURAL TRADE**

### *2.5.1. Overview of foreign trade before the transition*

The foreign trade regime in Bulgaria until the late eighties was typical of a centrally planned economy. The state held a full monopoly on foreign trade (limited number of state-owned foreign trade organisations), domestic markets were isolated from international markets and internal prices were radically different from those of the world market. The consequences of this situation have had a strong influence during the transition process in Bulgaria.

Bulgaria exported primarily to the other CMEA countries where competitiveness and quality were not priorities. Prices in intra-CMEA trade differed from world prices. In addition, CMEA multilateral specialisation schemes influenced trade flows. A kind of implicit principle of CMEA preference was applied usually related to currency and financial arrangements. Foreign trade organisations preferred socialist clients, since their accounts were automatically credited for the deliveries and the so called premiums covered the difference between domestic and export prices.

Bulgarian export dependence on the former USSR market was, however, unique among CMEA countries, especially as regards the agricultural sector. Thus the dissolution of the CMEA in 1991 signalled the collapse of Bulgaria's trade with its traditional partners and the opening of a process of new relationships with other world areas (see box).

### **Bulgaria's trade agreements**

**1949**

Creation of the Council for Mutual Economic Assistance (CMEA, of which Bulgaria is founder member.

**1990**

Signing of the trade and co-operation agreement between the European Community and Bulgaria.

**1991**

The European Community includes Bulgaria in the Generalised System of Preferences. Dissolution of the CMEA.

**1994**

Entry into force of the Interim Agreement as a precursor to the Europe Agreement with the EU.

**1995**

Entry into force of the Europe Agreement with the aim of gradually establishing a free trade area for the most substantial part of the exchanges in less than ten years as from the entry into force of the Interim Agreement.

Bilateral agreement with the Czech and Slovak Republics

**1996**

Accession to the World Trade Organisation.

**1997**

Bilateral Agreement with Slovenia

Bulgaria starts negotiation to join CEFTA.

**1998**

Differences with Poland, as last obstacles to access to CEFTA are solved. The CEFTA agreement is announced to be signed on July 15 and it will come effective on January 1st, 1999.

Bilateral negotiations aiming free trade arrangements with Turkey, Latvia, Estonia and Lithuania.

#### *2.5.2. Importance of agricultural trade*

Agricultural exports have traditionally been an important sector in the Bulgarian economy. It is a source of external revenue and contributes substantially to GDP and to employment. Nevertheless, in spite of this importance, the reform strategies in the foreign trade regime followed by governments during the post-communist period have been, in most of the cases, used as a tool for the short-term management of domestic food markets and have impeded exports. The foreign trade measures have been used to achieve goals different than those can be pursued through trade policy. Bulgarian foreign trade policy in agriculture has lacked stability, consistency and clarity regarding the priorities. It failed short on assessing the cost of the chosen policy measures to the different actors in the economic process (consumers, farm producers, processors and traders).

**Table 15. - Agricultural trade in total trade (in US\$ Mio and ECU Mio)**

<b>in US\$ Mio</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
<b>Total Exports</b>	<b>3721</b>	<b>3985</b>	<b>5355</b>	<b>4890</b>	<b>4914</b>
<b>Total Agric. + Food, bever.</b>	<b>760</b>	<b>879</b>	<b>1167</b>	<b>919</b>	<b>692</b>
Manufacture of food, beverages	642,6	692,8	904,9	800,3	600,3
Agriculture	117,0	186,0	261,8	118,8	91,3
Crops	67,8	128,7	229,1	83,7	76,4
Livestock	49,2	57,3	32,7	35,1	14,8
<b>Total Imports</b>	<b>4757</b>	<b>4185</b>	<b>5658</b>	<b>5074</b>	<b>4886</b>
<b>Total Agric. + Food, bever.</b>	<b>452</b>	<b>451</b>	<b>457</b>	<b>406</b>	<b>429</b>
Manufacture of food, beverages	383,4	386,5	403,6	286,8	308,8
Agriculture	68,8	64,6	53,7	119,4	120,3
Crops	63,1	57,2	47,1	116,5	111,9
Livestock	5,8	7,4	6,6	2,9	8,3
<b>in ECU Mio</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
<b>Total Exports</b>	<b>3178</b>	<b>3350</b>	<b>4094</b>	<b>3851</b>	<b>4333</b>
<b>Total Agric. + Food, bever.</b>	<b>649</b>	<b>739</b>	<b>892</b>	<b>724</b>	<b>610</b>
Manufacture of food, beverages	548,8	582,4	691,8	630,3	529,4
Agriculture	99,9	156,4	200,1	93,6	80,5
Crops	57,9	108,2	175,1	65,9	67,4
Livestock	42,0	48,2	25,0	27,7	13,1
<b>Total Imports</b>	<b>4062</b>	<b>3518</b>	<b>4325</b>	<b>3996</b>	<b>4308</b>
<b>Total Agric. + Food, bever.</b>	<b>386</b>	<b>379</b>	<b>350</b>	<b>320</b>	<b>378</b>
Manufacture of food, beverages	327,4	324,9	308,6	225,9	272,3
Agriculture	58,8	54,3	41,1	94,0	106,1
Crops	53,8	48,1	36,0	91,7	98,7
Livestock	4,9	6,2	5,1	2,3	7,4

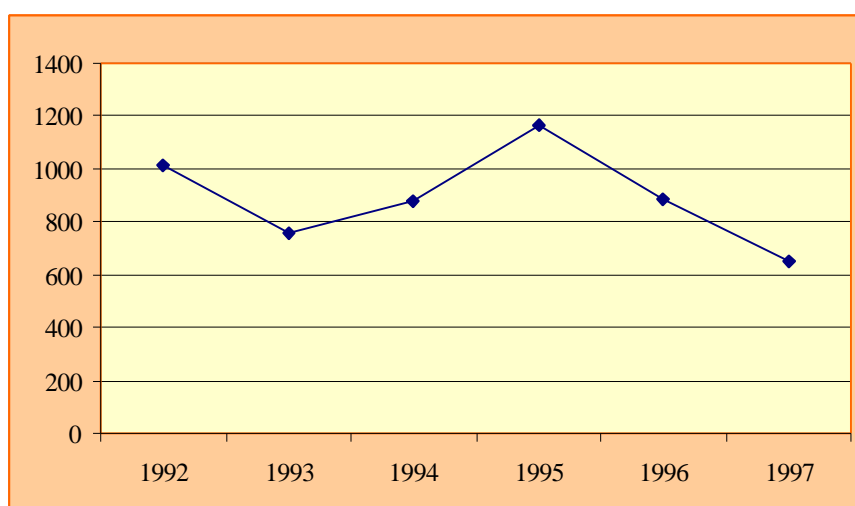
Source: NSI

### 2.5.3. Analysis by category of products

#### 2.5.3.1. Exports of main agricultural products

Information available from Table 14 shows that in spite of the destabilisation of the national economy, the problems encountered in the agricultural sector and the disruption on its traditional markets, Bulgaria continued to be a net agricultural exporter. In 1994 and 1995 agricultural exports increased. In 1996 agricultural exports contracted due to the deep economic recession effects, which lasted well into 1997.

**Figure 21. - Evolution of the Bulgarian agricultural exports**



Bulgaria exports a wide range of crops and animal products. The most important export-oriented products of Bulgarian agriculture in terms of value are tobacco, wine, processed vegetables, fruit and live animals. The share of the mentioned groups of products has been between 70-80% of total agricultural exports in recent years.

**Table 16. - Main agricultural exports (as % of total agric. exports)**

	1996	1997
24 Tobacco and manufactured tobacco	28,0%	23,5%
22 Beverages, spirits and vinegar	19,9%	20,7%
20 Preparation of vegetable, fruit	8,0%	9,6%
02 Meat and edible meat offal	6,1%	7,1%
12 Oil seeds and oleaginous fruits	4,5%	5,4%
21 Miscellaneous edible preparations	4,2%	4,7%
04 Dairy products, honey, eggs;	3,6%	4,4%

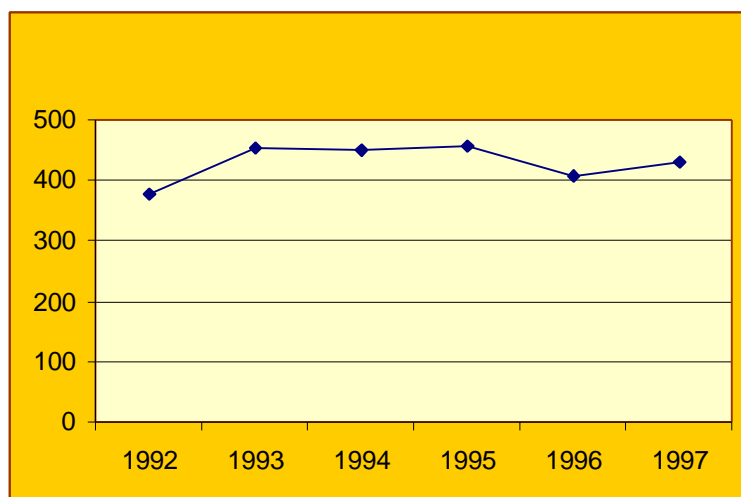
In 1997, although the high devaluation of the Bulgarian national currency, export did not increase as expected. In absolute terms, there was a decrease in nearly all groups with the exception of milling industry and products of animal origin. There was a notable decrease in export of live animals, dairy products and oilseeds. This is due to a combination of high export tax (live cattle, sheep and goats), the ban on exports (oilseeds) and deficit on domestic markets or deficiencies on the sanitary standards (dairies).

#### 2.5.3.2. Imports of main agricultural products

The process of liberalisation of foreign trade and the decreasing role of state monopolies has also had an impact on imports. Agricultural imports, accounted in 1985 for about 6% of total imports, but since 1991, the

agricultural share has increased. In 1994 it was almost 10% of total imports. The increase consisted partly of seasonal imports and other food items needed to meet domestic consumer demand requiring a wider choice of foodstuffs. After a fall in imports from 1989 to 1991, there has since been a decline in production of agricultural products what has created the need for increased imports, though the increase was highly constrained by the domestic demand.

**Figure 22. - Evolution of the Bulgarian agricultural imports (US\$ Mio)**



In the period 1993-1995 agricultural imports were stable as the total volume of imports were boosted by short economic revival. However, since 1996, with the decrease in domestic demand due to the real income decrease provoked for the most categories a substantial drop on imports. Only cereals and meat accounted remarkable increase. The grain shortage in changed the traditional image of Bulgaria, which was a net cereal exporter. The increase of imported meat was due to the reduced duty for beef, veal and pig in an attempt to maintain domestic prices for processed meat.

**Table 17. - Main agricultural imports (as % of total agric. imports)**

	1996	1997
17 Sugar and confectionary	24,8%	23,5%
10 Cereals	21,8%	20,6%
02 Meat and edible meat offal	3,5%	9,1%
24 Tobacco and manufactured tobacco	10,5%	7,8%
23 Residues and waste from food industrie	4,7%	5,2%
15 Animal or vegetable fats and oils	5,2%	4,1%

#### 2.5.4. *Analysis by partner*

##### 2.5.4.1. Exports and imports by main partners

The political and economic shocks suffered by Bulgaria and the former socialist countries caused shrinkage of markets for Bulgarian agricultural products. Up to 1989, the most significant markets for Bulgarian agricultural products were the CMEA countries. Since then, the fall in the share of the exports to the FSU and to the other CEECs has changed the geographical structure of the agricultural exports.

The decline in the trade with the FSU occurred between 1990 and 1993. During this period trade with countries with a market economy, mainly the European Union increased considerably, thus the shift to more open trade relationships with the rest of the World and the first steps to integrate Bulgaria in the international markets were made in this period.

Since 1993, trade with the Western countries has stabilised and the FSU has re-emerged as the premier destination of the Bulgarian agricultural exports. According to the most recent figures, the FSU receive about 48% of Bulgarian exports and the OECD countries about 36%. The European Union is the destination of 25% of the agro-exports, the CEFTA area hardly shares 3%. The data on the regional breakdown of trade are, however, not totally accurate, because of the existence of a significant undeclared trade flow, especially with neighbour's countries due insufficient custom controls.

This recovery of the traditional FSU market creates an optimistic outlook for Bulgarian exporters, who have not benefited from the European Agreement with the European Union.

The geographical breakdown of imports differs from exports in two aspects. Firstly, the share of imports from countries with market economy was more important, even during the Communist regime. Secondly, the share of agricultural imports from the countries belonging to the former CMEA was not significant (less than 10% in 1989). During the transition period, the share of Western countries has reinforced, and in particular, the share of the European Union that was in 1997 the origin of about one third of the total agricultural imports. The grain shortage has reinforced in 1996 and 1997 (mainly in the first half) the share of the other CEEC (26%) due to the imports of cereals and feedstuffs to cover domestic shortfalls. A modest increase on the relative share of the CEECs on Bulgarian agro-food imports is likely as a result of the progress in negotiations to join CEFTA.

**Table 18. - Origin and destination of agricultural foreign trade (ECU Mio)**

	1993	1994	1995	1996	1997*
<b>Exports</b>	<b>648,7</b>	<b>738,8</b>	<b>892,0</b>	<b>723,8</b>	<b>609,9</b>
OECD	220,7	207,0	309,4	230,1	195,2
EU	140,7	149,4	192,9	165,6	140,3
CEEC	74,4	37,4	61,3	43,2	36,6
NIS	180,0	275,3	356,1	328,5	274,4
Other	173,5	219,1	165,2	122,1	103,7
<b>Imports</b>	<b>386,2</b>	<b>379,2</b>	<b>349,6</b>	<b>319,9</b>	<b>378,3</b>
OECD	237,8	209,5	179,0	114,7	135,7
EU	168,3	164,1	111,7	66,2	78,3
CEEC	25,7	37,5	43,3	24,0	28,3
NIS	15,0	35,3	24,0	30,2	35,7
Other	107,6	96,9	103,4	151,0	178,6

Source: OECD; (\*) Estimated

Particular mention merits the trade with Turkey. Bulgaria has important links with Turkey as trading partner. The import consist of molasses, fruit, olives and, occasionally, raw tobacco for the processing industry, and Bulgaria exports to Turkey meat, cigarettes and some dairy products.

#### 2.5.5. Agricultural trade with the EU

Trade with the European Union has developed a significantly in recent years. As a consequence of the economic shock suffered by the other countries of Central and Eastern Europe and the former Soviet Union, Bulgaria faced a lack of markets. The Western markets was the most obvious solution and the European Union responded to this, in the first instance, through the creation of "free trade zone" (with "partial liberalisation" in the agricultural sector) between the EU and each of the CEECs: the Association Agreements (AA).

#### The Europe Agreements

Commonly referred to as "Europe Agreements", this is a term given to the Association Agreements that the European Union has concluded with a series of countries of Central & Eastern Europe (CEECs). The agreements form the basis for the gradual integration of these countries into the EU. They cover five main areas: political dialogue, economic co-operation, financial assistance, approximation of laws, and trade liberalisation. Poland, Hungary and the former Republic of Czechoslovakia signed, in 1991, the first agreements with the mutual trade provisions entering force the following year and the entire Agreements entering force in 1994. Agreements with other countries followed. The ultimate objective of the agreements is to lead to the membership of the European Union, as expressed by the European Council at the June 1993 Copenhagen Summit.

The bilateral trade and co-operation aspects of the Europe Agreements provide for most-favoured nation (MFN) treatment and the gradual elimination of selective quantitative restrictions over a 10-year period. Separate protocols cover "sensitive sectors" such as textiles, coal, steel and agricultural products. For agricultural products, most concessions are phased in within 5 years and involve tariff reductions and quota increases. For example, beef, pork, mutton, poultry, and dairy products are subject to a 20-percent tariff reduction over 3 years, while import quotas will increase 10 percent per year for 5 years. However, trade in some commodity groups, such as grains, is not included. In a later step, the EU and these associated countries began renegotiating the Agricultural Protocols to expand preferences under individual Protocols in light of the final WTO Agreement on

Agriculture.			
<i>Country</i>	<i>Date signed</i>	<i>Entry into force</i>	<i>Membership application</i>
Hungary	December 1991	February 1994	March 31, 1994
Poland	December 1991	February 1994	April 5, 1994
Romania	February 1993	February 1995	June 22, 1995
Bulgaria	March 1993	February 1995	December 16, 1995
Czech Republic	March 1993	February 1995	January 23, 1996
Slovakia	October 1993	February 1995	June 27, 1995
Estonia	June 1995	N/A	November 28, 1995
Latvia	June 1995	N/A	October 27, 1995
Lithuania	June 1995	N/A	December 8, 1995
Slovenia	June 1996	N/A	June 10, 1996

The Agreement with Bulgaria came into force on 31 December 1993. Concessions granted by the EU are based on average annual volumes traded during the three year period (1989-91) preceding the year of negotiation (1992) and consist, mainly, of reduced tariffs or levies combined with tariff quotas for some basic products (managed in the framework of the Common Market Organisations). Trade concessions were agreed for products which had a significant volume traded in the reference period and cover, approximately, 79% of Bulgarian exports (including wine) to the European Union. The difference between 100% coverage and the real result is due to the application of some exceptions to the general principle in the process of negotiations.

The concessions granted by Bulgaria to the EU consist of lower tariffs and the removal of some non-tariffs restrictions on imports from the EU, both within specific quotas. The concessions cover at least 40% of agricultural imports from the Union in 1991.

**Table 19. - Agricultural trade between EU and Bulgaria (in ECU Mio)**

	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
Total exports to Bulgaria	1346	1597	2053	1698	1837
<u>of which Agricultural and food</u>	<u>217</u>	<u>223</u>	<u>230</u>	<u>144</u>	<u>153</u>
<b>Share of Agriculture &amp; food</b>	16,1%	14,0%	11,2%	8,5%	8,3%
Total imports from Bulgaria	950	1342	1836	1706	2079
<u>of which Agricultural and food</u>	<u>170</u>	<u>188</u>	<u>223</u>	<u>215</u>	<u>228</u>
<b>Share of Agriculture &amp; food</b>	17,9%	14,0%	12,1%	12,6%	11,0%
<b>Balance - Total trade</b>	396	255	217	-8	-242
<b>Balance - Agriculture &amp; food</b>	47	35	7	-71	-75

Source: Eurostat

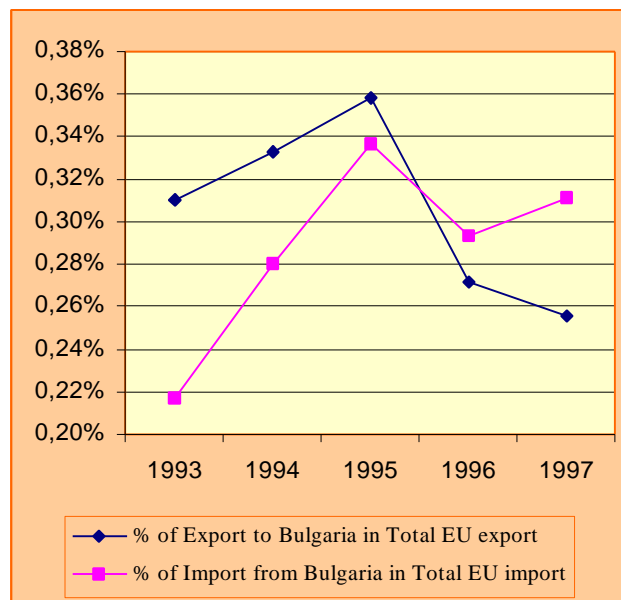
As most other associated CEECs Bulgaria has increased its use of preferential quotas over time. Nevertheless, the global level of utilisation of the quota

granted is still mediocre if compared with average utilisation levels for other CEECs. Preferential quotas on products like wine, some fruits and vegetables, natural honey and cheese of sheep milk are fully used or used to a large extend. On the contrary, preferential quotas for many other products like meat, eggs and many preserved fruits and vegetables are underused or not used at all. Problems related to filling these quotas are due mainly to insufficient information, unsatisfactory quality of products and to bad organisation. In other cases self-restrictions on the exports of certain products limit the possibilities of exporting and thus to take advantage of the preferential duties.

Although the mediocre result of the level of preferential benefits agreed within the European Agreements, Bulgarian agricultural exports to EU have increased slightly.

Bulgaria has moved from 0.22% to 0.31% of the total extra-EU imports over recent years. However, exports from the EU's exports to Bulgaria have decreased in relative terms. In 1997, 0.26% of the total extra-EU exports were destined for Bulgaria, while this percentage was 0.31% in 1993. These percentages are lower that the total shares taken by all other CEECs, except the Baltic States. By way of comparison, the aggregate share of the CEECs in EU trade is approximately 10%.

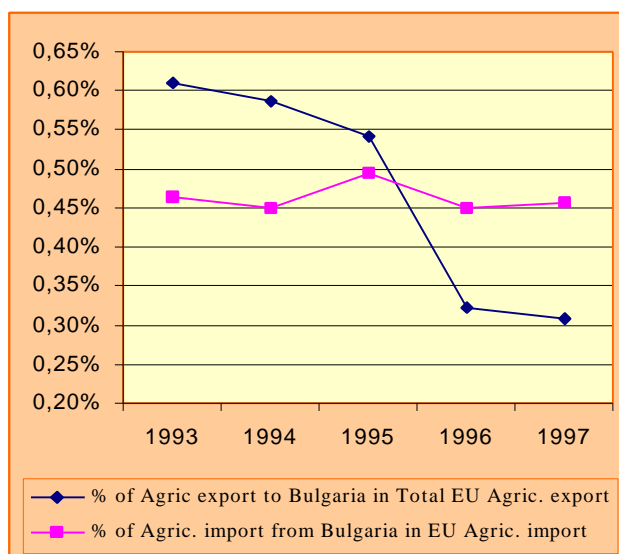
**Figure 23. - Share of Bulgarian trade in EU trade**



With regard to agricultural trade, the trend is similar but the Bulgarian share in the EU trade has remained more or less constant since 1993 (0.46% of the total EU imports). The background of a deep economic crisis affecting normal trade development has braked a potential improvement of the Bulgarian

position. As for the total trade, the agricultural trade balance has shifted to positive side for Bulgaria since 1996.

**Figure 24. - Share of Bulgarian agricultural trade in EU agric. trade**



### 2.5.6. Agricultural trade with CEFTA

#### CEFTA

The Central European Free Trade Agreement was signed in December 1992, which 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).

Slovenia became a member of CEFTA in November 1995 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 joined at 17.7.1998. Several other countries have also started negotiations such as Latvia, Lithuania, FYROM (Former Yugoslav Republic of Macedonia) and Croatia. However, under CEFTA rules, only candidates that have an Association Agreement with the EU and are members of the WTO are eligible for membership.

CEFTA agreement encompasses all merchandise trade. All barriers concerning the industrial products and all barriers will be abolished at the end of 2000. The initial agreement introduced a system of preferential quotas for agricultural and food products. 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 and in some cases an even higher reduction of 70%.

In December 1995 an agreement was reached to gradually liberalise the agri-food trade further until complete full liberalisation. 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 of 1.1.1996 (breeding animals, horses, rabbits, durum wheat and oilseeds);
- *B listing*: common preferential tariffs (poultry meat 28%, wheat 15%, barley 18%, flour 15%, pastry 20%, some fruit and vegetables 5 to 10%);
- *C and D listings* with bilateral preferences on more sensitive commodities between CEFTA members; C and D-listings embrace main goods, which are not covered under A or B, some are limited quotas

Sugar and certain dairy products remained outside of the listing.

