EMERGING ECONOMIES TRANSITION

Review of Agricultural Policies

SLOVENIA

AGRICULTURE AND FOOD

OECD

© OECD, 2001.

© Software: 1987-1996, Acrobat is a trademark of ADOBE.

All rights reserved. OECD grants you the right to use one copy of this Program for your personal use only. Unauthorised reproduction, lending, hiring, transmission or distribution of any data or software is prohibited. You must treat the Program and associated materials and any elements thereof like any other copyrighted material.

All requests should be made to:

Head of Publications Service,
OECD Publications Service,
2, rue André-Pascal,
75775 Paris Cedex 16, France.

OECD CENTRE FOR CO-OPERATION WITH NON-MEMBER

Review of Agricultural Policies

SLOVENIA

OECD

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Pursuant to Article 1 of the Convention signed in Paris on 14th December 1960, and which came into force on 30th September 1961, the Organisation for Economic Co-operation and Development (OECD) shall promote policies designed:

- to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;
- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development; and
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

The original Member countries of the OECD are Austria, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The following countries became Members subsequently through accession at the dates indicated hereafter: Japan (28th April 1964), Finland (28th January 1969), Australia (7th June 1971), New Zealand (29th May 1973), Mexico (18th May 1994), the Czech Republic (21st December 1995), Hungary (7th May 1996), Poland (22nd November 1996), Korea (12th December 1996) and the Slovak Republic (14th December 2000). The Commission of the European Communities takes part in the work of the OECD (Article 13 of the OECD Convention).

OECD CENTRE FOR CO-OPERATION WITH NON-MEMBERS

The OECD Centre for Co-operation with Non-Members (CCNM) promotes and co-ordinates OECD's policy dialogue and co-operation with economies outside the OECD area. The OECD currently maintains policy co-operation with approximately 70 non-Member economies.

The essence of CCNM co-operative programmes with non-Members is to make the rich and varied assets of the OECD available beyond its current Membership to interested non-Members. For example, the OECD's unique co-operative working methods that have been developed over many years; a stock of best practices across all areas of public policy experiences among Members; on-going policy dialogue among senior representatives from capitals, reinforced by reciprocal peer pressure; and the capacity to address interdisciplinary issues. All of this is supported by a rich historical database and strong analytical capacity within the Secretariat. Likewise, Member countries benefit from the exchange of experience with experts and officials from non-Member economies.

The CCNM's programmes cover the major policy areas of OECD expertise that are of mutual interest to non-Members. These include: economic monitoring, structural adjustment through sectoral policies, trade policy, international investment, financial sector reform, international taxation, environment, agriculture, labour market, education and social policy, as well as innovation and technological policy development.

Publié en français sous le titre :
EXAMEN DES POLITIQUES AGRICOLES
SLOVÉNIE

© OECD 2001
Permission to reproduce a portion of this work for non-commercial purposes or classroom use should be obtained through the Centre français d'exploitation du droit de copie (CFC), 20, rue des Grands-Augustins, 75006 Paris, France, Tel. (33-1) 44 07 47 70, Fax (33-1) 46 34 67 19, for every country except the United States. In the United States permission should be obtained through the Copyright Clearance Center, Customer Service, (508)750-8400, 222 Rosewood Drive, Danvers, MA 01923 USA, or CCC Online: http://www.copyright.com/. All other applications for permission to reproduce or translate all or part of this book should be made to OECD Publications, 2, rue André-Pascal, 75775 Paris Cedex 16, France.

FOREWORD

Slovenia's agricultural sector is small in comparison with those of other central and east European countries. Natural conditions for farming are relatively unfavourable, lowering productivity and raising production costs. The situation is worsened by a highly fragmented farm structure. Since independence Slovenia's policy response to these problems has been to provide substantial support to the sector through border protection, administered prices and direct subsidies. This policy choice, made possible by Slovenia's favourable macroeconomic performance, reflected the important political weight of the rural and farming poulation. Between 1995 and 1999 the level of producer support was above the OECD average and nearly the same as that of the European Union, making Slovenia a unique case among central and east European countries.

Following independence Slovenia became a member of the WTO, applied for EU membership and joined various trade groups. Today Slovenia is at the point where is international commitments necessitate considerable reform of previous agricultural policies. It faces significant challenges to improve the competitiveness of its agricultural sector, both domestically and abroad, with the overarching goal of preparing the sector for integration into the European Union and global markets.

This comprehensive R*eview* examines Slovenian agricultural policies during the decade of independence and suggests ways to help Slovenian policymakers design efficient and effective policy reform. The R*eview* was prepared in the framework of the OECD's Centre for Co-operation and Non-Members, and was made possible through a voluntary contribution from Austria.

Josef Schmidhuber and Olga Melyukhina of the OECD's Directorate for Food, Agriculture and Fisheries led the study with contributions from Andrzej Kwiecinski and Claude Nenert. Substantial input to the R*eview* was provided by Slovenian experts, notably Emil Erjavec from the Biotechnical Faculty of the University of Ljubljana and Miroslav Rednak and Tina Volk from the Agricultural Institute of Slovenia. Aleš Kuhar, Luka Juvančič and Franc Lobnik from the Biotechnical Faculty of the University of Ljubljana also contributed valuable expertise. The R*eview* benefited from co-operation with Slovenian experts from the Ministry of Agriculture, Forestry and Food. Austrian contributors were Vladimir Gligorov and Hermine Vidovic of the Vienna Institute for Comparative Economic Studies (WIIW) and Gerhard Hovorka from the Federal Institute for Less Favourable and Mountainous Areas. Technical and secretarial assistance was provided by Stephanie Milowski ant Anita Lari, OECD.

The draft study was reviewed in a roundable with Slovenian officials and experts in Ljubljana in July 2000. Subsequently, the report was examined by the Forum on Agricultural Policies in Non-Member Economies on 15 November 2000 with high-level policymakers from Slovenia, representatives of OECD Member countries and experts from non-member economies. The R*eview* is published under the responsability of the Secretary-General of the OECD.

Gérard Viatte
Director
Directorate for Food, Agriculture and Fisheries

Eric Burgeat
Director
Centre for Co-operation with Non-Members

© OECD 2001

TABLE OF CONTENTS

© OECD 2001

List of Boxes

List of Tables

© OECD 2001

List of Figures

© OECD 2001

© OECD 2001

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Slovenia declared its independence from the former Yugoslavia in June 1991. The initial years of independence were characterised by falling GDP, high unemployment and inflation. Successful macroeconomic stabilisation since then has ensured a favourable environment for sustained economic growth. Starting from 1993, Slovenia staged an impressive recovery in output with eight years of continuous economic growth, surpassing the pre -transition GDP towards the end of the 1990s. During the decade of independence Slovenia took major steps towards international integration, joining the WTO and several regional trade groups as well as moving closer to EU accession.

Slovenia's agricultural sector is small and conditions for farming are rather unfavourable. About 80% of agricultural land is located in mountainous and hilly areas and other regions with difficult farming conditions. Post-war collectivisation attempts failed in Slovenia; consequently private land ownership and family farm structure were maintained throughout the socialist period. Nevertheless, severe restrictions on the size of private holdings under the previous regime blocked the process of farm consolidation. This left Slovenia with a highly fragmented farm structure. About 80% of Slovenian private farms cultivate between 1 and 10 hectares and account for 70% of total agricultural land. The agro-food processing sector is also dispersed and characterised by under-utilised capacities. Its main sub-sectors require substantial restructuring and modernisation. Trade barriers, as well as price and subsidy interventions, distort markets and shield companies from international competition. The majority of Slovenia's food industry is therefore inward-oriented and primarily supplies the domestic market.

Since independence, agricultural policies in Slovenia evolved towards high producer support through substantial border protection for the main agricultural products, administered pricing and, most recently, through direct payments. Since 1992, budgetary allocations to the agro-food sector have increased by over one-third in real terms. In 1995-1999, the average percentage PSE in Slovenia (41%) was above the OECD level (35%) and nearly the same as in the European Union (42%). The level of producer support in Slovenia exceeded that in any other country of central and eastern Europe for which OECD has carried out similar estimates.

Future agricultural development in Slovenia will be largely determined by its membership in the European Union. This implies a considerable opening of the domestic market and increased competition. In contrast to most other candidate countries, Slovenia will benefit little from EU producer price supports, as producer prices are close to or exceed EU levels. Today Slovenia faces the great challenge of improving the competitiveness of its agricultural sector, both domestically and abroad. In the 1999 agricultural policy reform the government committed itself to limiting market interventions and to increasing the policy focus on structural adjustment and rural development. This move should help to provide a policy framework that is characterised by fewer market distortions and is conducive to more efficient allocation of agricultural resources. Policies should also stimulate land transfers to allow for improvements in farm structure. An effective rural diversification strategy targeted to generate alternative income sources for rural people remaining outside agriculture is vital for Slovenia to support agricultural policy reform and achieve stated social goals.

Over and above food production, the agricultural sector in Slovenia is seen to provide important societal benefits, such as balanced territorial distribution of population, a clean environment, and cultural landscape. It is important, however, to determine as precisely as possible the role of agriculture in achieving these desired social objectives. This would mean assessing what "non-commodity outputs" agriculture is able to supply in the most efficient way and at the least resource cost.

© OECD 2001

Slovenia is a small newly independent European country.

Slovenia is a small European country with a surface area of 20 thousand square kilometres and 2 million inhabitants. It is situated at the crossroads of central Europe, the Mediterranean and the Balkans. Slovenia is a new European state, having declared its independence from the former Yugoslavia in June 1991.

A. The macroeconomic environment

Substantial political, legal, and economic independence within the former Yugoslavia...

Prior to independence, Slovenia's macroeconomic environment was shaped by the policies of the Socialist Federal Republic of Yugoslavia. Three political and institutional characteristics distinguished the former Yugoslavia. First, Yugoslavia was outside the direct influence zone of the Soviet Union and was able to maintain comprehensive political and economic relations with the United States and western Europe. Second, the Yugoslav economy had not been centrally planned since the early 1960s. Although labour and financial markets were non-existent or non-functional, markets for goods and services were relatively free to operate. Third, Yugoslavia was a federation characterised by a steadily increasing level of legal, administrative and fiscal decentralisation. This enabled the governments of the republics to influence the social and economic development of their republics according to their own objectives and policies. Slovenia to a large degree used its available scope for implementing independent policies, and was one of the most economically advanced republics of the former Yugoslavia.

... eased the transition towards a market economy.

With the break-up of the former Yugoslavia Slovenia did not face the institutional and political vacuum that occurred in some other newly established countries. Although the setting up of new institutions, especially the introduction of the new currency, was a challenging task, Slovenia's accumulated experience and existing institutions made the transition smoother than in many other central and eastern European countries (CEECs). In addition, Slovenia's experience with a market-economy enabled it to opt for a gradual approach to transition without risking losing the momentum to complete the transition process.

Although the start was difficult,...

Slovenia began its independence under unfavourable macro-economic conditions, which characterised the former Yugoslavia in the late 1980s. Falling GDP and high inflation were carried over from the pre-independence period. With the start of the transition Slovenia's economy contracted more sharply and the unemployment rate nearly doubled. When the new currency, the *tolar*, was introduced in October 1991, the monthly rate of inflation peaked at 21% and foreign exchange reserves were nearly depleted. Implementation of a stabilisation programme was a prerequisite for the newly independent Slovenia to resume economic growth.

... growth soon resumed with low inflation and falling unemployment rates.

The basic pillars of the 1992/93 stabilisation programme were restrictive monetary and fiscal policies and a floating exchange rate. Price control was limited to a few products and services. The stabilisation programme helped reduce inflation rates to single-digits in late 1995, for the first time since the mid-1970s. By 1999, the annual average inflation rate fell to 6.1%. Starting from 1993, Slovenia staged an impressive recovery in output with eight years of continuous economic growth. Steady growth notwithstanding, overall output surpassed the 1989 level only a decade later, by 1998. Among CEECs, only Slovenia and Poland have so far managed to surpass the pre-transition GDP.

© OECD 2001

The unemployment rate in Slovenia has tended to fall since 1993, although in 1999 at 13% it was more than double that in 1990.

B. Agricultural situation

1. *The role of agriculture in the economy*

Scarcely endowed with natural resources,...

Natural conditions for agriculture are relatively unfavourable in Slovenia. The agricultural area accounts for 44% of the country's territory. About 75% of agricultural land is located in areas with unfavourable conditions for agriculture, which limits the scope of agricultural activities and results in low productivity and high costs of production. Half of the country's territory is covered with forests, a share which places Slovenia third in Europe after Sweden and Finland.

... agriculture generates small and falling shares of GDP and employment,...

Agriculture is a small sector of the Slovenian economy, contributing around 3% to the GDP and accounting for about 5% of the employment. These shares have fallen since the beginning of the 1990s and are expected to decrease further, mostly due to the growth of non-agricultural sectors of the economy.

... at the same time Slovenia is a very rural country.

Slovenia is to a large extent a rural country with rural areas accounting for 89% of the total territory and 57% of the population. In Europe only Austria and Ireland have comparable shares of rural population. Numerous small towns and villages (up to 200 inhabitants) dominate the settlement pattern in Slovenia, and there are only two towns with more than 100 000 inhabitants (Ljubljana and Maribor).

Agricultural output stabilised after a sharp contraction at the beginning of the transition.

Agriculture in Slovenia was affected by the transition process less adversely than in many other CEECs. Much of the adjustment burden fell during the first years of the transition. The loss of the Yugoslav market and the changing agricultural policy framework partly explain the fall in production during this period. However, the weather (severe droughts in the early 1990s) also strongly contributed to the overall decline. After a significant rise in 1994 (largely due to favourable weather conditions), the level of agricultural output generally stabilised.

Livestock is the major sector of Slovenian agriculture.

Livestock production is the major sector of Slovenian agriculture, accounting for 55% of gross agricultural output. Milk and beef farming is the most important activity, followed by pig and poultry production. The crop sector accounts for 45% of gross agricultural output. Grains (mostly maize), fruits, grapes and vegetables are the principal crops in Slovenia.

2. *Agricultural trade*

Agro-food trade is relatively small.

Trade in agro-food products accounts for only 4% of Slovenia's total exports and for 7% of imports. Slovenia has traditionally been a net agro-food importer and has been a large contributor to the country's overall trade deficit. Although its share in the total deficit dropped from about 70% to 24% between 1993 and 1999, this was mainly due to substantial growth in the overall trade deficit.

© OECD 2001

Slovenia mainly exports meat, milk products and beverages and imports fruits, vegetables and grains.

Slovenia's major exportables are meat and meat preparations, beverages (including quality wines), dairy products and eggs. These products made up 45% of total agro-food exports in 1997-1999. Imports are dominated by unprocessed products, primarily cereals and also fruits and vegetables. Coffee, cocoa and spices represent the next largest group. These three groups account for one-third of Slovenia's total agro-food imports.

The European Union, former Yugoslavia, and Hungary are the main trading partners.

In 1999, 53% of total agricultural exports went to the area of former Yugoslavia and 33% to the European Union. Exports to the CEECs and NIS are not significant, accounting respectively for only 4% and 2% of total agro-food exports in 1999. The European Union is Slovenia's leading supplier, with its share in total agro-food imports exceeding 50% in 1999. This share has more than doubled since 1993, largely due to the rise in imports of fresh and processed fruit, animal feeds and processed cereals. As a result, Slovenia's trade balance with the European Union has remained at a substantial deficit of around Euro 300 million. CEECs are the second major source of imports, with Hungary accounting for about 80% of the group's total. The countries of the former Yugoslavia constitute the third principal partner. However, their share on the import side is much smaller than on the export side.

3. *Agricultural trade relations*

Slovenia's agricultural trade is firmly integrated into bi-lateral, regional, and multilateral trade agreements.

Since the start of the transition Slovenia entered various multilateral, regional and bilateral trade agreements, which progressively opened its borders to an increasing range of agricultural commodities. Slovenia became a member of the GATT in 1994 and was a founding member of the WTO. At the end of 1995 it signed the Central European Free Trade Agreement (CEFTA) and in 1997, an Agreement with the European Union. During the second half of the 1990s, Slovenia also entered into various other trade arrangements, which envisage gradual market access concessions in agro-food trade for the participating countries and harmonisation of their sanitary and phytosanitary policies.

The WTO *agreement*

WTO commitments imply greater market access and limits on domestic support.

Like all signatories to the Uruguay Round Agreement on Agriculture, Slovenia has taken commitments in the areas of domestic support, market access, and export subsidies. All non-tariff measures, including the previously existing variable levy system, were dismantled and converted to tariffs. Minimum market access has been granted through tariff rate quotas (TRQs). Most important are the TRQs for wheat, barley and maize. Slovenia has also committed itself to reduce domestic support. According to Slovenia's notifications to the WTO, domestic support (as measured by current total AMS) was maintained on average at 85% of the commitment level between 1995 and 1999. A notable shift from AMS-type to Green Box measures occurred during the implementation period. In the pre-UR era Slovenia subsidised exports to a limited degree. Under the URAA, Slovenia has zero export subsidy commitments and can not provide export subsidies.

The Europe Agreement

Substantial trade liberalisation also follows from the Europe Agreement...

Between 1 January 1997 and 1 February 1999 an Interim Agreement regulated trade between Slovenia and the European Union. The ratification of the Europe Agreement was pending due to the settlement of the foreigners' land property right issue. The Agreement finally came into

© OECD 2001

force on 1 February 1999. With regard to trade in agro-food products, the Agreement foresees an abolition of quantitative restrictions on imports and mutual import tariff concessions, including duty-free trade and tariff quotas at preferential rates. Within the tariff quotas, the European Union offered an 80% reduction in customs duties and import levies. TRQs cover traditional Slovenian exports, such as milk products, beef, poultrymeat and eggs. Slovenia, on its side, agreed to lower tariffs on imports from the Union by 50%. This concession is also given within the fixed quotas, which encompass a relatively comprehensive list of products, including frozen beef, pigmeat, poultrymeat, milk products, some vegetables and citrus. At the beginning of 2000, a new round of trade liberalisation took place with the European Union. This involved a complete liberalisation of trade in the least sensitive products. Another group of commodities became subject to the reciprocal elimination of export refunds and import tariffs within the agreed and growing quotas, and a limited number of products were made eligible for *ad hoc* concessions. The new trade regime took effect on 1 July 2000.

The Central European Free Trade Agreement (CEFTA)

… and from the CEFTA; however some of its important concessions have been on hold.

The CEFTA agreement came into force in Slovenia on 1 April 1998. It entailed important changes for the agricultural trade regime, which were to be implemented in two phases, 1998-2000 and post-2000. During the first phase duty free trade was established for a number of commodities (without quantitative limits or under quotas); while many products were traded at reduced tariffs (quota free or within quotas). During the second phase, all existing tariff quotas have to be removed, and preferences (duty-free regime or low tariffs) will be applied to all trade in products covered by the Agreement. Among the principal commodities subject to CEFTA concessions are live animals, beef, pigmeat, poultrymeat, grains and oilseeds, wine and selected horticultural crops. Some important commodities, including milk products (except cheese) and sugar are not included in the Agreement. For Slovenia, a net importer of most agricultural products, the CEFTA provides substantial benefits for agro-food consumers, including the food industry, which can benefit from cheaper raw materials. On the other hand, it exerts pressures on domestic producers. Thus, scheduled tariff reductions for wheat (in 1998), beef and pigmeat (in 2000) precipitated strong producer demands for protection, leading the government to introduce temporary "safeguard measures". By the end of 2000, with the improvement of the market situation, most of these safeguard measures have been removed.

4. *Privatisation and farm restructuring*

Most of Slovenia's farm land has always been in private hands.

Unlike in many other CEECs, attempts to "socialise agriculture" largely failed in Slovenia and the country maintained its traditional farm structure. With over 99% of agricultural production units remaining in private hands during the socialist period, agriculture had played a unique role in maintaining the historical continuity of private ownership and some basic market institutions in Slovenia. Only a small part of agricultural land in Slovenia was nationalised and had been the basis for the creation of the "socially-owned" farms. Throughout the socialist period, Slovenia maintained a limited but functioning land market.

© OECD 2001

Nonetheless, the structural reform agenda was challenging…

As Slovenia largely maintained a traditional farm structure, it faced fewer fundamental problems in structural reform than many other CEECs. Slovenia's reform agenda was, nonetheless, quite challenging, comprising the liberalisation of the land market, removal of limitations on private land ownership, property restitution and privatisation.

… involving liberalisation of the land market and…

The principal decisions on land market liberalisation and removal of existing restrictions on private land ownership and use followed very soon after independence. Thus, the pre-emptive right of large-scale farms in buying land was abolished and private individuals became the first among preferential claimants. Another major development was the lifting of the previously existing upper size limit for private farms in 1991. With this, major legal constraints to agricultural land trade among Slovenian citizens were removed. However, current procedures still impede flexible increases in farm size. Thus, any purchase of agricultural land should be approved by the local administration, and the criteria for the official refusal of the transaction are not always clearly defined, leaving much scope for discretionary decisions. For example, a land transaction may not be officially registered if it is considered that the sale price differs significantly from the official reference level, or if the sale of the plot will disrupt current production operations on the land of which the plot is a part. Procedures for transfer of land ownership rights are still complicated and the information on the land market is insufficient.

… agricultural land restitution, which became a very sensitive issue.

Restitution of nationalised land and privatisation of socially-owned farms became one of the most sensitive issues of the reform, although, unlike in other CEECs, this concerned a relatively small part of agricultural land. T*he* L*aw on* D*enationalisation* (1991) stipulated the return of nationalised land to previous owners or their heirs. The Fund for Agricultural Land and Forests (FALF) was established and received the mandate to manage state agricultural and forest land, and to carry out restitution of these lands. The "restitution fund" comprised approximately 140 000 hectares of agricultural land, which was partly used by former socially-owned farms, partly by private individuals, with the rest being idle or protected areas.

***Former socially-owned farms opposed restitution and the process was largely frozen to the end of* 1998…**

At the initial stage, the restitution dealt with easier cases and the FALF returned land mostly within historical boundaries. But when more sensitive cases came onto the agenda, the restitution slowed down. The controversies concerned land which was in current use by agricultural companies (former socially-owned farms). The companies opposed land restitution, arguing that it would lead to disruption of their operations. Furthermore, agricultural companies sought compensation for the non-amortised value of investments, and on these grounds claimed property and use rights for the land. Largely in response to these pressures, special safeguards, permitting agricultural companies to keep land, were incorporated into the legislation. In addition to this, moratoriums on the restitution of large land plots were introduced in 1995.

… when it was decided to finalise the restitution.

However, the applicability of these measures ended in 1998, and it was decided to continue restitution. To what extent this will actually speed up the restitution process will depend on the ability of the FALF and other official

© OECD 2001

structures involved to manage controversies between the present land users (in particular, agricultural companies) and the new lawful owners.

5. *Farm structure*

Private family farms

Private family farms are small,...

According to the most recent survey (1997), there were about 90 611 private family farms in Slovenia, accounting for 94% of total agricultural area and about two thirds of gross agricultural output. The average farm size is 9.4 hectares of total land, with 4.8 hectares used for cultivation. Almost 60% of these farms, occupying about one third of agricultural land, cultivate only between 1 and 5 hectares.

... many of them are located in less favoured areas, have low-productivity,...

About two-thirds of private family farms are located in areas with unfavourable conditions for agricultural production. The production potential of traditional family farms is low also due to limited land and capital. The average yields of major crops are below the EU levels.

... are run by part-timers and – to a growing degree – by retirees.