The importance of CEFTA in Bulgarian agricultural trade has been low. It accounted, in 1996, for 3.4% of exports and 7.2% of imports. The importance of trade with CEFTA varies according to the product group and it is difficult to detect stable tendencies because the annual fluctuations are very large. Fresh vegetables and live animals are the main Bulgarian exports to CEFTA. Exports of tobacco and beverage are much less important (3-5% of Bulgarian exports) and, even decreasing over time. During the last couple of year, CEFTA has been an important supplier of livestock products, mainly due to the lack of domestic production of these products. The agricultural trade balance between Bulgaria and CEFTA has been positive but with large fluctuations over time.

The main trading partners have been Romania and Poland but this situation has varied over time. However, Bulgaria has increased its exports to Hungary and the Czech Republic while trade with Slovakia and Slovenia have increased insignificantly.

A recent study<sup>4</sup> draws as conclusion that there is still a lack of a more stable trade pattern between Bulgaria and CEFTA. It observes a tendency of the Bulgarian agricultural exports towards decrease, while the import flows are changing from year to year depending on the domestic market balances, particularly in imports in Bulgaria from CEFTA. The big fluctuations are brought about mainly by internal factors, particularly the bad functioning of the grain market and the existence of erratic shortages of grain and flour. The liberalisation of agricultural trade expected under CEFTA could allow more competitive imports and may bring about a change in the commodity structure of imports from CEFTA. These imports are expected to be less dependent on temporary unbalances on the domestic market and to be based on more stable economic grounds.

Bulgaria has bilateral agreements with three CEFTA countries. The agreement with the Czech and Slovak Republics entered into force on 1<sup>st</sup> January 1996 and with Slovenia just one year later. The agreements with the Czech and Slovak Republics provide for set import tariffs for the three first years (1996-1998) for limited or unlimited quantities depending on the products. Some tariff lines are subject to annual decreases over the three years period. Tariff quotas are constant. The agreement with Slovenia provides for a 50% cut in duties applied mutually on 1<sup>st</sup> January 1997 for a list of tariff items within a quota.

To join CEFTA Bulgaria had to re-negotiate these agreements within the framework of the multilateral CEFTA agreement. The negotiations with Hungary and Poland had encountered problems, mainly due the pre-reform debts in transferable rubbles to these countries. In practice, the CEFTA negotiations and the agreement on the debt repayment were in parallel. The conclusion of the agreement was held on July 17, 1998.

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<sup>4</sup> Bulgaria and Romania en route to CEFTA and their Agricultural Policies. Sophia Davidova (October, 1997).

## 2.6. UPSTREAM AND DOWSTREAM SECTORS

### 2.6.1. Introduction

Prior to 1989, the state enterprises supplied to farmers almost exclusively all consumer goods, basic productive inputs, machinery and services. In turn, the state purchased practically all harvest and animal products. Competition between state processing plants was practically non-existent.

As a result of the political and economic change, a process of demonopolisation and privatisation began. The process was oriented to force a change in the behaviour of those were engaged in agricultural markets and processing industries to adapt to new market rules. From a legal point of view the process implied the following:

- Removal of central planning, compulsory production and sale targets for state co-operatives and state agricultural processing.
- Liberalisation of prices with the exception of basic food products.
- Legal measures on the abolition of the state trust monopoly<sup>5</sup>.
- Legislation on transformation and privatisation of state-owned and municipal owned enterprises (referred to as the "privatisation act").

However, between 1990<sup>6</sup> and 1996 and despite the changes in the legal framework established to proceed with the demonopolisation and privatisation process, a series of obstacles remained which held back changes in the market structures for the different agricultural services and processing industries:

- The decrease agricultural production has discouraged new entrants and increased the uncertainty of processing activities. Also overcapacity remained a problem when estimating the value of assets.
- The need to invest large amounts of capital in existing processing industries has created a barrier against foreign and domestic investors.
- The slow implementation of the privatisation process by the administration<sup>7</sup>.

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<sup>6</sup> Decree n° 110 of the Council of Ministers for decentralisation and demonopolisation (14 of November, 1990) and Law on Transformation and Privatisation of State and Municipal Enterprises (1992).

<sup>7</sup> By December 1997 only around 28% of saleable state assets had been transferred to private ownership.

In 1997, the authorities pressed by multilateral institutions regained the impetuosity to instigate the privatisation process faster. By the end of 1997 the proportion of assets transferred to private ownership was approximately 28%.

The privatisation took place as commercial and mass privatisation. Mass privatisation accounts for 10-11% of the total assets transferred to private ownership. There were restrictions for sales on a secondary market of shares acquired during the mass privatisation for a certain period of time. This restriction remains one of the main obstacles to the start of normal stock trading. Nevertheless, a recent amendment to the Privatisation Act will liberalise secondary trade in mass-privatisation shares from 31 October 1998.

### 2.6.2. *Fertilisers and agro-chemicals*

The fertiliser and agrochemical sectors severely suffered from the restructuring process. In fact, production and use of fertilisers and pesticides practically collapsed for a short period of time. Fertiliser production dropped by more than 50 % between 1989 and 1993 (nitrogenous, -51% and phosphates, -70%), plant protection chemical production dropped by 56 % in the same period. The downward trend continued in the following years. The table below compares the use of fertilisers and pesticides between 1990 and 1996.

**Table 20. - Use of fertilisers and pesticides in nutrient units**

Use of fertilisers and pesticides in nutrient units						
	1990	1991	1993	1995	1996	1997
Consumption of fertilisers* - tons	750000	471592	228641	171693	150000	
of which:						
Nitrogenous	69%	80%	79%	93%	95%	
Phosphate	18%	13%	18%	6%	5%	
Potash	13%	7%	3%	0%	0%	
Consumption of pesticides* - tons	17000	8275	6491	3969	3700	
of which:						
Herbicides	28%	16%	40%	46%	40%	
Consumption of fertilisers* - per ha of cultivated land		101,6	49,3	36,6	32,0	
Consumption of pesticides* - per ha of cultivated land		1,78	1,4	1,2	1,0	
Source: NSI						

To some extent this decrease is considered as a rational response of the farmers to changes of input-output price ratios and to the lack of financial support. Indeed the decline in the use of fertiliser has so far been more drastic than the drop in agricultural production. As in other CEECs, the previous levels of utilisation of fertilisers and plant protection chemicals were reached as a result of administrative misallocation, coupled with weak budgetary

constraints and artificially favourable price ratios. The waste under that system was considerable.

Bulgaria successfully exports nitrogenous fertilisers. All the large multinationals producing fertilisers and plant protection chemicals are present in the country. Some of the foreign companies are providing with the sale technical assistance and, in some cases, credits. Thus market conditions have improved and it is more competitive, but lack of finance continues to be a serious constraint.

### 2.6.3. *Seeds*

The quality control of seeds is the responsibility of the Ministry of Agriculture. Very little seed are imported and most needs are met from local production. The types of seed produced depend on the agro-ecological zone and the requirements of the specific region being served. Some seed (e.g. sunflower and maize) is produced under licence or in association with foreign companies, with payment in kind. There are no substantial barriers for imported seeds but once again the lack of financial means to put up-front has decreased the use of high quality seeds.

### 2.6.4. *Farm machinery*

The production capacity of this sector has declined considerably in recent years. The reduction in domestic demand as a consequence of the contraction in agricultural production and of the liquidation of collective farms has resulted in a drastic cut back in the production of domestic machinery.

Tractor, combine harvesters and other agricultural machinery in use in farm activities dropped by 40% since 1989. Around 80% of the available machinery is now either obsolete or in a state of disrepair due to lack of financing facilities and cash for spare parts repairs. The absence of private machinery contracting services needed for the private farming sector is another handicap that affects the machinery fleet. Prior to 1990 there were 1600 repair companies, but by the end of .1997 only one-third of these were operational and 60% of them were state repair companies giving services to only 20% of the available machinery. All these constraints have a negative effect on the efficiency of farming activities<sup>8</sup> Nevertheless, in the medium-term this constrains should have a decreasing negative effect due to the progressing initiatives to supply of second hand machinery which are expected to be at lower and more affordable prices.

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<sup>8</sup> The shortage of combined harvesters has led to losses during harvesting in 1997 estimated at around 600.000 tonnes of cereals. Agra Europe N° 183, December 1997. This figure is probably exaggerated but give an indication of the importance of the problem.

### 2.6.5. *Banking system and financial infrastructure*

In Bulgaria, there is no specific banking system to the agricultural sector. In this context, Bulgaria follows the general pattern of the other CEEC countries, which faced credit constraints during the transition<sup>9</sup>.

The banking system in Bulgaria is a two-tier system. The National Bank, acts a State bank, empowered to issue the national currency issue, is on one level. The Bulgarian National Bank Act (1991) and the Bank and Lending Act (1992) are the Laws that introduced reforms in the banking system and established the independence of the central and commercial banks from the Government. The second level represents the commercial banks. Banking reform has established a financial and credit system operating on a commercial basis.

In 1990 all regional branches (approximately 60) of the Bulgarian National Bank were transformed into commercial banks, each with the status of a joint-stock company. The first private banks with foreign reserves were founded in 1990 and 1992. The direction of the reform, designed by the World Bank, has been to reduce the number of commercial banks to 7 or 8 large and financially strong entities. The Bank Consolidation Company was founded to organise this process.

Until 1996, the banking system was fragmented, inefficient and undercapitalised. Real financial discipline was also lacking. Loans from state banks contributed for many years to prop up loss-making sectors of the state industry. The banking policy towards the private sector has not been prudent either, large loans with little or no collateral and unsure prospect of repayment were an extended practice. The implementation of non-business criteria to screening and selection of projects for financing restricted financial resources for profitable investments. Privatisation in the banking sector was made only under obscure share-stock acquisitions by managers and entrepreneurs with more interests in rapid lucrative operations than in professional banking. The failure of several private banks (15 in total) led, since mid-1996, to the general erosion of confidence, which resulted in rocketed nominal interest rates, drastic depreciation of the BGL and severe liquidity problems.

This crisis created a painful situation for most Bulgarians and it only began to stabilise since the deep reform of the banking system was designed and implemented, in 1997. The reform involved four aspects: 1) stricter supervision and prudential rules; 2) privatisation of all the state banks –except

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<sup>9</sup> Political Economy of Agricultural Credit Subsidies in Central and Eastern Europe. J. F. Swinnen, Hamish R. Gow and Jason G. Hartell. "Working Paper 3/7 for project FAIR1-CT95-0029. February 1998.

the State Saving Bank-; 3) consolidation of the surviving private banks; 4) setting up a currency board since 1<sup>st</sup> July 1997.

The banking system appears to have responded to the currency board and is now stabilised. The inflow of reserve funds was considerable, thus the liquidity of banks has improved. Consumer credits have extended in the second half 1997, the banks have been more cautious in extending loans to firms and investment mainly because a lack of lending expertise and ultra-cautious legislation. Nevertheless, it remains to be seen how easily Bulgarian bankers will adapt to new conditions and how eager foreign ones will be to step in and upgrade the system (EIU, Country profile 1997-98). Currently there are no restrictions on sales and purchases of foreign currency and exchange rates used are freely negotiated.

Concerning the government agricultural credit policy, it has tried to compensate for the limited bank and non-bank finance facilities available to agriculture. The government established the Agriculture Credit Centre (ACC) at the beginning of 1992 as specialised credit institution acting in the agricultural sector to prevent decapitalization of the sector and to supply start-up capital to private farmers and new-style co-operatives. The main shareholder is a public agency. The ACC provided medium-term and long-term investment outside the commercial banking system, charging lower interest rates than the commercial banks but adjusting the principal payments to changes in the exchange rate. As result of the 10% depreciation of the BGL at the beginning of 1994, the ACC changed the rules for the loan disbursement. Instead of relating the loan principal to foreign currency and a constant interest rate, it was related to the interest rate risk. This change converted, in fact, this policy in credit subsidies due to the dynamics of inflation, the nominal interest rate and the exchange rate.

Other significant finance interventions in the field of agriculture are the State Fund for Agriculture (SFA) and a guarantee scheme for wheat purchases, this last installed in 1997. The SFA provides seasonal credit facilities financing inputs for wheat, maize, oilseed productions and other specialised productions (50 percent interest subsidy); direct subsidies per unit area for the same crops; and interest subsidies on special investment loans approved by a council under SFA. In 1996 the SFA disbursed about BGL 8.5 billion (USD 5 Mio). A severe limitation of the SFA was the obligation for the producers receiving credit to sell wheat to state-connected companies designated by SFA.

The Wheat Crop Guarantee Program was introduced following the 1996/97-grain crisis. One of the reasons argued by government was that in 1996 farmers exported large volumes of wheat to foreign markets to alleviate their cash-flow problems. The guarantee scheme amounted to BGL 260 billion,

which set a high official purchase price<sup>10</sup>, but once again the final beneficiaries were state-connected purchasing companies and mills.

Since 1996, and independently from the Budget State, the EU PHARE programme has provided financing for the creation of credit co-operatives. Farmers had to contribute an initial capital and the remaining resource came from the ECU 7 million PHARE credit line. The disbursement of credit started in November 1996 under preferential conditions, which included an annual interest rate fixed at 54 per cent and a period of grace of 11 months. However, the amount of disbursed has been small in order to change the acute situation of lack of credit.

#### 2.6.6. *Situation of the agro-food chain in Bulgaria.*

In 1996 the industry sector had a share of 32% of GDP and of 33% in employment. In 1991 the share of the industry sector was slightly below 40% of GDP. Within the industry, the food-processing branch (food products, beverages and tobacco) accounted, in 1996, for 20.8 % of the total industrial output, just the second in importance, after the chemical and oil processing industry. The food-industry accounted, in 1996 for 17.4% of total exports.

The production capacity of the Bulgarian agro-food industry –and the food processing, in particular- was planned to meet not only domestic demand, but also external demand from the former Soviet Union and other CMEA countries. The collapse of these markets and the subsequent restructuring process led to important output reductions. Until 1996, the manufactured volume of industrial production declined by 45%, being slightly bigger (47%) due to the decline in food-processing.. The 1997 financial crisis, largely explained by the lag in industrial restructuring, has aggravated this decline, although there are signs of recovery in the second half 1997. At this moment the food-industry is working at below 40% of its capacity. Probably this drop has already bottomed in 1997.

**Table 21. - Industrial production indices (1989 = 100)**

<b>Industrial production indices (1989=100)</b>					
	1992	1993	1994	1995	1996
Industrial production	54,4	48,5	52,6	55,2	55,3
Food, beverages and tobacco	68,2	51,9	51,2	51,6	53,0
Source: NSI					

Nevertheless, this situation refers exclusively to the total industry public sector, which still represents about 85% of the total. Official data for the private sector is scarce and not systematic (see box).

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<sup>10</sup> The price officially announced amounted to 130 USD/t.

The Bulgarian government is planning to privatise 85% of the country's food companies by the end 1998. This ambitious program is linked to commitments with IMF and WB. This target, considering the dimension of the sector, is too much optimistic. Nevertheless, there is evidence of some dynamism played, mainly, by foreign investments.

Direct foreign investment in Bulgaria's food industry has increased from \$28.4 Mio in 1993 to \$267 Mio in 1997. This foreign capital comes mainly from the European Union, being Greece (51%) and Belgium (22%).

Investment in the food sector currently accounts for about 30% of total foreign investment (19% in 1993). Approximately 60% of this investment is contributed by new investors. Almost 90% of this foreign investment has been used into the commercial privatisation of previously state-owned companies. The new amendments to the Foreign Investment Act will intensify this process.

Recent, precise and reliable information on the Bulgarian food industry is hard to find. The main reasons for these difficulties are the following:

- (1) The collapse of the state management of the sector and the privatisation of the firms has disorganised the statistical network. The disorganisation has been particularly accentuated in agriculture because of the fragmentation of the production and in the food sub-sectors with the end of the state monopoly and the progression of very small and ephemeral processing units<sup>11</sup>. Surveys are now the only way of collecting data on the private sector, but the representative of many results are questioned due to the lack of sufficient answers<sup>12</sup>.
- (2) The situation has been changing dramatically since 1996, following the grain crisis and the subsequent hyperinflation and recession (at the end of April 97, the production was down by 21% compared with the beginning of the year). Thus, statistical and financial data referred to 1995 must be considered carefully.
- (3) Very poor information is published in specialised reviews, in comparison with other CEEC, i.e. Poland or Hungary, what attests of the slow changes and the weak insertion of the Bulgarian food sector in the economy of this region.

#### 2.6.6.1. Tobacco industry

The production capacities in Bulgarian cigarette factories are estimated to be approximately 150 000 t of raw tobacco, but this capacity is not reached now by far because of the decrease in the tobacco fields. Bulgaria has always imported substantial quantities of tobacco, mainly used for blending, to supply

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<sup>11</sup> A recent mission of statisticians of the French Ministry of Agriculture estimated that the reliability of the statistical system was dubious.

<sup>12</sup> A survey was made in 1996 for the dairy industry. The rate of answers was 75% in state-owned firms, 10% in private firms but 0 % in the recently privatised companies.

the factories. In 1996 the tobacco industry's output was about 57,000 tons of cigarettes and other derived products.

Tobacco growers have faced the same problems as in other crops producers: low purchase prices, lack of inputs, delayed payments, all in a context of high inflation. More specifically, a large number of ethnic Turks left the country in the early 90's, who had the traditional tobacco labour expertise.

To revive the tobacco industry, the government in 1997, through Bulgartabac (a state owned trading company), decided to pay growers 40% of the tobacco price in advance, and provide inputs at factory price. Similar measures had been established in May 1996, but due to the devaluation of the BGL, the Djebel tobacco price decreased from USD 2.1/kg in 1995 to USD 1,8/kg in 1996. In 1997, the government decided that the minimum purchase price would be revised twice a year to compensate inflationary effects.

This sector is organised with a unique holding, Bulgartabac, controlling several affiliates: cigarette factories and manipulation facilities. Despite the economic crisis, this holding remains among the top six tobacco companies in the world. Despite the first step of the privatisation, which began in 1994, this process has not yet been completed and there is a new comprehensive programme of restructuring to turn Bulgartabac into a modern holding company. For Bulgartabac, the designed plan for privatisation consists of the sale of shares rather than individual production units.

The tobacco industry remains one of the priority sectors in the national economy. This industry contributes 30 % to Bulgaria's overall foreign currency income and accounts for about 54% of the total food-industry exports (1996). A 3,5 % of the Bulgarian budget in 1996 came from taxation on tobacco products.

**Table 22. - Index number of output of main industrial tobacco products**

	1991	1992	1993	1994	1995	1996	1997
Processed fermented tobacco, t	100	90	77	68	42	32	
of which:							
Oriental	100	96	85	72	44		
Virginia	100	80	42	74	55		
Tobacco products, t	100	61	40	67	94	72	
Source: NSI							

#### 2.6.6.2. The dairy industry

The total milk processing capacity is estimated at approximately 3,000 million litres per annum, but as many plants are being liquidated, this figure should be reduced. Prior to 1997, there were 55 state dairies. In 1997 36 were fully

privatised, 5 were under privatisation procedure and 8 announced for liquidation due to insolvency<sup>13</sup>. There are also 2 joint ventures with Greek firms for the production of ice cream and one with a French multinational for the production of yoghurt. More than a half of state dairies have a capacity of over 100 t/day, but the majority of them operated, in 1997, at between 20-30% of their capacity. In 1997 there were also approximately 400 new private dairies. Nearly 90% of the private firms have a capacity of less than 10 t/day. Many of the smallest dairy processing companies is not registered because they cannot meet the required hygiene and health standards for registration.

In addition to the decline in production, the percentage of processed milk is declining every year. It is estimated that no more of 45% % of the raw milk is processed, the rest being for family use or direct sale, depending on market opportunities. Occasional supply shortages are partly compensated by imports of milk powder that have soared from 634 t in 1992 to 8,246 t in 1993 and 7,343 t in 1995. At the end of 1997, the government decided to duty-free import 1,000 t of milk powder to compensate for the fall in cow's milk output during the winter of 1997.

Data concerning to the output at processing level according to ownership division are misleading, but some studies<sup>14</sup> estimated in 1995 that about 70-75 % of the milk is processed by state-owned dairies. With privatisation this figure is expected to be considerably lower.

The structure of the market is characterised by the domination of between 6-8 large dairies, which control around 60% of the market. The remaining 40% more a more open market. Despite this moderate competition, the price levels are not in accordance with the deficits of surpluses observed in many regional markets. This reveals a lack of transparency and of market information. Milk producers prefer supplying private dairies because they settle their accounts regularly and in cash.

The poor quality of the raw milk is slowing down the possibilities of recovery of this industry (see box). To regain the consumers confidence, the government plans to introduce, under new veterinary legislation, the obligation of each dairy to have a special licence to produce milk. The state veterinary and sanitary commission will issue the licence and sets out stringent requirements.

The quality of milk in Bulgaria is a serious problem that arises for several reasons. The first is the lack of good husbandry by the very small producers, with 1-2 cows kept in the back yard of the house and not all-dairy cows are registered and with a proper health
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<sup>13</sup> In 1995, only 12 out of 48 state dairies make profits.

<sup>14</sup> Agricultural prices in Central and Eastern Europe acceding countries – Medium terms perspective. Sophia Davidova and Ivanova,. November 1996.

certificate. The storage of milk is inadequate and small producers do not have cooling facilities. There are not everywhere collection points in which cases milk is collected from the houses of the producers after being stored un-cooled. The collection points are not always in appropriate buildings with satisfactory hygienic conditions, particularly some of the new one created by small private dairies (basements, garages, back yards of the houses). The dairy processing enterprises, other are owned by the producer co-operatives or the municipality owns most of the collection points.

According to the current regulations milk should be checked at the collection points for fat content, impurities, density, cooling temperature. However, even they are not properly analysed. At the collection points there is no equipment for analysis of protein content and micro-organisms. On the market there is equipment available for express analysis of fat content, acidity and proteins at the price of about USD 1000, but only a few dairy processing have invested in such equipment. Also there are cooling facilities for collection points available. Normally they use cooling facilities with capacity of 1-2 tonnes in order to collect milk from 50-100 cows. There is Bulgarian made cooling equipment as well as equipment for quality analysis. For microbiological analysis the main supplier is the Danish company Fos-Electric. Lack of funding for the acquisition of proper equipment is the origin of this situation.

Sophia Davidova. The Livestock Chain in Bulgaria. December, 1997

#### 2.6.6.3. Meat industry

The economic changes in Bulgaria have had a strong effect on meat production. On the supply side, the steady decline in the livestock numbers since 1990 reduced considerably the supply of animals for slaughtering. The fall in livestock numbers, which initially stabilised in 1995, began to decrease again in 1996 due to the shortage of feed (related to bad grain harvest and to degraded economic situation of Bulgaria since late 1996). Free feed imports and meat imported under reduced import duties were measures taken to alleviate the shortage of meat and to stop meat prices escalate. Until such measures were taken, import duties for meat, mainly for pig-meat, were very high and hindered meat imports. As demand has plummeted, this made recovery very difficult. Meat consumption has decreased by 26% since the early 1990's.

The privatisation process has not contributed to the recovery of the meat-processing sector. In 1995, a total of 59 firms were still state-owned, of which only 5 made a profit. The cumulated loss in the meat sector was USD 3 million in 1995. Approximately 100 private firms existed, but they process only 15% of the meat output. A majority of these plants have modern equipment, unlike most Eastern Europe countries. Many of households slaughtering are reporting for retail consumption and local sale. Similar to the

dairy industry, meat processing suffers an excess of productive capacity. Utilisation in state-owned plants falls to 10-20% of the productive potential<sup>15</sup>.