Overall, the decade of independence was marked by some consolidation of farm holdings in Slovenia and concentration of land in bigger units. However the share of part-time farms increased, reaching, by the end of the 1990s, about 75% of the total private farm number and 70% of land in private farms. There was also a marked increase of land in units operated by retired people. Less than 12% of private farms in Slovenia represent full-time operations. Therefore, many farms are poorly linked with the markets: a considerable share of their production is used for home consumption or for on-farm sales.

Agricultural companies

Large-scale farms represent a small segment of Slovenian agriculture, but enjoy favourable locations and run intensive farming.

In addition to numerous small-holdings there are 208 large agricultural companies in Slovenia, formerly socially-owned farms. About 100 of them do not have agricultural land, *e.g.* pig and poultry complexes. In 1998, 6% of agricultural land was under the operation of agricultural companies. Most of these agricultural enterprises are located in the plain areas of Slovenia with favourable conditions for farming. Their size generally allows them to benefit from scale economies.

However, many of them are unprofitable and their future as land users is uncertain.

However, the profitability of most farms is low, and some of them are barely solvent. In some cases enterprises have accumulated substantial arrears in paying rents for the land they farm. The better-off companies are reluctant to modernise, make new investments or undertake any restructuring due to uncertainties with the land leasing contracts they currently hold. All previous brakes on the restitution of land used by agricultural companies were recently removed. Although the agricultural companies will continue to be "protected" for some time by the leasing contracts and the inevitable technical time spans needed to complete the restitution, they are facing the need to compete efficiently with other potential land tenants or lose land and go into liquidation.

© OECD 2001

6. *The food industry*

The food industry contributes to overall economic output almost as much as agriculture, but employs half the people.

The food industry contributes almost as much to GDP as primary agriculture, but employs half the number of people. Development of the food processing industry in Slovenia in the pre-independence period was to a great degree oriented to the all-Yugoslav market. The industry was largely dependent on supply and marketing zones outside Slovenia. Agro-food processing facilities were constructed in small towns and villages to pursue such social goals as creation of employment and prevention of depopulation of rural areas. This policy had left Slovenia with a large number of small-scale enterprises, evenly located throughout the country.

High fragmentation, unfinished corporate reform and policy interventions are the main impediments to competitiveness.

The high degree of fragmentation of food-processing is a serious impediment to reaping scale economies, which is an important factor of competitiveness for many food-processing industries. Privatisation and enterprise reform programmes started later in Slovenia than in some other CEECs. Although most important tasks have been implemented, corporate reform remains to be completed. Basic sub-sectors of the food industry are not yet operating under real market conditions. Trade barriers, as well as price and subsidy interventions, distort markets and shield companies from international competition. The majority of Slovenia's food industry is therefore inward-oriented and primarily supplies the domestic market. With the small size of its operations, unfinished corporate reform process, and significant governmental interventions the Slovenian food industry is unlikely to withstand the greater exposure to international competition potentially arising from full membership in the European Union.

C. Agricultural policies

1. *Policy framework before independence*

Policies have evolved from administrative approach of the former Yugoslavia favouring large-scale farming…

Prior to Slovenia's independence, agricultural policy was generally the prerogative of the Federal Government of Yugoslavia. The Slovenian government was mainly responsible for structural and rural development policies. The Yugoslav agricultural policy focused on maximising production and ensuring food security. The federal government fixed (guaranteed) farmgate prices for many agricultural products. Producers were further supported through input subsidies and capital grants. Preferential loans (at very low or zero interest rates) represented another important policy instrument. Foreign trade was controlled by the state through the foreign currency monopoly. Trade operations were in the hands of regional agro-food companies and Commodity Reserve Funds. The bulk of support went to socially-owned farms.

… to a gradual easing of the policy bias against private farms during the last two pre-independence decades.

Despite considerable political support and substantial budgetary transfers to the "social agricultural sector", the "modern socialist agriculture on socially owned holdings" was unable to meet the food needs of the developing economy. By the end of the 1960s, Yugoslavia had to import food. This, together with general trend towards political liberalisation, contributed to a gradual easing of the policy bias against private agriculture during the 1970s and 1980s. While private farms were still considered only a "transitional" form of agricultural production, the authorities began to introduce measures aimed at promoting technological progress and

© OECD 2001

investments in private farms. As a result, production increased markedly and output growth remained strong for much of the 1970s and 1980s. The positive developments recorded in the final period of the previous social regime were also the result of the greater independence gained by the governments of the republics towards the end of the 1980s.

2. N*ew agricultural policy objectives*

Slovenia's* 1993 *agricultural strategy…

In the initial years of independence Slovenia generally continued previously applied agricultural measures. Agricultural reform was not a key priority in transition. It took more than two years after Slovenia's independence before the first comprehensive agricultural policy document was adopted. The S*trategy for* S*lovenian* A*griculture* (1993) formulated the main agricultural policy goals of Slovenia. They included: *i*) stable production of quality food at reasonable prices and food security; *ii*) preservation of population density, of cultural landscape and agricultural production potential, protection of agricultural land and water from pollution and misuse; *iii*) permanent increase in competitiveness; and *iv*) guaranteed parity income for agricultural producers.

… endorsed considerable producer protection…

These goals meant a strong political endorsement of high producer protection. Slovenia maintained fixed state prices for basic agro-food products; operated state monopolies for trade in wheat and sugar; and subsidised agricultural inputs. To reduce the burden of high producer price support on consumers, the government resorted to subsidising processors, particularly in the bread and milk sectors.

… and further re-oriented policies in favour of small private producers.

Agricultural policy was re-oriented more towards the small-scale private sector. Alongside the removal of limitations on private land ownership and use, the government stated its commitment to improving production structures and enhancing the competitiveness of domestic producers. In this context, the Slovenian government broadened programmes for support of LFAs, rural development, and on-farm investments.

I*n the mid-*1990*s, growing trade integration prompted a shift to less distortive types of support…*

By the mid-1990s, Slovenia's growing integration into international markets prompted a new turn in agricultural policies. WTO membership necessitated a shift to less distortive types of support. The commitments taken towards lower border protection made the sustainability of open-ended price support highly problematic. Thus, in 1995, Slovenia began introducing area and headage payments.

… further emphasised in the* 1999 *policy reform,…

By 1998, the debate over the future of Slovenia's agricultural policy had gained new momentum. This was again prompted by the commitments that Slovenia had to fulfil towards opening its borders. A first round of trade liberalisation under the CEFTA was due in 1998. Another important driving force of policy reform was the approaching EU accession. In 1998, accession negotiations began. With the movement towards the adoption of the A*cquis*, policy-making took on a practical dimension. The accession required bringing Slovenia's agricultural policy into conformity with the CAP framework and building adequate institutional capacities. A more general rationale of the reform was the recognition that the previous policies had proved to be costly and ineffective. Despite high producer support, farmer incomes have been

© OECD 2001

declining and domestic producers had weak competitive positions against most agro-food imports.

... which stated that the policy goals remain the same, but the instruments change.

In 1999 the government adopted the N*ational* D*evelopment* P*rogramme for* A*griculture*, F*ood*, F*orestry and* F*isheries for the period* 2000-2002, and in June 2000, the A*gricultural* L*aw*. The agricultural policy goals, as defined by the Law, by and large remained in line with those stated in the 1993 S*trategy* and included: *i*) stable production of quality food, which is as inexpensive as possible and safe; *ii*) retention of the population in rural areas; *iii*) protection of agricultural land from pollution and misuse; *iv*) permanent increase in the competitiveness of agriculture; *v*) ensuring adequate income levels for agricultural holdings; and *vi*) promotion of principles of environmental protection and preservation of nature. While no major changes in the policy objectives were considered, the main thrust of the reform was the re-instrumentation of agricultural policies to achieve their stated goals more effectively and efficiently. This re-instrumentation can generally be characterised as a shift from market price support to direct payments and a greater emphasis on structural, environmental and rural development measures.

The reform should facilitate* EU *accession, but the alignment with the* CAP *will develop under uncertainty.

The policy reform should also facilitate the EU accession process. The alignment of Slovenia's domestic policies with the CAP is being implemented in a changeable economic and political situation. First of all, the accession process is taking place in the era of the CAP reform. The new round of the WTO negotiations may exert further pressures on the European Union to reduce agricultural protection, which may lead to new adjustments in the CAP. Secondly, as of the end of 2000, it is still uncertain whether CAP support will be fully applied to new EU members upon accession. The European Commission's initial position was that no direct payments should be provided to new members during transition period, and the Commission has not yet announced its final position on this issue. Thirdly, the accession negotiations on agriculture between Slovenia and the European Union began in 2000, and the possible differences between the final agreements and Slovenia's initial negotiating position are also uncertain.

3. *Main agricultural policy measures*

Domestic price support

Administrative pricing has been the main pillar of domestic price support...

During most of the transition period three important food chains, milling wheat – flour, milk – pasteurised milk, and sugar beet – sugar were subject to *administered pricing* in Slovenia. In 1998-1999, this system was dismantled in the wheat and sugar sectors and, in 2001, in the milk sector. Slovenian producers also receive *per tonne payments*. In 1999, two-thirds of these payments were allocated to cattle producers in LFAs, and one-third to wheat and maize growers.

... but indirect market regulation measures are becoming more important.

In addition to direct price regulation, there are other policies, strongly linked with market price and income support. The most important are the *export promotion payments* ("subsidies for the preparation for exports"), which are primarily targeted to reduce the excess supplies from the domestic market. Such support is regularly given to milk processors, however other sectors (*i.e.* poultry, wine, apple) may also benefit. The decision on allocation of

© OECD 2001

export promotion payments to various sectors is made annually by the government based on the current situation on world and domestic markets. Among other indirect price regulation measures are: *interest rate subsidies* to food processors meant to ease the liquidity constraints of downstream operators that purchase products from agricultural producers; and *intervention purchases*, a relatively new instrument, which was prompted by increased import pressures on the domestic market in most recent years.

Area and headage payments

The budgetary share of area and headage payments grew substantially in 1995-1996, but has stabilised in most recent years...

From the mid-1990s, Slovenia began introducing area and headage payments. Headage payments are paid for dairy and beef cattle, sheep and horses. In the crop sector, per hectare aids are allocated to hops, sugar beet and wheat growers. Part of these payments (about 25% in 1999) are allocated within the framework of assistance to LFAs. The budgetary share of area and headage payments increased substantially in 1995-1996, but then stabilised at around 18% in 1997-1998 and grew slightly to 20% in 1999. Growing emphasis on this type of assistance was first of all prompted by the need to shift away from price support. Another driving force behind the introduction of area and headage payments was the aim to align domestic agricultural policies with the CAP.

Reduction of input costs

... whereas input subsidies are decreasing.

Input subsidies were important in the former Yugoslavia and at the onset of Slovenia's independent agricultural policies they also played a considerable role. However, starting from 1993, the policy was to limit input subsidies and shift the budgetary funds to other types of support. Thus, the fuel subsidy was abolished and allocations to seeds and breeding animals were generally frozen during most of the ensuing period. Subsidising short-term loans was discontinued in 1999. Only subsidies for farm services (advisory services to farmers, animal breeding, etc.) have been growing, and, by 1999, reached 85% of total budgetary allocations to input subsidies.

Tax policies

Agriculture is subject to special income tax and VAT treatment.

Agriculture has a special status with regard to income tax for persons engaged in farming activities. In the majority of cases the tax is calculated on the basis of imputed (cadastral) income. Only poultry, vegetable, flower, and mushroom producers are subject to taxation of actual incomes at the common tax rate. VAT was introduced in Slovenia in 1999 and its system is fully harmonised with that of the European Union. Agricultural producers enjoy VAT benefits as buyers of agricultural inputs and services, some of which are subject to a reduced VAT rate. Private farmers and agricultural companies are also eligible for partial refund of excise duty on fuel.

Trade measures

Border protection through ad valorem and specific tariffs is another major pillar of price support...

Border measures have always been an important instrument of producer protection in Slovenia. Following its accession to the WTO in 1995, Slovenia introduced a new tariff schedule. In addition to *ad valorem* tariffs, specific import duties were fixed for important agro-food products. The latter are set in absolute values and are applied on top of the *ad valorem* rates.

© OECD 2001

… with specific tariffs providing very high protection for some sensitive products.

The levels of *ad valorem* tariffs (with few exceptions) are relatively even across the main agricultural commodities, equalling on average 9-10% in 2000. Nonetheless, specific tariffs provide extra protection from external competition, which is particularly high for Slovenia's most sensitive agricultural commodities, such as for example milk powder, beef, live cattle and sugar. However, specific tariffs are not applied for grains and *ad valorem* rates for grains are fixed at relatively low or zero levels. Some important raw materials for the domestic processing industry (raw sugar and oilseeds) are also free from specific tariffs.

The applied level of border protection is below the* WTO 2000 *bindings for most products, except for the main exportables.

Between 1995 and 1998, the applied level of protection was consistently above the 2000 binding level only in the cases of Slovenia's major exportables (dairy products and poultry) and also in the case of refined sugar. For other main agricultural products the applied border protection is usually below the 2000 bindings. The fact that 2000 bound rates exceed, sometimes quite substantially (maize, wheat), the applied tariffs means that it is possible to increase protection without violating WTO commitments. This happened in 1998, when, due to strong import pressures, Slovenia resorted to temporary increases in specific tariffs for maize, pigs, pigmeat and wheat. A more general concern about the "water in the tariffs" is that the high bound rates can become targets for internal political pressure, and the larger the gap between bound and applied rates, the greater the scope for reversing liberalising reforms.

Structural and rural development policies

Structural and rural development programmes have been broadened…

The *Strategy for Slovenian Agriculture* (1993) formulated structural and rural development goals, such as: *i*) ensuring protection of agricultural land and rural development; *ii*) increasing farm size; and *iii*) ensuring development in areas characterised by difficult conditions for agricultural production. The 1999 reform further emphasised the importance of structural adjustment and rural development and stressed the need for a more coherent and comprehensive policy package.

***… with particular emphasis on support to* LFAs…**

The importance of LFAs for maintaining economic, social and cultural life in the majority of Slovenian regions, as well as for environmental protection, resulted in increasing the support to these areas. According to the current definition, about 74% of the agricultural area is eligible for such support. The goals to be attained in LFAs are comparable to those in the European Union. They include economic, social, and environmental aspects: compensation of higher production costs due to unfavourable natural conditions, forestalling the abandonment of farm land and out-migration from the remote rural areas, preservation of the cultural landscape, and integrated rural development. Support to LFAs is delivered through the whole range of agricultural measures, including output-based support, and area and headage payments specifically targeted to LFAs, but also through general support programmes, such as input compensations, investment support, and agro-environmental assistance.

… and investment programmes,…

Investment support consists of interest rate subsidies on long-term loans and capital grants. Currently four main agricultural investment programmes are being implemented in Slovenia: *i*) a land protection programme (consolidation, irrigation, etc.); *ii*) a farm investment programme; *iii*) special farm investment programmes for young farmers; and *iv*) a programme for the renewal of permanent plantations (vineyards and orchards).

© OECD 2001

Special rural development measures are foreseen within a framework of small-scale programmes of integrated rural development and village renovation (CRPOV) and also within programmes of regional development.

… as well as special rural development programmes.

Agro-environmental measures

The environmental goals of agricultural policy were first formulated in the 1993 *Strategy for Slovenian Agriculture* as: "preservation of agricultural land, protection of agricultural land and water from pollution and misuse". The focus on agro-environmental measures increased with Slovenia's progress towards EU accession. The *Slovenian Agricultural and Environment Programme* was expected to be finalised at the end of 2000. It is targeted at protection of the cultural landscape; reduction of nutrient and pesticide impacts; and preservation of biodiversity. Some types of payments out of the emerging programme package were introduced in 1999, complementing a few previously existing environmental aids.

New environmental payments were introduced in 1999, and a more comprehensive agro-environmental package is under preparation.

General services

Support for general services to agriculture is an important component of Slovenian agricultural policy. Slovenia had traditionally developed research, education and extension systems, as well as a long-established infrastructure for various services to agricultural producers (breeding, testing, disease control, etc.). In view of the future accession of Slovenia to the European Union, further effort has been devoted to developing general services to agriculture. Extension, veterinary, and breeding services have benefited from increased public support. The government also finances a target research programme in agriculture.

Support for general services, a traditional feature of Slovenian agricultural policy, has gained more importance in view of EU accession.

D. Overall budgetary outlays on agricultural policies

In real terms, after considerable reduction in 1993, budgetary transfers to the agro-food sector remained flat until 1996, and have been growing steadily since; in 1999 they exceeded the 1992 level by 36%. There was a marked growth in budgetary transfers in 1999, mainly due to an increase in outlays for market price support and area and headage payments.

The share of direct payments and structural and rural development funds has been steadily growing since 1995, but declined in 1999.

During most of the transition period, the structure of budgetary transfers to the agro-food sector in Slovenia has been shifting towards less distortive types of support. Between 1992 and 1998, the share of such measures as area and headage payments, investment support, general services, rural development and agro-environmental measures, increased from 46% to 63% of total budgetary transfers to the agro-food sector. However, this trend was partly reversed in 1999, when a considerable increase in export promotion payments took place and the government made intervention purchases.

E. Measuring support to agriculture

The level of support to Slovenian agriculture has been estimated using the OECD methodology. The main indicators used for this analysis are the Producer Support Estimate (PSE) and the Consumer Support Estimate (CSE). The PSE has been calculated for all OECD countries and more recently for several central and eastern European countries and Russia. The PSE measures the money value of transfers from consumers and taxpayers to agricultural producers arising from government policies. The percentage PSE

The estimates of support to Slovenian agriculture measured by OECD's PSE show that…

© OECD 2001

gives an indication of the proportion of total farm gross receipts originating from support, whether that support comes through domestic prices higher than on world markets or through budgetary allocations. Such budgetary transfers include, among others, subsidies paid directly on outputs and inputs, and area and headage payments. The CSE measures the implicit transfers from/to consumers as a result of higher/lower domestic prices maintained by Market Price Support (MPS) policies as well as direct consumer subsidies.

… Slovenian producers have been subsidised and consumers taxed…

The PSE estimates show that for the whole period of 1992-1999 Slovenian producers were subsidised, whereas consumers were taxed. The total percentage PSE ranged between 28% and 52% during these years. High and positive producer support translated into implicit taxation of consumers, with the total percentage CSE fluctuating between minus 28% and minus 46%.

… and that the level of producer support in Slovenia is currently higher than in* OECD*, the* EU *and in other* CEECs*.

In 1995-1999, the average percentage PSE in Slovenia (41%) was above the OECD level (35%) and nearly the same as in the European Union (42%). During the whole period under review, the level of support in Slovenia exceeded that in any other CEEC country for which OECD has carried out similar estimates. Thus, in 1995-1999, the Slovenian percentage PSE was well over average levels observed in Poland (22%), the Czech Republic (16%), Hungary (12%), Slovakia (19%), Estonia (9%), Lithuania (10%), Romania (14%) and Bulgaria (minus 18%). The high PSE level in Slovenia reflects substantial domestic price support and border protection for the most important Slovenian agricultural commodities (milk products, beef, and pigmeat), as well as steadily growing budgetary transfers to producers.

***Total percentage* PSE…**

The changes in the percentage PSE level largely reflected fluctuations in its market price support element (MPS), *i.e.* the difference between domestic and world prices. During the 1990s, the following four periods in the evolution of PSE were observed:

… fell in* 1993 *to its lowest level…

***Between* 1992 *and* 1993** producer support declined to the lowest level observed during the period analysed. To a large extent, this was due to a considerable weakening of domestic prices in 1993, reduction in budgetary support and a weakening of the *tolar*. Growth in the world market prices for several PSE products (maize, sugar, poultry and eggs) also contributed to the squeezing of the price gap between Slovenian domestic and world prices, thus reducing the implicit support;

… rebounded between* 1994 *and* 1995*,…

I***n* 1994 *and* 1995** measured support rebounded. Domestic prices improved and budgetary transfers grew. In 1995, even if for the most important commodities the world market prices increased, this did not have substantial impact on their equivalents in domestic currency due to the nominal appreciation of the *tolar*. Altogether, these factors contributed to the rise in support during this period.

***… fell again in* 1996…**

I*n* 1996, the PSE fell again, this time in response to a considerable rise in world prices for almost all PSE products. The positive price gap between domestic and reference prices was reduced, pushing the PSE down significantly. Strengthened domestic prices, the real appreciation of the *tolar* in 1996 and a continued growth in budgetary transfers were no longer sufficient to counter-balance the impact of rising international prices on the level of support.

© OECD 2001

Between 1997 and 1999 another upward shift in the PSE was observed, again influenced strongly by world market developments. World reference prices for many PSE commodities shifted down in 1997. In the following two years world markets experienced a strong depression, with prices for some commodities hitting new historical lows. The fall in international prices was the major contributor to the growing MPS estimate, and, hence, PSE in Slovenia during this period. This trend was characteristic not only for Slovenia, but also for many other countries. In Slovenia, a marked increase in budgetary transfers, especially in 1999, was an additional driving factor of the growth in producer support.

... and has been growing since then to reach its highest level in 1999.

The distribution of support across commodities is highly uneven, with as much as 85% of total producer support related to livestock products. Milk is the most important beneficiary accounting for about one third of total support, followed by beef, which absorbs approximately another quarter. The fact that milk and beef production usually co-exist within the same farming unit in Slovenia, means that producer support is concentrated on one farm type, *i.e.* those with mixed milk/beef production. Pigmeat and poultrymeat are the next most important recipients of support in Slovenia. Large-scale industrial-type units are the main producers of these commodities, implying that this part of support is allocated to a relatively limited number of beneficiaries. Crop products accounted for only 15% of total support, with the bulk of it going to wheat and sugar. Feed grains benefited from a very small share of total producer support in Slovenia, which was significantly reduced towards the end of the 1990s.

Livestock products account for 85% of support.

The level of support to the agro-food sector in Slovenia has also been measured through the Total Support Estimate (TSE). This is a wider measure and includes all transfers covered by PSEs, but also general services and budgetary payments to consumers, not included in the PSEs. The percentage TSE relates the value of these transfers to the value of GDP and can be considered an indicator of the burden which agricultural policies place on the economy. The percentage TSE in Slovenia has been gradually increasing over the transition period, although with some fluctuations. By 1999, total support to agriculture in Slovenia had accumulated to the equivalent of 2.3% of GDP. This level is comparable to a 2.8% average for other transition economies for which OECD has measured the level of support. This means that very high producer support in Slovenia (as measured by the PSE) related to its rather high GDP places almost the same burden on Slovenian economy, as does the lower support in other transition countries.

Although support is higher than in any other transition country, it places almost the same burden on Slovenia's economy as in other transition countries.

F. Conclusions and recommendations

Successful macroeconomic stabilisation in Slovenia has ensured a favourable environment for sustained economic growth. Future development will be largely determined by EU integration, with Slovenia becoming a part of the enlarged EU market. For Slovenian agriculture this implies a considerable opening of the domestic market and increased competition. In contrast to most other candidate countries, Slovenia will benefit little from producer price support in the enlarged agricultural market, as Slovenian producer prices in most cases are close to or exceed the EU levels. The Slovenian government faces a great challenge of reforming agricultural policies in ways that

© OECD 2001

would make Slovenia's agricultural sector more efficient, more competitive and well integrated into international markets.