#### 2.6.6.4. Milling industry

The milling and bakery industry has suffered, as a result of production problems that occurred in the food industry in general, a particular crisis originated, for a large part, by the grain shortage that began in 1996.

The policy applied in this sector has severely affected the small and new firms in the private sector more than the state companies. Approximately 8-10 large companies share about 10% of the flour and bread confectionery market. Between 30 to 40% of the market is shared by approximately about 40 medium sized companies and about 150 small firms share the remainder (50%). While about 80% of the major and medium sized companies were state, most of the small firms have emerged since 1990 by private initiatives. State-owned companies benefited, during the crisis, from some policy induced facilities for better access to grain supplies what crowded out the private sector. Farmers using credit received from the Agriculture Fund were obliged to sell, through forward contract, their crop or a part of it mainly to state mills and enterprises. In addition, it should be noted that state mills use government guarantees to have credit while private mills must use their own assets to get credit.

Market development is severely constrained by the absence of efficient infrastructure and milling voluntary organisations. There is a lack on market competitiveness as market information is inadequate, out-of-date and thus it has been replaced by informal contacts<sup>16</sup>. The development of the private storage sector is slow and the legal mechanisms to support it insufficient.

#### 2.6.6.5. Canning industry

Within the CMEA market the Bulgarian canning industry was important and benefited of a good image. The main products canned were exported to Russian markets (70 - 90% of exports). The domestic market was relatively narrow, because of the tradition of homemade preserved food.

During the political transition the sector lost its traditional markets and there was a shortage of supply, for example tomato production fell by 50% between 1990 and 1994. Also many orchards were abandoned during the land reform process and production was considerable fragmented into small individual

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<sup>15</sup> According to the Association of Meat Packers in May 1997, 60% of private sausage factories were idle due to a meat shortage.

<sup>16</sup> Varangis, Panos. Cereals & Oilseed Marketing and Performance in Bulgaria: Current Situation, Major Constraints and Recommendations. Bulgarian Agriculture Sector Review. 1997.

plots. In 1996, about 85% of vegetables and 77% of fruits were produced in individual farms. Thus the percentage of output sold to processing plants decreased from 80 to less than 50%.

There are about 80 state-owned canning plants most of which on a process of privatisation. The theoretical capacity of the canning industry is 950 000 t, but since it operated in 1996 at 20 % of its capacity, a large number of plants have been abandoned or closed.

Due to the fragmentation of the production and to a lack of developed wholesale markets, a growing number of intermediaries have emerged between the farmer and the market. Thus the economical efficiency of the sector has been reduced, as well as the gap between what the producers are paid and the retail price is widening. Nevertheless this industry could regain in the future provided capacity increases and the end product are geared to the demands of the new markets. It is also crucial that sales, marketing and packaging are improved. This sector is already showing signs of a recovery and trade with the FSU has recommenced. Also foreign investment in the canning industry in 1997, was the largest of any sector of any sector of the food industry.

#### 2.6.6.6. Sugar

The sugar sector is in a deep crisis, to such a point that domestic sugar production has become almost non-existent. In 1996 Bulgaria processed 53,000 t of sugar beet, to produce 5,300 t of white sugar. These figures were far below those of 1995, where 157.000 t of beet was used to produce 14,675 t of sugar. Bulgaria has always been dependent on imported supply of sugar, which was imported from Cuba and highly subsidised. Sugar consumption has been traditionally high in Bulgaria (up to 50 kg/p.c. in the 80's) mainly due to big scale home production of wine, brandy, jams and jellies. Since the political transition, consumption has decline sharply (about 20 kg/p.c.) due to limited incomes and high domestic prices for sugar products. Nevertheless, the retail price of sugar has been maintained relatively low. Sugar price increase has been among the lowest in food products. This relatively low sugar prices has been due to the large volume of imports, which in turn has been accused to cause a low profitability level for sugar beet growers and to have contributed to the decline of the domestic production.

Imports are in the order of 350-390,000 t, but there is an important re-export flow. Domestic consumption of sugar is estimated to be approximately 200-225,000 t. In recent years, sugar exports were fuelled by increasing price competitiveness. The most significant share is from processed raw cane sugar imported by private traders, refined and then re-exported.

There are seven sugar-processing plants in Bulgaria. The potential processing capacity of 3,500 t/day of sugar was the norm in the 80's. However, now this

is no longer the case as some parts of the equipment production line are not functioning. The present production level of sugar beet provides raw material for only one of the Bulgarian plant. All others refine imported raw sugar.

Only two plants out of the seven have been privatised (at 31.12.1997). In the medium run, some sugar plants are expected to specialise in processing imported raw sugar but most of them might be forced to close down due to inefficiency and excessive debts.

#### 2.6.6.7. Vegetable oil processing

Sunflower seed production was the least sector affected by the turmoil that has followed the breakdown of the communist regime. The increase in area has more or less, compensated for the decline in yield. The last two years harvests (1995-97) have been, with some exception abundant, in spite of a relative large percentage of the harvest was left unsold (about 50% in 1995). This surprising situation was a result of the ban on vegetable oil exports maintained for many years with the objective to fulfil domestic demand. At the present moment exports of sunflower oil are very low due to the high export tax.

The vegetable oil industry is dominated by the production of sunflower oil. In the recent years, there has been a clear trend to increase the private share in the oil sector. There are now three large state-owned refineries and many small and medium size private ones. Only some plants representing about 20% of the crushing capacity are equipped with presses to crush seeds but with no extraction systems. Plants with extraction systems have a low efficiency and heavy losses of raw material, energy and labour.

#### 2.6.6.8. Wine

Only half of the processing grape capacity is reached in Bulgaria. The majority of wine companies are still state-owned. All of these companies will be privatised at 100% by the end of 1998, as well as Vinimpex, the main wine export company. Considering that the average time period that is required to privatise a company is one year, this deadline is considered unrealistic. The most tedious task, which causes delays, is the identification of suitable buyers. At the beginning of the privatisation process most of privatisation involved management buy-outs with very little foreign investment. Recently this trend is being reversed. Several domestic and foreign firms have invested in vineyards or established co-operative agreements with individual farmers and co-operatives in order to secure supply. Many consider privatisation an opportunity to buy more land, and also to attract foreign capital.

In spite of the reduced output, wine exports climbing back to the pre-transition levels. Over 80% of the domestic production is exported and

accounting for about 11% of total agricultural exports. This makes wine the second largest export product after tobacco.

In the short term, the free trade agreements with the CEFTA countries may boost wine exports (but this depends on the level of free trade agreed for wine). In the medium term there is a clear determination to produce better quality wines. It is planned to plant new varieties in the long-term.

## **2.7. LAND REFORM AND FARM STRUCTURES**

### *2.7.1. Introduction*

In recent years, farming has gone through dramatic changes in Bulgaria. The political priority of the post 1989 reform has been to break up the structures of the previously centralised and state controlled agriculture, which were perceived by many of the emerging post-reform parties as a stronghold of communism in the country. The means by which the agricultural sector is to be restructured has been the subject of a major political debate.

### *2.7.2. Concepts and institutions used in the agricultural reform process*

*Land restitution* is the process by which farmland is returned to its former owners (based on the situation after 1946) or their heirs. The claimants must furnish proof or evidence of former ownership. As in some other CMEAs countries, the former communist collectivisation of land was not formally a nationalisation. Only a small part of the land is state owned. Most of the landowners kept their titles to the property. In the case of absence of documents, witnesses can help to put forward a claim. The household plots, which were created during the communist period, were not privately owned and are included in the land restitution process.

*Privatisation* is the sale of state assets (state farms, seed selection stations, feed mills, and livestock complexes). The Agency for Privatisation and the Ministries of Agriculture and Industry are responsible for this task and operate either by negotiation with potential buyers, foreigners or nationals, by public auction or sale of shares, including to plant workers or labourers on preferential terms, by debt-equity swaps or sales on leasing.

*Liquidation* is the dismantling of the collective farming structures (TKZs, KZs, existing agri-firms and agricultural brigades, all of which are referred to as "state controlled co-operatives" in the text), with the attribution of their assets to those who contributed to the land and non-land assets, and to their workers.

*Decentralisation* is the whole process of agricultural reform, the objective is to create a market orientated economy, and implying the liberalisation of state control and decentralisation of the decision making process at different levels (land use, production, processing, marketing, administrative channels).

Decentralisation in fact is a concept developed in the late 1970s, in order to alleviate the effects of the collectivisation and of central planning.

*Municipal Land Commissions* (MLC) issue different types of certificates during the process of land restitution. They examine individual claims, provide certificates permitting the temporary use of the claimed land, allocate the land to the claimants according to a land reallocation plan, and deliver ownership certificates at the end of their work.

*Liquidation committees* are responsible for the liquidation of state controlled co-operatives and the allocation of their non-land assets to eligible owners; on a transitional basis, they also prepare and sow the land which remains under their responsibility, mainly the land which is in the first stages of the restitution process.

*Private ownership* can be certified, for the non-land assets, by attribution of shares issued by a liquidation committee or, for land, by certificates issued by a Municipal Land Commission. However, in order to sell or transfer legally a piece of land, a notarised deed is necessary.

### 2.7.3. *Land reform*

Land reform is, together with the privatisation of the state properties and the creation of new market structures, one of the essential elements of the structural reform in agriculture. Since the approval, in February 1991, of the Law for Agricultural Landownership and Land Use (LALOLU), the process of restitution of agricultural land to its former owners is still being implemented, and according to official sources, the process will not be completed before the end of 1998. By the deadline for submitting claims in 1992, 1.7 millions claims were collected by the MLCs. But taking into consideration the heirs of the original owners it could be expected that there could be between 3 or 4 millions of landowners once the land restitution process has ended. The total amount of land claimed is around 5.5 Mio ha of which, 91 % was individual claimants, 1.4 % the state, 5.1 % municipalities and other legal entities 2.4%. By end of 1993, only 12.7% of the area claimed were restituted according to its historical boundaries. By the end of 1997, after more than six years of the LALOLU, the Land Commissions have made the final decisions for 3.7 Mio. Ha, or 67% of the land claimed for restitution and legal deeds have been issued only for about 12% of the land. The slow pace of the land restitution process may be attributed to a series of different technical, financial, legal and political factors. These factors are summarised as follows:

- **Financial:** Insufficient funds provided by the government to pay for land surveys and administrative costs for the process. As land reform is financed by an extra-budget fund, which is not adjusted for inflation, the annual budget has decreased substantially in real terms and has been frequently

insufficient to cover the cost of the reform. Besides this financial shortage one should not forget the complicated and expensive pattern on the land reform procedures, additionally complicated by political loops and indecisiveness.

- Legal: The MLC reallocation plans have been frequently controversial. A large number of disputes, partly resulting from overclaiming occurred in certain areas. As the Supreme Court gave an interpretation, which ruled that the MLCs could not change their decisions, the courts have been inundated with appeals. The vast number of people concerned live in other municipalities, which results in a huge administrative burden increased by the need to divide the property among heirs. Also the conflicts resulting from the separation of land restitution and the distribution of non-land assets of collective farms have considerably increased the volume of work of the different competent Courts.
- Excessive compensation for irrigation infrastructure or tree plantations: The State requested compensation fees for the existing irrigation equipment (amounting up to 20.000 BGL/ha) or for planted trees (orchards, vineyards, price depending on the age of the plantation). People has considered these fees excessive and in many cases, this has brought about the destruction of these assets in an attempt to avoid payment. The continuing use of the land by liquidation committees (until the changes brought about in May 1995) has slowed down the restitution process by creating conflicts concerning the reallocation of land. It is also probable that in some municipalities there has been unwillingness to break up the former farming structures, thus bringing about abnormal delays in the implementation of land reform.
- Behaviour of landowners: Many of people benefiting from the land reform are small holders between 0.5 and 1 Ha living in the cities. Under the present low profitability of agriculture and the lack of land market they did not exert political pressure to speed up the land reform. They have perceived that the transaction costs to legalise their ownership will offset the potential in the short to mid-term benefits. An additional factor has been the allocation of land for temporary use, which has satisfied a large number of people, as it is a source of production for self-consumption and generated a small additional income. Some groups of new owners have even preferred this situation fearing a future land tax or tax on land left idle. In this way, a substantial portion of new landowners has been rather passive and has not contributed to the speeding up the reform process.
- Political: The land reform process has been, during the first few years of the transition, a field for political battle, between former Communist and anti-Communist reformers (Swinnen-1996). The Bulgarian Socialist Party, which came into power after the 1995 elections, exhibited an official position of backing the LALOLU, however, in practice, they professed to support the idea of collective farming.

#### *2.7.4. Land market*

The land market in Bulgaria is almost non-existent. Only informal transactions and land exchanges exist but are mainly limited to household plots around cities and towns. Land market developments need, to certain extent, to be based on notarised and registered ownership but notarised deeds either appear too expensive to many people or they do not feel the necessity to fully enforce their property rights at this stage. Only a small portion of new owners has demonstrated interest to acquire a legal deed for their land. By end of 1997 owners with only approximately 0.7 million ha possessed notary deeds. This is one of the factors impeding the emergence of a land market, which would ease the land reform. An additional obstacle to more active legal transactions is the high stamp duties and transfer taxes (at about 11% of the value transacted) which presents far too a high transaction fee considering the existing economic situation in Bulgaria.

The leasing and renting market has begun to develop but it is essentially based on the temporary use certificates (land under process of restitution), which only permits renting on a yearly basis. New legislative provisions are being drafted which provide long-term land lease contracts, but the detail has not been divulged.

At the end of 1997, a new law on agricultural tenancy was passed by the Parliament, which together with the recent law for the private notaries and the advancement of the land reform process will certainly boost the leasing of land in the long-term.

In the medium-term, it is expected that agricultural land along the motorways, at the fringe of the urbanised areas and other locations presenting opportunities for development and value gains will command the attention of potential buyers.

#### *2.7.5. Land restitution: comments on the present situation*

The present situation is a clear consequence, on the one hand, of the discrepancy between the politically approved reform procedures and implementation, and on the other, of divergences between the individual property interests and the need to preserve and to promote efficient farming structures. Restoring former property rights to what they were fifty years ago, while neither the corresponding structures of production nor a proper cadaster with records of previous boundaries exists, is a costly, labour intensive and complicated exercise. On the other hand, land ownership is to be distributed very widely among households (around half of the families are concerned). This has a big sociological impact, even if a large percentage of the new landowners are neither farmers, nor country dwellers, but town dwellers. The absence of a policy co-ordinating the process of land restitution with the farming necessities has contributed to the present situation. Current

uncertainties about ownership (land under temporary use) have had an adverse impact on production. In contrast with the official timetable, which scheduled the completion of the land restitution for 1993, the reallocation of ownership to the former owners is still largely unfinished. The most optimistic forecasts end-1998 to reach the stage four for the total land for restitution. But considering the implementation difficulties, especially the numerous disputes, the completion under such conditions will take another few years.

#### 2.7.6. *The evolution of farming structures*

The fragmentation of estates among many owners does not necessarily mean a radical change of farming structures. A distinction has been made between the concepts of ownership and operation. However, the most recent amendments to the Land Law, as the Government has proposed, can be interpreted as to provide for both of these concepts.

##### 2.7.6.1. Situation at the end of the communist period

There were basically two types of farming structures during the communist period, which were at opposite ends of the spectrum. First, the tiny private farming taking place on household plots, which had a substantial impact on production and food security. Second, the large state controlled co-operatives, regrouping several *territories belonging to a settlement* (TBS). In 1989, on the eve of the reform, private plots (all of which were less than one hectare per family) represented 635.000 ha, i.e. approximately 10% of a total of 6.159.000 Ha of agricultural land.

**Table 23. - Pre-reform agricultural structures (1985)**

	Number	Average arable area (ha)	Total arable area (000 ha)	Share
Agro-industrial complexes (APKs)	298	12600	3754,8	80,7%
comprising of:				
Labour agricultural co-operatives (TKZs)	678	4000	2712,0	58,3%
State agricultural farms	196	2100	411,6	8,8%
Machine and tractor stations (MTS)	99	0	0,0	0,0%
Brigades	na	na	631,2	13,6%
Other agricultural organisations	238	1215	289,2	6,2%
Private plots	1600000	0,38	609,0	13,1%
<b>TOTAL</b>	<b>1601509</b>		<b>4653,0</b>	<b>100,0%</b>
Source: NSI				

Introduction of incentives to private farming started with the NEM reforms in 1979, following the Soviet example. Agro-Industrial Complexes (APKs) leased land to individual farmers on the basis of a contract. As payment for the leased land the farmers delivered a proportion of their output as defined in the contract. Quantities produced in excess of contractual requirements could be sold on the so-called co-operative market. There was an upper limit of land

that could be leased of 0.5 hectares per farmer or 0.2 hectares in the case of intensive crops, there were also limits as to the number of animals one could have. APKs used also to lease marginal land to city dwellers, in urban peripheries. It was generally accepted that the private sector performed better than the state farms in Bulgaria, as in other CMEA countries. It is nevertheless difficult to quantify the performance because of the poor reliability of the pre-1990 statistics. Official estimates indicate that private farming represented, in 1989, 46% of the vegetables produced, 13% of cereals and 9% of fruit trees. In the animal sector, the proportion owned on a private basis were, 18% of the cattle stock, 20% pigs, 30% sheep, and 38% poultry.

As far as the marketing of private farming products is concerned, the state purchased practically the whole output of industrial crops, 70-80% of the animals and poultry for slaughter, 86% of the wool produced, and 62% of eggs. These percentages were lower for the rest of the products (vegetables, fruit, wheat and maize). The retail distribution of food products was organised through three state channels and through producer markets. The State channels were stores controlled by the Ministry of Domestic Trade. The stores run by the central co-operative union and sectorial unions did not differ from the State channels. On the producer markets, only small quantities of products were sold, but nevertheless, they were important for products such as fresh vegetables and fruit.

#### 2.7.6.2. New farming structures

Comprehensive and consistent information on emerging farm structures does not exist. This results from the informality of many of the new farm structures and the inability of the statistical services to keep up with the rapid changes that are taking place. Nevertheless, it is possible to identify the following main farming structures:

- private family farms and household plots,
- private co-operatives,
- private registered companies,
- organisations (schools, churches, ...),
- state farms and state registered companies, and
- Municipal farms<sup>17</sup>.

New types of co-operatives and small private farms (most of them being in fact household plots) are the dominant farming structures of the transition

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<sup>17</sup> There is a proportion of land under municipal ownership but organised municipal farms as production units are really observed. More commonly, the municipal land is rented out to other farming structures.

period. By the end of October 1997, there were 3126 new co-operatives registered. They are mostly production co-operatives, producing arable crops. Co-operatives providing facilities to lease or rent farm machinery and labour are emerging, providing services (tillage, harvesting) to private farms or to other smaller co-operatives without assets. However, this practice is not widespread. Most of the newly created co-operatives have been founded in districts where large arable fields exist. They have an average size of around 700 ha, i.e. they are one or more per TBS (compared to one state-controlled co-operative for 2, 3 or more TBS before 1989). In many cases, there are two co-operatives per TBS, often because of a political split in the village. The average number of members is between 300 and 400, more than 80% being landowners, from whom a small minority works full time in the co-operative. It is frequently the case that the members have decided collectively to limit the individual land use to a small part of the area, thus avoiding fragmentation and ensuring that the co-operative has the largest section. There are also some smaller collective structures emerging, of 200-400 ha, and many informal associations.

The production co-operatives is considered more advantageous than the leasing and/or selling land which conserves in this way the pattern of household plots farming and participating into a producer co-operative with the rest of the land (assets). This pattern suits the part-time farming habits of the majority of the population.

**Table 24. - Farm and land use structures in 1996**

	Number of units	Land Size (000 ha)	Average size (ha)	Share of Agricultural land	Arable land	Pastures
State &	364	1300,5	3572,8	21,1%	5,7%	70,1%
Co-operatives	3126	2188,2	700,0	35,5%	42,4%	13,6%
Individual farms and farming companies	1777122	2675,3	1,5	43,4%	51,9%	16,3%
<b>TOTAL</b>		6164,0		100,0%	100,0%	100,0%
Source: NSI						

These new structures are subject to quick evolution. The short-term availability of land is indeed a major constraint to the stabilisation of these new structures, some times called transitory structures. Those facing too many problems (renting difficulties, lack of capital or working tools) will disappear. The very notion of "transitory structures" does not mean however that they are temporary but rather describes the length and complex process of evolutionary changes of the functioning forms of management, depending on changes in land property and in the economic environment. They inherit the former organisational and production arrangements and develop them taking into account choices of the new members.

### 2.7.6.3. Development of individual farms

At the beginning of 1994, there were about 1.78 million private farms, averaging 0.6 hectares each. It is necessary to distinguish the household plot farms from the bigger units. Household plot farms constitute the bulk of the private farms (1.75 millions) and oscillate between being "garden units" for on-farm consumption needs, for instance for workers who have been made redundant after the liquidation of the state controlled co-operatives, and "additional revenue units", for instance, for people having jobs in new co-operatives or for pensioners. Bigger units could be described as the family farms emerging from the reform, even if they remain small farms, mainly ranking from one to 8 ha, because the share of households with more than 8 Ha are few, and the leasing of land is still undeveloped. There are only limited examples of individuals farm of 20-50 ha i.e. the average EU' size. Data does not exist for classifying agricultural households depending on size, production intensity and revenue, but it is still likely that the current number of private farms, which could be considered as profitable full-time farming units, is fairly limited. The inertia of plots and membership of producer co-operatives discourages the owners from more long-term strategic planning. They thus do not foresee the necessity for leasing and rental land. Plans of landowners are in general connected with a part-time agriculture in order to generate additional income. "The dualistic structure (former big state controlled co-operatives and small household plots) has strongly influenced the behaviour and preferences of people engaged in agriculture in the period following reform. They are actively seeking ways to improve their income by retaining a similar combination of certainty of employment with some scope for private activity"[S. Davidova & A. Buckwell, 1994].

**Table 25. - Size of individual farms (1996)**

<b>Groups by land area</b>	<b>Number of farms</b>	<b>Share of the group in total</b>	<b>Farmed land (ha)</b>	<b>Average size</b>	<b>Share of farmed land in the group</b>
up to 0,2 ha	915217	51,5%	83101,7	0,09	3,1%
0,21 - 0,5 ha	363564	20,5%	118412,8	0,33	4,4%
0,51- 1,0 ha	256442	14,4%	180535,2	0,70	6,7%
1,1 - 2,0 ha	156473	8,8%	214634	1,37	8,0%
2,1 - 5,0 ha	68474	3,9%	205148,1	3,00	7,7%
5,0 - 10,0 ha	13446	0,8%	90299,3	6,72	3,4%
over 10,0 ha	3506	0,2%	1783169	508,60	66,7%
	1777122	100,0%	2675300,1	1,51	100,0%

The idea of creating an individual farm and to continue farming as a main activity is not very widespread. The farming of smallholdings does not generate enough income and the relatively mature age of the owners, are the main handicaps. Whether individual farms could consolidate in the mid-term or not will depend greatly on the evolution of the general economy and on government policies, as farmers lack capital, training, access to credit and technical assistance. Therefore, the general trend of farmers to join co-

operatives is a normal process, as the development of a family farm (Western type) is quite difficult in the short run [Batchvarova, 1994]. Some of the differences with the Western type of farms will remain due to the tradition of planning and to the way of life in the rural areas in Bulgaria, where the rural population is concentrated in fairly big villages. There are also exceptions to this general trend, like examples of entrepreneurs who have developed profitable activities.