Structural adjustment

- One of the main obstacles to establishing a more efficient and thus more competitive farm sector in Slovenia is unfavourable farm size structure. Land transfers should be encouraged to exploit the available scope for consolidation of farming operations. **Policies should stimulate land market creation and facilitation mechanisms.** The government may consider revisiting the existing land transfer procedures to simplify them and to allow for a flexible increase in farm size. The government may consider analysing whether official reference prices for land truly reflect the criteria of economic efficiency of investment at the present level of productivity. The budgetary support for structural adjustment may need to be increased. Preferential credit schemes for the purchase of agricultural land might be considered one possible way to increase such support.
- The FALF controls an important share of land leased by large agricultural companies. However, the FALF has no significant influence on their management decisions, which is particularly important with respect to indebted tenants. This has led to a lack of clarity in business and development objectives and also moral hazard. All leasing contracts with agricultural enterprises should be reviewed by the FALF and contracts with dilatory tenants should be discontinued. The FALF should take the initiative in launching bankruptcy procedures, thus **stimulating reallocation of Slovenia's most fertile lands to more efficient producers**.
- More generally, **the FALF could evolve from an agency dealing with land restitution to one facilitating the re-allocation of land to productive farms**. This could be put in practice through the Fund's local offices, which could increase transparency in the land market by providing detailed information about prices, available land, land quality, etc. If preferential credit for land purchase is launched, the FALF could also assume the functions of identifying target areas and target beneficiaries of this credit.
- The agricultural population is ageing and more land has shifted into the hands of elderly persons during the last decade. **Necessary incentives should be incorporated in the inheritance and tax laws to stimulate transfer of land to younger generations**. Structural change could be also promoted through the early retirement schemes comparable to those in the European Union. The conditions for eligibility to such schemes have to be clear and detailed in order to maximise their effectiveness, *i.e.* to accomplish faster structural change without overburdening the budget.
- Farmers in Slovenia have a strong preference for owning the land and many keep their farms as the basis for supplementary income. These factors have added to relatively high land prices in Slovenia and resulted in low returns on land. Over and above the necessary improvements in legal and administrative procedures, in the institutional framework and in economic incentives for land transfers, **rural and economy-wide development policies helping create or improve alternative sources of income should be promoted**.

Domestic policy re-instrumentation

- The Slovenian government committed itself to shifting from market price towards direct support, as well as to structural and rural development policies. The Government of Slovenia could deepen and broaden this shift. By and large, this move should help provide a policy framework that is characterised by fewer market distortions and is based on more transparent and targeted instruments. This shift has in fact been occurring since the mid-1995, but the trend was reversed in 1999, at least as evidenced by the structure of the budgetary transfers. Such a reversal raises the concern that the Slovenian government is currently at a risk of losing momentum in shifting away from distortive policies.
- While the re-orientation from market price support to direct payments is positive in general, there are important preconditions to be met in order to make it effective and sustainable. The

© OECD 2001

new payment schemes have to ensure that support is – to the highest possible extent – decoupled from production in order to minimise domestic market and trade distortions. Currently existing schemes in Slovenia should be assessed from this perspective. The shift towards direct payments should not be undertaken without a clear cap on the budget. This is a necessary precondition for the long-run sustainability of the new schemes. It is also important in order not to build up new barriers for structural change.

Trade

- **Open markets matter most for small economies. A small country like Slovenia can benefit particularly from a division of labour**, even more so than larger countries. First, integration into regional and global markets will allow human and financial resources to be drawn into the most competitive areas, thus helping profit from specialisation. Secondly, growing competition through integration into regional and international markets provides an important safeguard against monopolisation that is likely to emerge when specialisation is promoted in a small economy. Growing trade integration provides benefits for Slovenian consumers and reduces the taxpayers' burden arising from producer protection.
- A shift towards freer agricultural trade in Slovenia is inevitable in view of domestic agricultural policy reform, approaching EU integration and Slovenia's other multilateral and regional trade commitments. **Changes in the trade regime should not be isolated from reforms of domestic market regimes. Trade liberalisation** should help prepare for the EU accession process and, where appropriate, represent a move towards the Common External Tariff of the European Union; it **should include processed products**, which would in turn provide the momentum for the overdue structural change in the food processing sector; it **should help eliminate the inconsistencies in border protection across various agro-food products and trading partners**.
- **Export promotion payments to processors** ("subsidies for the preparation for exports") **may represent a potentially problematic policy** with respect to Slovenia's WTO commitments. The Slovenian government may consider phasing out these payments, by converting them – without extra budgetary costs – into direct payments to producers.

Rural development

- Much of the support to rural areas in Slovenia is delivered through agricultural measures. However, **agriculture's potential to contribute to the economic viability of rural areas and to the desired distribution of population seems rather limited**. Relatively unfavourable natural endowment restricts the scope of agricultural activities and productivity. A large number of farming units operate mostly for family subsistence and represent part-time operations. The goal of developing an efficient and competitive agricultural sector in Slovenia necessitates farm consolidation and improved labour efficiency, meaning fewer people involved in agriculture. This suggests that Slovenia needs a **robust rural development strategy which puts strong emphasis on diversification of rural economy and creation of non-agricultural employment opportunities in rural areas.** The significant natural, environmental and cultural amenities of rural Slovenia need be better commercialised. This could be done through development of recreation, tourism, services and infrastructure, as well as creation of niche markets for local products. Improved access of the rural population to alternative income sources would in turn facilitate structural adjustments in the farm sector by easing the tendency of small holders to keep land for social security reasons, thus speeding up the shift of land to larger and commercially oriented producers.
- Current policies are largely derived from the **assumed societal preferences for balanced territorial distribution of population, cultivated land and clean environment**. As follows from the stated agricultural policy objectives, **agriculture is viewed as an essential provider** of these "non-commodity outputs", and this increasingly drives public support for the sector. It is important, however, to attempt to **verify the preferences of the Slovenian society**, and, if

© OECD 2001

possible, to assess their economic (monetary) equivalents. In a first step, the government may consider endorsing a study that aims at identifying and/or verifying the actual societal preferences, possibly, in quantitative terms. It is **important then to determine as precisely as possible the role of agriculture** in achieving the social objectives. This would need to assess which of **the desired** "non-commodity" **outputs agriculture is able to supply in the most efficient way and at the least resource cost**. This would also need to analyse to what extent agriculture can be dissociated from eco-social functions currently attributed to it and to what extent these functions can be shifted to non-agricultural providers. It would be important to ensure that the support of social functions of agriculture does not seriously compromise the need to bring agricultural production in line with market conditions.

Food processing

- Two major factors determine the restructuring process of the food industry. The need to benefit from economies of scale calls for continued consolidation of the small-structured industry. At the same time, the limited overall market size will not allow the consolidation process to continue without the risk that a collusive, non-competitive industry will emerge. The volume of the overall market is growing as Slovenia's trade integration increases. The approaching EU accession is of particular importance in this context. **The challenge for policy makers is to fine-tune the consolidation process with the integration (EU accession) process.**
- The consolidation process could be accompanied by a shift towards a **more efficient corporate governance.** Two issues are of key importance in this respect. First, where the privatisation process only resulted in a distribution of shares, this did not lead to a re-capitalisation of often-obsolete food processors. **Larger companies could gain access to capital** if current owners were willing to sell their shares **at the capital market.** Such new ownership structures would be conducive to the need for a faster consolidation process and help attract a professional management. Second, where privatisation has resulted in a re-capitalisation of companies (sugar processing, breweries) a policy environment would be promoted that helps attract new sources of human and financial capital, in particular **promote foreign direct investment** (FDI). The importance of re-capitalisation and consolidation also emerges from the need to introduce and apply modern sanitary and quality standards.

© OECD 2001

Part I

MACROECONOMIC ENVIRONMENT

A. General aspects

1. *Background data*

Slovenia is a small European country with a surface area of 20 251 square kilometres and 1 986 000 inhabitants. Slovenia is situated at the crossroads of central Europe, the Mediterranean and the Balkans and its neighbours are Italy, Austria, Hungary and Croatia (Figure I.1). The Adriatic coastline in the south-west is 47 kilometres long. Despite its limited territory, Slovenia is a country with a highly diversified landscape and varied climatic conditions. Four major geographic macro-regions can be distinguished: Alpine, Pannonian, Mediterranean and Dinaric. The Alps dominate the northern part of Slovenia adjacent to Austria and Italy. The Pannonian plain extends to the north-east and east towards the Hungarian and Croatian borders, and the karst plateau lies between Ljubljana and the Italian and Croatian borders. Half of Slovenia's territory is covered with forests. The climate is temperate with pronounced regional variations.

Figure I.1. **Map of Slovenia**

Slovenia's population grew relatively fast in the 1980s, but after 1991 population growth slowed down mainly due to diminishing immigration and birth rates (the natural increase of population was negative in 1997 and 1998). Slovenia is sparsely populated with an average of 98 inhabitants per square

© OECD 2001

kilometre. However, the population is spread quite unevenly across the country: about 75% of residents are concentrated on one-third of the territory, where the population density reaches 216 inhabitants per square kilometre, while in the least populated regions it is as low as 31 inhabitants per square kilometre. Slovenia has a rather homogenous ethnic structure, with Slovenes accounting for 88% of the total population. The other most numerous ethnic groups are Croatians (2.8% of total population), Serbs (2.4%) and Bosnians (1.4%). The official language is Slovenian belonging to a group of Slavic languages; Hungarian, Italian and German are spoken in the border regions. The main religion is Roman Catholic; there are also small numbers of Protestants, Orthodox Christians, Muslims and Jews.

2. *Historical background*

In its early history, Slovenia was ruled by various foreign powers, including the Bavarian dukes and the Venetian Republic. From the 14th century until 1918, Slovenia remained under the rule of the Hapsburgs. In 1918, Slovenia joined the Kingdom of Serbs, Croats and Slovenes (in 1929 renamed the Kingdom of Yugoslavia), which was created as part of the peace plan at the end of the World War I. During World War II the Kingdom fell under the Axis powers. Slovenia, as part of the Kingdom, was partitioned and annexed by Germany, Italy and Hungary. Following the partisan resistance and liberation of the Yugoslav territory from fascists, the Federal Peoples Republic of Yugoslavia emerged in December 1945 uniting six constituent Republics, Slovenia, Croatia, Bosnia and Herzegovina, Macedonia, Serbia, Montenegro and two autonomous provinces, Vojvodina and Kosovo. In 1963, the country was renamed the Socialist Federal Republic of Yugoslavia.

Slovenia was one of the most economically advanced republics of the former Yugoslavia, and together with Croatia was the first to declare independence in June 1991. For Slovenia, the process of disintegration was relatively short though not without significant costs. This process took about a year, from mid-1990 to mid-1991, and involved the disintegration of the political, fiscal, financial, and monetary systems. The process was, however, eased by the fact that Yugoslavia was fiscally, financially, legally and politically decentralised. Indeed, even the system of the central banks was decentralised so that Slovenia could rely on the already existing central bank of Slovenia. Finally, the existing legal system facilitated a relatively smooth and efficient transition to a market economy based on democratic principles.

B. Macroeconomic developments

1. *Economic reform framework*

The Slovenian economy is one of the most advanced among transition countries with long-standing openness to trade and market mechanisms. In many respects Slovenia can be viewed as closer to western European countries than to the other former-socialist states of central and eastern Europe. For example, its degree of development measured by the level of GDP per capita (at official exchange rates), is currently two to three times higher than that of the Czech Republic, Hungary and Poland and close to that of Greece and Portugal. However, as prices are in many instances also comparable with those in western Europe, Slovenia's advantage over other transition countries is much smaller when GDP is compared according to purchasing power parities (OECD, 1997).

There were three major political and institutional factors that initially eased Slovenia's transition to a market economy, all linked with the fact that prior to 1991 Slovenia was part of the then Socialist Federal Republic of Yugoslavia:

- From 1948 Yugoslavia was outside the direct influence zone of the Soviet Union and had the possibility to develop comprehensive political and economic relations with the United States and western Europe.
- Yugoslavia was not a centrally planned economy after the early 1960s. Most of enterprises were based on a system of self-management and social capital, the so-called "market socialism". Although labour and financial markets were non-existent or non-functional, markets for goods

© OECD 2001

Box I.1. **Slovenia's political and administrative system**

Slovenia is a unitary state with a parliamentary system of government. According to the Constitution, adopted in December 1991, Slovenia is a democratic republic, based on the rule of law. The authority of the state follows the principle of separation of powers into legislative, executive and judicial branches. The bicameral parliament consists of the National Assembly and the National Council.

The **president** of the republic is the head of state. He represents the Republic of Slovenia and is the supreme commander of the armed forces. The president may pass acts with the force of law in the event of war, a state of emergency or if the National Assembly cannot convene. He has to dissolve the National Assembly if, during the formation of a government, the Assembly twice fails to elect a prime minister. He may also dissolve the National Assembly if, as part of a constructive vote of no confidence in the government, the Assembly does not elect a new prime minister and, in a subsequent vote of confidence, the incumbent prime minister does not receive a majority. The president is elected for a renewable five-year term. The most recent presidential elections took place in November 1997. Mr. Milan Kucan was re-elected as president in the first round with more than 55% of the vote. The next presidential elections are scheduled for November 2001.

The **National Assembly** has the exclusive power to pass laws. It decides on amendments to the Constitution, the declaration of a state of war or emergency, and the use of the armed forces. It elects certain holders of state and public offices, including, for example, the judges of the Constitutional Court and judges of some other courts, members of the Court of Audit, and the human rights ombudsman. It may require the president of the republic, the prime minister and ministers before the Constitutional Court to answer charges relating to violations of the Constitution and the law, as well as impeach them.

The **National Council** represents the interests of the major socio-economic and professional groups and of the local self-governments. It may propose the adoption of laws to the National Assembly. Before a law is promulgated, and within seven days after being passed by the Assembly, the National Council may exercise a suspensive veto by demanding that the National Assembly reconsider the law. The suspensive veto can be overturned only by a majority of the National Assembly's deputies, except in cases where the constitution requires a qualified majority. The most recent parliamentary elections took place on 15 October 2000.

The **government** leads, directs and co-ordinates the implementation of public policy as determined by the National Assembly. It possesses autonomous regulatory power, which enables it to issue regulations even if the law does not give prior authorisation. The government is composed of the prime minister, 16 ministers heading ministerial departments and four ministers without portfolio. In addition to the deputy prime minister, the former include, at present, ministers without portfolio with responsibility respectively for local government, European affairs, and social affairs. The **prime minister** is elected by the National Assembly upon the proposal of the president of the republic. His term ceases when a new National Assembly is formed following parliamentary elections. The prime minister's term of office can also be terminated if the Assembly passes a vote of no confidence in the government, or if the Constitutional Court dismisses the prime minister for violating the Constitution or the law. Ministers are appointed and dismissed by the National Assembly upon the proposal of the prime minister.

There is no regional government in Slovenia. The administrative structure distinguishes between two levels only: state and local. On 1 January 1995, a new system for organising public administration and local self -government came into force and 192 new **municipalities** were created. Municipalities are, in principle, self-financed from local taxes and other duties, and from revenues received from municipal property. Municipalities that cannot ensure the execution of their tasks from their own financial resources, receive additional funding from the state budget.

Decentralised **administrative units** of the state administration are organised into territorial units comprising one or more municipalities. At present, there are 58 such units. Decentralised administrative units are also authorised by law to supervise the legality of the actions of local self-governing bodies, even in the sphere of their own competence.

Source: *"Public Management Profiles of Central and Eastern European Countries: Slovenia"* prepared by SIGMA. SIGMA programme (Support for Improvement in Governance and Management in Central and Eastern European Countries) is a joint initiative of the OECD and the European Union, principally financed by the EU PHARE.

© OECD 2001

and services were relatively free to operate even if subject to occasional arbitrary interventions by the government and other political factors.

– Yugoslavia was a federation with a significant level of legal, administrative, and fiscal decentralisation. This allowed the governments of individual republics to exercise considerable influence on local developments, to pursue their own interests and policies, and to develop state and other institutions necessary for political and economic self-governance.

As a result, the break-up of the former Yugoslavia did not create the institutional and political vacuum that could be observed in some other newly established countries. Although the setting up of new institutions, especially the introduction of a new currency, was a challenging task, the accumulated experience and the existing institutions made the transition smoother than in many other central and eastern European countries (CEECs). Furthermore, Slovenia's experience with a market economy enabled it to opt for a more gradual approach to transition without running the risk of losing the momentum necessary to complete the transition process.

The privatisation process in Slovenia (then part of Yugoslavia) began in the late 1980s. The *Law on Social Capital* and the *Law on Companies* passed in 1989, allowed the workers' councils and managers to decide whether or not to privatise their enterprises. Finally, through the *Law on Social Property* (1990), the gradual transformation of "socially" owned enterprises[1] into mixed companies was made possible, whereby "internal shares" facilitating employee buyouts through the purchase of shares at a discount were the main instrument of privatisation (Mencinger, 1996). By 1990, two government agencies, the Agency for Privatisation and Restructuring and the Development Fund, were established to control and assist the privatisation process. The Ljubljana Stock Exchange, originally dating from 1924, was re-established in late 1989.

Important steps for the implementation of structural reforms and for the creation of a legal framework regulating the transition to a market economy were undertaken as of 1991. This included fiscal reforms, the creation of new banking and foreign exchange systems, laws on the privatisation of socially owned apartments and the restitution of previously nationalised and confiscated property.[2] The *Law on Ownership Transformation*, regulating the privatisation of socially owned enterprises, was adopted by the Slovenian parliament in November 1992 and amended twice in 1993. Thus, compared with some other transition countries the implementation of the privatisation process started with some delay, in late March 1993. The law provided for a combination of free distribution and commercial privatisation methods (see Part II, Section E.3.2).

Privatisation of the former *socially owned enterprises* was completed by the end of 1998. Though the law provided for a wide variety of privatisation methods, about 40% of enterprises were privatised through management-employee buyouts, 25% are held by authorised investment companies, 22% by the Capital and Compensation Funds, and 13% were sold for cash and privatisation vouchers. Privatisation of the former socially owned property in enterprises worth about 800 billion *tolars* (DEM 8 billion) formed the first stage of privatisation. *State-owned enterprises* with an estimated book value of 2 000 billion *tolars* (DEM 20 billion) are still earmarked for privatisation.[3] The private sector's contribution to both GDP and employment is estimated at about 50-55% (some unofficial sources put the present share at 60%), less than in several other CEECs.

The last years of the former Yugoslavia were marked by hyperinflation in all Yugoslav republics, including Slovenia, and resulting in the need for a stabilisation programme for the newly independent state. The new currency, the *tolar* (SIT), was introduced on 8 October 1991. During 1992 and 1993, the macroeconomic stabilisation programme succeeded in bringing down inflation from around 300% to just over 20%. Then, in late 1995, the inflation rate fell below 10%, for the first time since the mid-1970s, and continued to fall until 1999.

On 1 September 1995, Slovenia declared full convertibility of the *tolar*, accepting the obligations of Article VIII of the IMF Articles of Agreement. Between 1993 and 1994 three Slovenian banks – Ljubljanska Banka (LB), Kreditna Banka Maribor (KMB) and Komercialna Banka Nova Gorica, later acquired by KMB – were placed under formal rehabilitation. The rehabilitation process was completed in June 1997. The privatisation of the two remaining banks is still pending. Foreign participation will be allowed but domestic

© OECD 2001

© OECD 2001

Table I.1. **Selected economic indicators, 1989-2000**

	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Change in real GDP	Per cent	–1.8	–4.7	–8.9	–5.5	2.8	5.3	4.1	3.5	4.6	3.8	5.0	4.25p
Change in GDP deflator	Per cent	1 213.3	490.8	94.9	208.2	37.1	22.6	15.2	11.1	8.8	7.3	5.8	n.a.
Consumer Price Index, average	Per cent	1 285.3	551.6	115.0	207.3	32.9	21.1	13.5	9.9	8.4	7.9	6.1	8.9
Exchange rate, annual average	SIT/USD	n.a.	n.a.	27.6	81.3	113.2	128.8	118.5	135.4	159.7	166.1	181.8	222.7
General government budget deficit (–)/surplus (+)	Per cent of GDP	n.a.	n.a.	n.a.	1.2	0.9	0.0	0.0	0.3	–1.2	–0.8	–0.6	–1.7p
Current account balance	Per cent of GDP	9.0	3.0	1.0	7.4	1.5	4.0	–0.5	0.2	0.1	–0.8	–3.9	–3.9p
Population, mid-year	1 000 persons	1 999.4	1 998.1	2 001.8	1 995.8	1 990.6	1 988.9	1 987.5	1 991.2	1 986.8	1 982.6	1 985.6	n.a.

n.a. Not available.
p Provisional.
Source: Institute for Macroeconomic Analysis and Development, Vienna Institute for International Economic Studies database.

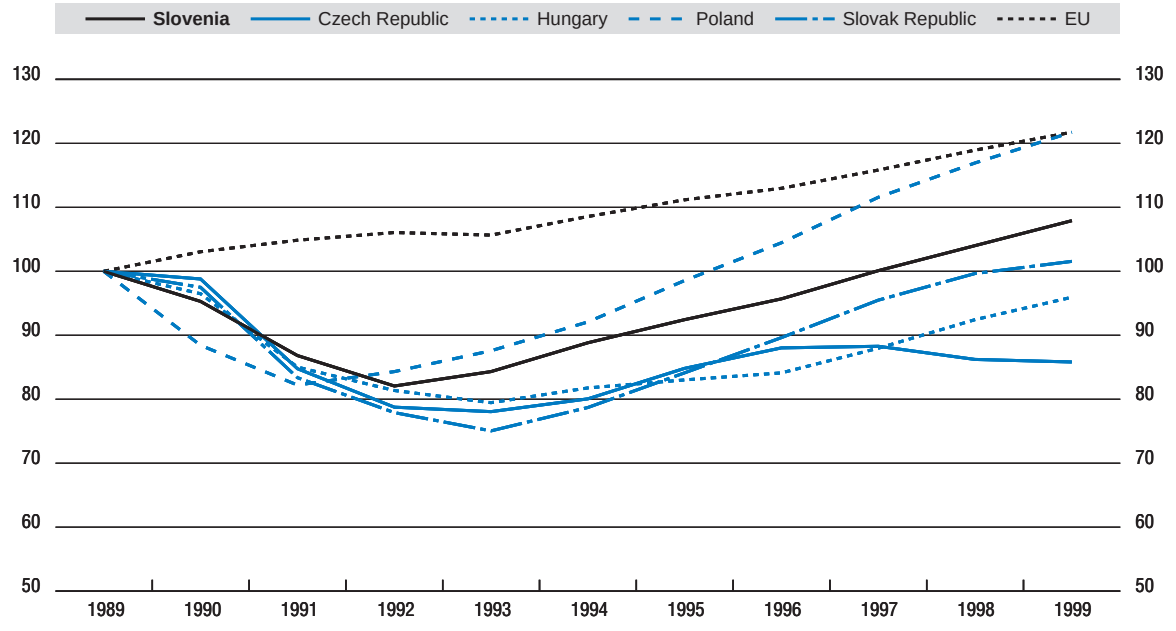
institutions are to remain majority owners. A new Banking Law was enacted at the beginning of 1999. The law regulates more precisely than the previous legislation the scope of banking activities, supervisory agreements and basic prudential conditions to be followed by banks. It is harmonised with EU legislation and eases access of foreign banks to the Slovenian market. The law will increase competition and is expected to exert pressure towards greater consolidation in the domestic banking sector.