#### *2.7.7. Conclusions: foreseeable mid-term evolution of farm structures*

Theoretically, the net gains in productivity could be obtained easily both from the transition of household plot farms into small family farms and from the decrease in the size of co-operatives and their transformation into more flexible structures from the point of view of management decisions. In fact, considering the difficulties of the transition process and policy directions, the dominant farming structure for the future will be the new co-operatives. Nevertheless small individual farms will still have an important role to play. However, as many emerging structures are currently not registered and as some middle size structures also begin to appear, there is scope for many different scenarios for the future development. In addition, the following considerations should be taken into account concerning the evolution of farming structures and its relation to production:

- The importance attached to household plots will decrease if the general economic situation improves. This will encourage consolidation and trading of plots between family members or neighbours, and an increase in the size of family farms; elderly people and city dwellers without work will however still produce vegetables and fruit on their small plots for themselves and for the local market; on-farm consumption will remain a significant phenomenon during the coming years.
- Small-scale farms will continue to produce mainly, fruit, vegetables and animal products; they will remain the biggest suppliers of animal products if the production in bigger units does not recover quickly. Their productivity is, however, low and a ceiling in animal production might then persist, if no additional services are put at the disposal of those individual farmers.
- Co-operative structures may need further stabilisation (size, members and status). They will keep on producing predominantly arable crops like wheat or sunflower in the short term, due to the lack of capital, the security offered by state purchases of these products, the disruptions existing in other types of crop production (irrigated crops, orchards, glasshouses) and the need for more stability and investments to develop animal production. A distinction between the interests of landowners involved in the activities of the co-operative and the others will become evident. In the mid-term, if the situation improves, it is possible to see the ownership of co-operatives becoming vested in the hands of a few shareholders, adopting a status similar to private companies.

- Some large farms (500-1000 ha) may develop (with private money coming from outside the agricultural sector), based on the leasing of land to produce arable crops with their own machines and storage facilities. Further developments will depend on government attitudes and land leasing possibilities; some agricultural entrepreneurs, who made a profit in the late eighties, are also ready to develop speculative crops, like early vegetables for export, or to start developing service activities such as machinery leasing.

### **3. AGRICULTURAL POLICY**

#### **3.1. BRIEF OVERVIEW OF THE AGRICULTURAL POLICY BEFORE THE TRANSITION**

The communist regime used to set production targets through central planning (with directives to state co-operatives and state enterprises). Central planning included also the whole management of commodity supplies and trade flows and a system of administratively fixed prices (by the central price agency) throughout production, processing and marketing chain. The main objectives of this policy were, firstly, to ensure food security by a national balance of production and low prices for consumers, secondly, to provide an export flow in the framework of CMEA arrangements, and, thirdly, to provide a supply flow with adequate quality for export against hard currencies.

In addition to price fixing, price control in the food chain was maintained by setting artificially low prices for inputs (fertilisers, energy), the supply of cheap raw material to the processing sector and subsidising consumer prices. This tight control of prices, in a regime with no competition, had depressing effects for the agricultural sector although it facilitated the process of industrialisation and urbanisation of the country. The growing inefficiencies created by this regime provoked a decrease in agricultural output, which began far earlier than 1989.

#### **3.2. SUMMARY OF MAIN CHANGES BROUGHT ABOUT DURING THE TRANSITION**

Since Bulgaria began the process of political and economic transition in late 1989, policymakers immediately perceived the need to introduce radical reforms in agriculture to eliminate any vestiges of communist heritage. Structural reforms and measures established to generate a market oriented agriculture were formulated at the beginning of the transition process.

The land reform, the privatisation of state property, the organisational restructuring and the creation of new market structures were already defined in the early nineties. Since then, agricultural policy has involved measures of pricing policy, direct support to producers and the foreign trade regime. Nevertheless, the various governments, since 1989, have struggled to cope with the implementation of the designed reforms in a country whose conditions were shaped by a

production system, which was semi-destroyed and a financial deficit. The implementation of structural and agricultural policies lacked a unified approach and continuity due to the fact that each government adopted measures depending on its own views on the manner of managing the social and economic situation. This provoked successive delays in the implementation of the different reforms and even gave ground to the adoption, by different governments, of contradictory measures, which were created additional difficulties and produced erratic changes in the general economic conditions.

The agricultural policy has been characterised by short-term measures on price policy and direct support to producers based on subsidised short-term seasonal credits, aimed at ensuring production in the turmoil of land reform. The foreign trade regime consisted of ad-hoc temporary border measures aimed at stabilising the internal market. The over protection of consumers to the detriment of long-term objective to rebuild the farming sector and the lack of appropriate management of the instruments applied have characterised the agricultural policy during the period 1989-1996.

A consequence of this process was the crisis that began in Bulgaria since the middle of 1995 and that reached its peak in 1996 with the grain crisis. Later in early 1997 the crisis continued with a dramatic depreciation of the exchange rate, high inflation and the rapid deterioration of credibility in the management of the economy. The essential lacks of planning in the long-term and the inability of problem solving undermined confidence in the system.

Following mass protests against the government in January 1997, the Bulgarian Socialist Party in power gave up its attempt to form a new government and the Parliament agreed to General election on April 19, 1997. A caretaker government remained in office until a new government was appointed as result of the general election. The new care-taker government obviously inherited all the problems which accumulated since the beginning of the transition.

The care-taker government and the following one which come into office after the April-97 elections, urged by the foreign aid to re-float the economy and to recover the social confidence, drew up a new strategy that was to bring the Bulgarian economy closer to a market economy. In the new strategy the agricultural sector plays an important role. Following the recommendations of the international institutions, and recognising that the most urgent task was the stabilisation of the economy, the Government proposed a package on agricultural policy based on the legal framework adopted by previous governments but incorporated into the new stage of macro-economic stability.

The main policy measures were included in a general programme called Bulgaria 2001<sup>18</sup>. In general terms, the programme consisted:

- The introduction of a currency board arrangement.
- The maintenance of strict fiscal control of non-interest expenditures.
- The elimination of central bank financing of the budget.
- The acceleration of the privatisation process.
- The liberalisation of many previously controlled price structures.
- The adjustment of prices and tariffs to international levels.

The agricultural policy implemented since mid-1997<sup>19</sup> has been subject to this general programme for liberalisation and creation of a competitive economy.

The following sections outline the changes on agricultural policy adopted principally since the middle of 1997. It is still difficult to evaluate the outcome due to the short period of policy implementation.

Programme for structural reforms (March 1997)

Agricultural Policy

The main objective of the agricultural policies and strategies in Bulgaria is the creation competitive and export-led agriculture and food industry, which will improve producers' welfare and contribute to the development of the entire Bulgarian economy and preserve natural resources.

1. Major long-term agricultural policy objectives are as follows:
2. Development of private agriculture and food industries.
3. Market regulation via market mechanism.
4. Price liberalisation of agricultural products.
5. Improvement of living standards and work conditions in rural areas.
6. Implementation of regional rural development programmes.
7. Approximation of agricultural legislation to EU law and international market requirements.

The development of agriculture and food industry, currently hampered by suspended land reforms and sluggish privatisation as well as inconsistent export and import trade policies, distorted production structures and an absence of mechanism to finance agriculture have

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<sup>18</sup> Program of the Government of the Republic of Bulgaria 1997-2001.

<sup>19</sup> Programme for Structural Reforms, Agricultural Policy. Sofia, March, 1997.

necessitated the adoption of short- and long-term measures, indispensable to the achievement of long-term policy targets:

1. Price liberalisation of agricultural and food products.
2. Trade liberalisation of agricultural and food products.
3. Completion of land ownership restitution.
4. Accelerated privatisation in agriculture and food industry.
5. Liquidation of state-run insolvent enterprises, making hefty losses in the sector.
6. Improving the operation of State Fund Agriculture.
7. Promoting scientific, information and consultant services.

### 3.3. PRICE POLICY

Price liberalisation began in February 1990 in retail prices of most of vegetables and fruits. The first reaction was that retail prices and supply increased. In March 1990 a new price system was introduced, freeing the prices of many products but restricting prices of the basic agricultural products. Meanwhile, a ceiling was set for retail prices of basic goods such as bread, meat and meat products, milk and dairy products, sugar, vegetable oil and baby food. By the end of 1990, only 14% of marketed volume had unregulated retail prices. As part of the macroeconomic reform implemented by the Popov's government, a general price liberalisation was approved in February 1991. However, prices for several agricultural products were left under a monitoring and remained controlled by a mechanism called "projected price system"<sup>20</sup>. Under this system the government announced the level of projected prices, based on an assessment of the production costs and nominal profit margins<sup>21</sup>. The objective of the system was to maintain the consumer prices of the products under this system below the market level. Recorded prices showed fluctuations around projected prices rising from 6% in 1991 to 36% in 1992. With few exceptions, increases in the price of monitored goods were larger than of non monitored goods. Thus this system quickly became inoperative.

In March 1993 the system of projected prices was replaced by a system of "ceiling prices", but basically the old system remains unchanged. Following a sharp increase in food prices in April 1994, the list of monitored products was expanded to include new agricultural products in a try to maintain the control on prices for consumer protection. The price evolution during the period 1993-1995 highlighted that the implementation of this system had not been correctly applied throughout the food chain because the possibilities of controls by the

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<sup>20</sup> The system of projected prices included the retail prices of some staple food (bread, some cuts of meat, milk and cheese) and the ex-mill price of bread flour.

<sup>21</sup> The margin was a percentage of the costs for different agents in the chain processors, wholesalers and retailers. These percentages were regularly changed.

administration on accounts (in order to know production costs and retail prices) were very limited. While price adjustments were inevitable, other factors caused depreciation of prices and weakened internal demand.

In June 1995, under the Government of the Bulgarian Socialist Party, a new Law on the Protection of Agricultural Producers was approved. The aims of this law to develop a competitive agricultural sector and secure food balances. This law is still in force but the implementation rules have changed since its approval.

Another legislative act used to support price intervention in agriculture is the Law on Prices, which was passed in September 1995. Although it is a general law and not specific to agriculture, six types of price intervention are identified in the law: fixed prices, ceiling prices, ceiling profit margins, minimum prices, protective purchasing prices and prices freeze for a period of up to six months.

Based on these main laws, the agricultural price policy in Bulgaria was maintained until 1997 around two types of price intervention. First, a system consisting of "protective purchasing prices" for basic agricultural products (wheat, maize, sugar beet, potatoes, milk and meat). With this system the government may announce the price at which the State Agriculture Fund will purchase pre-determined quantities of products. Second, a system of monitoring prices of the basic foodstuffs through the control of profit margins.

Due to budget constraints the system of "protective purchasing prices" has never been operational, but a minimum price for grain per campaign has been applied since 1996. However control of the margins throughout the different stages of the food chain continued to be applied until their abolition in the second half of 1997.

In 1996 the minimum price for grains was initially fixed but changed several times because the inflation rose considerably since the first announcement in June 1996. These prices were between US\$98 and US\$119 per tonne, but due to the depreciation of the exchange rate depreciation they had fallen by 35% to US\$ 70 by the end of 1996.

In 1997 there were changes in these two types of prices intervention. Due to commitments with IMF and WB, the Bulgarian Government changed the monitoring price system and abolished the explicit control on the profit margin. However the system was replaced by a "negotiated price system", which is applied to a total of 15 products<sup>22</sup>. This system is compulsory for the retailer and the prices are valid until re-negotiation. The intention behind this new system are: a) the reduction in the number of intermediaries and b) to pressure the margins in the distribution and retail trade.

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<sup>22</sup> Bread, bread flour, fresh milk, yoghurt, white cheese, yellow cheese, sunflower oil, eggs, butter, sugar, meat products and four kinds of meat.

Concerning to the minimum price for grain (wheat) the Government changed the policy from the previous years. Whilst before 1997 this price was much below the world market level, in 1997 the Government announced a minimum price for wheat of about US\$ 130 -it changes with the quality of wheat-. This new price was considered high and interesting for farmers, reversing the past policies of penalising producers by net transfers to consumers. Nevertheless, this policy still benefited state enterprises against the private sector. Mechanisms to guarantee this price between private agents had no legal enforcement and the state mills could use government guarantees to access to credit for financing purchase of grains while private mills must use their own assets. From the 1997 harvest a total of about 650,000 tonnes of wheat were purchased in the country at an average price of US\$ 139 (BGL 233,783). In 1996 the total quantity of wheat purchased was 400,000 tonnes. This price increase has induced a positive response but with the later decline of world grain prices, producers that have not sold their grain stocks in time have now serious problems to sell their stocks without making losses. The grain surpluses -estimated at 600.000 t at the end of April this year- and the financial problems created by the unpaid loans to the 8 banks that in 1997 extended loans to the state-owned purchasing companies -but mainly Zarneni Hrani-, have become a serious problem for the short-term perspectives in this sector.

This situation reveals that the grain policy is still ineffective and that the administration is unable to set-up adequate policies in this key sector.

**Table 26. - Bulgarian producer prices as % of EU producer prices**

	1994	1995	1996	1997
Wheat	30%	39%	56%	86%
Maize	33%	35%	36%	65%
Sunflower	33%	45%	21%	75%
Tomatoes	nd	nd	nd	27%
Veal	38%	46%	22%	39%
Sheep	41%	37%	14%	23%
Pork	90%	84%	33%	86%
Cow milk	51%	49%	25%	71%
Butter	nd	58%	45%	83%

### **3.4. DIRECT SUPPORT TO PRODUCERS**

In addition to the above-mentioned intervention, two other measures supporting agricultural producers have been applied. The first consists of tax exemptions. The second measure has been introduced each year but on a small scale and consists of credit subsidies for working capital during the spring and autumn agricultural campaigns.

### *3.4.1. Taxes*

The regime of tax relief are defined in the Law for Protection of Agricultural Producers, the Law on the Profit Taxes, the Law on the Gross Income and in different rules implementing each one of these laws.

Agricultural producers who are physical persons or member of co-operatives are exempted from income taxes on the revenues derived from agricultural activities. Agricultural companies are exempt from profit taxes for a term of five years and till 31 December 2000.

### *3.4.2. Subsidies*

The institution that deals with the credit subsidy management is the State Fund Agriculture. It was created in 1995 with the aim of supporting the agricultural producers in order to assure the national food balance and to provide the farmers with credit for short-term working capital.

The 'Fund' is used to support the production of wheat, corn, sunflower and sugar beet as well as farmers rearing sows and hens. The 'Fund' operates through direct subsidies and preferential credit lines.

Direct subsidies are given to crop producers subscribing a contract with the 'Fund'. By concluding a contract, producers engaged to sell part of their production to traders licensed by the Ministry of Agriculture. These traders used to be state enterprises or entities collaborating with the government to reach the defined policy goals. In 1997, a total of about 837,000 ha benefited of direct subsidies from the 'Fund'. Contracts for providing about 1.1 Mio tonnes of wheat were concluded in 1997. The total amount paid under this scheme was US\$ 10 Mio.

Animal producers received a subsidy per head (sow or hen) to compensate for feed price increases. In this case there is no obligation to sell part of the output to the 'Fund'. The use of these facilities has been more modest in budget terms -US\$ 90 thousand in 1997-. In this occasion, the beneficiaries have not been the small or medium size units but the big complexes.

Credit subsidies were directed to wheat, maize, sunflower seed and sugar beet producers by subsidising 50% of the interest rate fixed by the Bulgarian National Bank. As for direct subsidies, the producers had to sell 1 tonne per ha to licensed traders by the Ministry of Agriculture, but this obligation was applied only to wheat producers. The crops covered by this scheme has been quite limited, sugarbeet production has not benefited from credit subsidies and the used funds have only been half of the allocated budget. In an attempt to try to activate this scheme the government is considering a new programme to cover 100% of the interest borrowed.

According to preliminary data, the subsidies in 1997 amounted to BGL 16.6 billions, of which 16.3 were in the form of direct subsidies for the production of

cereals and sunflower and the rest for subsidising the preferential credit line for the production of wheat and the rearing of animals.

A relatively new support mechanism used in 1997 but created in 1996 is a credit subsidy on investment in agricultural machinery, equipment, farms building and the regeneration of permanent crops. This credit is also financed by the "State Fund Agriculture". In 1996 a total of 82 projects amounting to BGL 610 Mio benefited of preferential credit on investments. In 1997, a total of BGL 1,115 Mio covering 56 projects have participated in this scheme.

**Table 27. - Budget funds allocated to State Fund Agriculture (1995-1997)**

		1995	1996	1997
Protection of agricultural protection	BGL Mio	1863		
State Fund Agriculture	BGL Mio		3700	23498

### 3.5. Foreign Trade Regime

Trade liberalisation began in 1991 and developed in parallel with the transition process. The state monopoly of foreign trade was removed and the licence regime for products was abolished. Since then private and state-owned companies have traded on the basis of customs declarations. The licence regime and other specific regimes were maintained only for some products as result of an official concern for food security. During the whole transition foreign trade measures have been used as a tool for short-term management of domestic food market balances. The philosophy that has inspired the foreign trade regime until the accession of Bulgaria to GATT and WTO in 1997 was built on the idea of isolating the domestic agricultural sector from the world market prices considered too high for the Bulgarian consumers. However, the foreign trade policy has never been effective in this objective to maintain a balance between supply and demand on the domestic market.

In the present moment, the trade policy is governed by a number of bilateral and multilateral agreements. The Europe Agreement and the status of negotiations with CEFTA countries have been mentioned in sections §2.5.5 and §2.6.6. The third main pillar governing the trade regime is the new system of custom tariffs that resulted from the accession of Bulgaria to GATT and WTO, which took effect at the beginning of 1997. But, in fact, this customs tariff is an amendment of the previous one<sup>23</sup> approved at the end 1995. The changes have affected a further 222 tariff items (over a total of 965). Although it is difficult to estimate the overall effect of these changes on the border protection, several conclusions can be drawn

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<sup>23</sup> Council Regulation n° 294 / 16.12.1996 amending the Council Regulation n° 237 /26.12.1995.

from the analysis<sup>24</sup> that show there was an increase in border protection, but very moderate -the arithmetic ad valorem tariff average increased slightly from 31 to 33%-. A more recent and more detailed analysis has estimated in 27% the average of the border protection of agricultural and food products in 1997, being 24% for the primary products, 36% for processed products and 22% for non-competing products.

The trade regime in force since 1997 provides a list of agricultural products subject to special regulations. The list is summarised as follows (the detailed list will appear on an annex).

### *3.5.1. Trade regime of agricultural exports*

Automatic licensing	Meat for human consumption Dairy products Wheat, Maize, Rice Wheat flour Sunflower seeds Soya bean oil Bran and oil cakes Tobacco and manufactured tobacco Wine and liquors Sugar Fresh grapes Pasta
Non-automatic licensing	Live animals Seeds of main cereals and oilseeds Maize for popcorn Sunflower oil
Goods subject to export tax	Live horses, live bovine and live sheep/ goats Sunflower oil, refined or not.
Permanent export bans	-Non-manufactured / non-fermented tobacco
Temporary exports bans	Wheat, rye, Barley, Oats, Maize Wheat flour Soya beans and Soya bean oil Sunflower seeds and sunflower oil Oil-cakes Some preparations of animal feeding.

### *3.5.2. Trade regime of agricultural imports*

Automatic licensing	Live animals Meat Dairy products
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<sup>24</sup> OECD annual reports.

	Wheat, barley, rice, flour
	Sunflower oil
	Sugar
	Beer, wine
	Tobacco products
Non-automatic licensing	Beverages imported in containers
	Tobacco
Duty free quotas	Forage wheat
	Barley seeds and forage barley
	Forage maize
	Rice and rice seeds
	Wheat flour, oil cake
	Some live breeding animals
	Barley for brewing industry
	Some kind of vegetable seeds

This trade regime was subjected to frequent changes during 1997. The main variations operated as a consequence of the currency board introductions and the agreements reached with WB and IMF, which encourage Bulgaria to liberalise the trade regime. Thus since June 1997, the temporary ban on exports of cereals, processed cereals, sunflower and sunflower oil was replaced by export taxes. In October 1997, these export taxes were reduced. Import regimes also experienced further liberalisation. At the beginning 1998, the non-automatic licensing regime was removed while the export of grains and sunflower was totally liberalised.

### *3.5.3. WTO Commitments*

Bulgaria joined GATT and WTO as contracting party on 1st January 1997. Since then, the discipline on the trade policy has increased.

### *3.5.4. Market access*

If compared with the EU, Bulgaria has chosen, in general, high tariffs binding, but depending on its perception on the needs to be protective in some areas, there are some deviations from this general principle. Livestock and fruit and vegetables have very high protection level. Dairy products, vinegar, meat preparation, sugar, chocolate and vegetable oil have also high protection.

**Table 28 Bound tariffs for selected products**

	<b>Bulgaria</b>		<b>EUR-15</b>
	<b>1997</b>	<b>end-period</b>	<b>end-period</b>
Wheat	50%	50%	95 Ecu/t
Barley	25%	25%	93 Ecu/t
Maize	25%	12,50%	94 Ecu/t
Wheat flour	75%	75%	172 Ecu/t
Sunflower seed	50%	50%	free
Wine	40%+ 80 Ecu/hl	25%+ 51 Ecu/hl	32 Ecu/hl
Tobacco	100% Min 2,4 Ecu/kg	100% Min 2,4 Ecu/kg	18,4%Min 2,3Ecu/kg
Meat of bovine	20%+ 2487 Ecu/t	13%+ 1592 Ecu/t	12,8%+ 1768 Ecu/t
Meat of swine	120%Min817 Ecu/t		536 Ecu/t
Meat of sheep	130%	83%	12,8%+ 1713 Ecu/t
White cheese	135%	96%	87%
Yellow cheese	135%	96%	87%

Concerning tariff quotas, the list of products covered is relatively extensive and covers important sectors such as cereals, sugar, tobacco, dairy, processed products. Special safeguard clauses are not used very much in the Bulgarian schedule (22 tariff lines).

**Table 29. - Tariff Quotas**

	<b>1997</b>		<b>end-period</b>	
	<b>Quantity (t)</b>	<b>Tariff rate %</b>	<b>Quantity (t)</b>	<b>Tariff rate %</b>
Wheat	150000	15%	150000	15%
Barley	20000	15-25%	20000	15-25%
Maize	100000	5%	100000	5%
Sunflower	20000	15%	20000	15%
Wheat flour	5000	25%	5000	25%
Raw Sugar	250000	5%	250000	5%
Beef	31000	8,5-10%	31000	8,5-10%
Pigmeat	851	40%	851	40%
Sheepmeat	851	15%	851	15%
Milk & cream	2000	15%	2000	15%
Butter	1500	30%	1500	30%
Cheese	3400	17,5-25%	3400	17,5-25%

### 3.5.5. Domestic support

AMS is included in the Bulgarian schedule. It varies from ECU 630 million to ECU 520 million in the final year.

### 3.5.6. *Export subsidies*

The total outlay was ECU 280 Mio for the first year, which will decrease to ECU 190 Mio at the end of the period. The budgetary outlay and the quantity reduction commitments reflect the historical evolution including the central planning period.