After several postponements, the sales tax was replaced by value added tax (VAT) and excise duties on 1 July 1999. The VAT is set at a rate of 19%, payable by all entrepreneurs with an annual turnover of at least SIT 5 million. A reduced rate of 8% is applied for such items as food, medicine, and services, including public transport and tourism, as well as some agricultural inputs and services.

2. *Economic output*

Moderate contraction of GDP started at the end of the 1980s and accelerated in 1990 when Slovenia was still a part of Yugoslavia. The recession deepened even more at the beginning of Slovenia's independence, partly due to losses of markets in other former Yugoslav republics and in the former CMEA countries, and partly due to necessary adjustments enforced by market-oriented reforms. In 1991 and 1992, GDP fell cumulatively by 14.5% (Table I.1). Economic recovery started in mid-1993 and gained further momentum in 1994 with GDP growing by 5.3%, but slowed down in 1995 and 1996. The economy picked-up again in the second half of 1997 with the GDP growth rate for the whole year reaching 4.6%, slowed down somewhat in 1998 and accelerated again to 15.0% in 1999. A surge in domestic demand ahead of the introduction of VAT contributed to the increased growth rate in 1999. The estimate for 2000 indicates some slow-down of GDP growth to 4.25% (IMAD), reflecting mainly the weakening of foreign demand towards the end of the year. Though growing steadily since 1993, Slovenia's GDP first exceeded the 1989 level only in 1998. Nevertheless, most other countries in transition have yet to regain their 1989 level; only Poland has surpassed Slovenia on this score with the real level of output in 1999 22% higher than at the fall of communism (Figure I.2).

Figure I.2. **GDP growth in Slovenia, selected CEECs and EU average**
1989 = 100



Source: OECD Secretariat.

© OECD 2001

There has been an overall re-orientation of economic activity away from industrial production and towards services, but compared with other countries in transition, the change in the sectoral composition of Slovenia's GDP has not been as significant. The services sector was already quite developed prior to independence, generating 48% of GDP in 1990. This share rose to 51% in 1999. The contribution of industry (excluding construction) to GDP was 27% in 1999, down from 33% in 1990. During the same period, the contribution of agriculture, forestry and fisheries to GDP fell from 5% (1990) to 3% (1999) (Table I.2).

Table I.2. **The structure of GDP (in current prices)**

Per cent

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
1. Gross Domestic Product (1 = 2 + 3)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2. Value Added	89.0	88.3	87.6	86.1	85.5	84.8	85.0	86.0	85.7	85.3
Agriculture, forestry, hunting and fishery	5.0	5.1	5.2	4.5	4.0	3.9	3.9	3.7	3.4	3.2
Industry	33.4	36.0	32.1	29.3	30.2	28.3	27.9	28.0	28.1	27.5
Construction	4.3	3.7	3.8	4.1	4.1	4.3	4.8	4.9	5.0	5.3
Services	47.8	45.4	48.2	49.9	49.0	50.2	50.6	51.5	51.2	51.4
FISIM[1]	–1.5	–2.0	–1.6	–1.8	–1.8	–2.0	–2.2	–2.0	–2.0	–2.1
Taxes on production and imports minus subsidies	11.0	11.0	12.4	13.9	14.5	15.2	15.0	14.0	14.3	14.7

1. FISIM – financial intermediation services indirectly measured.
Source: Statistical Office of the Republic of Slovenia, Bank of Slovenia, and Institute for Macroeconomic Analysis and Development.

3. E*mployment*

The transition process in Slovenia has brought significant changes in labour market conditions, including a reduction in the labour force, a decline in employment, and a rise in unemployment rate. There are some uncertainties about the extent of these changes as labour surveys (which follow ILO standards) provide data that differs somewhat from registration records. The labour force contracted sharply in the early 1990s, mainly as a result of much larger outflows of people taking up regular old-age pensions, early retirement, and disability pensions than would normally have been expected (OECD, 1997). Part of these withdrawals from the active population resulted from government programmes (*e.g.* early retirement schemes) and have been costly both in terms of inflated social expenditures and in removing many experienced, productive people from the labour force (Vodopivec, 1996).

The registration data show that total employment fell by about 20% between 1989 and 1993 and since then has remained rather stable (Table I.3).According to the same source the rate of unemployment rose sharply to 15.4% in 1993, remained in the range of 14% to 15% between 1994 and 1998, and fell to 13% in 1999.[4] According to preliminary estimates, the falling unemployment trend was maintained in 2000. Compared with some other transition countries, the rate of unemployment in Slovenia is relatively high and higher than the EU average (Figure I.3). The employment structure changed less rapidly than in other transition economies as the service sector in Slovenia was ,elatively well developed even before transition and enterprise restructuring (in industry especially) has been rather slow.

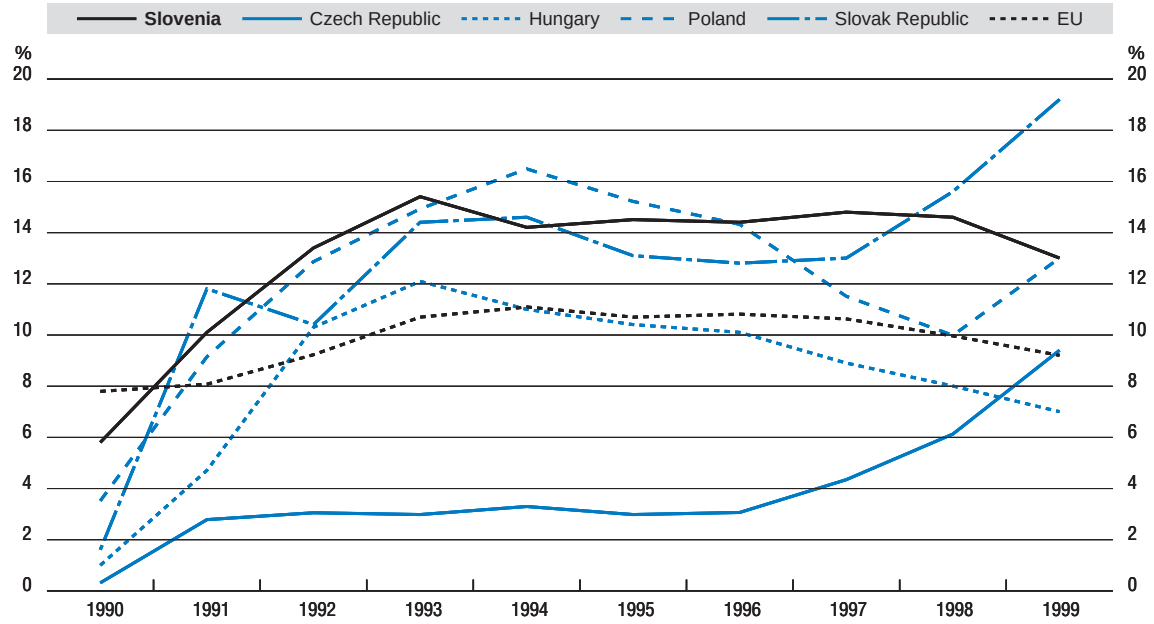
Table I.3. **Employment in Slovenia, 1990-1999**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total employment , 1 000 persons	924.0	877.1	841.1	825.9	822.9	829.2	822.0	818.3	818.3	822.4
Unemployment rate (end of year), per cent	5.9	10.1	13.3	15.4	14.2	14.5	14.4	14.8	14.6	13.0

Source: Statistical Office of the Republic of Slovenia, Bank of Slovenia, and Institute for Macroeconomic Analysis and Development.

© OECD 2001

Figure I.3. **Unemployment rate in Slovenia, selected CEECs and EU average**
Per cent



Source: OECD Secretariat.

4. *Inflation*

In the period prior to independence, Slovenia experienced the moderate but persistent inflation that characterised the former Yugoslavia in the seventies; rising inflation pressures in the eighties; a short-lived hyperinflation episode in the latter half of 1989; and a shock-therapy type of stabilisation that was introduced in December 1989, but collapsed in the second half of 1990.

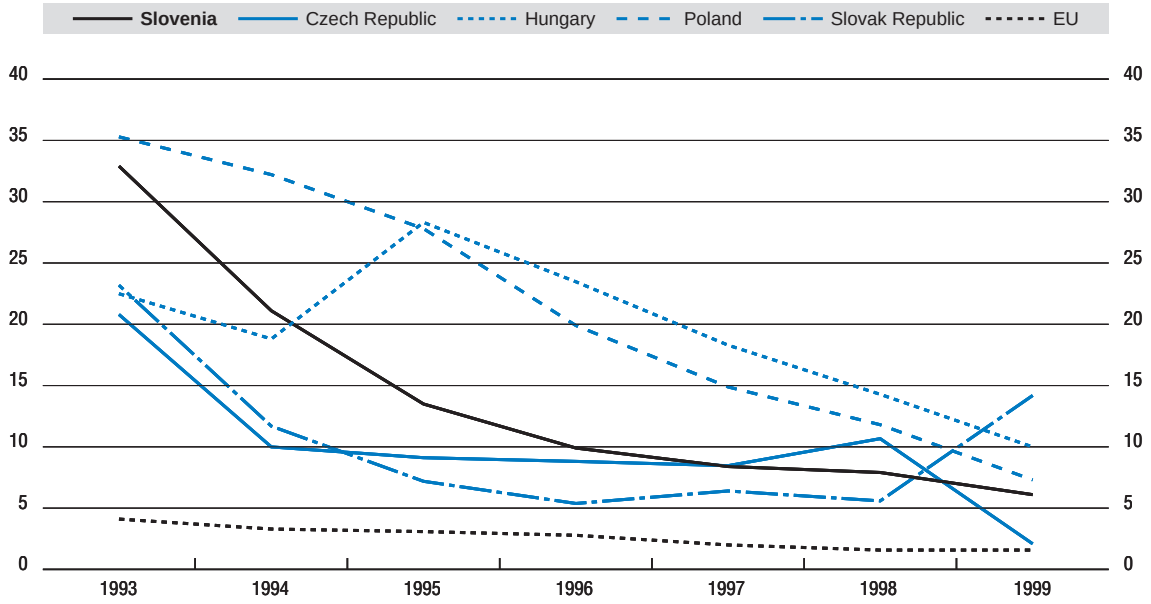
When the new currency, the *tolar*, was introduced in October 1991, the monthly rate of inflation peaked at 21% and foreign exchange reserves were nearly depleted. The basic pillars of the 1992/93 stabilisation programme were restrictive monetary and fiscal policies and a floating exchange rate. Price control was limited to a few products and services, such as electricity, the postal service, telecommunications, oil and oil products and some basic foodstuffs.[5] The stabilisation programme was successful in reducing inflation rates to a single-digit level in late 1995, for the first time since the mid-1970s. By 1999, the annual average inflation rate fell to 6%, which compared rather favourably with other transition countries (with the exception of the Czech Republic), but remained well above the EU average (Figure I.4). Inflation picked-up again in 2000, reaching 8.9%, the highest level since 1996. The increase in oil prices combined with the weakness of the *euro*, which boosted prices of USD-denominated imports, accounted for much of this rebound in inflation. Wage-push factor may have also contributed to high inflation rate in 2000.

Slovenia's economy faces some wage-push problems inherited from the period preceding independence. After an initial drop due to high inflation, real wages recovered markedly and the government had to consider ways to contain further wage rises in order not to endanger the competitiveness of the economy. A general social agreement on wage rises was adopted in 1995 and then applied again in 1996 and in 1997. However, these efforts have not been successful for the most part and wage pressures continued to raise concerns over a possible wage-price spiral in 2001.

© OECD 2001

Figure I.4. **Rate of inflation in Slovenia, selected CEECs and EU average, 1993-1999**

Per cent



Note: Annual averages for the Czech Republic, Hungary, Poland, Slovenia and EU, end year changes for the Slovak Republic.
Source: OECD Secretariat.

5. *Foreign trade and balance-of-payments*

Slovenia's economy is increasingly integrated with western Europe. Its exports amount to almost 50% of GDP, and more than two-thirds of this is being absorbed by the European Union. The main exports are manufactures, machinery and transport equipment. Because of the extensive trade relations with the European Union, growth in output depends to a significant extent on the economic climate in the European Union. Among the most important EU trading partners are Germany, Italy, France and Austria. Croatia is the principal non-EU trading partner.

Since independence, the former Yugoslav countries remain the second largest market for Slovenian exports, but their share in total exports fell significantly to 15% in 1999, mostly due to conflicts in the Balkan area and dismantling of trade links existing within the former Yugoslavia. The fall in trade with these countries, not fully compensated by a rise in trade with other countries, contributed to the overall fall in Slovenia's trade, which in 1999 was still about 10% below the level recorded in 1989.

Except for 1992, Slovenia's trade balance has been constantly negative, partly due to losses in competitiveness resulting, among other factors, from wage increases not wholly compensated by productivity growth and the slow pace of restructuring in some parts of the economy. However, the negative trade balance has been compensated by a surplus in the service balance, notably in the tourism sector. As a result, the current account balance since independence has been in surplus or very close to equilibrium in most years (Table I.1). Only in 1999 a fall in exports to the European Union combined with a reduced surplus on services (partly due to the war in Kosovo) resulted in a current account deficit of 3.9% of GDP. Over the first nine months of 2000 some improvement was registered with the current account deficit narrowing to 2.8% of GDP. Foreign debt stood at USD 5.5 billion at the end of 1999, about 28% of GDP, and foreign currency reserves at USD 3.2 billion. The reserves provided 3.3 months of import cover, less for example than in Hungary (4.7 months) or Poland (6.7 months) (EIU).

© OECD 2001

6. *Exchange rate*

Slovenia introduced its own currency in October 1991, adopting a regime of flexible exchange rates. The regime is *de facto* a "managed float" system, as the Bank of Slovenia seeks to keep the *tolar's* exchange rate with the DEM within a band by intervening on foreign exchange markets, adjusting interest rates, conducting open market operations, and setting reserve requirements. In order to improve competitiveness and to fight inflation, the monetary authorities target the exchange rate at a level that would create a balanced current account without risking a surge in inflation. Given these goals, Slovenia 's exchange rate policy has been rather successful.

In nominal terms, the *tolar* depreciated sharply between October 1991 and January 1992. Since then it has depreciated every year, with the exception of 1995 when it strengthened. In real terms the *tolar* appreciated sharply against the USD until mid-1992, but since then has fluctuated rather moderately.

7. *Government budget*

One of the pillars of macroeconomic policy in Slovenia has been prudent fiscal discipline aiming at a balanced general government budget. Consequently, the budget remained balanced or slightly positive until 1997, when it turned negative, with a deficit of 1.2% of GDP. This was mainly due to larger budgetary transfers to cover the increased pension fund deficit. Other factors included a drop in customs revenues and higher expenditures on public sector wages. Fiscal performance improved again in the two subsequent years and the reported deficits were below 1% of GDP. However, the fiscal situation became a cause for concern in 2000. In the first ten months of the year the general government deficit increased by about two-thirds compared with the same period in 1999. The 2000 budgetary deficit is estimated at 1.7% of GDP (IMAD), indicating a market increase from the previous year (Table I.1). The deterioration in the fiscal situation was due to weakened revenue growth in 2000, while the expenditure growth rate slowed down less significantly. The latter is partly explained by the continued large transfers to the Pension Fund. Favourable fiscal performance in the future, will depend on reform of the pension system (see below) and addressing wage pressures in the public sector.

8. *Foreign direct investment* (FDI)

The first joint ventures in Slovenia (then still part of the former Yugoslavia) date back to the early 1970s. They were based on the foreign investment legislation introduced in 1967, the first of its kind in the former communist countries. The new law adopted at the end of 1988 provided much more room for the inflow of FDI to Yugoslavia. The law was based on the national treatment principle and allowed FDI in the form of joint ventures and wholly owned foreign companies, but restricted foreign ownership of real estate. During the first years of independence there was only a slow inflow of foreign capital to Slovenia, as foreign investors were deterred by the unstable political situation in the neighbouring countries. The liberalisation of the legal framework for FDI has never been accompanied by additional economic policy measures to make Slovenia more attractive to foreign investors. Instead, emphasis was put on the protection of national interests, foreigners' access to the privatisation process was limited, and the Bank of Slovenia pursued a policy of preventing foreign portfolio inflows for monetary reasons. The small size of the Slovenian market also makes it difficult to attract large foreign investors.

Even if the number of enterprises with foreign participation increased from 218 at the end of 1989 to 4 536 at the end of 1998, the total inflow of FDI to Slovenia is rather modest compared with that of other transition countries. By the end of 1998 the stock of foreign capital invested stood at USD 2 907 million assuring Slovenia a moderate 5% share in the total CEEC-5 FDI stock.[6] However, on a per capita basis, Slovenia ranked second in the region, after Hungary.

In 1998, a breakdown of the major foreign investors by countries shows that 37.5% of the FDI equity stock came from Austria, followed by Germany (13.3%), France (12.8%), and Italy (6.6%). Compared with other countries in transition, especially Poland and Hungary, US-based multinationals play only a minor role in Slovenia. The most important recipient of FDI in Slovenia is the manufacturing industry (paper and paper products; motor vehicles; chemicals and chemical products; and machinery and equipment) – accounting for more than half of the total – followed by (wholesale) trade (16.8%) and financial inter-mediation.

© OECD 2001

The performance of foreign investment enterprises (FIEs) has been analysed in numerous studies. An analysis examining the 1994-98 income statements and balance sheets of FIEs and domestic enterprises (DEs) came to the conclusion that FIEs vastly out-performed DEs (IMAD, Rojec 1998). On average, return on equity, profit margins, total asset turnover and value added per employee were much higher in FIEs. The distribution of FIEs among manufacturing branches is different from that of DEs, indicating a considerable contribution of FDI to economic restructuring. The analysis also shows that compared with DEs, FIEs are larger in size, more capital-intensive, have a better asset structure, are more export-oriented, operate with a more "normal" structure of financial sources and have a better solvency. FIEs also show a much better export performance than DEs. Over the last five years FIEs contributed most to the export increase both in relative and in absolute terms, particularly in manufacturing.

Following the poor inflow of FDI in 1998 and 1999, a package of measures was adopted to attract foreign investments at the beginning of 2000 (Scheme for Attracting Inward FDI in 2000). The programme envisages: *i*) the abolition of existing administrative obstacles for foreign investors; *ii*) easier access to industrial sites; *iii*) a simplification in the procedures for creating new businesses; and *iv*) financial and other incentives for foreign investors. It is expected that the newly introduced measures should help, among others, to create new and to maintain existing jobs, to acquire new technologies, and to establish profitable production.

9. *Social policy issues*

Real gross wages in Slovenia fell by about 30% between 1990 and 1992. Since then they have increased every year, with particularly rapid growth (11%) in 1993. Wage dispersion, which was artificially compressed in the former regime, has become wider since the transition, in particular monetary returns to increased education and skills have risen significantly. However, various indexation mechanisms, linking wage settlements in each sector to wage changes in other sectors as well as to inflation, may still exert important compressing effects on the evolution of relative wages (OECD, 1997).

Slovenia has retained a high level of social security inherited from the previous system, based on broad coverage and generous provisions of social benefits. Compared with the pre-transition period, enterprises have progressively reduced their role in providing social benefits, while the state has gained importance in regulating and organising the social security system.[7]

About half of general government expenditures are earmarked for social outlays. As a proportion of GDP, social expenditures in Slovenia are rather high at 22-25%, but are below the EU average of 28.7%.[8] The social security system in Slovenia includes public income-transfer programmes such as pensions, sickness and disability payments, unemployment benefits and assistance, maternity and child allowances. Since the beginning of the transition social expenditures have been growing substantially.

Social security funds are mainly financed through the contributions of employers and employees. Since 1992 the contribution rates have been gradually reduced. Problems in financing the Pension and Health Insurance Funds became obvious in 1995 when both funds ended up with substantial deficits. A reduction in the employers' pension and security contribution rate in 1996 further increased the deficit of the Pension Fund. Thus, the deficits had to be covered by growing transfers from the central government budget, increasing their proportion in GDP from 0.9% in 1995 to about 4% in 1997. The major sources of the crisis in the pension system are, as in other developed countries, the changes in the demographic structure, but also changes in the labour market since the start of transition. In addition, the government supported early retirement schemes, conditions for disability retirement were loosened and generous special retirement schemes were introduced, *e.g.* for miners, policemen or parliamentarians (Roblek and Vodopivec, 1998). Thus, the number of pensioners has increased significantly since the mid-1980s, from 287 000 in 1986 to 467 000 in 1998, leading to a marked deterioration in the dependency ratio. In view of these developments, reform of the pension system became unavoidable. After four years of discussion the new Pension and Disability Act was passed in December 1999 and came into force on 1 January 2000. The new model rests on a combination of a modified (compulsory) pay-as-you-go system with a number of opportunities for supplementary (voluntary) insurance.

© OECD 2001

NOTES

1. The vast majority of enterprises in the former Yugoslavia functioned in the framework of decentralised ownership that was called the *social ownership* structure, in contrast with the state ownership structure prevailing in other socialist countries. In the Yugoslav system, employees were legally responsible for the management of their companies in the name of the whole Yugoslav society. Therefore, while there were no *de jure* owners in the self-managed firms, the firms were made legally responsible for their assets, liabilities and revenues, and employees were *de facto* owners of the firms (see OECD, 1997).
2. The statutes regulating the monetary and fiscal systems such as the Law on the Bank of Slovenia, the Law on the Banks and Savings Institutions, the Law on Foreign Exchange Transactions and the Law on the Rehabilitation of Banks and Savings Institutions were approved together with the Declaration of Independence in June 1991.
3. State owned enterprises include: energy supply and distribution; railway transport; communications (Telekom); urban and environmental infrastructure and two banks, Nova Ljubljanska Banka and Nova Kreditna Banka Maribor.
4. In contrast, survey data show a peak of 9.1% in 1993, followed by a relatively stable rate in a range of 7-8% in more recent years. The comparison of employment data, based on the registration system, between 1999 and previous years has to be made carefully, as from January 1999 people taking part in public work programmes were removed from the unemployment register and reclassified as employed.
5. For further details, see Bole (1996) and Zizmond and Kracun (1995).
6. Poland ranked first with a 36.4% share, followed by Hungary (30.4%) and the Czech Republic (24%). Besides these three countries and Slovenia, CEEC-5 also comprises the Slovak Republic.
7. See IMAD (1998).
8. Slovenia's ratio is similar to that of Italy, Spain and Luxembourg, while substantially higher than in Greece, Portugal and Ireland.

© OECD 2001

Part II

SITUATION OF THE AGRO-FOOD SECTOR

A. Role of agro-food sector in the economy

Agriculture contributes relatively small share to Slovenia's GDP. Over the past decade this share has declined from 5.0% to 3.2% (Table II.1). Official data on the share of the food processing in GDP is not available, but according to some estimates it is approximately comparable to that of agriculture.

Table II.1. **Share of agriculture and food sector in the economy, 1990-1999**

Per cent

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999p
Share of agriculture[1] in GDP (at current prices)	5.0	5.2	5.2	4.5	4.0	3.9	3.9	3.7	3.6	3.2
Employment:										
Agriculture, 1 000 persons	75.1	73.0	65.1	62.0	56.9	52.8	48.1	46.8	45.8	43.6
As per cent of total employment	8.1	8.3	7.7	7.5	6.9	6.4	5.9	5.7	5.6	5.3
Food processing, 1 000 persons	24.2	24.6	23.2	21.8	24.9	24.7	25.2	24.2	23.5	n.a.
As per cent of total employment	2.6	2.8	2.8	2.6	3.0	3.0	3.1	3.0	2.9	n.a.

n.a. Not available.
p Provisional.
1. Including forestry, hunting and fishery.
Source: Statistical Office of the Republic of Slovenia, Institute for Macoeconomic Analysis and Development.