**Table 30. - Export Subsidies Commitments**

	1997		2000	
	ECU Mio	000 t	ECU Mio	000 t
Wheat and flour	2,98	132,4	2,39	116,8
Sunflower seed	1,61	4,7	1,29	4,1
Fresh fruit	9,60	31,8	7,69	28,1
Fresh vegetables	11,27	37,3	9,03	32,9
Preserved fruits	8,39	21,4	6,72	18,9
Preserved vegetables	18,66	39,8	14,95	35,1
Wine	1,60	98,9	1,26	87,2
Tobacco	14,43	15,9	11,50	14,0
White cheese	5,63	5,0	4,53	4,4
Yellow cheese	0,80	0,7	0,65	0,6
Live animals	5,37	5,3	4,28	4,7
Bovine meat	0,24	0,6	0,19	0,6
Mutton and Lamb	10,67	8,0	8,53	7,0
Pigmeat	0,56	0,6	0,45	0,6
Poultry meat	16,04	7,1	12,79	6,2
Eggs	0,24	0,6	0,19	0,6

### 3.6. **Rural development**

Before the transition period the central planning in Bulgaria had incorporated strong social and regional policies to equalise rural and urban income, pensions and employment. State farms were given considerable encouragement, direction and support to increase associated small and medium-size industries to underpin these financial objectives. Special support measures were taken in mountainous and other economically disadvantaged regions, including subsidised housing, schools, health care and local transport to attract young workers to depopulated areas.

Bulgaria therefore has considerable experience of integrating social and agricultural support policy. None of the mechanisms through which these objectives were implemented are now available. Even before the 1997 crisis, insufficient funds and Government support were being directed to new measures developed by the Ministry of Territorial Development and Construction.

Current rural development policy is mainly concentrated in the restoration and development of mountain agriculture. In this way rural tourism and the development of traditional production -tobacco, sheep and goats- is encouraged.

A specific fund and preferential financing programmes on infrastructure in these areas were up since the second half 1997.

However, these measures are insufficient and not cover non-mountainous rural areas. Full-time agricultural employment on their own land is not possible for at least 1 million individuals because their holdings are too small or inefficient to make a sufficient living. Over 2.5 million (one third) of the Bulgarian population live in rural areas. Bulgarian towns and non-agricultural economic sectors cannot provide neither housing nor jobs for those displaced from agriculture; such a displacement is inevitable in the medium term as consequence of achieving the Government's overall agricultural strategy and economic stabilisation. Without alternative employment opportunities established, particularly during the period up to 2000, economic reform and regional stability will all be at risk.

Another factor emphasising the political importance and priority attached to the maintenance of rural populations is shown in the last Bulgarian economic assessments and of household income surveys -realised in 1995-. The incomes of rural household are significantly lower than urban incomes. However, taking into account of non-cash income (own food production and own consumption), rural household's total incomes were over 35% higher than urban household incomes.

Even so, estimates based on data from national accounts and from the above surveys put average income per person in Bulgaria in 1995 at no more than US\$ 1,500, which is less than 10% of the average per capita income of the European Union.

Pre-accession assistance for agriculture and rural development is to be made available annually for all applicant countries from January 1<sup>st</sup> 2,000. In order to compete for these funds Bulgaria needs to start preparing a program in support of its request for assistance.

The program has to be based on well-developed priorities expressed in clear quantitative terms for agricultural and rural development arising from empirical research and consultation exercises as well as an independent ex-ante evaluation. Measures, which contribute to these priorities within carefully chosen regions and for the whole agri-food sector, will be selected prior to implementation. Institutional initiatives have to be planned to develop partnerships at all levels in the development process along with necessary amendments to the legal framework.

Rural development pilot projects need to be identified and will act as a basis for designing implementation procedures.

### **3.7. Environmental policy related to agriculture**

Although the agri-environmental problems in Bulgaria are serious, very little attention has been paid to these problems. Until a few years ago agri-environmental and nature protection policies were of minor concern and had a

low political priority. The main environmental problems in rural and agricultural areas can be attributed to farming methods of the past and occurred mainly from:

- Pollutants originating from poor handling of animal waste which was contaminated groundwater sources close to former agro-industrial complexes and the big livestock units.
- Soil pollution and erosion due to poor farming practices, which cover almost 60% of agricultural land in Bulgaria.
- Excessive and inappropriate use of fertilisers and chemicals have also given rise to environmental problems.

With the dissolution of the agro-industrial complexes and the movement towards more extensive practices, the situation is expected to improve. The dramatic decline in the use of chemicals during the transition period, as well as the important reduction in the livestock numbers has had positive environmental consequences. But this situation has been more a consequence of the economic crisis than the effects of legislation or specific policies targeted to environmental questions.

Although the first legislation on environmental protection was passed in 1990, it is still inadequate. Regulations on chemical substances and agricultural pollutants are lacking or need updating. In its programme "Bulgaria 2001", the government announced a new environmental strategy and new legislation, including laws on water and the protection of the nature. However, this programme needs financial incentive and up to now, spending on the environment in Bulgaria has been low.

### **3.8. The veterinary and phytosanitary policies**

The approximation process of Bulgaria's veterinary and phytosanitary legislation to the EU's is just at the first stage. Thus there is still a long way to go to ensure that the Bulgarian legislation is harmonised with the EC requirements.

Legislation in the veterinary field and with few exceptions does not meet EC requirements. However, Bulgarian authorities have presented an ambitious plan, under which most of the legislation should be aligned by the end of 1998. The main problem in the veterinary field will be the capacity of the veterinary infrastructure to manage border inspections and the control disease. The increased fragmentation of the livestock units and the poor system of farm registration and animal identification will make these activities very difficult. A more detailed description of the Bulgarian veterinary sector and its economic and political importance is presented in Annex 1.

In the phytosanitary field and with some exceptions, the timetable for the completion of the harmonisation process has been extended until the year 2000. Legislation for plant protection there is very little approximation. The harmonisation on plant health and propagation material has been partial and need inspection and enforcement measures. Legislation on seed is on the way and

equivalence has been recognised for many varieties, but certification services will have to be straightened. For animal nutrition the legislation is very limited in scope and in many aspects it is not consistent with EU legislation.

## **4. MEDIUM TERM OUTLOOK**

### **4.1. Introduction**

In this chapter, the preceding findings have been integrated in order to build a possible medium-term scenario for Bulgarian agriculture and to present some tentative balance sheets for the main agricultural products. The time scale adopted for this outlook is the year 2003.

### **4.2. Political and economical framework**

The stabilisation and recovery of the Bulgarian agriculture is dependent on general economic growth and on the removal of the constraints that have characterised the Bulgarian economy for the whole transition period: 1) low purchasing power; 2) lack of confidence and investment in agriculture and in the rest of the economy; 3) delays and shortcomings in institution building and in applying the institutional framework needed for a real market economy. The institutional recession in the Bulgarian context often means lack of respect towards the government and other formal institutions and substitution of the formal with informal institutional arrangements.

The persistence of these factors is central to the severe 1996/97 recession that provoked a political crisis and serious imbalances in the macro-economic situation.

The outlet of this crisis has implied the adoption of a stabilisation programme and a series of measures aiming, in the long run, to overcome the economic and social difficulties, to get the economy moving, to ensure sustainable growth and to integrate Bulgaria into the European Union. This programme has been supported by international institutions and is now showing the first positive results in terms of political, economic and monetary stabilisation.

Under an optimistic scenario, it is assumed that the political engagement to pursue the implementation of this programme will continue in the future and that the imposed currency board arrangement will remain in force during the outlook period. This also means that the main objectives on liberalisation, privatisation and macroeconomic stability will be achieved by the end of the outlook period. It is also assumed that market mechanisms will be progressively introduced, the role of institutions is being adapted to this environment and that corruption and criminal organisations are controlled. This draws the optimistic scenario.

The aforementioned stabilisation programme and the progress in the accomplishment of these objectives will allow a moderate but continued growth in the general economy because they will give ground to the main economic agents for more profit investments. In fact the implementation of the programme has begun to produce some positive effects on the economy since the second half of 1997. At the last quarter of 1997, the Commission estimated at 1.2% and 3.5%

growth in GDP in 1998 and 1999, respectively. These estimates are being revised upwards at the present moment. The last IMF's estimates considers that by 1998 the GDP will increase by 4% and do not discard upward revisions.

Given this positive scenario, we assume that Bulgaria, with political and economic stabilisation, will benefit from a period of stable but moderate economic growth. The GDP growth until 2003 could develop as follows:

1998 -> +4%  
1999 -> +4%  
2000 -2003 -> average +3%

However the predicted stability is not exempt from risks within the period covered by this outlook. The existing equilibrium is fragile and any unexpected events may create policy and social discrepancies. Any deviation from the projected objectives, in terms of delays in their accomplishment or deviation from enforcing them could result in the deterioration of the economic situation. The low standard of living of a large part of the population and in particular of the low-income groups is another factor of potential instability. Firstly, it is a serious handicap to expand the economy by increasing the domestic demand and secondly, any further deterioration of the purchasing power of this part of the Bulgarian society would contribute to social instability with its corresponding policy impact. It is evident that in the current situation any slight deterioration of the economic situation will alter the existing fragile equilibrium. Thus, this will bring the economy into very little or no growth or even further recession with unpredictable consequences for the Bulgarian society.

Given the positive scenario, the agricultural economy should continue to play an important role in the overall recovery. Nevertheless the share of agriculture in the whole economy should decrease mainly due to the expansion of the industrial and services sectors, which were severely affected by the last financial crisis. The process of normalisation of the Bulgarian economy and the privatisation progress should attract foreign investors to these sectors. In the upstream and downstream sectors the investment needs are lower than in industry and other sectors and it is assumed that the objective of 60-70% of privatisation of the total state-owned assets by the end of the period, is feasible.

Concerning the agricultural policy, it is assumed that it will follow the guidelines contained in the governmental programmes "Bulgaria 2001" and "Programme for Structural Reforms" as agreed with the IMF and WB. Concerning to the reforms needed for EU accession, it is assumed that the present government will face the initial costs of this reform, but future governments will have to undertake the real coverage of the problems. The given present budget restriction is a serious constraint to include in the national budget entries to finance the fundamental reform necessities before joining the EU. It should be noted that Bulgaria could only support these reforms in a situation where the economy improves, thus using part of the increased receipts to finance the structural changes. Similarly, only

under a situation of general recovery, the financial assistance that may come from the EU will produce the necessary durable effects to achieve the objectives to adapt to the Community *acquis*.

### **4.3. Commodity projections**

#### *4.3.1. Generalities*

At the agricultural production level, the optimistic scenario provides for a modest increase of the domestic demand of food products. However, this reaction will depend on how the different income groups react to income increases. At the end of 1997, the average Bulgarian household spent 42.4% of their disposable income on food. For the lowest income groups this percentage is more than fifty percent. It should be considered that, in Bulgaria between 20-25% of the population (about 2 million people) live below the poverty line. This constraint will remain still constant for the most part of the outlook period.

Those people belonging to the low-income group, may spend this increased income on food, mainly on products elaborated with cereals, flour, sunflower oil and sugar used for preserving fruits and vegetables whose consumption will also increase. Further increases in income will have a positive repercussion in the consumption of milk and milk products (yoghurt and the two typical types of Bulgarian cheese, white cheese in *bride* and *kashkaval*).

Other higher income groups will increase the consumption of pigmeat, poultry meat and dairy products. For other food categories like fresh vegetables (for salads) and fruits (bananas, oranges, and apples) the increase in consumption will be moderate.

The demand for animal feed demand will increase for breeding pork, poultry and cows.

#### *4.3.2. Land use*

Area under crops (included in Arable land) will increase slightly as a consequence of the moderate recovery of the domestic demand for a certain number of products. In particular, the recovery of permanent crops (vegetables, fruits and wine grapes) may be more important along with the land restitution process, which will increase long-term investments. Some specific crops such as tobacco or sugarbeet will remain stable or even decrease. Nevertheless, the total arable land may decrease because some of the land non-cultivated for many years may have lost their agronomic value and may be definitively abandoned.

Permanent and temporary pastures, which have been practically reduced to a minimum, may start to recover but just at the end of the forecasted period.

There is a link between these two different expected evolutions on arable land and permanent pastures. Some areas of land with low productivity had been brought into cultivation through special investment programs during the pre-reform. These programs proved, in most cases, to be inefficient and had been seized. In the competitive conditions of free market agriculture, marginally productive land is likely to be transferred from arable land into a lower land-use class, such as pastures or permanent meadow, where it may be utilised more efficiently.

It is also unlikely that the irrigated land will increase from the current situation, during the outlook period due to shortage in investment.

**Table 31. - Tentative land use projection**

	1989	Avg 92-95	1996	1997	2003
Total area of the country	11099	11099	11099	11099	11099
Inland water	36	36	36	36	36
Land area	11063	11063	11063	11063	11063
Wooded area	3871	3875,5	3876	3876	3876
Utilized agr. area (UAA)	6168	6160,25	6164	6203	6187
Arable land	3848	4027,25	4203	4298	4217
Permanent crops	294	235,75	200	199	250
Permanent grassland	2026	1897,25	1761	1706	1720
Perm. meadows	290	278,75	277	294	300
Pastures	1736	1618,5	1484	1412	1420
Other Area	1024	1027,25	1023	984	1000

#### 4.3.3. Cereals

The expected moderate recovery will play a factor in favour of increasing the area of cereals. An improvement in demand, together with the expected completion of the land restitution process, will tend, firstly to encourage the consolidation of the cereal area. Nevertheless, uncertainties about the domestic grain prices may act against this positive tendency. Unless a coherent policy aiming the normalisation of this sector by creating a real market in a short delay new crisis will occur. If this is the case, there is a risk that this crisis will offset other sectors, jeopardising the recovery process.

Under an optimistic scenario, the recovery will lead to an increase on the use of fertilisers and chemicals, which will stabilise the yields in the medium-term by decreasing the yield volatility caused by the direct action plant disease. A stable yield of around 3,3 tonnes per Ha is expected by the end of the period.

Animal feed consumption will consolidate its upward trend as a consequence of the increase of the pig and poultry numbers.

Under the optimistic scenario, small surpluses will appear during the period, which implies a return to exports provided that Bulgarian grains prices are competitive in the world market.

**Table 32. - Outlook for cereals**

<b>Cereal balance sheet</b>	<b>1989</b>	<b>Aver. 92-95</b>	<b>1996</b>	<b>1997e*</b>	<b>2003f</b>
area (000 ha)	2.150,6	2.213,1	1.726,0	2.025,5	2.380,0
yield (t/ha)	4,4	2,8	2,0	2,7	3,3
production (000 t)	9.484,6	6.279,2	3.373,0	5.548,0	7.948,0
imports (000 t)	1.686,3	62,2	495,5	2,0	net export
exports (000 t)	487,1	486,9	40,2	100,0	813,6
stock variation (000 t)	1.320,0	92,5	-701,1	100,0	0,0
<b>Supply (000 t)</b>	<b>9363,9</b>	<b>5762,0</b>	<b>4529,4</b>	<b>5350,0</b>	<b>7134,4</b>
feed (000 t)	5.908,0	3.260,4	2.337,9	2.968,0	4.420,7
seed (000 t)	322,6	309,5	310,0	422,0	399,0
waste (000 t)	1.048,3	581,4	393,6		685,1
processed (000 t)	359,2	256,9	244,1		266,8
food (000 t)	1.710,1	1.346,6	1.232,6	1.960,0	1.361,1
other uses (000 t)	15,9	7,1	11,1		1,7
<b>Demand (000 t)</b>	<b>9.363,9</b>	<b>5.762,0</b>	<b>4.529,4</b>	<b>5.350,0</b>	<b>7.134,4</b>
food consumption p.c. (kg)	190,1	159,6	147,8		164,0
Self-sufficiency (%)	101,3%	109,0%	74,5%		111,4%

\* Source: Ministry of Agriculture

Source: FAO

#### 4.3.4. Oilseeds

Sunflower seed will continue to be by far, the most important oilseed. The importance of other oilseeds will remain negligible.

The area devoted to sunflower seed should stabilise at around 500-525.000 Ha by the end of the period. Any improvement of the cereal sector, if any, will decrease the pressure to plant oilseeds without appropriate rotation practices. This, in addition to the effect of the stabilisation of the area, should improve the yield of sunflower seed in a medium term.

The domestic consumption of sunflower oil will increase on parallel with income. The surpluses that will appear will be exported under the assumption that Bulgarian prices will remain aligned with the international prices.

**Table 33. - Outlook for sunflowerseed**

Sunflower seed b.s.	1989	Aver. 92-95	1996	1997e	2003f
area (000 ha)	239,8	506,8	499,8	452,9	500,0
yield (t/ha)	1,9	1,2	1,1	1,0	1,2
production (000 t)	458,4	598,8	529,9	446,0	600,0
imports (000 t)	58,7	0,2	0,2	0,0	0,0
exports (000 t)	27,7	103,8	94,6	37,0	92,0
stock changes (000 t)	-12,0	-17,5	80,0	0,0	0,0
Availability (000 t)	477,5	477,7	515,5	409,0	508,0
seed (000 t)	8,4	15,4	11,8	9,0	0,0
waste (000 t)	4,1	21,8	48,7	25,0	0,0
processed (000 t)	465,0	430,0	440,0	360,0	457,2
food (000 t)	0,0	10,5	15,0	15,0	0,0
p.c. disappear. (kg)	53,1	56,6	61,8	49,4	61,2

#### 4.3.5. Sugar beet and sugar

The sugarbeet area may disappear in Bulgaria. This could occur if no new policies are implemented. Given the severe budget constraints, it will be difficult to instigate an effective policy in this direction.

Bulgaria will continue to be an importer of all raw products necessary to satisfy the internal demand and will continue to re-export processed sugar. This external dependency will be accentuated with future increase of living standards.

**Table 34. - Outlook for sugarbeet and sugar**

sugarbeet	1989	Aver. 92-95	1996	1997e	2003f
area (000 ha)	40,5	11,3	8,0	5,2	2,0
yield (t/ha)	23,9	14,3	10,9	15,6	20,0
production (000 t)	966,4	167,1	87,0	81,0	40,0
processed (000 t)	955,4	157,4	82,0	73,0	36,0
feed (000 t)	11,0	9,7	5,0	8,0	4,0
sugar (total raw equivalent)					
yield (%)	9,3%	13,5%	16,9%	16,4%	16,7%
production (000 t)	88,7	21,2	13,8	12,0	6,0
imports (000 t)	326,3	375,1	335,7		297,0
exports (000 t)	1,1	81,1	155,2		net imports
stock changes (000 t)	23,3	-22,8	59,4		
Available (000 t)	437,2	292,3	253,7	268,0	303,0
food (000 t)	327,7	263,4	234,1	239,3	275,6
p.c. food consum (kg)	36,4	31,2	28,1	28,9	33,21

#### 4.3.6. Vegetables

The market for fresh vegetables will continue to be rather disorganised and the major share of the production will continue to come from household plots. There have been faint signs of removing some of the limiting factor affecting

the organisation of this sector. Once the land restitution has been finalised and a more active land market emerges, this sector may expand. However, improvement of the irrigation facilities, new investments and the development of local markets will also be required.

An increase in the demand for fresh vegetables will contribute to improve the producer revenues. This in turn may encourage the producers to improve the quality of the products.

The progressive privatisation of the processing industry and the emergence of some new companies will increase the production of vegetables (tomatoes, cucumbers) for which Bulgaria has relative good natural conditions.

Bulgaria has started to recover part of its traditional markets, mainly within the FSU, where consumers still value highly the Bulgarian preserved vegetables..

#### *4.3.7. Fruits*

Although it is not expected that there will be a significant increase in fruit plantations, the area of perennial crop plantations will stabilise during the 2-3 first years of the outlook period. This will be later followed by a small recovery. Similar to vegetables, the increase in domestic demand and the privatisation of the canning industry will attract new investment and the future appears more optimistic. The recovery of the FSU markets may speed up this process.

Under these assumptions Bulgaria will remain a net exporter. It is expected that there will be an increased demand for the importation of foreign fruit mainly by those with a high-income.

#### *4.3.8. Wine*

Given the situation of the Bulgarian economy, domestic demand is not expected to increase. However, the high-income groups may increase demand for good quality wines. For wines of quality, there are three markets upon which Bulgaria has a potential to increase their exports: Russia (the largest market), CEEC and the EU. For table wines the recuperation of the traditional markets (FSU and CEEC) will continue to be a problem, due to the strong competition and the low efficiency of trade structures for this product.

Although there are potential markets for quality wines, the supply of grapes will continue to be insufficient up to the end of the outlook period. For this reason, only a small growing on grapes for quality wine is expected, mainly coming from external investors.

**Table 35. - Outlook for wine**

<b>Grapes &amp; Wine</b>	<b>1989</b>	<b>Aver. 92-95</b>	<b>1996</b>	<b>1997e</b>	<b>2003f</b>
area (000 ha)	158,2	134,4	120,7	119,8	123,9
table grape (000 ha)	19,2	14,7	13,7	13,8	14,9
wine grape (000 ha)	139,0	119,8	107,0	106,0	109,0
yield (wine grape t/ha)	4,2	3,9	4,9	4,6	4,5
production (000 t)	655,5	537,8	590,1	557,0	565,0
table grape (000 t)	68,8	65,6	71,1	74,0	74,5
wine grape (000 t)	586,7	472,2	519,0	483,0	490,5
<b>Wine</b>					
production (000 hl)	2.656,9	2.104,8	2.377,0	2.294,0	2.305,4
imports (000 hl)	39,3	190,2	231,5	200,0	Net Export
exports (000 hl)	1.848,2	1.343,3	1.834,7	1.516,0	1.242,5
stock changes (000 hl)	300,0	212,5	200,0	0,0	
Availability (000 hl)	1.148,0	1.164,1	973,8	978,0	1.062,8
processed (000 hl)	118,0	171,5	165,0	150,0	149,8
consumption (000 hl)	1.030,0	992,6	808,8	828,0	913,0
consump. p. c. (litres)	11,5	11,0	11,0	11,0	11,0

#### 4.3.9. Livestock

If for the crop sector it is clear that domestic demand and export will influence the medium-term evolution of the main crops, the livestock sector will be exclusively shaped by the dynamic of the domestic demand. Only some niche products, as white and yellow sheep cheese and lamb, may constitute an exception.

The limited capacity of an important part of Bulgarians to buy meat and dairy products and the difficulties to export to markets other than the FSU and its neighbour's countries creates a more pessimistic outlook for the livestock sector than for crops. The expected modest increase in incomes will effect mainly pigmeat and poultry meat. Demand for beef is not expected to increase while veal may have better perspectives. As the growth GDP becomes constant, there may be a more substantial increase in the demand of milk and dairy products by the high-income group, mainly for products such as sheep cheese and other appreciated varieties. The demand for sheep meat and lamb will continue in the traditional pattern shaped by a very seasonal demand for young lamb and cheap mutton appearing in the market, from time to time as a protein source for the low-income people. Outside this evolution, no other changes are expected in the livestock sector.

On the supply, side it is expected that there will be a modest recovery in the livestock numbers, mainly during the second half of the outlook period. Most of the livestock is concentrated in units -many of them small and medium scale- with financial constraints curtailing the expansion of their production capacity. In the medium term, the downstream channels, which are getting more and more important may become an important outlet to pig, poultry and milk producers. For these reasons it is expected that there will be a slight

increase in the number of animals during the last years of the period but these figures are still far away the pre-reform numbers. For cattle, only the numbers of cows for milk and young cattle for veal production will grow. Land reform is still a key issue in the development of sheep numbers. Pastures subject to restitution will continue to be a limiting factor for the possibilities of recovery of this sector. Only during the second part of the outlook period this sector could recover, provided that this problem is resolved.