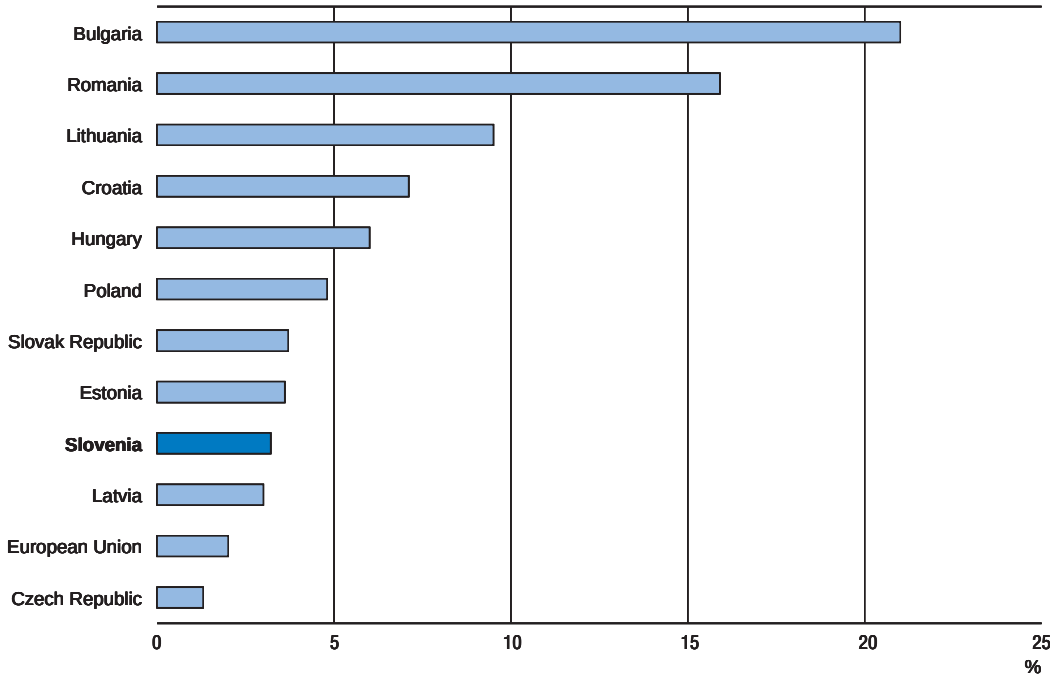
The aggregate share of the agriculture and food sector in total employment equaled 8.5% in 1998. Agriculture employs almost twice as many people as the food industry, although the number of farm workers has fallen dramatically since independence (by over 40% between 1990 and 1999).

Slovenia is one of the CEECs with the lowest shares of agriculture in GDP, with levels close to those of Latvia, Estonia and the Slovak Republic, but somewhat higher than in the European Union and the Czech Republic (Figure II.1). The importance of the farm sector is expected to decrease further in Slovenia, mostly due to the development of non-agricultural sectors of the economy. However, this reduction will likely occur at a much slower rate than in the 1990s.

With a relatively small agricultural sector, Slovenia is at the same time largely a rural country with over half of the population residing in rural areas. Agriculture is an innate element of the economic, social and cultural fabric of rural areas, contributing to the viability of these areas and to overall social stability. An important part of Slovenian households rely on farming as a source of food for family consumption and of additional cash income. These households also provide food for other rural dwellers, who purchase farm products directly from small private farms. In the initial period of transition, farming served as an important buffer against the adverse socio-economic effects of the transition, such as the fall in incomes and surging unemployment. And finally, with over 99% of agricultural production units remaining in private hands during the socialist period, agriculture played a

© OECD 2001

Figure II.1. **Share of agriculture in GDP in CEECs and the European Union, 1999**



Source: OECD Secretariat.

unique role in maintaining the historical continuity of private ownership, as well as some basic market institutions in Slovenia.

B. Agricultural sector

1. *Natural conditions and land use*

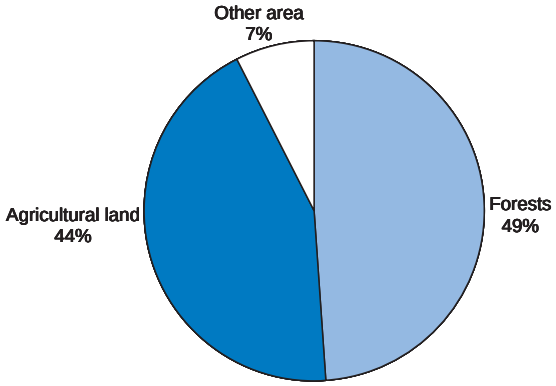
Natural conditions for agriculture are relatively unfavourable in Slovenia. Availability of land for agricultural production is limited, with forests covering 49% of the country's territory (Figure II.2). In terms of the proportion of territory covered by forest, Slovenia ranks third in Europe after Sweden and Finland. According to the Land Cadastre, agricultural land accounts for about 44% of total land and its area has been steadily declining over the past few decades due to afforestation, expansion of built-up territories and new transport infrastructure. It should be noted that the Cadastre most probably overestimates the size of agricultural land and therefore its share in the total area (Box II.1). About 75% of agricultural land is located in regions with unfavourable conditions for agricultural production, mostly mountainous and hilly areas, and used mainly as permanent grass land. Although unfavourable conditions do not prevent farming completely in these regions, they imply lower productivity, a limited scope of agricultural activities and increased costs of production. Only 35% of the total agricultural area (Figure II.3), located mostly in the central and north-eastern plains, is used for arable farming.

2. *Output*

Agriculture in Slovenia was affected by the transition process less adversely than in many other CEECs. Much of the adjustment burden was felt in the first years of transition. Gross agricultural output (GAO) grew only marginally in 1991; a strong decline followed in 1992, and again (although at a much

© OECD 2001

Figure II.2. **Total land use, 1998**



Source: Central data base of Land Cadastre.

Box II.1. **Inconsistencies in Slovenian land use statistics**

There are considerable inconsistencies in Slovenian land use data. The basic source of land data is the Land Cadastre. According to the latest cadastral information, 883 700 hectares were classified as agricultural land in Slovenia. At the same time, the Statistical Office publishes data on Utilised Agricultural Area (UAA) (Box Table II.1). The latest precision of the UAA was done on the basis of the 1997 Farm Structure Survey. It indicates a substantial gap between the cadastral data of agricultural area and the UAA. This gap, which theoretically can be qualified as "non-utilised" agricultural land, equalled almost 80% of the UAA in 1997. It can be assumed that some of this "non-utilised" land has been afforested or diverted to other uses and can no longer be qualified as agricultural area. This suggests that cadastral data do not adequately reflect the process of land diversion from agriculture and, therefore, strongly overestimate the actual size of agricultural land in Slovenia. The 2000 Agricultural Census is expected to improve information on agricultural land use in Slovenia.

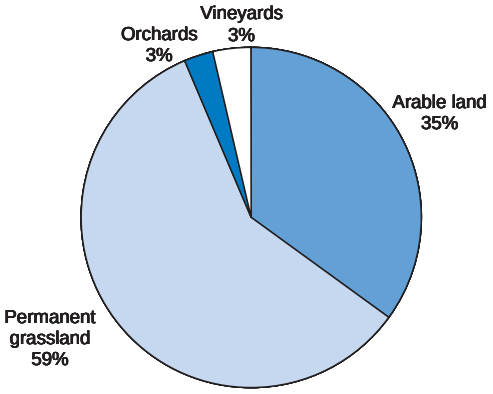
Box Table II.1. **Agricultural land according to the Cadastre and the UAA, hectares**

	Agricultural land according to Cadastre	UAA according to the Statistical Office	Difference
1990	905 500	866 405	39 095
1991	899 500	865 848	33 652
1992	n.a.	535 870	n.a.
1993	n.a.	533 809	n.a.
1994	899 100	548 969	350 131
1995	n.a.	538 019	n.a.
1996	887 200	524 454	362 746
1997	885 600	494 035	391 565
1998	883 700	490 863	392 837

n.a. Not available.
Source: Central database of the Land Cadastre; Statistical Office of the Republic of Slovenia.

© OECD 2001

Figure II.3. **Agricultural land use,[1] 1998**



1. Based on utilised agricultural area.
Source: Statistical Office of the Republic of Slovenia.

lower rate) in 1993 (Table II.2). Such factors as the loss of Yugoslav markets and the changing agricultural policy framework explain part of the fall in production during this period. However, the weather factor (severe droughts in the early 1990s) contributed significantly to the overall decline. After a considerable rise in output in 1994 (largely due to favourable weather conditions), total agricultural output was generally stable during the rest of the decade, although production in some sub-sectors registered marked swings.

The sectoral structure of agricultural output remained almost unchanged during the 1990s, with livestock production accounting for about 55% of GAO and crop production for 45%.

Milk and beef production are the most important livestock sub-sectors, followed by pig and poultry production. Sheep breeding has been increasing rapidly over the past few years. The loss of the former Yugoslav market affected all livestock sub-sectors, but particularly the poultry and egg sectors, which suffered the sharpest reduction in output in the early transition years (Table II.2). By 1993, poultry production was down by 30% compared to the three pre-transition years (1986-1989). This downward trend was, however, reversed after 1994.

Table II.2. **Gross agricultural output (GAO)**
Per cent

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Change in GAO volume	3.5	0.4	–10.1	–0.7	20.2	–0.1	0.7	–1.0	2.0	–2.6
Change in total crop output	10.0	–0.7	–13.4	1.5	44.6	–3.5	1.3	0.5	2.8	–9.3
Arable crops	6.6	1.8	–21.0	0.2	49.3	1.1	–3.6	6.5	1.7	–8.2
Fresh fruits	41.9	–19.2	22.7	11.6	55.1	0.9	1.8	–46.4	31.8	–3.5
Grape	22.0	–3.4	13.0	3.5	12.2	–35.0	35.1	13.2	–4.0	–19.8
Change in total livestock output	–1.6	1.5	–7.2	–3.0	2.6	2.8	0.2	–2.2	1.3	3.5
Beef and milk	–3.4	1.6	–2.0	–4.5	3.0	3.2	–1.3	–5.2	2.2	5.3
Pigmeat	3.6	–1.5	–2.9	4.7	4.8	–4.4	–4.3	0.6	0.5	7.9
Poultry and eggs	–2.1	2.8	–19.3	–8.7	–2.1	11.7	7.6	2.5	–2.3	–4.8
Share in GAO:										
Crop production	47.0	49.5	45.6	52.5	50.4	44.3	42.1	44.4	44.7	44.5
Livestock production	53.0	50.5	54.4	47.5	49.6	55.7	57.9	55.6	55.3	55.5

Source: Statistical Office of the Republic of Slovenia.

© OECD 2001

The structure of crop production is closely linked to the structure of livestock production. Maize for grains and silage has been the single most important crop and is grown on more than 25% of the arable area. Wheat and rye account for more than 20% of arable land, while about 10% is used for potato and vegetable production. Oil crops are grown on around 2 200 hectares, equivalent to slightly more than 1% of arable land. Other principal crops are sugar beets and hops – the latter is Slovenia's traditional exportable. Production intensity has been increasing over the past few years although average crop yields still remain below the EU averages. For a more detailed overview of specific sub-sectors of Slovenian agriculture see Section J of Part III.

3. *Prices, costs and income*

Agricultural prices experienced significant swings during the first decade of independence (Table II.3). At the beginning of the transition agricultural output prices rapidly aligned themselves with general inflation, and in 1992 even appreciated in real terms (Figure II.4). However, in 1993 agricultural prices dropped considerably, but then gradually rebounded in 1994-1996. During this period border protection together with domestic measures (administrative control of wheat, sugar beet and milk prices) ensured considerable price support. Various efforts to liberalise agricultural trade resulted in downward pressure on farm prices after 1996. This pressure became more pronounced in 1998-2000 as the commitments taken in various trade agreements came to bear.

Table II.3. **Agricultural output and input price indices**
Per cent, previous year = 100

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Agricultural output prices, total	558.8	208.2	313.8	119.3	119.7	113.2	112.4	108.6	100.4	99.6
Arable crops	537.4	200.7	291.5	150.6	103.0	109.0	120.9	99.7	96.8	94.7
Fruits	717.7	262.2	230.7	94.1	112.9	140.6	122.9	110.4	69.4	123.0
Livestock production	554.9	205.4	327.4	115.4	120.4	110.7	109.2	109.6	104.2	98.6
Agricultural input prices, total	n.a.	n.a.	n.a.	127.7	120.7	109.9	113.5	106.9	103.9	102.4
Variable inputs	n.a.	n.a.	n.a.	120.8	115.9	107.7	116.0	104.3	101.6	98.9
Wages	n.a.	n.a.	n.a.	150.1	129.9	117.9	113.1	111.5	109.6	109.4
Consumer prices, total	651.6	215.0	307.3	132.9	121.1	113.5	109.9	108.4	107.9	106.1
Food products	616.9	213.3	305.7	125.7	123.0	115.7	109.3	108.5	108.5	103.8

n.a. Not available.
Source: Statistical Office of the Republic of Slovenia and Agricultural Institute of Slovenia.

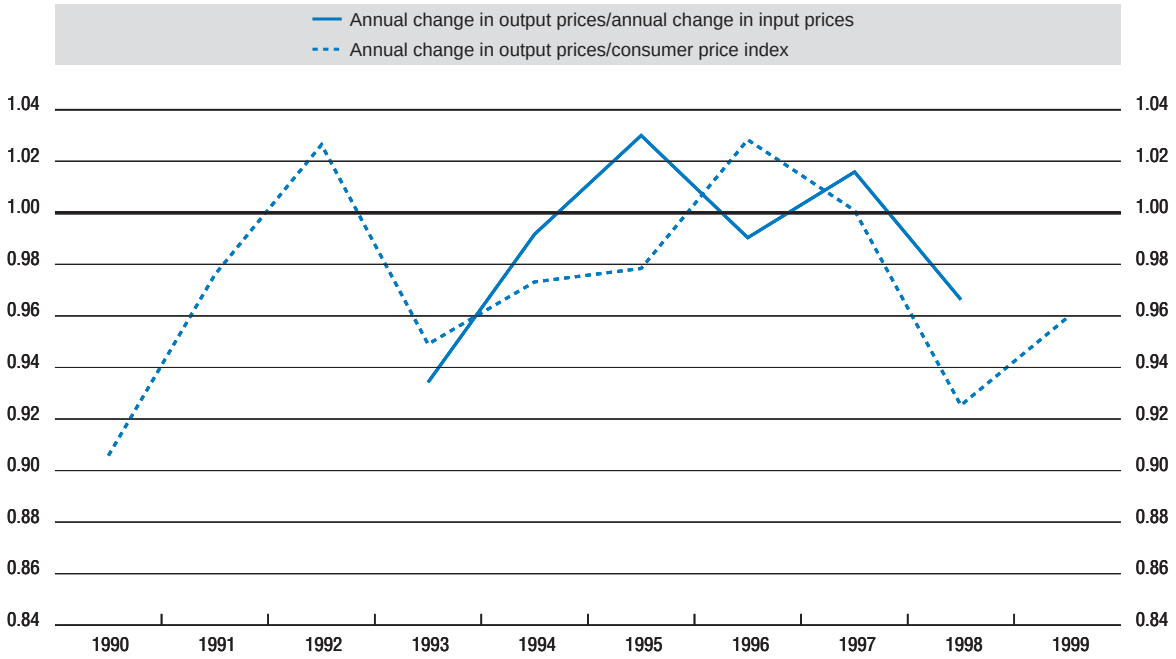
Prices for most inputs have been generally growing faster than farm product prices. As Figure II.4 shows, between 1993 and 1998, the rise in agricultural output prices exceeded that of input prices only in 1995 and 1997. Labour costs have been increasing constantly in real terms, although for Slovenian farmers, most of whom are self-employed, this was only an implicit increase in opportunity cost. Overall, the more rapid growth in input than in output prices contributed to the fall in real farm incomes over much of the transition period. Only in 1995 and 1997 did real incomes grow. In order to offset the loss in real incomes, the government gradually introduced direct payment schemes and increased budget support to agriculture (see Part III).

4. *Self-sufficiency and food consumption*

Slovenia produces surpluses of only a few agricultural commodities, such as poultrymeat, eggs, milk and occasionally fresh potatoes and wine (Table II.4). The most important deficits are observed in

© OECD 2001

Figure II.4. **Price ratios, 1990-1999**



Source: OECD Secretariat.

Table II.4. **Self-sufficiency for selected staple food items**

Domestic production as per cent of domestic consumption

	1992	1993	1994	1995	1996	1997	1998	1999
Cereals, total	37	39	51	50	50	55	57	48
Wheat[1]	43	29	47	56	52	44	54	41
Maize	36	64	64	54	55	67	69	58
Sugar	46	37	29	57	60	63	62	87
Fresh potatoes	101	93	103	97	96	100	95	95
Vegetables	73	70	82	79	71	72	69	n.a.
Fruits[2]	74	79	72	70	69	53	59	58
Wine	83	91	109	73	95	82	105	93
Meats, total[3]	104	96	91	94	96	95	94	95
Beef	101	96	83	88	94	102	98	97
Pigmeat	78	76	77	78	83	77	77	82
Poultrymeat	164	150	137	134	121	114	112	114
Eggs	115	115	110	109	107	106	100	99
Milk (in milk equivalent)	122	111	114	115	115	113	120	123

n.a. Not available.
1. Including rye and triticale.
2. Including citrus.
3. Including offal.
Source: Agricultural Institute of Slovenia.

cereals, fruit and vegetables, sugar, and pigmeat. Since the start of the transition, self-sufficiency rates for grains and sugar have improved. At the same time, a notable reduction in the share of exportable poultry and egg surpluses has occurred. Deficits have grown for such traditional net importables as fruits and vegetables. On balance, Slovenia has remained a net agro-food importer whose trade deficit has increased during the transition period (see Section C of this Part).

© OECD 2001

Slovene households spent about 26% of their total expenditures on food, beverages and tobacco in 1997, a share that has remained relatively stable since the start of the transition.

Food demand declined in the initial years of transition as a result of the fall in real incomes. However, the drop in consumption was not as pronounced as in many other CEECs due to the fact that before the transition direct consumer subsidies were much less important in Slovenia. Since 1992 and towards 1999, per capita consumption of many basic food products increased, particularly of some important livestock products, such as poultrymeat, cheese, butter, eggs, and also fruit (Table II.5). At the same time for some products, such as cereals and beef, consumption levels fell. There was also a notable reduction in per capita consumption of wine in Slovenia. Changes in consumption are generally consistent with trends observed in developed countries. Opening of the domestic market to foreign suppliers, as well as new distribution and marketing structures, have accentuated these changes.

Table II.5. **Per capita consumption of basic agricultural products, 1992-1999**
Kilograms per year

	1992	1993	1994	1995	1996	1997	1998	1999	1999 as % of 1992	EU-15 (1998)
Cereals[1]	107.3	95.5	94.4	96.0	96.9	95.4	96.3	98.8	92.1	111.9
Potatoes	60.5	66.9	67.9	71.4	67.7	69.2	72.7	70.6	116.7	77.5
Sugar[2]	30.3	39.8	38.3	34.2	39.9	33.9	38.5	37.3	123.1	32.0
Fruit[3]	79.9	75.5	103.2	107.2	108.9	81.1	98.7	89.7	112.3	106.0
Vegetables[4]	n.a.	n.a.	n.a.	117.6	131.6	128.4	131.3	n.a.	–	120.8
Wine	48.5	46.0	41.7	48.9	52.6	49.3	36.6	34.8	71.8	34.0
Meat (total)	73.2	84.7	86.6	85.5	88.8	92.6	89.8	88.6	121.0	89.6
Beef	22.6	28.3	28.2	26.2	27.6	26.8	23.0	22.1	97.8	19.2
Pigmeat	32.2	39.9	39.9	37.9	36.0	38.7	39.6	41.5	128.9	43.5
Poultrymeat	17.1	16.2	18.0	21.0	24.2	26.3	26.5	24.1	140.9	20.3
Milk, total[5]	182.7	191.6	197.3	207.4	204.2	204.2	203.4	208.8	114.3	246.8[6]
Milk and fresh dairy products	109.9	103.5	91.9	94.7	114.8	117.4	114.9	121.0	110.1	83.9[7]
Cheese	6.2	7.3	7.7	8.1	8.7	8.9	9.6	9.8	158.1	16.5
Butter	0.8	0.9	0.7	0.7	0.9	0.9	0.9	1.2	150.0	4.4
Eggs	8.1	7.8	8.1	8.1	9.9	11.0	11.5	11.6	143.2	12.5

n.a. Not available.
1. Flour equivalent;
2. White sugar equivalent;
3. Fresh fruit equivalent (including citrus);
4. Fresh vegetables equivalent;
5. Raw milk equivalent.
6. Excluding butter;
7. Whole milk only.
Source: Agricultural Institute of Slovenia; FAO.

Cereals, meat and fruits are the key components of the typical Slovene diet, which is similar to most western European diets. However, consumption of butter, cheese and eggs are is less prevalent than in western Europe.

C. Agricultural trade and trade relations

1. *Agricultural trade*

Reliable trade data are only available for the post independence period, *i.e.* from 1993 onwards. The value of agro-food exports increased slightly between 1993 and 1999, while their share in overall exports declined steadily (Table II.6). Agro-food imports have similarly shown modest increases and their share in total imports also declined. As on the export side, the share of agro-food imports in total imports declined.