**Table 36 . - Outlook for livestock**

<b>cattle (at 1st January)</b>	<b>1989</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>2003f</b>
beg. stocks (000 head)	1613	632	582	612	627
- <i>in private farms</i>	307	608	567	601	
females (000 head)	648	371	358	389	420
- <i>in private farms</i>	157	362	353	385	
<b>sheep (at first January)</b>	<b>1989</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>2003f</b>
beg. stocks (000 head)	8609	3383	3020	2848	3500
- <i>in private farms</i>	2701	3342	2986	2820	
females (000 head)	5289	2386	2000	2130	2625
- <i>in private farms</i>	2107	2363	1981	2114	
<b>goats (at first January)</b>	<b>1989</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>2003f</b>
beg. stocks (000 head)	436	833	849	966	1000
- <i>in private farms</i>	433	833	848	966	
females (000 head)	371	668	619	770	800
- <i>in private farms</i>	369	668	619	769	
<b>pigs (at first January)</b>	<b>1989</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>2003f</b>
beg. stocks (000 head)	4119	2140	1500	1480	2000
- <i>in private farms</i>	764	1350	1247	1354	
females (000 head)	365	234	157	183	200
- <i>in private farms</i>	78	164	134	171	
<b>poultry * (at first January)</b>	<b>1989</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>2003f</b>
beg. stocks (000 head)	41805	18609	16227	14766	18000
- <i>in private farms</i>	17715	13780	13501	14099	
females (000 head)	16917	10615	8957	8524	10260
- <i>in private farms</i>	9200	7795	7110	8134	

\* chickens, ducks, geeses and turkeys

#### 4.3.10. Milk and milk products

According to the trend, the number of cows reached its minimum level during the period 1995-1997. The recovery will, however, be slow, because of the limited investment capacity, the fragmentation of the production between many small-scale farms and the limited possibilities of the development of pluriannual fodder crops due to the incomplete land restitution.

The milk yield could reached the pre-reform levels provide that the improvement in the production conditions in new private dairies contribute to this objective. For most of the small-scale farms the technological stagnation will continue.

Domestic demand would increase from the low levels of demand observed at present. A rise in incomes will increase demand of milk and milk products. As supply cannot follow the path of demand increase, it is foreseeable that imports of dairy products will increase with the forecasted recovery. There is also the possibility of expansion for sheep's milk products, mainly during the second part of the outlook period.

**Table 37. - Outlook for milk and milk products**

<b>milk and milk products</b>	<b>1989</b>	<b>Aver. 92-95</b>	<b>1996</b>	<b>1997e</b>	<b>2003f</b>
cow yield (liter)	3.354,0	2.934,0	3.072,0	3.030,0	3.300,0
sheep and goat yield (liter)	245,0	218,8	277,0	276,0	275,0
production (000 t)	2.512,2	1.588,4	1.430,0	1.436,0	1.694,0
of which					
cow milk	2.135,0	1.300,0	1.128,0	1.161,0	1.386,0
sheep & goat milk		249,5	252,9	223,8	291,3
imports (000 t)	44,0	82,2	38,5	nd	4,7
exports (000 t)	138,0	115,9	48,2	nd	net import
disappearance (000 t)	2.418,2	1.554,6	1.420,4	1.436,0	1.698,8
feed (000 t)	407,0	119,5	69,0	nd	78,9
waste (000 t)	101,7	30,6	30,6	nd	31,8
food (000 t)	1.777,9	1.401,0	1.310,1	1.292,0	1.577,0
other uses (000 t)	98,2	36,9	10,5	nd	11,1
p.c. disappear. (kg)	268,8	184,2	170,3	173,4	204,7

#### 4.3.11. Beef and veal

The share of beef and veal as part of meat consumption will recover very slowly by the end of the outlook period. It is even possible that this share decreases during one or two years more, in comparison to poultry and pig meats. This is due to low income per capita and to the poor consumer preference for red meat. In addition, the small size and the lack of capital for private farms hinder this production, relative to pig and poultry. The cattle numbers and production will recover at a slower rate than milk cows, because of the time lag between increase of milk production and meat production. It is expected that Bulgaria will still remain a net importer, mainly for low quality cuts for the processing industry.

**Table 38. - Outlook for beef and veal**

<b>beef &amp; veal meat bs</b>	<b>1989</b>	<b>Aver. 92-95</b>	<b>1996</b>	<b>1997e</b>	<b>2003f</b>
slaughters (000 head)	610,9	516,0	377,0	355,0	407,0
weight (kg)	204,1	194,2	187,3	187,0	188,2
production (000 t)	124,7	101,4	70,6	66,4	76,6
imports (000 t)	23,2	18,8	17,8	nd	5,5
exports (000 t)	9,4	2,6	9,4	nd	net import
disappearance (000 t)	138,5	117,5	79,1	66,4	82,1
p.c. disappear. (kg)	15,392	13,916	9,480	8,019	9,886
self-sufficiency (%)	90%	86%	89%	100%	93%

#### 4.3.12. Pigmear

The recovery of pig numbers will be very slow. Although it is forecasted that the number of pigs will increase by one third by the end of the period, it will still be quite low when compared with previous years. The poor state of the feed and meat industries, the highly fragmented private supplies and the lacks of capital to expand production are serious constraints to a more rapid recovery. Other assumptions play an important role: better feed conversion, shorter cycle, lower mortality and an increase of demand as consequence of the partial recovery of living standards. It may be possible for Bulgaria to present a net export balance by the end of the period if the privatisation of the meat processing industry could be finalised, and the sector could increase competitiveness.

**Table 39. - Outlook for pigmeat**

<b>pigmeat balance sheet</b>	<b>1989</b>	<b>Aver. 92-95</b>	<b>1996</b>	<b>1997e</b>	<b>2003f</b>
slaughters (000 head)	5.628,5	3.505,6	3.800,0	3.639,0	4.650,0
weight (kg)	73,1	74,8	72,6	72,0	72,7
production (000 t)	411,5	262,9	276,0	262,0	338,1
imports (000 t)	1,1	7,7	3,4	nd	net export
exports (000 t)	68,7	7,3	16,2	nd	60,6
disappearance (000 t)	343,9	263,4	263,2	262,0	277,5
p.c. disappear. (kg)	38,237	31,198	31,561	31,643	33,436
self-sufficiency (%)	120%	100%	105%	100%	122%

#### 4.3.13. Poultry meat

Poultry meat is usually relatively cheap and, for this reason its consumption should be the first to increase with a global economic improvement. Poultry meat might increase its share to 20% of total meat consumption (it was 16% on average in 1992-95). Production, either on small-scale farms or in big units, may rapidly follow the consumption. If this is the case, it is assumed that slaughtered volume will increase during the period, based on an improvement in the utilisation of the existing slaughtering facilities.

The demand-pull will indeed maintain the possibilities of the development of export oriented production, and privatisation will create the opportunities to investment in big poultry buildings. But considering the strong competition on the international market and the present situation in Bulgaria, it would be highly speculative to base a hypothesis of development of this sector on exports during this outlook period. A relatively modest net trade balance seems more realistic.

**Table 40. - Outlook for poultry meat**

<b>poultry meat bs</b>	<b>1989</b>	<b>Aver. 92-95</b>	<b>1996</b>	<b>1997e</b>	<b>2003f</b>
slaughters (000 head)	180.240,0	64.487,3	66.700,0	62.500,0	74.326,7
weight (kg)	1,0	1,4	1,5	1,5	1,5
production (000 t)	188,4	90,0	100,0	94,0	115,2
imports (000 t)	0,3	3,8	4,4	nd	net export
exports (000 t)	35,3	12,8	11,7	nd	11,1
disappearance (000 t)	153,4	81,0	92,7	94,0	104,1
p.c. disappear. (kg)	17,058	9,600	11,117	11,353	12,538
self-sufficiency (%)	123%	111%	108%	100%	111%

*4.3.14. Sheep and goat meat*

The production of sheep meat will increase mostly in mountain and semi-mountainous regions, where natural conditions are well suited to an extensive production of these species. The recovery of sheep milk will contribute to the increase in sheep numbers and to the increase in production, but due to the fact that sheep's cheese is relatively expensive in Bulgaria, the increase in real incomes is a necessary condition for an increase in domestic demand. The export possibilities of Bulgarian sheep meat will remain open and with real possibilities of further expansion.

**Table 41. - Outlook for sheep & goat meat**

<b>sheep &amp; goat meat bs</b>	<b>1989</b>	<b>Aver. 92-95</b>	<b>1996</b>	<b>1997e</b>	<b>2003f</b>
slaughters (000 head)	4.466,1	3.683,4	2.850,0	2.675,0	3.570,0
weight (kg)	16,2	14,6	17,2	17,2	17,7
production (000 t)	72,3	52,0	49,0	46,0	63,3
imports (000 t)	12,2	0,0	0,0	nd	net export
exports (000 t)	20,8	4,0	4,4	nd	15,3
disappearance (000 t)	63,7	48,0	44,5	46,0	48,0
p.c. disappear. (kg)	7,077	5,681	5,340	5,556	5,781
self-sufficiency (%)	114%	108%	110%	100%	132%

## GLOSSARY/ABBREVIATIONS

AA	Association Agreement (between the European Union and Bulgaria)
ACC	Agricultural Credit Centre (Bulgaria)
AMIS	Agricultural Market Information System (Bulgaria)
AIC	Agro-industrial complexe
APK	"Agrarno-Promishelni Kompleksi" (see AIC)
BGL	Bulgarian Leva (Bulgarian National Currency)
BSP	Bulgarian Socialist Party
CAP	Common Agricultural Policy
CBA	Currency Board Arrangement
CEECs/CECs	Central and Eastern European Countries
CEFTA	Central European Free Trade Organisation
CIS	Community of Independent States (part of the Former Soviet Union)
CMEA	Council for Mutual Economic Assistance (also called "COMECON")
DG IA	General-Directorate IA, Foreign Economic Relations
DG VI	General-Directorate VI, Commission of the European Community
DM	Deutsche Mark (German National Currency)
EBRD	European Bank for Reconstruction and Development
EC	European Community
ECU	European Currency Unit
EFTA	European Free Trade Agreement
EIU	The Economist Intelligence Unit
EU	European Union
FAO	Food Agriculture Organisation, United Nations
FSU	Former Soviet Union
FYROM	Former Yugoslavian Republic of Macedonia
GAP	Gross Agricultural Product
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
Ha	Hectare
IMF	International Monetary Found
KZ	Collective Farms
Mio	Million
MLC	Municipal Land Commission
N/A or n.a.	No Data
NAPS	"Natsionalen Agrarno-Promishelen Soyuz" (National Agro-industrial Union)
NATO	North Atlantic Treaty Organisation
NEM	New Economic Mechanism
NMP	Net Material Product (communist concept of GDP)
NSI	National Statistical Institute (Bulgaria)
TKZ	Labour Cooperative of Agricultural Firms
TPK	Labour Production Cooperative
OECD	Organisation Européenne pour la Coopération et le Développement
o.w.	of which
PAK	"Promishelno-Agrarni Kompleksi" (see AIC)

p.c.	per capita
PHARE	Poland and Hungary Aid Restructuring Economy; EC programme of assistance extended to all CEECs
RPK	Regional Consumers Co-operatives
SFA	State Fund for Agriculture
TAIEX	Technical Assistance Information Exchange Office
TBS	Territory belonging to a Settlement, i.e. towns, villages or hamlets
UDF	Union of Democratic Forces
URSS	see FSU above
USDA	United States' Department for Agriculture
VAT	Value Added Tax
VISEGRAD	Central European Free Trade Agreement between Poland, Hungary, Czech Republic and Slovakia, also known as CEFTA.
WTO	World Trade Organisation

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## **ANNEXES**

**ANNEX 1 THE VETERINARY SECTOR IN BULGARIA**

**ANNEX 2 PHARE ASSISTANCE TO BULGARIA**

**ANNEX 3 STATISTICAL ANNEX**

## **ANNEX 1. - The veterinary sector in Bulgaria**

One of Bulgaria's accession strategies is the establishment of a modern and competitive agricultural sector, fulfilling also the economic criteria for EU membership. Following this strategy, Bulgaria is constantly busy to increase the qualification of personnel and to introduce and maintain the system of measures in the veterinary sector. To improve the functioning of the veterinary sector during the pre-accession period, is of great importance for Bulgaria and of general importance for Europe. However, as far as the application and implementation of veterinary control procedures are concerned, the Bulgarian side stated that this could only be achieved with the help and financial support of the EU. Already about 20 PHARE projects in Bulgaria are dealing with the veterinary sector.

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

### **1. - Veterinary Education and Training Sector**

There are two veterinary high schools in Bulgaria. One is the University of Stara Zagora, to which the former veterinary faculty of the University of Sofia has been moved in 1976. About 120 veterinarians graduate annually at Stara Zagora, whereas there are about 50 veterinary graduates per year at the Veterinary Faculty of the Forestry University of Sofia. It appears that this is sufficient to cover the future needs of the veterinary profession in Bulgaria. The length of the full veterinary study is five years; veterinary technicians on the other hand qualify in four-year courses at secondary schools for veterinary technicians at Sofia, Stara Zagora, Lovetch and Dobritch. Neither veterinary faculty has undergone an evaluation procedure with regard to the application of the EU training schemes and teaching programmes.

With regard to postgraduate training, Bulgaria finds its existing system unsatisfactory because the field of public veterinary administration, organization and management is not formerly included in the Bulgarian continuous professional development systems. Therefore, it is obvious that TAIEX seminars and Phare projects should continue the training in this field, particularly on the implementation and application of the EU veterinary acquis.

### **2. - The State Veterinary Sector**

As a relatively independent body of state management, the National Veterinary Service (NVS) is responsible to the Ministry of Agriculture, Forestry and Agrarian Reform. In this position, the NVS is generally struggling to improve both the animal and public health. The geographical situation of Bulgaria, in particular the land border to Turkey, implies that exotic infectious agents can be introduced quite easily. This appears to

happen due to common grazing of cattle herds / sheep and goat flocks of both sides of the border. Another aspect of the introduction of infectious diseases is linked with the huge traffic of lorries and cars on the European road n° 80 from Asia (Istanbul) to Central Europe via Sofia, Plovdiv and Belgrade (e.g. by contaminated vehicles, kitchen waste of travellers at resting places). Within the area of public health, the main interest is concentrated on the hygienic and technical upgrading of the agro-food industry, which seems to have been completely neglected during recent years.

Legislation on state veterinary activities has a long history in Bulgaria, being in force now since 115 years. During this period, 9 general veterinary acts were created, of which the act on the state veterinary activities is probably the most important one concerning the management of veterinary services. Currently, these acts are under complete revision with regard to the approximation towards the EU veterinary acquis. The practical problem in this is that, until now, there has been no consolidated up-to-date version of the veterinary *acquis communautaire*; however, all AC countries have pointed out that this difficulty slows down all their activities in the process of approximation. According to the Bulgarian schedule, it is foreseen that full harmonisation with the EU veterinary *acquis communautaire* is completed by the end of 1988 but despite important progress made in systematic drafting by the European Integration Department of the NVS, this appears rather optimistic with regard to the difficulties mentioned above.

The NVS is the body for drafting veterinary legislation and for the execution and enforcement of the veterinary rules. It is headed by the director general (chief veterinary officer, CVO); he and his deputy are directly employed by the Ministry of Agriculture, whereas the rest of the NVS is an independent budgetary body. From the headquarters with 9 departments, 28 regional veterinary services (RVS) are directed (with 700 employees); on the other hand, there are 106 district veterinary services operating under the RVS as well as all of the present 33 border inspection posts (BIPs) and 20 quarantine stations. As the privatisation of the animal health field services is underway, it is too early to judge on the functioning of the co-ordination of the main state veterinary services tasks and those tasks in animal health handed over to the private veterinary sector to deal with it at the local level. There is also the intention to reorganise the veterinary public health control procedures at the local level. As the results of the reorganisation will mainly decide on the success of future development and progress of the agriculture sector, they should be continuously monitored by the EC.

Concerning the diagnostic capabilities, there are one central veterinary research and diagnostic institute in Sofia, four regional institutes and 17 district veterinary laboratories, now all being part of the Academy of Science. Two more laboratories are still under the NVS; these are the Central Veterinary Laboratory for Food Control and Ecology, Sofia and the Institute for the Central Veterinary Pharmaceuticals. All facilities need upgrading and modernisation; however, a detailed analysis and full laboratory appraisal

particularly on the numerous district laboratories could help to decide on the future existence of each of the laboratories before any expenditure is made.

An appraisal of the BIPs, which do not have the EU required facilities at present to carry out the identity and physical checks would also guarantee a clear decision on priorities and expenditure. Of the 38 BIP sites, 3 are on the land border (road) with Greece; 3 on the land border (road and rail) with Turkey; 3 on the land border (road) with FYROM, 6 on the land border with Yugoslavia (road and rail); 7 on the land border (road and rail) with Romania; 5 airports and 11 ports on the Danube and on the Black Sea.

Following the accession of Bulgaria and Romania to the EU, at least 10 of the BIP sites on the border to Greece and Romania will be abandoned. In this context, the plan to establish 5 new BIPs on these 2 borders has been criticised. Contrary to this, it would be justified to spend all resources available on the safeguarding of the Bulgarian/Turkish border.

The procedures on import and transit veterinary checks are similar to those of the EU, but the physical inspection and sampling of the consignments is carried out at destination and not, as required by the EU, on the border at the BIP. Furthermore, live animals are put under obligatory 30-day quarantine (e.g. for cattle) at the two quarantine stations mentioned above. Additionally all imports and transits of items of veterinary concern are subject to an import/transit license, issued by the NVS following the presentation of a written application by the importer or transiting agent. About 1700 licenses - import and transit- were handed out in 1997. Because of the animal health risks linked to kitchen waste and travel rations, the veterinary service is heavily involved in the control of passengers entering Bulgaria. Altogether, about one million cars and lorries, 545 aircraft, 4000 ships and 37000 railway wagons were checked and/or disinfected in 1997. In total, about 63.000 tons of foods of animal origin (meat, milk, and canned food), 43.000 tons of animal food and 6000 tons of animal products for technical purposes have undergone veterinary checks following their introduction in Bulgaria.

A computerised communication network within the State Veterinary Service does not exist at present. A number of veterinary offices are equipped with PCs, but modems and veterinary network software are missing.

The animal health situation in Bulgaria is always endangered by exotic disease outbreaks such as Foot and Mouth disease (FMD), Rinderpest, Sheep and Goat pox and contagious Bovine Pleuropneumonia in neighbouring Asia. Therefore, the recent cases of FMD and Sheep and Goat Pox in Bulgaria in 1996 were not a surprise. Vaccination against Classical Swine Fever has not ceased yet due to risks arising from the free grazing of the black pig population in oak forests in the north eastern part of Bulgaria. Advice on how to solve this problem is desperately required by Bulgaria. Whereas the domestic herd is free of Bovine and Ovine/Caprine Brucellosis, Bovine Tuberculosis and Enzootic Bovine Leucosis are still present and therefore part of the eradication schemes. These need stronger enforcement.

Surveillance and contingency planning, based upon the plan of the UK, only exist for FMD and Sheep/Goat pox. The plans should also cover the other OIE, List diseases in future.

Animal Welfare as a further task of the NVS has been integrated recently into the draft document for the amendment and completion of the act on veterinary activities. The application of the animal welfare technical standards for the keeping of pigs, calves, laying hens, laboratory animals as well as for transport and slaughter of animals are still pending on the implementation of corresponding national legislation.

It has already been indicated that in the veterinary public health sector, the manner to carry out checks on the processing and production of foodstuffs will change completely. The system used so far was based upon sampling and laboratory analysis of each produced batch in the plant by state veterinarians before its release for consumption. The new system will require the self-supervision of the food producer concerning the norms, standards and specifications fixed by the corresponding EU legislation and the State Veterinary Service to monitor and inspect application of those requirements.

In this context, CP/HACCP concepts and Zoonosis control plans will have to be elaborated and imposed on the food industry. Contrary to this, the Bulgarian residue monitoring and sampling plan was approved by the EU and is in operation.

### **3. - The Private Veterinary Sector**

Bulgaria's veterinary sector is just facing a major change from a fully state operated sector to a system by which veterinary surgeries are separated and better managed by private veterinarians. Nearly 2000 state veterinary employees have been privatised by the end 1997, with all the difficulties arising from the previous economic stagnation in Bulgaria, mainly the problem of the access to start up capital needed not only for specialised facilities but also for transport.. In order to assist in the transition period, the private vets will be involved in the state prophylactic programmes, particularly animal health. Up to now public health duties are excluded for private vets.

Before 1992, private veterinary practice was forbidden. Since then, the number of registered private vets has increased year by year; in 1996, 478 private vets and 232 veterinary technicians were permitted by the head of local municipalities to practise and to supply farmers with the necessary pharmaceuticals. The near future will show what results will be obtained by the engagement of private vets, licensed by the director of the regional veterinary service to execute the state animal health prophylactic programmes. Some short-term disruptions due to this privatisation process might be expected.

The professional organisation uniting all veterinarians is the Bulgarian Veterinary Association. Unfortunately, it has not have no formal relationship

to the Federation of the Veterinarians of Europe (FVE) so far. However, the TAIEX Conference in Budapest in December 1997 led to the application of the Association and the Romanian Veterinary Association for observer membership of the FVE. Bulgaria and Romania are the only Associated Countries without such status to date.

#### **4. - Agriculture - Livestock Sector**

Although the act on the veterinary activities now requires the obligatory identification of animals, the application of this measure in practice is still in its early stages. The completion of identification of cattle is scheduled for the end of 1998, but there are financial problems with the purchase of ear tags. Additionally, a central database processing data on animal identification, herd/flock registration and movement control is not available yet. It would be an ideal pilot project to start the computer processing of these data in the 12 km buffer zone on the Bulgarian/Turkish border. It was said that, at least in this area data on the herd/flock registration and animal identification were available as handwritten records. The daily supervision and surveillance of the buffer zone with the help of computer processed data on herd/flock movements could help to defend this buffer zone against the introduction of exotic diseases by undesirable movements from or to the foreign territory.

As there is only a register on larger herds/flocks, it is nearly impossible to estimate the number of livestock holds. The domestic herd may, however, comprise about 600.000 cattle, 1.5 million pigs, 3.9 million sheep/goats, 35.000 horses and 16 million poultry.

Compensation for animals being subject to stamping out measures ordered by the veterinary services, are compensated directly by the state up to 100% of the market value of the animal. A fund for a national animal health trust has not been envisaged yet, but should be considered within the framework of strengthening of animal health eradication schemes.

#### **5. - Industry Sector under Veterinary Legislation**

Because of the recent stagnation and the very slow privatisation process, most of the state-owned enterprises in this sector are in a very critical situation concerning the necessary upgrading to reach EU hygienic and technical standards, as laid down in the relevant directives on meat, milk, fish, eggs and all other products of animal origin or for use on animals.

At present, only 17 establishments for handling meat (red, white and game meat and meat products) are approved to export to the EU, representing less than 20% of the state-owned enterprises; the previously approved Bulgarian milk plants were recently reported as not meeting EU standards and were accordingly delisted. Therefore, it is obvious that further substantial investment is needed to upgrade industries not only for exports but also for the supply of the domestic markets. With regard to their own obligations

towards quality and product safety, the industries will have to apply CP/HACCP concepts as well as good manufacturing/good laboratory practices where appropriate.

One of the critical problems arises with the newly emerging small and medium size meat processing and dairy enterprises. A great portion of those were created without co-ordination with the Ministry of Health and the State Veterinary and Sanitary control, in order to comply, at least, with the Bulgarian national standards. One of the current acute problems is the lack of capacity on the State Veterinary and Sanitary service to control a large part of the private sector, which has small and, in many cases, not registered companies.

## **6. - Conclusion**

Currently, Bulgarian agriculture is going through substantial structural changes. This applies equally to the veterinary sector. With land restitution, many small-scale farms are emerging and the livestock units are becoming increasingly fragmented. It is Bulgaria's intention to use the private veterinary sector for the veterinary animal health inspection and control at the local level. Thus, the near future will prove the functioning of this system, particularly in the high-risk area on the Turkish border. Bulgaria still needs strong support and technical and financial assistance in all of the sub-sectors above. In this context, a number of very useful pilot projects could be identified. Bulgaria's neighbourhood presents the highest risks for the European livestock industry. It is therefore advisable and justified to give priority to providing resources to the veterinary sector in Bulgaria. Highest priority should be given to the installation of proper infrastructure for the veterinary checks at the BIP on the transit route from Asia to Central Europe (road at Kapitan Andreevo, rail at Svelingrad station) and the permanent veterinary surveillance on the Bulgarian buffer zone to Turkey. This will not only protect agriculture in Bulgaria, but also agriculture in Europe at the same time.

## **ANNEX 2. - PHARE assistance to Bulgarian agriculture**

### **1. - General framework and background**

Between 1990 and 1997, PHARE Assistance has provided an amount of 58 Mio ECU for Bulgarian agriculture out of 491 Mio ECU of total PHARE commitments.

**Table 42. - PHARE agricultural commitments for Bulgaria (Mio ECU)**

<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
16	25	10	0	0	5	0	0

### **2. - Specific actions**

The 1990 (BG 9001) so called "Development of Private Agriculture" PHARE programme for Bulgarian agriculture was essentially supply oriented, and catered for:

- The supply of agricultural inputs to private farmers (animal feed, seeds, crop protection chemicals, animal health products) and imported by an agricultural private bank (14.5 Mio ECU);
- The provision of technical assistance to the restructuring of the agricultural bank and to the Ministry of Agriculture;
- The implementation of a Project Management Unit and of proper monitoring of the programme.

The 1991 (BG 9103) programme ("Restructuring of the Agricultural Sector", with a 25 Mio ECU total amount) differed from the 1990 supply of equipment approach, to one with an increased provision of technical assistance. This programme had various aims:

- To contribute to the Land Reform and to create a Land Register (5 Mio ECU),
- To redevelop a statistical service to assist policy making; creation of a policy analysis unit (4 Mio ECU),
- To provide reviews, evaluations and auditing for the agro-processing industries,
- To provide market information requirements for agricultural products (2 Mio ECU),
- To provide assistance in banking techniques (1.5 Mio ECU),

- To support the transformation of agriculture in certain areas by agro-processing and farm enterprise analysis and planning services (4.5 Mio ECU),
- To establish a credit line to allow emerging private farms and agro-industry (7 Mio ECU)
- And to increase the support for the existing Project Management Unit set up by the 1990 programme for reform in Bulgarian agriculture and for the development of private farming (1 Mio ECU).

The 1992 (BG 9206) so called "Restructuring and Development of Agriculture" programme had to continue to assist Bulgaria in the transformation, privatisation and rebuilding of the agricultural sector by:

- Restoring property rights by accelerating land restitution and land registration (3.1 Mio ECU);
- Assisting in the privatisation of the remaining state-owned agricultural enterprises (1.9 Mio ECU);
- Promoting the development of private wholesales and auction market networks for agricultural products (2.2 Mio ECU);
- Promoting media coverage for the clarification of agricultural strategies (public relation campaigns) (1 Mio ECU);
- Building flexibility into the programme by incorporating a provision for general technical assistance to address other urgent issues arising during its implementation (1 Mio ECU);
- Continuation of the Project Management Unit (0.8 Mio ECU).

The 1995 (BG 9507) programme was based on the knowledge gained from previous programmes and in compliance with the specific targets identified in the PHARE Country Strategic Paper and the requirements set in the White Paper. The specific objectives of this programme are the following:

- To establish a policy framework for the agriculture industry in the context of European integration.
- To initiate measures for adopting a regulatory framework compatible with that of the EU.
- To contribute to the development of key institutions, notably for land registration, agricultural extension and of those involved in the development of domestic markets for agricultural produce.

The specific projects of the 1995 programme are the following:

- Technical assistance for land reform (0.38 Mio ECU).

- Technical assistance to acceleration of privatisation of SOEs (0.4 Mio ECU).
- Assistance to agricultural capital fund scheme (0.35 Mio ECU).
- Strengthening of the National Agricultural Advisory Service (0.85 Mio ECU).
- To improve livestock, fruit and vegetable marketing channels (0.25 Mio ECU).
- Technical assistance to Policy Advisory Unit and Integration Policy Department (0.49 Mio ECU).
- Harmonisation of legislative and regulatory framework of quality controls (1.6 Mio ECU).
- Programme management (0.68 Mio ECU).

## **ANNEX 3. - Statistical annex**

<b>AVERAGE MONTHLY BGL/USD EXCHANGE RATE</b>									
	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
January				23,63	25,33	35,68	66,82	72,53	698,65
February			24,32	23,71	26,27	37,00	66,36	74,59	2387,16
March			16,99	23,62	26,57	47,20	65,99	77,94	1660,07
April			16,90	23,00	26,43	55,32	65,65	81,55	1546,23
May			18,49	23,11	26,52	55,58	65,64	119,53	1532,63
June			18,10	23,10	26,57	54,36	66,12	143,10	1668,45
July			16,88	22,91	27,12	53,68	66,10	180,14	1788,09
August			18,69	22,45	27,35	55,07	67,72	191,79	1844,23
September			18,29	22,29	27,57	61,32	68,04	224,60	1791,86
October			19,50	23,09	28,48	64,06	68,24	224,30	1759,19
November			20,81	24,37	30,94	65,10	69,11	283,39	1731,07
December			21,72	24,80	31,98	65,53	70,26	461,16	1774,81
Annual	0,84	0,79	16,68	23,34	27,65	54,25	67,17	175,82	1676,50

<b>BGL/USD EXCHANGE RATE AT THE END OF THE PERIOD</b>									
	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
January				23,82	25,58	36,32	66,65	73,88	1021,90
February			20,74	24,14	26,61	37,37	65,64	76,07	2045,50
March			15,17	23,28	26,52	64,94	66,16	78,83	1588,70
April			18,50	23,01	26,40	56,88	65,24	89,42	1467,80
May			18,25	23,20	26,41	55,59	65,95	147,04	1568,10
June			17,55	23,02	26,68	53,66	66,06	155,46	1718,60
July			18,69	22,76	27,21	53,31	66,22	187,14	1843,80
August			17,64	22,22	27,42	57,19	67,98	201,99	1809,00
September			18,95	22,64	28,03	61,20	68,02	229,98	1762,80
October			20,53	23,75	29,51	64,92	68,64	239,63	1719,00
November			18,73	24,70	31,17	65,04	69,81	349,86	1767,00
December			21,81	24,49	32,71	66,02	70,70	487,35	1776,50

Source: BNB

<b>AVERAGE MONTHLY ECU/USD EXCHANGE RATE</b>									
	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
January			1,35752	1,29456	1,21216	1,11415	1,24081	1,29184	1,21621
February			1,38411	1,26287	1,18229	1,11759	1,25869	1,28860	1,16576
March			1,28059	1,23044	1,17874	1,14190	1,31706	1,28134	1,14976
April			1,21057	1,24240	1,22106	1,13924	1,34143	1,26391	1,14501
May			1,19918	1,26806	1,21723	1,16441	1,32164	1,24668	1,14934
June			1,15134	1,30324	1,18495	1,18348	1,33144	1,25292	1,13663
July			1,14887	1,37062	1,13847	1,22192	1,34481	1,27064	1,10491
August			1,17636	1,40186	1,13327	1,22317	1,30441	1,28325	1,07273
September			1,20782	1,38675	1,17906	1,23535	1,28880	1,26907	1,09992
October			1,21140	1,32523	1,16391	1,26091	1,32217	1,25841	1,12032
November			1,25792	1,23887	1,12884	1,24371	1,32381	1,27690	1,13937
December			1,30043	1,23896	1,12886	1,21584	1,30430	1,25025	1,11158
Annual	1,10175	1,27343	1,23916	1,29810	1,17100	1,18952	1,30801	1,26975	1,13404

Source: Eurostat

<b>POPULATION GROWTH AND DENSITY ('000)</b>	<b>1980</b>	<b>1985</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992*</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
Population	8862	8950	8995	8989	8595,5	8484,9	8459,8	8427,4	8385	8339,8	8283
-male	4416	4442	4440	4434	4200,1	4168,1	4120,1	4110,2	4104	4100,1	4044
-female	4446	4508	4555	4555	4395,4	4316,8	4339,7	4317,2	4281	4239,7	4239
Density	80	80,6		82,4		76,4			75,5	75,1	74,6

<b>URBAN AND RURAL POPULATION ('000)</b>	<b>1980</b>	<b>1985</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992*</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
Urban	5533,0	5808,0		6114,0		5705,0	5720,5	5715,9	5688,4	5676,4	5608,5
Under Working Age							1196,5	1160,9	1120,4	1121,9	1043,5
On Working Age							3440,0	3458,0	3464,0	3468,5	3475,0
Over Working Age							1084,0	1097,0	1104,0	1086,0	1090,0
Rural	3329,0	3142,0		2875,0		2780,0	2739,0	2711,5	2696,3	2663,4	2674,5
Under Working Age							501,0	490,5	478,3	428,4	456,5
On Working Age							1298,0	1283,0	1281,0	1281,0	1274,0
Over Working Age							940,0	938,0	937,0	954,0	944,0
TOTAL	8862,0	8950,0	0,0	8989,0	0,0	8485,0	8459,5	8427,4	8384,7	8339,8	8283,0

	<b>1980</b>	<b>1985</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992*</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
Urban (%)	62,4%	64,9%	#DIV/0!	68,0%	#DIV/0!	67,2%	67,6%	67,8%	67,8%	68,1%	67,7%
Rural (%)	37,6%	35,1%	#DIV/0!	32,0%	#DIV/0!	32,8%	32,4%	32,2%	32,2%	31,9%	32,3%
Rural/Urban ratio	60,2	54,1	#DIV/0!	47,0	#DIV/0!	48,7	47,9	47,4	47,4	46,9	47,7
% of population on working age in Urban areas	0,0%	0,0%	#DIV/0!	0,0%	#DIV/0!	0,0%	60,1%	60,5%	60,9%	61,1%	62,0%
% of population on working age in Rural areas	0,0%	0,0%	#DIV/0!	0,0%	#DIV/0!	0,0%	47,4%	47,3%	47,5%	48,1%	47,6%

\* Last census

Source: National Statistics

<b>wheat balance sheet</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>	<b>1996*</b>	<b>1997e*</b>
area (000 ha)	1.138,3	1.162,8	1.199,8	1.108,0	1.266,0	1.319,8	1.182,3	958,0	1.212,0	958,0	1.212,0
yield (t/ha)	4,8	4,6	3,7	3,1	2,9	2,8	2,9	1,9	2,9	1,9	2,7
production (000 t)	5.425,0	5.292,2	4.497,0	3.442,6	3.618,2	3.754,3	3.438,0	1.786,0	3.556,0	1.800,0	3.300,0
imports (000 t)	245,6	124,1	289,6	9,1	52,1	13,7	48,1	397,7		690,0	0,0
exports (000 t)	483,8	452,7	111,6	327,5	68,3	82,6	922,9	32,5		0,0	100,0
stock variation (000 t)	200,0	154,8	-7,6	-297,1	374,5	-15,1	-320,5	-141,1		0,0	100,0
Supply (000 t)	4986,8	4808,8	4682,6	3421,3	3227,5	3700,6	2883,7	2292,3	3556,0	2490,0	3100,0
feed (000 t)	2.344,8	2.196,8	2.340,3	1.361,0	1.199,6	1.715,3	986,3	571,4		590,0	1.100,0
seed (000 t)	209,3	216,0	199,4	227,9	237,6	212,8	172,4	232,6		300,0	320,0
waste (000 t)	656,1	655,9	543,9	422,8	402,4	398,6	375,5	228,3			
processed (000 t)	84,6	55,7	47,4	52,0	61,2	63,5	57,0	55,0			
food (000 t)	1.676,2	1.677,2	1.548,4	1.353,2	1.320,5	1.305,4	1.281,7	1.194,0		1.600,0	1.680,0
other uses (000 t)	15,9	7,2	3,2	4,3	6,3	5,0	10,8	11,0			
Demand (000 t)	4.986,8	4.808,8	4.682,6	3.421,2	3.227,5	3.700,5	2.883,8	2.292,3	0,0	2.490,0	3.100,0
food consumption p.c. (kg)	186,3	186,6	180,1	159,5	156,1	154,9	152,9	143,2	0,0	191,9	202,9
Self-sufficiency (%)	108,8%	110,1%	96,0%	100,6%	112,1%	101,5%	119,2%	77,9%	#DIV/0!	72,3%	106,5%

Source: FAO

Source: Min. of Agric.

<b>barley balance sheet</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>	<b>1996*</b>	<b>1997e*</b>
area (000 ha)	360,1	260,0	383,5	391,2	361,6	389,6	397,6	260,0	291,3	260,0	291,3
yield (t/ha)	4,4	5,3	3,9	3,1	2,6	2,9	2,9	1,8	2,8	1,8	3,1
production (000 t)	1.572,1	1.387,4	1.501,6	1.194,7	932,5	1.143,2	1.171,0	456,0	813,0	460,0	900,0
imports (000 t)	193,4	0,5	38,0	0,2	0,4	3,9	0,7	1,3		438,0	0,0
exports (000 t)	0,0	10,7	5,0	135,7	29,6	1,0	179,0	3,7		0,0	0,0
stock variation (000 t)	200,0	-100,0	-33,0	-162,0	-21,0	268,0	120,0	-260,0		0,0	0,0
Supply (000 t)	1565,4	1477,2	1567,6	1221,2	924,3	878,1	872,7	713,6	813,0	898,0	900,0
feed (000 t)	1.249,1	1.205,3	1.313,7	998,6	691,3	631,2	665,1	506,8		659,0	665,0
seed (000 t)	63,0	67,1	68,5	63,3	68,2	69,6	45,5	50,2		75,0	75,0
waste (000 t)	35,7	30,1	31,7	27,4	19,4	23,2	23,7	14,6			
processed (000 t)	198,0	160,0	140,0	119,1	131,7	140,7	125,0	128,1			
food (000 t)	19,6	14,7	13,7	12,8	13,7	13,4	13,4	13,9		164,0	160,0
other uses (000 t)											
Demand (000 t)	1.565,4	1.477,2	1.567,6	1.221,2	924,3	878,1	872,7	713,6	0,0	898,0	900,0
food consumption p.c. (kg)	2,2	1,6	1,6	1,5	1,6	1,6	1,6	1,7	0,0	19,7	19,3
Self-sufficiency (%)	100,4%	93,9%	95,8%	97,8%	100,9%	130,2%	134,2%	63,9%	#DIV/0!	51,2%	100,0%

Source: FAO

Source: Min. of Agric.

<b>maize balance sheet</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>	<b>1996*</b>	<b>1997e*</b>
area (000 ha)	563,2	424,4	560,1	619,4	528,4	493,2	475,0	478,0	472,2	478,0	472,2
yield (t/ha)	4,0	2,9	5,0	2,8	1,9	2,8	3,8	2,3	3,6	2,1	2,7
production (000 t)	2.265,5	1.221,1	2.775,2	1.742,3	983,3	1.383,6	1.817,0	1.089,0	1.696,0	1.000,0	1.275,0
imports (000 t)	1.247,1	24,5	300,0	0,3	114,6	2,9	1,7	96,3		545,0	0,0
exports (000 t)	3,3	0,2	1,4	187,8	5,9	0,8	1,3	3,8		0,0	0,0
stock variation (000 t)	900,0	-800,0	-54,0	-163,0	0,0	186,0	400,0	-300,0		0,0	0,0
Supply (000 t)	2609,3	2045,5	3127,8	1717,8	1092,1	1199,8	1417,4	1481,5	1696,0	1545,0	1275,0
feed (000 t)	2.141,1	1.747,3	2.719,4	1.433,3	876,8	943,6	1.126,6	1.230,0		1.423,0	1.143,0
seed (000 t)	34,0	33,5	35,5	29,8	21,9	21,3	20,4	20,0		12,0	12,0
waste (000 t)	351,4	204,7	313,1	190,7	109,8	138,7	182,3	149,7			
processed (000 t)	73,0	44,0	45,0	51,5	69,5	83,0	63,0	59,0			
food (000 t)	9,9	15,8	14,9	12,4	13,4	13,1	24,1	22,7		110,0	120,0
other uses (000 t)	0,0	0,0	0,0	0,2	0,7	0,1	1,0	0,1			
Demand (000 t)	2.609,3	2.045,5	3.127,8	1.717,8	1.092,1	1.199,8	1.417,4	1.481,5	0,0	1.545,0	1.275,0
food consumption p.c. (kg)	1,1	1,8	1,7	1,5	1,6	1,5	2,9	2,7	0,0		
Self-sufficiency (%)	86,8%	59,7%	88,7%	101,4%	90,0%	115,3%	128,2%	73,5%	#DIV/0!	64,7%	100,0%

Source: FAO

Source: Min. of Agric.

<b>Cereal balance sheet</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>	<b>1996*</b>	<b>1997e*</b>
area (000 ha)	2.150,6	1.937,0	2.236,2	2.208,7	2.246,0	2.281,9	2.115,9	1.726,0	2.025,5	1.742,4	2.025,5
yield (t/ha)	4,4	4,2	4,0	3,0	2,5	2,8	3,1	2,0	3,0	1,9	2,7
production (000 t)	9.484,6	8.090,3	8.953,5	6.545,1	5.655,1	6.406,0	6.510,4	3.373,0	6.138,0	3.325,0	5.548,0
imports (000 t)	1.686,3	189,1	627,6	9,6	167,3	21,0	50,9	495,5		1.681,0	2,0
exports (000 t)	487,1	463,6	118,1	651,0	104,4	84,5	1.107,8	40,2		0,0	100,0
stock variation (000 t)	1.320,0	-725,2	-94,6	-602,1	333,5	438,9	199,5	-701,1		0,0	100,0
Supply (000 t)	9363,9	8540,9	9557,6	6505,9	5384,5	5903,7	5254,0	4529,4	6138,0	5006,0	5350,0
feed (000 t)	5.908,0	5.331,1	6.528,2	3.913,7	2.885,3	3.396,0	2.846,4	2.337,9		2.730,0	2.968,0
seed (000 t)	322,6	333,5	319,8	337,4	342,2	314,9	243,8	310,0		402,0	422,0
waste (000 t)	1.048,3	895,7	893,1	644,6	534,6	563,1	583,3	393,6		0,0	0,0
processed (000 t)	359,2	261,5	234,4	225,1	265,4	290,2	247,0	244,1		0,0	0,0
food (000 t)	1.710,1	1.711,9	1.579,0	1.380,5	1.350,1	1.334,3	1.321,7	1.232,6		1.874,0	1.960,0
other uses (000 t)	15,9	7,2	3,2	4,6	7,0	5,1	11,8	11,1		0,0	0,0
Demand (000 t)	9.363,9	8.540,9	9.557,6	6.505,9	5.384,5	5.903,7	5.254,1	4.529,4		5.006,0	5.350,0
food consumption p.c. (kg)	190,1	190,4	183,7	162,7	159,6	158,3	157,6	147,8		224,7	222,2
Self-sufficiency (%)	101,3%	94,7%	93,7%	100,6%	105,0%	108,5%	123,9%	74,5%	#DIV/0!	66,4%	103,7%

\* Source: Ministry of Agriculture

Source: Min. of Agric.