© OECD 2001

Table II.6. **Agro-food trade[1] in 1993-1999**

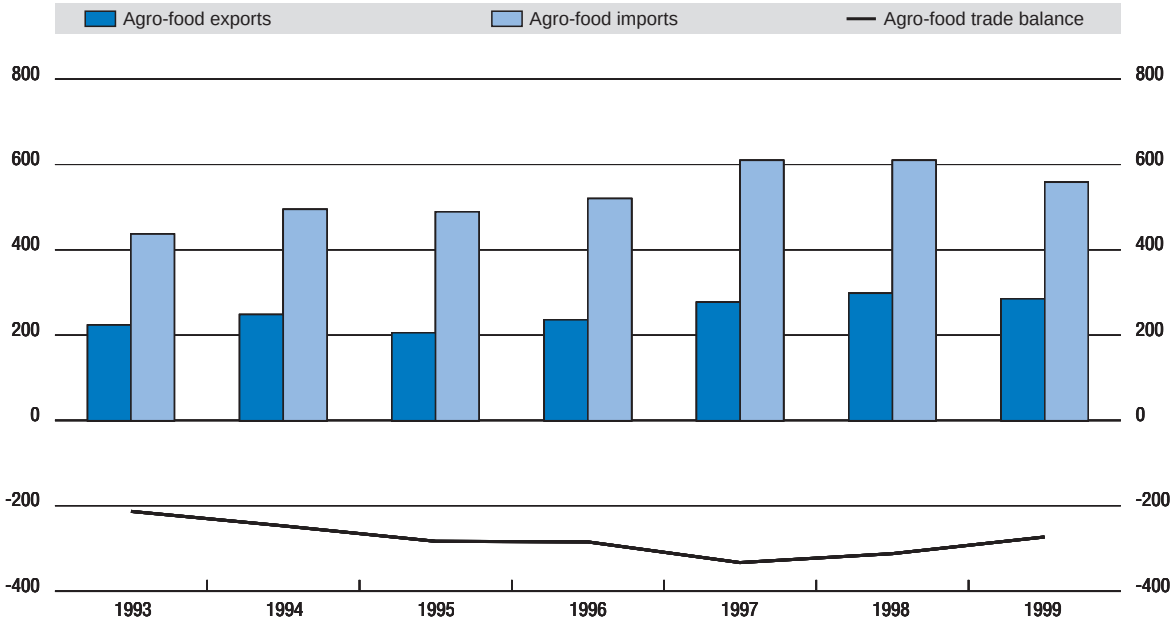
	Units	1993	1994	1995	1996	1997	1998	1999
Agro-food exports	Million USD	224.3	248.7	206.1	235.9	277.5	298.5	285.5
Agro-food imports	Million USD	436.9	495.4	489.4	520.3	610.5	610.4	558.5
Agro-food trade balance	Million USD	–212.6	–246.7	–283.3	–284.5	–333.0	–311.9	–273.1
Share of agro-food trade in:								
Total exports	Per cent	5.0	5.1	4.1	4.5	4.2	4.1	4.2
Total imports	Per cent	9.2	9.5	8.6	8.7	8.3	7.6	7.0
Overall trade deficit	Per cent	69.4	72.6	40.2	40.1	42.6	37.0	23.8

1. Trade in timber, natural rubber and textiles not included.
Source: Statistical Office of the Republic of Slovenia.

Slovenia has traditionally been a net agro-food importer. Since 1993, the agro-food trade deficit evolved through two phases: it grew until 1997 but, due to the fall in imports, has been declining in the most recent years (Figure II.5). However, in 1999 the agro-food trade deficit still exceeded that in 1993. Agriculture has been a large contributor to the country's overall trade deficit, although its share in the total deficit has dropped considerably: from about 70% in 1993 to 24% in 1999 (Table II.6). This was due to an almost six-fold increase in the non-agro-food deficit between 1993 and 1999.

Slovenia's major exportables are meat and meat preparations; beverages (including quality wines); milk, dairy products and eggs; food preparations; tobacco; fruits and vegetables; and hides; accounting

Figure II.5. **Agro-food trade balance, 1993-1999**
Million USD

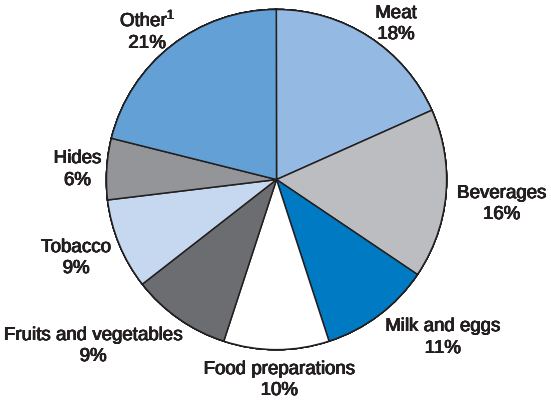


Source: Statistical Office of the Republic of Slovenia.

© OECD 2001

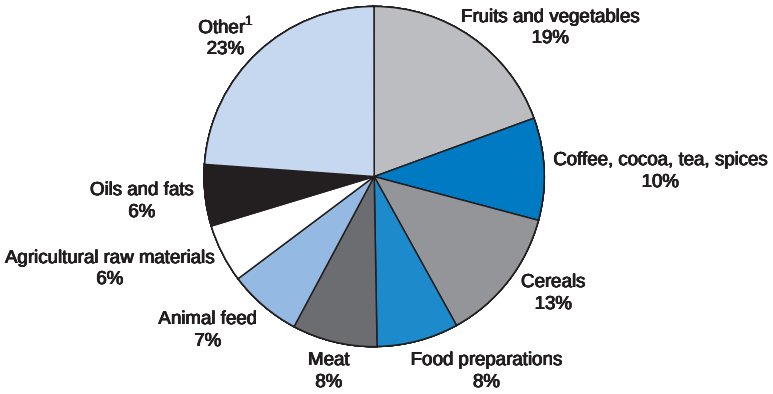
for almost 80% of total agro-food exports in 1997-1999 (Figure II.6). Stable trade surpluses are recorded only for the first three of these product groups, although in 1999 trade in tobacco and hides also resulted in positive balances (Figure II.8). The commodity composition of agro-food exports remained relatively stable over the transition period; however, there was some shift from meat as well as fruit and vegetable groups to tobacco and beverages, milk products and hides.

Figure II.6. **Composition of agro-food exports by commodity, 1997-1999 average**



1. Groups of products each with a share below 5% of the total.
Source: Statistical Office of the Republic of Slovenia.

Figure II.7. **Composition of agro-food imports by commodity, 1997-1999 average**



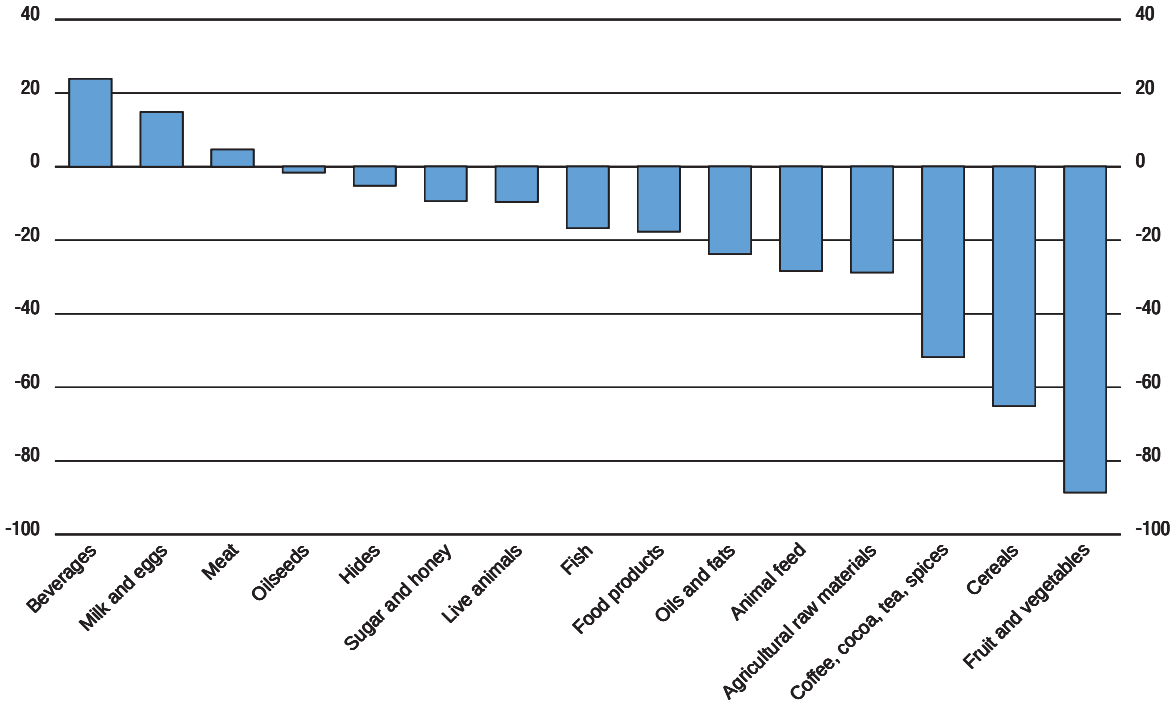
1. Groups of products each with a share below 5% of the total.
Source: Statistical Office of the Republic of Slovenia.

Slovenia largely imports unprocessed products, primarily cereals and fruits and vegetables. Coffee, cocoa and spices represent the third largest group. Other important commodity groups (meats, prepared foods, agricultural raw materials and oil and fats) have relatively equal shares in total imports of between 6% and 8% (Figure II.7). As in the case of exports, the import structure underwent relatively minor changes during the transition.

© OECD 2001

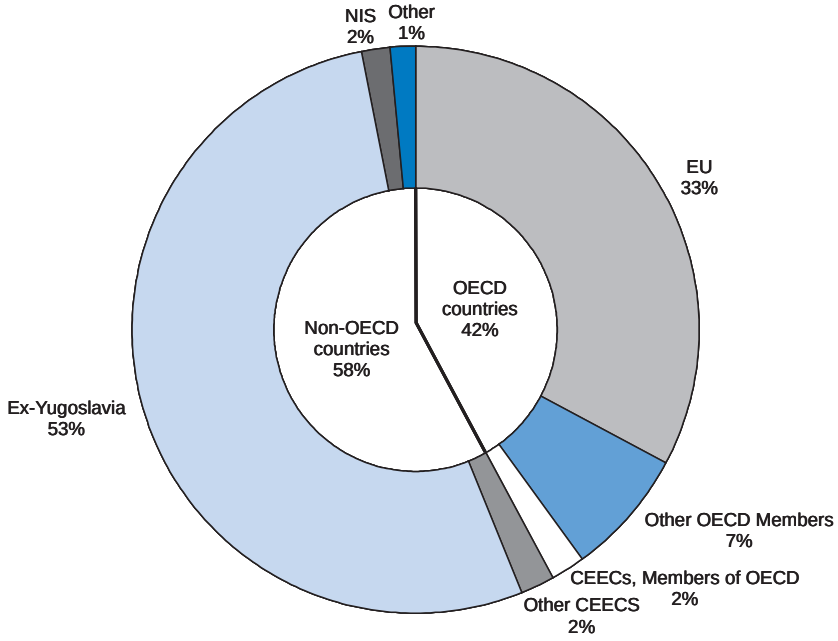
Figure II.8. **Agro-food trade balance by commodity, 1977-1999 average**

Million USD



Source: Statistical Office of the Republic of Slovenia.

Figure II.9. **Regional breakdown of agro-food exports, 1999**



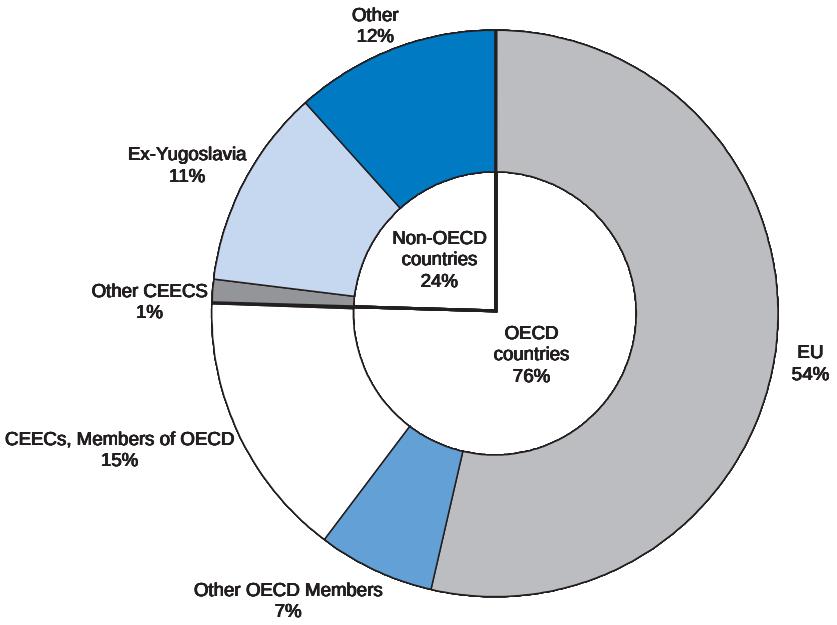
Source: OECD Secretariat.

© OECD 2001

In 1999, the countries of the former Yugoslavia and the European Union were the major destinations for Slovenia's agro-food exports, accounting for over 80% of the total in 1999 (Figure II.9). The European Union is the principal buyer of Slovenia's hides, live animals, tobacco, sugar and animal feeds, while most prepared foods, beverages, milk and eggs are exported to the former Yugoslav region. Exports to CEECs and the NIS accounted respectively for only 4% and 2% of the total in 1999.

The European Union is the most important supplier, accounting for over 50% of Slovenia's agro-food imports in 1999 (Figure II.10). This share has more than doubled since 1993, largely driven by rising imports of fresh and processed fruit, animal feeds and processed cereals. As a result, the export/import balance with the European Union has remained at a substantial deficit of around Euro 300 million. CEECs are the second major source of imports, with Hungary accounting for about 80% of this group's total. The former Yugoslav countries constitute the third principal group; however, its share on the import side is much smaller than on the export side. Roughly two-thirds of imported milk and eggs, fish, fruits and vegetables, oilseeds, cereals, foodstuffs and beverages come to Slovenia from the European Union. Hungary is an important supplier of live animals, meat and cereals, while the former Yugoslavia is an important source of milk and milk products, eggs, prepared foods, beverages and tobacco.

Figure II.10. **Regional breakdown of agro-food imports, 1999**



Source: OECD Secretariat.

2. *Agricultural trade relations*

Since the start of the transition Slovenia has entered into various multilateral, regional and bilateral trade agreements, which progressively opened its borders to a widening range of agricultural commodities while increasing the potential for better access to foreign markets for Slovenian products. Slovenia became a member of the GATT in October 1994 and was a founding member of WTO. At the end of 1995 it signed the Central European Free Trade Agreement (CEFTA) and, in June 1996, the Europe Agreement with the European Union. During the second half of the 1990s, Slovenia entered into various other trade arrangements, which foresaw gradual market access concessions in agro-food trade for the participating countries and harmonisation of their SPS policies. These include a Free Trade

© OECD 2001

Agreement (FTA) with the countries of the European Free Trade Association[1] (1995) and bilateral FTAs with the Former Yugoslav Republic of Macedonia (1996), Estonia (1997), Latvia (1997), Lithuania (1997), Croatia (1999) and Israel (1999).

2.1. *Slovenia and the* WTO

As a signatory of the Uruguay Round Agreement on Agriculture (URAA), Slovenia has taken developed country commitments in the areas of market access, domestic support and export competition.

With regard to *market access*, all non-tariff measures, and the variable levy system (see Part III, Section E) were subjected to the WTO tariffication process. For the majority of agro-food tariff lines, Slovenia opted for *ad valorem* tariffs. For most basic products (*e.g.* live animals, meat, poultry, milk and milk products, eggs and wine) specific tariffs have also been fixed. Slovenia's WTO commitments foresee reductions in both *ad valorem* and specific tariffs (Table II.7).

Table II.7. **Slovenia's URAA tariff bindings for main agricultural products**

		Base rate of tariff		Bound rate of tariff for the year 2000	
		Ad valorem, %	Specific tariff, ECU/t	*Ad valorem*, %	Specific tariff, ECU/t
010290	Live cattle	14	1 029.9	9	875.4
010392	Live pigs	14	363.9	9	309.3
020110	Fresh carcass beef	14	1 998.0	9	1 443.0
020210	Frozen carcass beef	14	2 008.3	9	1 264.0
020311	Fresh pork carcasses	17	418.8	11	356.0
020321	Frozen carcass pork	17	418.8	11	356.0
020410	Fresh carcass lamb	14	1 841.5	9	1 330.0
020710	Fresh whole poultry	17	236.9	11	201.3
040120	Milk and cream (liquid)[1]	12	253.4	8	215.4
040210	Skim milk powder	17	1 155.5	11	982.0
040500	Butter	17	2 112.7	11	1 796.0
040690	Cheese (cheddar)	14	–	9	–
040899	Eggs	8	296.6	5	252.1
080810	Apples	14	161.4	9	137.0
100190	Wheat	7	102.3	5	87.0
100300	Barley	12	89.3	8	75.9
100590	Maize	13	95.4	8	81.1
1006109	Rice	2	–	0	–
1101001	Wheat flour	7	135.3	5	115.0
120100	Soya beans	8	0.0	0	0.0
1514901	Rape and colza oil	14	230.0	9	195.5
160250	Prepared beef	17	2 579.6	11	2 197.1
170111	Cane sugar	70	–	0	–
170112	Beet sugar	70	–	0	–
170199	White sugar	19	405.1	12	344.3

1. Fat content between 1% and 6%.
Source: GATT Agreement for Slovenia.

Slovenia also offered import quotas for specified quantities at reduced tariffs (TRQs) (Table II.8).

D*omestic support* commitments have been taken in ECU, which shielded the permitted level of support from inflation (all other CEECs, except Poland, made their commitments in domestic currencies). According to Slovenia's notifications to the WTO, during the implementation period domestic support (as measured by the current total AMS) was maintained at an average of 84% of the commitment level (Table II.9). Limitations on AMS have contributed to a marked rise in the amount of Green Box and a consequent shift from AMS to Green Box measures in the structure of total domestic support. Resulting from the growth in the Green Box, Slovenia's total domestic support increased by 31% in 1999 compared to 1995 (see also Part III, Section K).

© OECD 2001

Table II.8. **Tariff rate quotas (TRQs) and notified quota imports under Slovenia's URAA commitments**

	1995[1]	1996		1997		1998		1999	
	TRQ	TRQ	Notified Imports	TRQ	Notified Imports	TRQ	Notified Imports	TRQ	Notified Imports
020110 Fresh beef carcasses	92	101	66	110	0	120	0	129	5
020120 Other fresh beef cuts with bone	220	240	118	260	0	280	0	300	13
02 139 Frozen beef carcasses	352	387	0	422	0	458	0	493	0
020210 Other frozen beef cuts with bone	220	240	49	260	28	280	44	300	0
020220 Ex "High Quality" beef	220	240	74	260	0	280	119	300	7
020311 Fresh pork carcasses	1 037	1 140	734	1 244	712	1 348	1 201	1 451	10
020321 Frozen pork carcasses	519	571	549	622	373	674	362	726	36
020610 Fresh beef offal	222	244	0	266	0	–[2]	–[2]	311	0
020629 Other frozen beef offal	111	122	0	133	0	–[2]	–[2]	155	0
021011 Pork hams with bone in	55	61	20	66	16	72	49	78	32
02012 Salted beef	10	11	0	12	0	13	0	14	0
040221 Whole milk powder	67	73	0	80	0	87	30	93	0
0405 Butter	75	80	0	85	0	90	7	95	23
80810 Apples	2 750	3 000	0	3 250	0	3 500	650	3 750	793
100190 Milling wheat	80 000	80 000	0	80 000	0	80 000	75 858	80 000	20 848
100300 Feed barley	70 000	70 000	0	70 000	0	–[2]	–[2]	70 000	438
100590 Yellow corn	120 000	120 000	0	120 000	0	120 000	24 186	120 000	35 236
1101 Wheat flour	12 000	12 000	719	12 000	0	12 000	2 191	12 000	1 492
151490 Rape and colza oil	224	239	0	254	0	–[2]	–[2]	285	0
160250 Prepared beef	9	10	0	10	0	–[2]	–[2]	12	4

1. Data on notified imports not available.
2. For these items the MFN rates were more favourable than the corresponding in-quota rates, so the tariff quotas were not opened.
Source: WTO.

Table II.9. **Slovenia's domestic support commitments under the URAA, 1995-1999**

	1995	1996	1997	1998	1999	1995 as % of 1999
Total AMS commitment, million ECU	74.7	72.1	69.6	67.0	64.4	86.2
Current total AMS, million ECU	64.3	59.9	55.9	57.7	54.8	85.2
As % of commitment level	86.1	83.1	80.3	86.1	85.1	–
Green Box, million ECU	64.8	71.6	95.0	102.2	114.5	176.7
Total domestic support, million ECU	129.1	131.5	150.9	159.9	169.3	131.1
Curent total AMS, %	49.8	45.6	37.0	36.1	34.3	–
Green Box, %	50.2	54.4	63.0	63.9	71.6	–

Source: Slovenia's WTO notifications on domestic support of 17 October 2000.

Slovenia subsidised exports to a limited degree in the pre-UR era. Under the URAA, Slovenia has zero *export subsidy* commitments and can not provide export subsidies.

2.2. *The Europe Agreement*

The Europe Agreement, or Association Agreement, is a comprehensive document, covering trade relations, but also economic, financial, cultural and political areas. One of the major aims, stated in the Agreement, is to develop gradually "a free trade area covering virtually all trade between the Community and Slovenia". The Europe Agreement between Slovenia and the European Union was signed in June 1996, but came into force only on 1 February 1999 due to settlement of the foreigners' land property right issue (see Section D.3.1 of this Part). Pending the enactment of the Europe Agreement, an Interim Agreement limited to trade issues, was in force between 1 January 1997 and 1 February 1999.

© OECD 2001

With regard to trade in agro-food products an abolition of quantitative restrictions on imports and mutual import tariff concessions was foreseen, including duty-free trade and tariff quotas at preferential rates. The European Union applied the same rules in negotiations with Slovenia as with other CEECs. The basis of trade concessions was the historical level of trade between the EU countries (including Austria, Sweden and Finland) and Slovenia in 1993 and 1994. Both parties agreed on import quotas for principal agricultural products and fish, and simultaneous reduction of import tariffs within these quotas.

The European Union offered TRQs for traditional Slovenian exports with an in-quota rate equal to 20% of the MFN rate. TRQs were opened for such commodities as beef and veal, poultry meat and eggs, some dairy products (skimmed milk, yoghurt and cheese), fruit juice, potatoes, some kinds of vegetables, fruits, and hops (Table II.10). Slovenia, for its part, agreed to lower the duty rates on in-quota imports from the Union to 50% of the MFN level. Quotas were offered for meat (frozen beef, pigmeat, and poultrymeat), dairy products (from fermented milk and selected cheeses), fruit and vegetables (citrus, apricots, tomatoes, etc.), soyabeans and fish (Table II.11). A separate reciprocal agreement has been negotiated to cover tariff quotas, protection and trade regulation in wine denominations.

Table II.10. **TRQs and in-quota import duty rates applied to imports of selected agricultural products from Slovenia to the European Union**

	In-quota import duty	TRQ, tonnes			In-quota import duty	TRQ, tonnes		
	1997-June 2000	1997	1998	1999	From July 2000	2000	2001	2002
Milk powder (040210, 040221)	20% of MFN	1 000	1 100	1 200	20% of MFN	1 300	1 400	1 500
Yoghurts (0403)	20% of MFN	500	550	600	20% of MFN	650	700	750
Cheese (040690)	20% of MFN	300	330	360	20% of MFN	390	420	450
Beef (020120, 020130)	20% of MFN	7 000	7 700	8 400	20% of MFN	9 100	9 800	10 500
Poultry meat, fresh, chilled or frozen (020710, 020721, 020739)	20% of MFN	2 200	2 420	2 640	20% of MFN	2 860	3 080	3 300
Poultry meat, prepared or preserved (160239)	20% of MFN	1 200	1 320	1 440	20% of MFN	1 560	1 680	1 800
Sausages and similar products (160100)	20% of MFN	100	110	120	20% of MFN	130	140	150
Swine ham and meat, dried or smocked (02101131, 02101981)	20% of MFN	50	55	60	Free	275	550	550
Eggs (4070030)	–	–	–	–	Free	1 000[1]	2 000[1]	2 000[1]
Potatoes, fresh or chilled (070190)	20% of MFN	150	165	180	Free	2 500	5 000	5 000
Apples, fresh (080810)	20% of MFN	1 500	1 650	1 800	Free	5 000	10 000	10 000
Tomatoes, prepared or preserved (2002)	–	–	–	–	Free	1 350	2 700	2 700

1. Thousand pieces.
Source: Europe Agreement for Slovenia; European Commission.

At the beginning of 2000, a new round of liberalisation took place, when the European Union and all accession countries, including Slovenia, agreed on additional trade concessions within the framework of the Agreement. The concessions were differentiated by three groups ("lists") of products:

- List 1, covering least sensitive products, provided for immediate and full liberalisation of trade.
- List 2, included products subject to the elimination of export refunds and import tariffs within the agreed and growing quotas.
- List 3, related to a limited number of products eligible for *ad hoc* concessions.