<b>Sunflower seed b.s.</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
area (000 ha)	239,8	280,2	269,7	475,7	469,4	495,9	586,0	499,8	452,9
yield (t/ha)	1,9	1,4	1,6	1,3	0,9	1,2	1,3	1,1	1,0
production (000 t)	458,4	388,6	434,4	594,7	432,1	601,6	766,9	529,9	446,0
imports (000 t)	58,7	12,8	3,8	0,3	0,1	0,1	0,1	0,2	
exports (000 t)	27,7	23,4	24,1	91,7	112,4	67,0	144,1	94,6	37,0
stock changes (000 t)	-12,0	12,0	-50,0	-100,0	150,0	-90,0	-30,0	80,0	
Availability (000 t)	477,5	390,0	364,2	403,3	469,8	444,7	592,9	515,5	409,0
seed (000 t)	8,4	8,1	14,3	14,1	14,9	17,6	15,0	11,8	9,0
waste (000 t)	4,1	1,9	54,9	29,2	18,0	17,1	22,9	48,7	25,0
processed (000 t)	465,0	380,0	295,0	360,0	425,0	395,0	540,0	440,0	360,0
food (000 t)	0,0	0,0	0,0	0,0	12,0	15,0	15,0	15,0	15,0
p.c. disappear. (kg)	53,1	43,4	42,4	47,5	55,5	52,8	70,7	61,8	49,4

Source: FAO

<b>Vegetable oils</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
production (000 t)			112,0	135,0	156,0	145,0	200,0	162,0	150,0
imports (000 t)			61,0	10,0	36,0	25,0	33,0	26,0	
exports (000 t)			0,0	26,0	66,0	31,0	68,0	26,0	
stock changes (000 t)			-30,0	30,0	10,0	0,0	-10,0	-10,0	
Availability (000 t)			143,0	149,0	136,0	139,0	155,0	152,0	150,0
food (000 t)			95,0	117,0	112,0	100,0	100,0	100,0	100,0
of which									
sunflower oil (000 t)			88,0	110,0	106,0	95,0	93,0	97,0	90,0
other uses (000 t)			48,0	31,0	29,0	40,0	56,0	54,0	50,0
food cons. p.c.. (1) (kg)			10,2	13,0	12,5	11,3	11,1	11,6	10,9

(1) for sunflower seed

Source: FAO

<b>sugarbeet</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
area (000 ha)	40,5	36,5	37,7	17,5	10,5	8,1	9,4	8,0	5,2
yield (t/ha)	23,9	16,0	22,7	17,4	9,1	13,8	16,8	10,9	15,6
production (000 t)	966,4	583,7	856,0	303,9	95,3	111,6	157,7	87,0	81,0
processed (000 t)	955,4	547,0	847,9	287,7	90,0	105,0	147,0	82,0	73,0
feed (000 t)	11,0	36,6	8,1	16,2	5,3	6,6	10,7	5,0	8,0
<b>sugar (total raw equivalent)</b>									
yield (%)	9,3%	8,7%	8,4%	12,6%	13,5%	11,7%	16,2%	16,9%	16,4%
production (000 t)	88,7	47,4	70,8	36,3	12,1	12,3	23,8	13,8	12,0
imports (000 t)	326,3	277,9	107,4	358,2	378,3	369,0	394,8	335,7	
exports (000 t)	1,1	0,6	4,8	47,2	64,8	81,3	131,3	155,2	
stock changes (000 t)	23,3	17,7	70,8	-40,9	-22,8	-21,3	-6,0	59,4	
Available (000 t)	437,2	342,4	244,3	306,5	302,8	278,7	281,3	253,7	268,0
food (000 t)	327,7	248,2	228,4	281,6	271,2	249,1	251,7	234,1	239,3
p.c. food consum (kg)	36,4	27,6	26,6	33,2	32,1	29,6	30,0	28,1	28,9

Source: FAO

<b>Tobacco</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
area (000 ha)	72,7	52,9	53,4	51,2	38,9	26,8	14,3	27,9	40,0
yield (t/ha)	1,1	1,4	1,4	1,3	1,2	1,2	1,3	1,4	1,5
production (000 t)	81,1	76,5	72,4	65,9	45,6	32,7	18,8	39,8	60,0
imports (000 t)									
exports (000 t)									
stock changes (000 t)									
Availability (000 t)	81,1	76,5	72,4	65,9	45,6	32,7	18,8	39,8	60,0
seed (000 t)									
waste (000 t)									
processed (000 t)									
food (000 t)									
p.c. disappear. (kg)	8,6	8,1	8,1	7,8	5,3	3,8	2,1	4,7	7,2

Source: FAO

<b>potatoes balance sheet</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
area (000 ha)	40,2	41,2	42,5	47,9	39,0	47,3	55,6	40,0	44,3
yield (t/ha)	13,8	10,5	11,7	11,8	9,2	10,5	11,7	8,0	10,5
production (000 t)	553,5	432,7	497,6	566,2	357,1	497,2	648,7	320,0	463,0
imports (000 t)	52,3	4,9	0,9	0,9	31,2	24,1	6,2	15,3	
exports (000 t)	8,9	7,8	3,9	19,0	9,3	7,0	9,3	1,4	
stock variation (000 t)	80,0	-80,0	0,0	60,0	-60,0	0,0	150,0	-150,0	
Supply (000 t)	516,8	509,8	494,6	488,2	439,0	514,4	495,7	483,9	463,0
feed (000 t)	113,4	114,2	100,0	100,3	72,7	132,7	122,9	124,7	120,0
seed (000 t)	61,8	63,8	71,8	58,5	71,0	83,4	60,0	60,0	50,0
waste (000 t)	60,6	51,8	49,9	56,7	44,6	51,9	65,2	48,2	46,3
food (000 t)	281,0	280,0	273,0	272,2	250,6	246,1	247,4	250,2	247,0
Demand (000 t)	516,8	509,8	494,6	487,7	438,9	514,2	495,5	483,1	463,3
food consump. p.c. (kg)	31,2	31,1	31,8	32,1	29,6	29,2	29,5	30,0	29,8
Self-sufficiency (%)	107,1%	84,9%	100,6%	116,1%	81,4%	96,7%	130,9%	66,2%	99,9%

Source: FAO

<b>Grapes &amp; Wine</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
area (000 ha)	158,2	158,5	156,2	154,8	130,1	126,2	126,6	120,7	119,8
table grape (000 ha)	19,2	18,5	18,2	17,8	13,1	13,2	14,6	13,7	13,8
wine grape (000 ha)	139,0	140,0	138,0	137,0	117,0	113,0	112,0	107,0	106,0
yield (wine grape t/ha)	4,2	4,0	4,2	4,5	3,4	3,4	4,5	4,9	4,6
production (000 t)	655,5	630,8	655,8	696,5	440,4	423,6	590,8	590,1	557,0
table grape (000 t)	68,8	68,1	79,6	80,8	46,7	43,2	91,8	71,1	74,0
wine grape (000 t)	586,7	562,7	576,2	615,7	393,7	380,4	499,0	519,0	483,0
<b>Wine</b>									
production (000 t)	265,7	248,0	255,0	221,0	168,3	188,5	264,1	237,7	229,4
imports (000 t)	3,9	6,4	2,3	9,3	11,7	15,5	39,6	23,1	20,0
exports (000 t)	184,8	127,7	61,8	87,4	115,8	134,4	199,7	183,5	151,6
stock changes (000 t)	30,0	0,0	-80,0	-5,0	60,0	35,0	-5,0	20,0	0,0
Availability (000 t)	114,8	126,7	115,4	137,9	124,2	104,6	99,0	97,4	97,8
processed (000 t)	11,8	7,0	8,1	20,0	15,3	18,2	15,1	16,5	15,0
consumption (000 t)	103,0	119,7	107,3	117,9	108,9	86,4	83,9	80,9	82,8
consump. p. c.	11,5	13,3	12,5	13,9	12,9	10,3	10,0	9,7	10,0

Source: FAO & NSI

<b>Vegetables</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
area (000 ha)	103,9	94,7	92,2	80,8	71,9	84,1	119,4	91,8	99,8
yield (t/ha)	16,6	17,2	15,4	13,8	11,8	12,8	11,8	10,8	9,9
production (000 t)	1.728,7	1.627,7	1.417,8	1.113,3	846,9	1.076,2	1.415,0	988,0	992,0
imports (000 t)	12,2	2,1	5,2	10,4	19,1	45,2	35,3	15,9	
exports (000 t)	384,8	310,5	88,4	153,2	125,6	143,3	122,2	143,6	
stock changes (000 t)	0,0	0,0	-170,0	60,0	110,0	0,0	-135,0	135,0	
Availability (000 t)	1.356,1	1.319,3	1.164,7	1.030,4	850,3	978,2	1.193,0	995,3	
feed (000 t)	41,0	32,8	51,6	17,7	10,3	12,8	28,9	29,2	
waste (000 t)	249,3	269,2	251,2	151,0	74,3	107,2	169,1	135,1	
processed (000 t)									
food (000 t)	1.065,8	1.017,3	861,9	861,7	766,5	858,5	995,4	835,0	
food consump p.c. (kg)	118,5	113,2	100,3	101,6	90,6	101,9	118,7	100,1	
<b>Tomatoes</b>									
area (000 ha)	29,0	26,0	23,0	17,0	17,0	23,0	30,0	17,0	19,3
production (000 t)	873,0	813,0	610,0	408,0	325,0	461,0	515,0	305,0	244
<b>Cucumbers</b>									
area (000 ha)	4,0	4,0	5,0	4,0	4,0	5,0	8,0	8,0	13
production (000 t)	128,0	108,0	115,0	71,0	62,0	58,0	91,0	87,0	145
<b>Peppers</b>									
area (000 ha)	18,0	17,0	20,0	17,0	14,0	17,0	20,0	16,0	16,9
production (000 t)	204,0	227,0	236,0	211,0	153,0	218,0	252,0	207,0	175
<b>Dry onions</b>									
area (000 ha)	12,0	10,0	9,0	15,0	8,0	11,0	21,0	11,0	10,6
production (000 t)	110,0	76,0	69,0	104,0	52,0	81,0	180,0	52,0	71
<b>Other vegetables</b>									
area (000 ha)	40,9	37,7	35,2	27,8	28,9	28,1	40,4	39,8	40,0
production (000 t)	413,7	403,7	387,8	319,3	254,9	258,2	377,0	337,0	357,0

Source: FAO & NSI

<b>Fruits (excl. wine grape)</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
area (000 ha)			164,0	153,0	135,0	112,9	104,6	102,1	101,6
production (000 t)			752,0	816,0	429,0	533,0	663,0	646,0	567,0
<b>Apples</b>									
area (000 ha)	24,0	23,0	22,0	21,0	19,0	17,0	15,0	15,0	14,3
production (000 t)	457,0	411,0	145,0	221,0	110,0	76,0	149,0	204,0	152,0
<b>Peaches</b>									
area (000 ha)	11,0	12,0	12,0	12,0	10,0	9,0	9,0	8,0	
production (000 t)	99,0	78,0	72,0	76,0	54,0	57,0	72,0	69,0	
<b>Plums</b>									
area (000 ha)	17,0	17,0	18,0	17,0	12,0	12,0	12,0	12,0	
production (000 t)	140,0	123,0	105,0	99,0	57,0	79,0	100,0	90,0	
<b>Cherry</b>									
area (000 ha)	11,0	11,0	12,0	11,0	10,0	9,0	8,0	8,0	
production (000 t)	83,0	71,0	54,0	66,0	32,0	48,0	75,0	57,0	
<b>Other fruits</b>									
area (000 ha)									
production (000 t)	333,0	299,5	477,0	505,0	314,0	475,0	480,0	277,0	

Source: FAO & NSI

<b>cattle (at 1st January)</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
<b>beg. stocks (000 head)</b>	1613	1575	1457	1310	974	750	638	632	582	612
- <i>in private farms</i>	307	282	390	418	488	507	578	608	567	601
<b>females (000 head)</b>	648	617	609	575	489	419	351	371	358	389
- <i>in private farms</i>	157	145	203	237	295	321	325	362	353	385
<b>sheep (at first January)</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
<b>beg. stocks (000 head)</b>	8609	8130	7938	6703	4814	3763	3398	3383	3020	2848
- <i>in private farms</i>	2701	2549	3178	3261	3582	3293	3289	3342	2986	2820
<b>females (000 head)</b>	5289	5007	4952	4528	3535	2839	2358	2386	2000	2130
- <i>in private farms</i>	2107	1987	2400	2476	2759	2545	2292	2363	1981	2114
<b>goats (at first January)</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
<b>beg. stocks (000 head)</b>	436	433	498	553	611	676	795	833	849	966
- <i>in private farms</i>	433	429	495	551	610	676	795	833	848	966
<b>females (000 head)</b>	371	367	417	448	499	540	656	668	619	770
- <i>in private farms</i>	369	364	416	447	498	539	656	668	619	769
<b>pigs (at first January)</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
<b>beg. stocks (000 head)</b>	4119	4352	4187	3141	2680	2071	1986	2140	1500	1480
- <i>in private farms</i>	764	865	1031	820	838	747	1088	1350	1247	1354
<b>females (000 head)</b>	365	381	392	298	271	198	219	234	157	183
- <i>in private farms</i>	78	93	126	99	101	87	130	164	134	171
<b>poultry * (at first January)</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
<b>beg. stocks (000 head)</b>	41805	36339	27998	21707	19872	18211	19126	18609	16227	14766
- <i>in private farms</i>	17715	13867	12481	10682	12001	12497	13688	13780	13501	14099
<b>females (000 head)</b>	16917	15459	14044	11110	10608	9521	11632	10615	8957	8524
- <i>in private farms</i>	9200	8554	8396	6850	6561	6313	8626	7795	7110	8134

\* chickens, ducks, geeses and turkeys

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Source: FAO & NSI

<b>milk and milk products</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
cow yield (liter)	3.354,0	3.367,0	2.968,0	2.833,0	2.783,0	2.985,0	3.135,0	3.072,0	3.030,0
sheep and goat yield (liter)	245,0	209,0	196,0	183,0	181,0	244,0	267,0	277,0	276,0
production (000 t)	2.512,2	2.457,8	2.064,8	1.862,6	1.578,6	1.464,5	1.447,8	1.430,0	1.436,0
of which									
cow milk	2.135,0	2.101,0	1.760,0	1.589,0	1.319,0	1.162,0	1.130,0	1.128,0	1.161,0
sheep & goat milk						250,0	249,1	252,9	223,8
imports (000 t)	44,0	38,1	0,6	10,3	99,7	111,9	106,8	38,5	
exports (000 t)	138,0	107,7	169,8	173,6	105,9	127,9	56,4	48,2	
disappearance (000 t)	2.418,2	2.388,2	1.895,5	1.699,3	1.572,3	1.448,5	1.498,1	1.420,4	1.436,0
feed (000 t)	407,0	341,8	206,2	131,8	163,3	89,6	93,3	69,0	
waste (000 t)	101,7	69,0	96,2	30,3	27,7	31,4	32,8	30,6	
food (000 t)	1.777,9	1.777,4	1.498,4	1.514,3	1.416,4	1.311,7	1.361,6	1.310,1	1.292,0
other uses (000 t)	98,2	100,0	94,7	89,5	31,6	15,8	10,5	10,5	
p.c. disappear. (kg)	268,8	265,7	220,5	200,3	185,9	171,9	178,7	170,3	173,4
<b>whole milk</b>									
imports (000 )	0,0	0,0	0,0	0,5	24,2	18,9	11,6	9,3	
exports (000 )	0,0	0,0	0,3	11,9	4,0	3,0	0,0	1,6	
disappearance (000 )	2.512,2	2.457,8	2.064,5	1.851,2	1.598,8	1.480,4	1.459,3	1.437,7	1.436,0
feed (000 )	149,1	146,8	145,6	121,2	99,3	40,9	34,7	34,8	35,0
waste (000 )	91,9	59,4	90,7	26,4	25,6	30,4	31,5	29,6	30,0
food (000 )	453,5	477,8	479,7	688,3	715,8	765,1	773,2	845,0	861,6
processing (000 )	1.817,7	1.773,8	1.348,5	1.015,3	758,1	644,0	620,0	528,4	509,4
p.c. food consump (kg)	50,4	53,2	55,8	81,1	84,6	90,8	92,2	101,3	104,1
milk & milk products p.c.	197,7	197,7	174,3	178,5	167,4	155,7	162,4	157,1	156,0
<b>Butter balance sheet</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
production (000 t)	22,1	21,6	12,4	8,8	4,6	2,2	2,9	2,3	2,3
imports (000 t)	5,6	4,7	0,6	1,5	4,4	3,4	1,1	0,7	
exports (000 t)	0,1	0,0	0,0	0,2	0,5	0,2	0,1	0,1	
disappearance (000 t)	27,6	26,3	13,1	10,1	8,5	5,5	3,9	3,0	
p.c. disappearance (kg)	3,1	2,9	1,5	1,2	1,0	0,6	0,5	0,4	
<b>Cheese balance sheet</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
production (000 t)	199,9	196,9	158,2	120,3	96,5	87,7	82,2	70,7	71,8
imports (000 t)	4,2	1,4	0,0	0,5	3,7	2,9	4,4	0,7	
exports (000 t)	21,1	17,1	24,3	21,9	13,2	15,6	6,3	5,9	
disappearance (000 t)	183,1	181,1	134,0	98,9	86,9	75,0	80,3	65,5	
p.c. disappearance (kg)	20,4	20,1	15,6	11,7	10,3	8,9	9,6	7,9	
<b>eggs and eggs products</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
hen (Mio heads)	16.917,0	14.044,0	11.110,0	10.608,0	9.116,0	9.521,0	11.626,0	10.614,0	
production (000 t)	153,4	138,4	105,0	92,2	91,5	98,5	109,9	97,4	90,1
imports (000 t)	0,0	0,0	0,0	1,6	2,2	4,7	1,9	1,8	
exports (000 t)	8,8	6,3	1,1	2,2	4,7	8,1	5,7	6,0	
disappearance (000 t)	144,6	132,1	103,9	91,6	89,0	95,0	106,1	93,2	
p.c. disappear. (kg)	16,1	14,7	12,1	10,8	10,5	11,3	12,7	11,2	

Source: FAO & NSI

<b>beef &amp; veal meat bs</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
slaughters (000 head)	610,9	586,0	564,2	650,1	571,0	485,9	357,0	377,0	355,0			
weight (kg)	204,1	207,1	192,1	207,5	204,0	183,7	181,5	187,3	187,0			
production (000 t)	124,7	121,4	108,4	134,9	116,5	89,2	64,8	70,6	66,4	70,7	51,8	46,3
imports (000 t)	23,2	9,5	0,2	0,9	22,2	22,4	29,6	17,8		22,6	10,0	10,0
exports (000 t)	9,4	3,9	0,2	5,2	2,2	1,1	1,9	9,4		0,9	2,5	1,0
disappearance (000 t)	138,5	127,0	108,4	130,5	136,5	110,5	92,5	79,1	66,4	92,4	59,3	55,3
p.c. disappear. (kg)	15,392	14,127	12,614	15,383	16,133	13,115	11,031	9,480	8,019	11,020	7,110	6,679
self-sufficiency (%)	90%	96%	100%	103%	85%	81%	70%	89%	100%	76%	87%	84%
<b>sheep &amp; goat meat bs</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
slaughters (000 head)	4.466,1	4.225,4	4.728,1	4.256,6	4.867,0	2.699,8	2.910,0	2.850,0	2.675,0			
weight (kg)	16,2	14,9	15,5	14,1	11,6	17,4	15,4	17,2	17,2			
production (000 t)	72,3	63,2	73,3	59,9	56,2	46,8	44,9	49,0	46,0	50,0	32,5	24,5
imports (000 t)	12,2	13,2	0,0	0,0	0,0	0,0	0,0	0,0		0,0	0,0	0,0
exports (000 t)	20,8	16,9	1,2	6,9	3,3	4,2	1,7	4,4		1,7	2,0	2,0
disappearance (000 t)	63,7	59,5	72,1	53,0	52,9	42,7	43,2	44,5	46,0	48,2	30,5	22,5
p.c. disappear. (kg)	7,077	6,616	8,391	6,250	6,259	5,066	5,149	5,340	5,556	5,753	3,657	2,717
self-sufficiency (%)	114%	106%	102%	113%	106%	110%	104%	110%	100%	104%	107%	109%
<b>pigmeat balance sheet</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
slaughters (000 head)	5.628,5	5.502,8	4.909,5	4.076,2	3.618,0	2.828,4	3.500,0	3.800,0	3.639,0			
weight (kg)	73,1	73,7	73,6	76,4	76,5	73,2	73,3	72,6	72,0			
production (000 t)	411,5	405,8	361,5	311,4	276,8	207,1	256,4	276,0	262,0	257,6	106,6	98,8
imports (000 t)	1,1	1,0	0,7	2,1	7,5	15,5	5,7	3,4		0,7	0,0	0,0
exports (000 t)	68,7	47,1	21,9	10,7	4,0	7,2	7,3	16,2		1,1	10,5	1,0
disappearance (000 t)	343,9	359,7	340,3	302,8	280,3	215,5	254,9	263,2	262,0	257,2	96,1	97,8
p.c. disappear. (kg)	38,237	40,016	39,594	35,690	33,133	25,568	30,399	31,561	31,643	30,676	11,523	11,812
self-sufficiency (%)	120%	113%	106%	103%	99%	96%	101%	105%	100%	100%	111%	101%
<b>poultry meat bs</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
slaughters (000 head)	180.240,0	162.873,0	83.205,0	73.949,0	65.000,0	54.500,0	64.500,0	66.700,0	62.500,0			
weight (kg)	1,0	1,1	1,2	1,2	1,5	1,5	1,4	1,5	1,5			
production (000 t)	188,4	181,8	100,3	88,9	97,1	81,7	92,2	100,0	94,0	97,2	124,4	98,5
imports (000 t)	0,3	0,0	0,1	0,6	6,0	4,9	3,9	4,4		11,2	0,6	2,5
exports (000 t)	35,3	16,8	13,5	16,2	15,7	9,7	9,7	11,7		4,0	3,6	4,0
disappearance (000 t)	153,4	164,9	86,9	73,3	87,4	76,9	86,4	92,7	94,0	104,4	121,4	97,0
p.c. disappear. (kg)	17,058	18,348	10,107	8,635	10,326	9,131	10,306	11,117	11,353	12,452	14,559	11,719
self-sufficiency (%)	123%	110%	115%	121%	111%	106%	107%	108%	100%	93%	102%	102%
<b>total meat balance sheet</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>	<b>1995</b>	<b>1996</b>	<b>1997e</b>
production (000 t)	799,3	774,7	646,8	599,2	551,3	429,6	463,3	501,5	474,4	475,4	315,3	268,1
imports (000 t)	36,8	23,7	1,0	3,6	36,4	45,3	40,3	25,7	0,0	34,6	10,6	12,5
exports (000 t)	134,6	85,1	37,2	39,3	27,2	27,9	26,5	44,4	0,0	7,7	18,6	8,0
disappearance (000 t)	701,4	713,3	610,6	563,5	560,5	447,0	477,1	482,9	474,4	502,3	307,3	272,6
p.c. disappear. (kg)	78,0	79,4	71,0	66,4	66,3	53,0	56,9	57,9	57,3	59,9	36,8	32,9
self-sufficiency (%)	114%	109%	106%	106%	98%	96%	97%	104%	100%	95%	103%	98%

Source: FAO & NSI

Source: Ministry of Agricultur

## AGRICULTURAL TRADE BETWEEN THE EUROPEAN UNION AND BULGARIA

	IMPORTS FROM BULGARIA						EXPORTS TO BULGARIA					
	VALUE 1000ECU			QUANTUTY TON			VALUE 1000ECU			QUANTUTY TON		
	1995	1996	1997	1995	1996	1997	1995	1996	1997	1995	1996	1997
<b>TOTAL</b>	<b>1.835.729</b>	<b>1.706.158</b>	<b>2.079.792</b>	<b>3.933.326</b>	<b>3.656.911</b>	<b>5.016.290</b>	<b>2.053.130</b>	<b>1.697.738</b>	<b>1.837.452</b>	<b>1.054.399</b>	<b>723.121</b>	<b>1.097.702</b>
prodagricole	223.469	215.272	228.333	315.723	254.088	213.741	229.632	144.427	153.029	281.502	154.992	263.165
'01	10.781	1.796	805	6.985	1.693	663	1.723	712	2.377	195	89	322
'02	26.623	24.059	29.885	5.696	5.770	5.769	7.634	2.645	16.455	8.997	3.608	17.249
'04	7.346	6.577	7.179	3.928	5.002	4.988	13.205	7.865	10.151	9.817	5.009	6.941
'05	710	653	621	681	275	184	1.190	1.077	549	555	292	350
'06	1.028	1.070	1.294	804	918	790	588	1.235	626	255	502	362
'07	20.411	20.059	18.449	20.332	18.326	10.504	1.532	1.059	1.386	5.588	3.126	9.256
'08	10.994	14.796	14.834	14.152	19.437	17.525	24.126	12.917	9.994	85.241	48.606	37.105
'09	1.148	2.144	3.492	2.775	2.115	3.481	10.530	3.571	3.975	3.781	1.313	1.545
'10	2.885	1.554	292	18.454	9.513	1.283	669	1.100	16.010	1.769	2.112	94.810
'11	135	5	19	638	20	41	4.383	1.618	2.281	22.787	4.629	8.149
'12	45.010	28.024	28.638	138.025	80.393	63.374	2.471	2.310	1.843	2.049	1.555	2.221
'13	6	7	23	1	6	0	332	408	394	69	99	124
'14	148	100	85	385	229	217	19	31	*	42	66	*
'15	2.225	325	156	4.909	766	300	15.063	8.022	9.000	19.979	10.845	12.395
+16agri	601	1.611	1.958	378	583	761	10.575	3.395	6.135	6.597	2.384	5.386
'17	1.865	2.882	1.477	4.046	7.447	3.329	7.857	5.811	4.313	22.437	13.287	24.115
'18	1	*	*	0	*	*	17.699	12.141	11.600	6.890	5.494	4.524
'19	*	0	1	*	0	0	12.931	5.723	4.310	7.799	3.914	2.172
'20	15.231	22.526	20.032	10.340	16.202	16.083	17.770	9.506	8.130	21.054	11.616	10.442
'21	259	49	204	440	73	251	22.318	19.461	10.718	6.371	4.613	4.740
'22	55.896	66.004	73.924	60.944	76.696	77.607	32.469	19.693	17.764	32.143	14.773	6.947
'23	7.656	8.635	11.197	17.682	3.990	2.408	4.415	2.444	3.868	9.663	5.481	9.352
'24	12.511	12.394	13.769	4.128	4.635	4.181	20.133	21.683	11.151	7.426	11.578	4.660