© OECD 2001

Table II.11. **TRQs and in-quota import duty rates applied to imports of selected agricultural products from the European Union to Slovenia**

	In-quota import duty	TRQ for 1997-2002, tonnes per year
Beef, frozen (0202)	50% of MFN	2 000
Pigmeat, fresh, chllied or frozen (0203)	50% of MFN	4 000
Poultry meat, fresh, chilled or frozen (020722, 020723)	50% of MFN	1 300
Fermented milk products (040310)	50% of MFN	600
Cheese (040640, 040690)	50% of MFN	500
Tomatoes (070200)	50% of MFN	2 000
Onions (070310)	50% of MFN	300
Garlic (070320)	50% of MFN	200
Citrus (080520, 080530)	50% of MFN	5 000
Soya beans (120100)	50% of MFN	200
Live fish (03019100)	Free	70
Frozen fish (0303)	Free	100
Prepared and preserved fish (1604)	From 12.5% to 4%	920

Source: Europe Agreement for Slovenia.

The European Union granted a zero duty and quota-free regime for 239 positions on agricultural imports from Slovenia. Slovenia, on its side, granted the same type of concessions for 466 agro-food import items from the European Union. List 2 (applying zero duty within agreed quotas) included such EU imports from Slovenia as processed pigmeat products, eggs, potatoes, apples, and preserved tomatoes. In return, Slovenia granted similar concessions on various imports from the European Union, including tomatoes, oranges and selected processed products. The regime for other commodities remains largely based on the previous arrangements. Thus, preferential tariffs within fixed quotas will be further applied to some important livestock and crop products (Table II.10 and Table II.11). The new trade regime took effect on 1 July 2000. Negotiations on further trade liberalisation between Slovenia and the European Union are to begin in the spring of 2001.

2.3. *Trade relations with* CEFTA *countries*

The Central European Free Trade Agreement (CEFTA) was signed by Slovenia in November 1995 (Box II.2). Before joining the Agreement, Slovenia had bilateral FTAs with each of the original CEFTA members. When Slovenia's joined CEFTA, these FTAs were subsumed by the Agreement.

CEFTA came into force on 1 April 1998 in Slovenia. Membership in CEFTA entailed important changes for Slovenia's agricultural trade regime, which were to be implemented in two phases, 1998-2000 and post-2000. Overall during the first phase, duty free trade was established for a number of commodities (without quantitative limits or under quota); while other products covered by the Agreement were traded at low tariffs (quota free or within quotas). During the second phase, all existing tariff quotas will be removed, and preferences (duty-free regime or low tariffs) will be applied to all trade in respective products. CEFTA concessions cover a wide range of agro-food positions; among the principal agricultural commodities are live animals, beef, pigmeat, poultrymeat, grains and oilseeds, wine and selected horticultural crops (Table II.12). Some important items, such as sugar and milk products (excluding cheese and skim milk powder) are not included in the Agreement. For Slovenia, a net importer of most agricultural products, CEFTA provides substantial advantages for agro-food consumers including the food industry, which can benefit from cheaper raw materials. On the other hand, preferential trade exerts competitive pressures on domestic producers. These impacts became particularly manifest in the sectors where CEFTA plays an important role. Thus, scheduled tariff reductions for wheat (in 1998), beef and pigmeat (in 2000) precipitated strong producer demands for protection, leading the government to resort to safeguard measures permitted under the Agreement. As of the end of 2000, most of these safeguard measures were discontinued.

© OECD 2001

Box II.2. **Central European Free Trade Agreement (CEFTA)**

CEFTA was established in December 1992 and came into operation in July 1994. Its original members were Poland, Hungary, the Czech and the Slovak Republics (the latter two still Czechoslovakia up to 1993). Slovenia joined CEFTA in 1996, Romania in 1997, and Bulgaria in 1999. Under CEFTA rules, only candidates that have an Association Agreement with the European Union and are members of the WTO are eligible for membership.

The CEFTA encompasses both industrial and agricultural products. Establishment of a free trade area for industrial products was foreseen by the end of 2000. For agricultural products, the Agreement implies a substantial reduction in trade barriers. Preferences are given symmetrically, and are at a minimum at levels comparable to those given to the European Union. The CEFTA Agreement implies that the pace of trade liberalisation is variable for different agricultural products. Products are classified into groups (lists) with different liberalisation schedules, which are fixed in Protocol 6 of the CEFTA Agreement (signed at the end of 1997):

- A *list*: commodities subject to duty free and quota free trade;
- B *list*: products with common preferential tariffs;
- C *and* D *lists*: more sensitive commodities, for which bilaterally agreed preferences are established.

Source: OECD 2000.

D. Agricultural privatisation and farm restructuring

1. *Land policies and farm structure during the socialist period*

During the inter-war period, small- and medium-size peasant holdings (up to ten hectares) owned most of the agricultural land in Slovenia. A smaller area of land was in the hands of a few landed owners or belonged to the church. After World War II, the new leadership declared the policy of the "socialisation of the countryside" and began nationalisation of the land. The 1945 *Law on Agricultural Reform and Collectivisation* decreed the confiscation and nationalisation of major parts of land, forests and farms belonging to large landowners, private companies, banks and the church. Land owned by expelled national minorities (*i.e.* Italians and Germans) was also nationalised. Limits to private farm holding were imposed, fixed at 25-35 hectares of cultivated land, or 45 hectares for land in less favoured areas and forests. Land beyond these limits was transferred to the state. *The Law on Agricultural Property and on Distribution of Land to Agricultural Enterprises*, enacted in 1953, further reduced the maximum size of cultivated land per farm to 10 hectares, or 15 hectares for poor soils and forests. In 1963 these limits on private land ownership and use were written into the Constitution.

"Socially-owned" farms were set up on the nationalised land. Collectivisation was also attempted in Slovenia between 1945 and 1953. Private peasants were encouraged to join their lands and create collective farms. Collectivisation was conceived as a key feature of the socialist transformation of the countryside. However, this policy encountered strong opposition from peasants who were attached to private land ownership. Furthermore, the economic performance of newly created collective farms was poor. This produced serious economic and political problems, and led to the abandonment of collectivisation policy in 1953. Land was returned to the peasants up to the maximum permitted size of private holding.

After the failure of the collectivisation policy, a dual farm structure was established in Slovenia. On the one hand were large-scale socially-owned farms, on the other, small-scale, usually part-time, private holdings. The government's priority was to enlarge the socially-owned sector. Limits on private land

© OECD 2001

© OECD 2001

Table II.12. **The CEFTA trade regimes for main agro-food products in Slovenia**

	Commodities[1]	Tariffs applied[2]
A list		
From 1 April 1998, duty free and quota free trade	Breeding animals	0%
	Horses	0%
	Durum wheat	0%
	Oil seeds	0%
A1 list[3]		
From 1 April 1998 up to 1 January 2000, 0% duty within a quota	Sheep and goats (live animals and meat)	0%
From 1 January 2000, duty free and quota free		0%
B list		
As from 1 April 1998, common preferential tariffs and quota free	Wheat	15%
	Barley	18%
	Flour	15%
	Pastry	20%
	Poultry meat	28%
	Selected vegetables and fruit	5-10%
B1 list[3]		
From 1 April 1998 up to 1 January 2000, preferential tariffs for limited quotas	Live animals (cattle, pigs, poultry)	15%
From 1 January 2000, common prefrential tariffs and quota free	Carcass beef and pork	25%
	Beef and pork meat	25%
	All canned meat	15-18%
	Skim milk powder	15-18%
C list		
From 1 July 1998 bilateral preferences for Slovenian exports	Potato, cheese, eggs, apple, oils, various meat products, soft beverages, wine, beer	Mainly export quotas with reduced tariffs and limited duty free quotas
D list		
From 1 July 1998 bilateral preferences for imports from other CEFTA countries into Slovenia	The same products as **C list**	Duty free import quotas or reduced tariffs – 5% for the Czech and Slovak Republics
	Maize	– import quota of 50 000 tonnes at preferential tariffs for Hungary

1. CEFTA covers a wide range of agro-food trade positions, only the principal ones are presented in the table.
2. Slovenia applies only *ad valorem* tariffs on imports covered by the CEFTA agreement.
3. Additional A1 and B1 lists were agreed as a special arrangement to facilitate Slovenia's adjustment to CEFTA regime.

Source: Protocol 6 to the CEFTA Agreement.

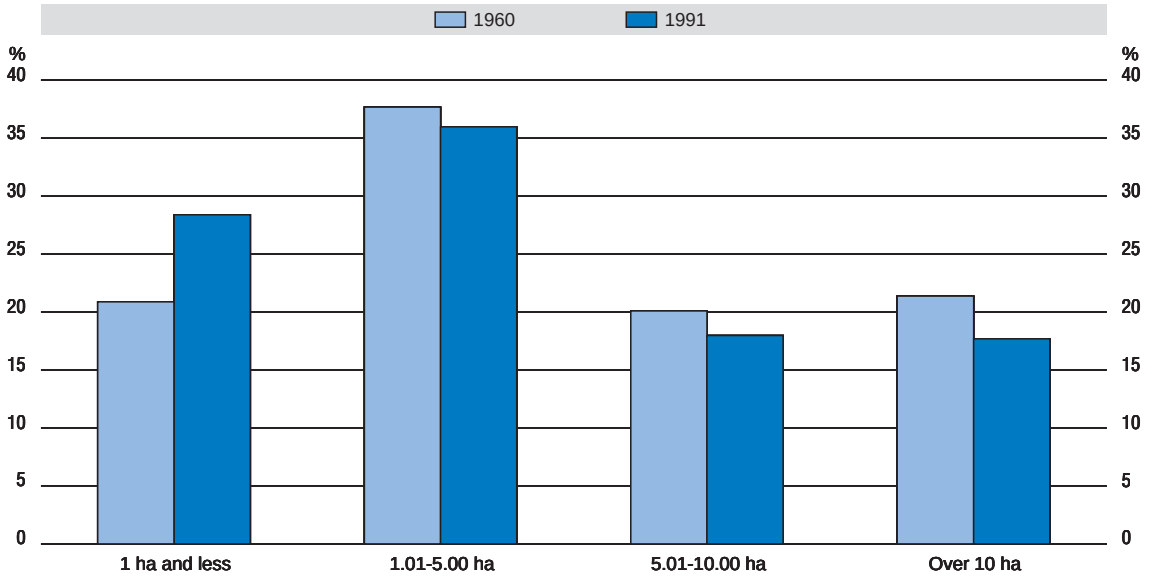
ownership and use, as well as the restrictions on private purchases of larger agricultural machinery that existed up to the mid-1960s, restrained the development of the private sector. Although the 1959 *Law on Agricultural Land Use* introduced more freedom in transactions of privately owned land, at the same time it granted the socially-owned sector preferential rights in buying or leasing land. Lease terms were fixed at no less than 25 years for vineyards and orchards and at 15 years for arable land (Bojnec and Swinnen 1997*a*).

Despite the measures to "socialise" agriculture, the basic Slovenian farm structure remained private-based. By the beginning of the transition, numerous private holdings used approximately 90% of agricultural land and accounted for about two-thirds of agricultural output. Socially-owned farms operated 10% of agricultural land and contributed around one-third to total production.

Between 1960 and 1991, the number of private holdings with agricultural activity decreased from 195 000 to 156 000.[2] The structure of private sector remained relatively unchanged. However, the process of fragmentation was notable with a growing share of very small units (owning less than 1 hectare) in the total of private units and a decreasing share of larger holdings, particularly those owning more than 10 hectares (Graph II.11). The lack of structural adjustment and the fragmentation of private farm structure were mainly due to the limits imposed on the maximum size of private holdings as well as inheritance laws, which, at least up to the beginning of the 1970s, did not restrict the division of land among heirs.

Figure II.11. **Distribution of private holdings with agricultural activity by land size in 1960 and 1991**

Per cent



Note: Land size corresponds to total land owned.
Source: Bojnec and Swinnen, 1997*a*.

2. *The 1990s: land restitution and privatisation of the socially-owned sector*

As Slovenia had largely maintained a traditional farm structure during the socialist period, it faced fewer challenges in reforming land tenure and farm structure than many other CEECs. Nonetheless, Slovenia's reform agenda was quite demanding, comprising the liberalisation of the land market, removal of limitations on private land ownership, property restitution and privatisation. A series of

© OECD 2001

legislative acts adopted after the independence set the legal framework for reforms in these areas (Box II.3).

Box II.3. **Major laws on land and structural reform in Slovenia**

***Law on Denationalisation* (*December* 1991)** defines the subjects entitled to restitution of property rights, procedures, objects of restitution and the forms in which it can be implemented (in kind, in ownership shares of existing companies-successors of nationalised firms, in other government securities). The law is the basic document regulating the restitution of agricultural and forest land.

***Law on Co-operatives* (1991)** sets the legal framework for restructuring co-operatives, including those involved in the supply of inputs to agricultural producers, agricultural marketing and agro-food processing.

***Law on Ownership Transformation* (*November* 1992)**, amended twice in 1993, is the main privatisation law. It applies to all former socially-owned enterprises that were transferred to state ownership (*i.e.* excluding essentially part of the utilities sector). The law defines enterprises subject to privatisation, privatisation procedures and all other basic issues related to the process.

***Law on the Fund of Agricultural Land and Forests* (*March* 1993)**, amended in 1996, enacts the establishment of the Fund and defines its authority and functions. It also contains regulations on the lease, purchase and sale of land from the Fund and introduces the concept of a "good landlord".

***Law on Restoration of Agricultural Communities and Return of Their Property Rights* (1994)**, amended in 1997, regulates the restitution of legal rights and the property confiscated from former agricultural communities after World War II.

***Law on Agricultural Land* (1996)** regulates all basic issues related to agricultural land evaluation, improvement, and protection. It contains definitions of agricultural land and less favoured areas, defines the subjects entitled to undertake land transactions and regulates land sale procedures.

***Law on Temporary, Partial Moratorium on Restitution* (*December* 1995)** introduced a moratorium on restitution of large land holdings of over 200 hectares for a period of three years.

Key decisions on land market liberalisation and the removal of existing restrictions on private land ownership and use followed soon after independence. Thus, the pre-emptive right of large-scale farms to buy land was abolished and private individuals became the first among preferential claimants (see Section D.3.1 of this Part). The upper size limit for a private holding was increased from 10 to 30 hectares in 1990 and then completely lifted in 1991. With this, major constraints to land trade among Slovene citizens were abolished. However, the current legislation incorporates several restrictions on the sale of agricultural land (see Section D.3.1 of this Part).

Restitution of nationalised land and the privatisation of the socially-owned farms was another key issue of the reform. In December 1991 the *Law on Denationalisation* took effect. This was the first important privatisation law in Slovenia. It dealt with the restitution of former nationalised and confiscated properties, especially in the areas of agriculture, forestry and housing. Private persons with former Yugoslav citizenship, their close relatives or heirs, as well as religious communities, which were owners of land at the time of nationalisation, became eligible for restitution in real boundaries or compensation through an alternative property, securities or cash payments (Bojnec and Swinnen, 1997*b*). Later in 1994, in addition to private persons, agricultural communities (*e.g.* villages which previously owned common pastureland) obtained the right to the restitution of their property.

As a first step in denationalisation, all land that was not in private ownership at the time of independence, legally came under the ownership of the Slovenian state and local communities. The Fund for Agricultural Land and Forests (FALF) was set up in May 1993. Its mandate was to manage state agricultural and forest land and to carry out restitution of these lands. About 28% of the total land area in Slovenia was placed under the FALF's management at the time of its establishment. Part of this land

© OECD 2001

was to be restituted to former owners, the rest was to remain state property managed by the FALF. The land transferred to the FALF included 210 000 hectares of agricultural land, of which about 140 000 hectares were available for restitution; and 350 000 hectares of forestland, of which 320 000 hectares were available for restitution (Bojnec and Swinnen 1997*b*).[3]

The deadline for restitution claims was the end of 1997. Of 130 643 hectares of Slovenia's cadastral agricultural area claimed for restitution, 36 475 hectares (about 28% of the claimed area) had been returned by 1 April 1999. Over 80% of this land was restituted physically, with the remainder in the form of shares in various enterprises.

The pace of restitution has varied during the 1990s. While the process stagnated at the beginning, it speeded up with the establishment of the FALF in 1993. Initially, restitution involved less complex cases from the point of view of current use and location of the land; the FALF restituted land mostly within historical boundaries. However, between 1995 and 1998 restitution slowed down as more sensitive cases had to be considered, largely concerning land used by agricultural companies (former socially-owned farms). On the one hand, the previous owners or their heirs had a strong preference for the restitution of land in historical boundaries (or substitute property) over compensation with government securities. On the other hand, agricultural companies opposed land restitution, arguing that it would lead to disruption of their operations. Agricultural companies sought compensation for the non-amortised value of their investments (*i.e.* in land improvement or in the establishment of permanent plantations), and on these grounds claimed property and use rights for the land.

A number of "safeguards" for large farms had been foreseen in the original restitution legislation. Thus, the 1991 *Law on Denationalisation* introduced the principle of "co-ownership". This related to cases in which several new owners were entitled to receive parts of a single consolidated area under operation. The provision concerned mainly the land in use of agricultural companies. It stipulated that if restitution resulted in the fragmentation of an agricultural unit into economically unmanageable parts, the physical division of land would not be allowed. Consequently, individual claimants could obtain land ownership rights only in the form of co-ownership of a whole consolidated plot. The decision on whether to allow parcelling or to impose co-ownership arrangement, was at the discretion of local authorities.[4] The Law laid down an "adjustment period", during which the co-ownership arrangement was to be maintained. This period was fixed at five years from the moment of establishment of co-ownership, or until December 1998 (Bojnec and Swinnen, 1997*a*). Only after the adjustment period did the original owners have the right to take physical possession of the land and to use it. In addition to this, the 1993 *Law on the* FALF allowed agricultural enterprises or other users to continue operating agricultural land provided they used it appropriately. The definition of appropriate use was based on the notion of a "good landlord". Adopted in 1995, the *Law on Temporary, Partial Moratorium on Restitution* established a three-year moratorium on land restitution to large landowners (with over 200 hectares). This did not apply to agricultural communities, but affected churches and religious institutions, as well as foreigners. Finally, amendments to the original *Law on the* FALF, introduced in 1996, stipulated that for the period of amortisation of investments in land, current users (meaning mostly, agricultural companies) had preference in leasing land from the Fund.

Taken together, these provisions created legal grounds for maintaining land in large farms, by giving them priority in leasing land and by preventing the physical return of land to private individuals. However, the application period of these "safeguards" expired at the end of 1998. A heated political debate surrounded the future of the land co-ownership clause and the restitution of land to large owners. The National Assembly attempted to amend the *Law on Denationalisation* and to introduce a complete ban on the return of large holdings in place of the moratorium. After long hearings, this decision was eventually repealed by the Constitutional Court, and the moratorium on restitution of large holdings was lifted. Another major development concerned co-ownership arrangements when it was decided to start, in 1999, allocating individual parcels to land co-owners (however, the adjustment period for lands under permanent plantations was prolonged until 2002).

With these important changes, formal barriers to the completion of the restitution and transfer of full ownership rights to new owners were removed. To what extent this will actually speed up the

© OECD 2001

restitution process will depend on the ability of the FALF and other official structures involved to manage the controversies between the present land users (mainly, agricultural companies) and the new lawful owners. It can be expected that in cases of dispute, agricultural companies will try to defend their position from the standpoint of maintaining their investments in the land, and this may involve long court procedures. So far, the end of restitution process is fixed for 2002-2003, and it is clear that in its final stage the restitution will have to deal with the most difficult cases.

By 1 January 2000 the FALF controlled 107 214 hectares of agricultural land and 250 790 hectares of forestland (according to cadastral data).[5] Out of all agricultural land, 23 300 hectares were rented out to physical persons and 29 300 hectares, to legal persons (mainly, agricultural companies). The remaining 54 614 hectares were idle, afforested or represented protected areas. An additional 21 783 hectares of non-agricultural and non-forest land were also under the control of the FALF. After the completion of the restitution process the FALF will assume the role of State Agency for the sale, lease and re-parcelling of agricultural land.

Privatisation of the non-land assets of the former socially-owned farms was handled as a separate process, according to the general *Law on Privatisation* (see Section E.3.2. of this Part). It started in 1993, and by the end of 1999, had been virtually completed. The non-land assets of the former socially-owned farms were distributed between the eligible beneficiaries and the farms that had been re-organised into joint stock or limited liability companies (henceforth referred to as "agricultural companies").

3. *Agricultural land transfers*

3.1. *Land trading*

Prior to independence Slovenia already had a functioning land market. Land prices were in principle formed freely; however, the land legislation imposed some limitations. For example, an official land evaluation methodology defined reference prices for land (Box II.4) and land transactions could not be officially approved if the sale price significantly differed from the official reference level. This provision was maintained in the 1996 *Law on Agricultural Land* (see below). Market prices were quite high, due to the limited supply of land on the market. In addition to the deeply-rooted historical attachment of Slovenian people to land, the latter was considered the only asset which guaranteed protection from inflation or social and economic disturbances.

The *Law on Agricultural Land* (1996) is the principal document regulating transactions of agricultural land. In addition to provisions related to procedures for buying and selling land, the Law exerts control over land re-sales, speculation and "unreasonable increases" in land prices.

A buyer becomes the lawful owner of land only after the transaction is approved by the municipality. A transaction is not recognised to be lawful if the priority ranking of buyers was not observed. This priority ranking is:

- co-owner in the case of the sale of the co-owner's share;
- tenant-farmer;
- farmer whose parcel under cultivation (owned, leased or used under other arrangements) borders the parcel for sale;
- farmer whose parcel under cultivation (owned, leased or used under other arrangements) is located within a reasonable distance;
- the Republic of Slovenia represented by the FALF;
- municipality in which the land is located; and
- agricultural company which needs the parcel for undisturbed production and whose headquarters is located within a reasonable distance.

The transaction is not approved in several other cases: *i*) if the land is part of a "protected farm" (see below); *ii*) if the plot is part of a consolidated area used in production and the sale disrupts the current operations; *iii*) if the sale price significantly differs from the reference levels defined according

© OECD 2001

Box II.4. **Official methodology for evaluating agricultural land in Slovenia**

According to the "Methodology for Determining the Value of Agricultural and Forest Land", adopted in 1987, the following formula is applied:

$$V = (Class\ points/100 * Value\ of\ total\ output/m^2) * 10$$

- Class points correspond to particular cadastral classes and categories of land. The highest value is 100 points for first class arable land.
- Value of total output/m^2 is assessed on the basis of an average crop mix and potential yields on first class arable land with the application of up-to-date technology.
- Coefficient 10 stands for: 25% of output value (which is 50% of income) for a period of 40 years, which is the active period for earning a pension (40*25% = 1 000% – factor 10).

The value of land can be adjusted for additional factors, such as: location of the plot (up to 15%), state of consolidation of the plot (10%), protected holdings (10%); degree of marketable production (10%).

The methodology does not take into account profitability and interest rates as standard parameters in estimating the value of long term assets. The basic principle in the determination of land value should be the potential infinite stream of net returns (profit) generated from crop production and/or potential earnings from alternative use. Common approaches that reflect those principles include discounting techniques to estimate the present value of future income streams. In addition, it is necessary to include the effects of potential future increase in returns due to technological progress and increased productivity.

This methodology is currently applied in Slovenia for determining reference prices for land, as well as by the FALF to set prices for selling and renting land under the Fund's management.

Source: Tanic, 1998; OECD Secretariat.

to the official methodology (Box II.4); *iv*) if the buyer of the land already operates over 200 hectares in equivalent arable land (FAO, 1998).

The Slovenian Constitution originally granted foreign citizens the right to own land only through inheritance and only on a reciprocal basis. Slovenia's signing of the Europe Agreement brought about a major change. According to Annex XIII to the Agreement (known as the "Spanish compromise"), Slovenia guaranteed that when the Agreement comes into force, all EU citizens, permanently residing in Slovenia for at least three years, could acquire title to land (under the condition of reciprocity and non-discrimination). This new obligation necessitated a change in the Slovenian Constitution, specifically to Article 68 (Property Rights of Foreigners). This Article was amended in 1997 and now states that "foreigners can acquire title to property affixed to land under such conditions as are determined by statute or as determined by the international agreement ratified by the National Assembly, in circumstances where reciprocity of such rights of acquisition are recognised". Under the Europe Agreement, Slovenia was obliged to open its land market to EU citizens from 1 February 2003. In fact, this was already implemented at the end of 2000, Slovenia having renounced its right to a transition period in this particular area. As far as the purchase of agricultural land is concerned, foreign citizens, as well as Slovenian citizens, are subject to the limitations described above.

The land market continues to be flat in Slovenia. It is estimated that in 1997 the marketed land area comprised less than 0.5% of utilised agricultural land with an average size per transaction of about 0.4 hectares. Most transactions concerned land of low quality, whereas high quality land was in short supply. According to some experts, the land market was slightly invigorated by the process of restitution. However, its impact should not be overestimated. As was the case before the transition, land continues to be a low-tradable asset, perceived by most owners as an important economic safeguard. Furthermore, some restitution beneficiaries do not enjoy full ownership rights, because they continue to have the status of co-owners and cannot yet use or sell land. Although this restriction was

© OECD 2001

formally removed in 1999, it will take some time to finalise land parcelling and the physical allocation of assets to former co-owners. Third, insufficient information on the availability of land for sale and on prices also contributes to the inactive land market.

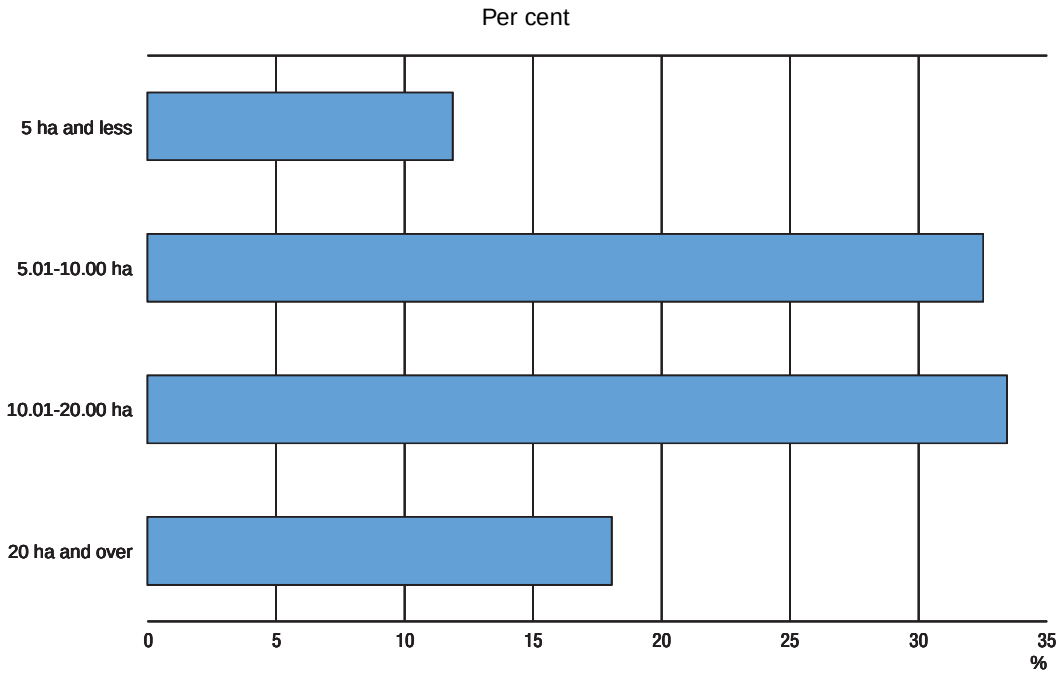
3.2. *Land leasing*

Land leasing will likely remain the principal means of agricultural land reallocation in Slovenia in the near future. The *Law on Contractual Relations* and the *Law on Agricultural Land* are the major documents regulating leasing of agricultural land. Under the legislation, tenancy arrangements have to be registered in the land register and cadastre. The law sets minimum contract terms which are determined on the basis of a standard depreciation period for investments in land (*i.e.* 10 years for arable land and 15 years for permanent plantations). Fixing minimum lease terms is intended both to prevent over-exploitation of land by tenants, and to protect investments in land. In practice, informal short-term leases are widespread among private farmers in Slovenia, while agricultural companies usually have formal lease contracts.

The 1997 Farm Structure Survey showed that, about one quarter of family farms lease land, representing approximately 13% of utilised agricultural area in the private farm sector. The principal lessors are the FALF (accounting for about 40% of all land rented by family farms), other family farmers (about 20%), and non-farm landowners (accounting for most of the remaining 40%). Two-thirds of the land leased by family farms is concentrated in holdings of between 5 and 20 hectares (Figure II.12). Given the limited land market and high land prices in Slovenia, the demand for leased land from the family farm sector is considerable.

Agricultural companies operate almost exclusively on leased land, an important part of which is leased from the FALF. The rents fixed by the FALF are below commercial market levels (up to DEM 200 per hectare in mid-2000). Many agricultural companies pay even lower rates as compensation for their

Figure II.12. **Distribution of land leased by family farms by size class**



Note: Size class refers to utilised agricultural area.
Source: 1997 Farm Structure Survey; Statistical Office of the Republic of Slovenia.

© OECD 2001

previous investments in land. However, the rent levels charged by the FALF are challenged by companies as being too high, and this is an issue of dispute with the state bodies. Some agricultural companies in poor financial condition have accumulated large arrears on rent payments. Such companies will likely have to undergo bankruptcy, with most of their land being leased to family farms in response to the high demand for land from that sector.

3.3. *Farm inheritance*

Inheritance law has an important impact on the land ownership structure in Slovenia. In 1868, Austrian legislation permitted the division of farm households among heirs, which contributed to the substantial subsequent fragmentation of the farm structure in Slovenia. The possibilities for farm partition were reduced in 1973 by adoption of the *Law on Agricultural Inheritance* which introduced the category of "protected farm" and prohibited the division of such units. The 1995 *Law on Farm Inheritance* maintained the concept of protected farm and stipulated that such farms could be inherited by a single successor only. The protected farm is defined as an agricultural or agricultural/forestry unit owned by one or several persons linked by marriage or close affinity; its size should be no less than five but not more than 100 hectares of so-called "comparable agricultural land".

The law determines the procedure by which the successor of a protected farm is defined. If a protected farm was owned by one single owner and there are several lawful successors, the farm is inherited by the one who intends to cultivate the land with the consent of all other successors. If agreement is not reached, preference is given to the spouse or descendants that are qualified or are being educated to undertake agricultural or forestry work. Among these candidates, preference is given to those who have grown up on the farm and have contributed to its development.

4. *Current farm and production structure*

The process of privatisation and restitution together with improved conditions for private farmers to trade and lease land have led to some changes in farm structure in Slovenia, which are discussed below. However, these changes were not as dramatic as in most other CEECs. As was the case during the socialist period, land ownership and farm structure in Slovenia are currently dominated by small farm holdings, accounting for 94% of utilised agricultural area in 1998, with the rest remaining under the operation of agricultural companies (Table II.13). Agricultural companies are relatively important in the grain sector, contributing 17% to total maize and 29% to total wheat output (Figure II.13). Also, about 20% of grapes and 30% of fruit production comes from large-scale units. Data on the contribution of small-scale and large-scale farms to total livestock output are not available, nevertheless, inventory distribution helps to illustrate the relative importance of the two sectors (Figure II.14). Small-scale producers strongly dominate milk and beef production as well as sheep and goat breeding. Agricultural

Table II.13. **Family farms and agricultural companies in 1997 and 1998**

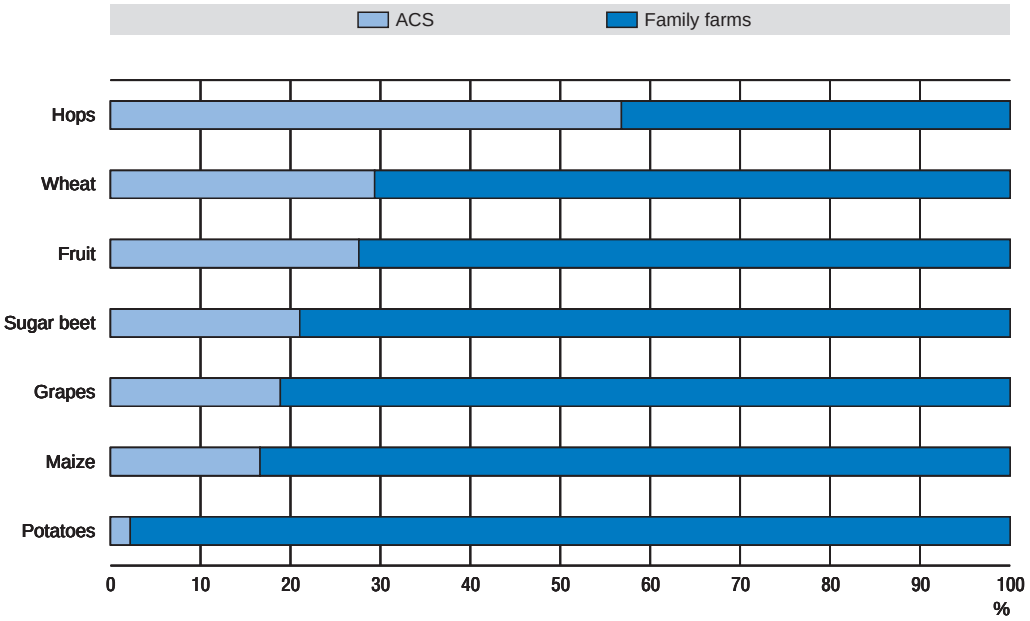
	Unit	Private family farms[1]		Agricultural companies	
		1997 FSS	1998 estimate	1997 FSS	1998 estimate
Utilised Agricultural Area (UAA)	Hectares	430 562	469 152	36 027	31 711
	Per cent	92.3	93.7	7.7	6.3
All holdings	Number	90 611	n.a.	219	208
	Per cent	99.8	n.a.	0.2	n.a.
Holdings without UAA	Number	34	n.a.	111	n.a.
Holdings with UAA	Number	90 578	n.a.	108	n.a.
Average size of holdings with UAA	Hectares	4.8	n.a.	333.6	n.a.

n.a. Not available.
1. Farm definition is based on Eurostat criteria.
Source: 1997 Farm Structure Survey, Statistical Office of the Republic of Slovenia.

© OECD 2001

Figure II.13. **Shares of family farms and agricultural companies (ACs) in total output of major crops, 1999**

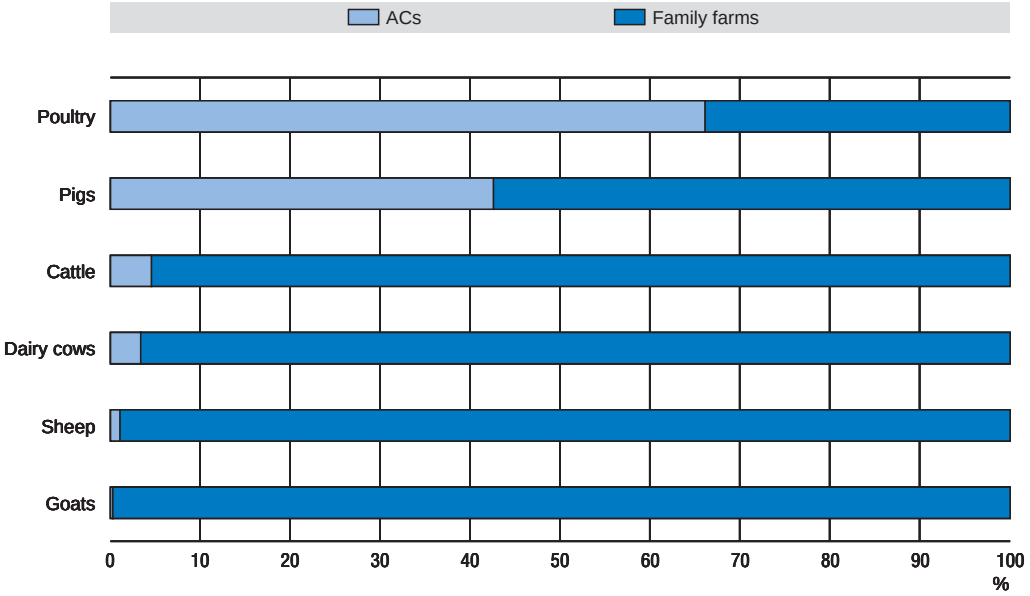
Per cent



Source: Statistical Office of the Republic of Slovenia.

Figure II.14. **Shares of family farms and agricultural companies (ACs) in total livestock numbers, 1999**

Per cent



Note: Poultry data correspond to 1997.
Source: Statistical Office of the Republic of Slovenia.

© OECD 2001

companies are important producers of pigmeat, poultrymeat and eggs. The shares of agricultural companies in production are likely larger than in inventories due to the fact that animal productivity in agricultural companies is usually higher than in family farms.

4.1. *Private family farms*

About two-thirds of private farms are located in disadvantaged agricultural areas, mostly hilly and mountainous regions. The production potential of traditional family farms is low due to their limited land and capital; the average yields of major crops are below EU levels. Average family farm in Slovenia employs 10 times as more labour (expressed in annual working units) than an average EU farm. Work is done mostly by family members, without regular use of hired labour (Cunder, 2000). The majority of family farms are run on a part-time basis, and for a large part of them agricultural earnings represent a secondary source of income, supplementing off-farm earnings. Many farms are poorly linked to markets: a considerable share of their production is used for home consumption and the main marketing channel is on-farm sales.

The latest and most accurate information on the family farm sector is available from the 1997 Farm Structure Survey, according to which there were about 90 611 family farms in Slovenia. One farm owned on average 9.4 hectares of land (including, cultivated and non cultivated agricultural land, a well as forests) and cultivated on average 4.8 hectares of agricultural land. Most numerous are units cultivating more than 1 and up to 5 hectares, which occupy about one-third of agricultural land (Table II.14). Farms with between five and 10 hectares under cultivation make up the next most important group, accounting for almost the same share of agricultural land. These two groups represent the core of the farm structure in Slovenia, comprising over 80% of the total farm number and operating almost 70% of agricultural land.

According to the 1997 Farm Structure Survey, about 70% of all family farms kept cattle, 56% pigs and 73% poultry. Around 86% of farms were involved in arable farming, 37% had orchards and 38% vineyards.

Only 15% of all farms are run on a full-time basis, while part-time and "supplementary" farms form the dominant segment of the family farm sector, accounting for about 75% of the total farm number.

Table II.14. **Distribution of family farms by size and socio-economic type in 1997**

	Number	%	Hectares	%
	Distribution of farms by size[1]			
Total family farms	90 613	100.0	433 142	100.0
1 ha and less	8 145	9.0	5 217	1.2
1.01-5.00 ha	51 010	56.3	140 797	32.5
5.01-10.00 ha	22 762	25.1	160 589	37.1
10.01-20.00 ha	7 759	8.6	100 450	23.2
Over 20 ha	937	1.0	26 089	6.0
	Distribution of farms by socio-economic type[2]			
Total family farms	90 613	100.0	433 142	100.0
Full-time farms	13 849	15.3	102 736	23.7
Part-time farms	25 287	27.9	143 476	33.1
"Supplementary" farms	41 782	46.1	156 722	36.2
"Aged" farms	9 695	10.7	30 208	7.0

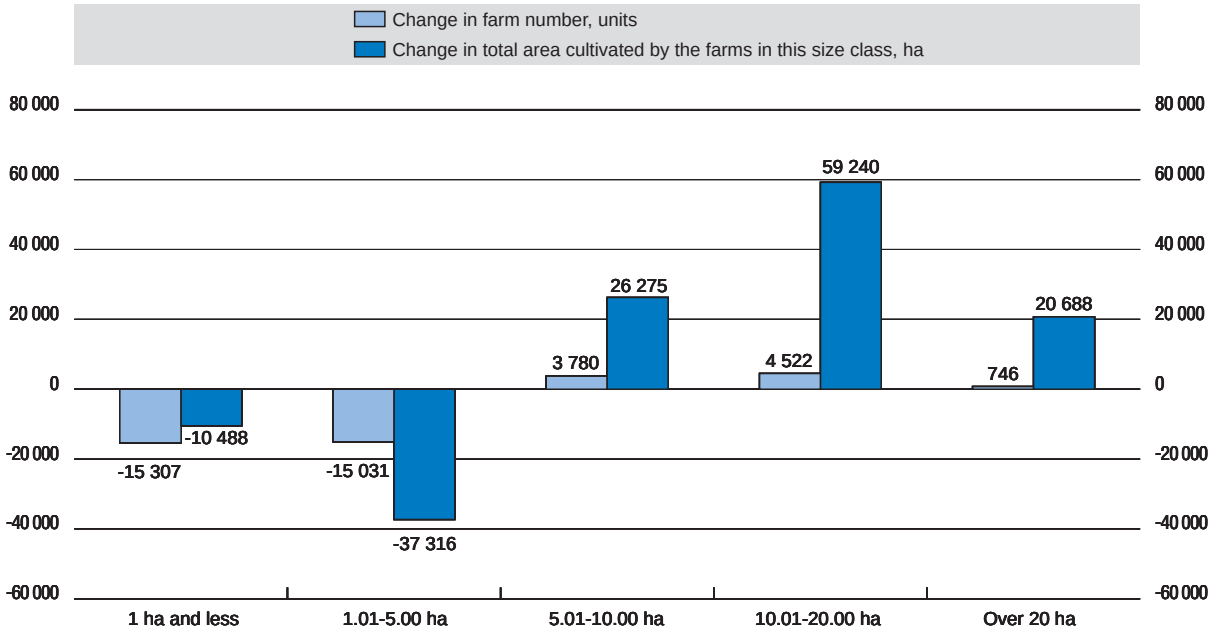
1. Farm size refers to utilised agricultural area.
2. "Full time" farm is a farm on which all active household members (aged 15 to 64) work on the farm and are not employed elsewhere.
"Part time" farm is a farm on which at least one member has farm income only and at least one member has non-farm income.
"Supplementary" farm is a farm on which all members have non-farm income.
"Aged" farm is a farm where all household members are over 64.

Source: 1997 Farm Structure Survey; Statistical Office of the Republic of Slovenia.

© OECD 2001

The number of family farms declined considerably between 1991 and 1997 (by over 21 000 units). This reduction was due to the disappearance of small farms cultivating up to 5 hectares (Figure II.15). Many of their owners are abandoning production, and the land is either taken over by larger farms or lays idle. Despite the abandonment of some agricultural land, the proportion cultivated by the private sector expanded by 15%. The declining farm numbers and the expansion of cultivated land, led to an increase in the average area of agricultural land per farm by 1.5 hectares between 1991 and 1997. There has been a marked shift from full-time and part-time to "supplementary" farming (Figure II.16). Overall, the first decade of independence was marked by some consolidation of farm holdings in Slovenia and concentration of land in larger units. A notable increase occurred in the proportion of farms holding between 10 and 20 hectares. However, agriculture has increasingly become a supplementary activity in households in which none of the members relies exclusively on farm earnings.

Figure II.15. **Changes in family farm numbers and area farmed by farm size between 1991 and 1997**



Source: 1997 Farm Structure Survey; Statistical Office of the Republic of Slovenia.

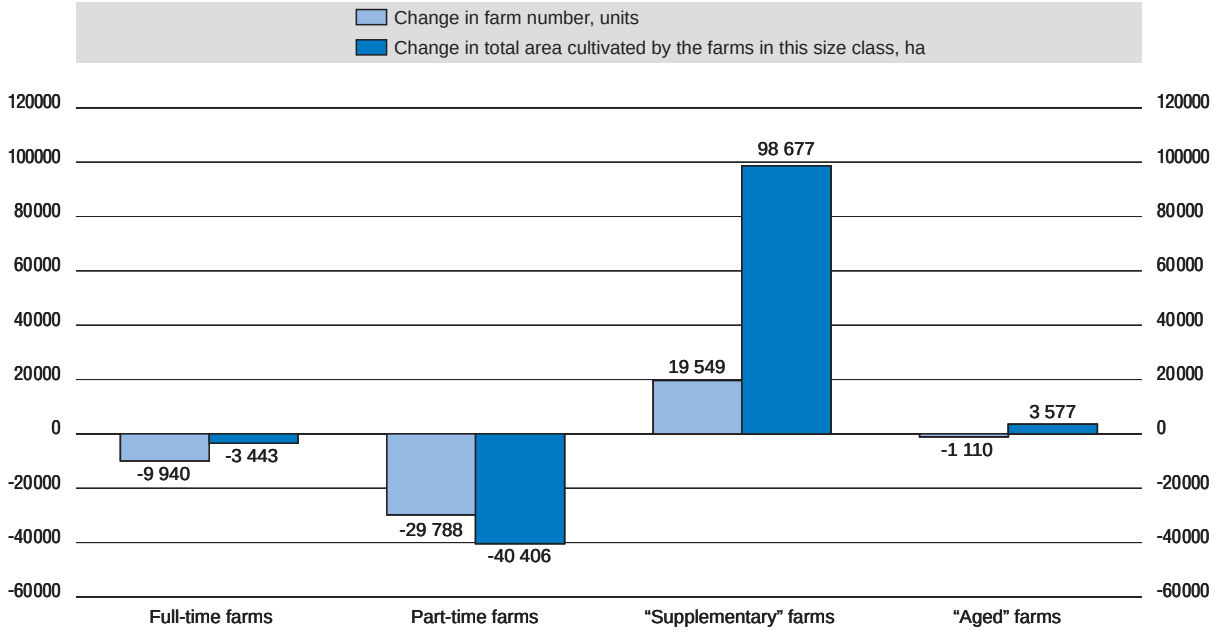
4.2. *Agricultural companies*

About one-fifth of the former socially-owned farms disappeared during the first half of the 1990s due to liquidations and reorganisations in the sector. In 1997 some farms were split into smaller independent units, which explains the increase in the total number of agricultural companies (Figure II.17). There were 208 agricultural companies in 1998, of which around 100 operated without agricultural land. These represent mostly pig and poultry complexes, which are not involved in land cultivation.

There has been a notable shift of land and labour out of the large-scale sector, resulting in the contraction of utilised agricultural area in the sector by over 20% and a reduction in employment of about one-third between 1991 and 1998. The land diverted from the former socially-owned farms was mostly absorbed by the family farm sector. However, the large-scale sector continues to be better endowed with land and capital than family farms. More than 60% of agricultural land currently operated

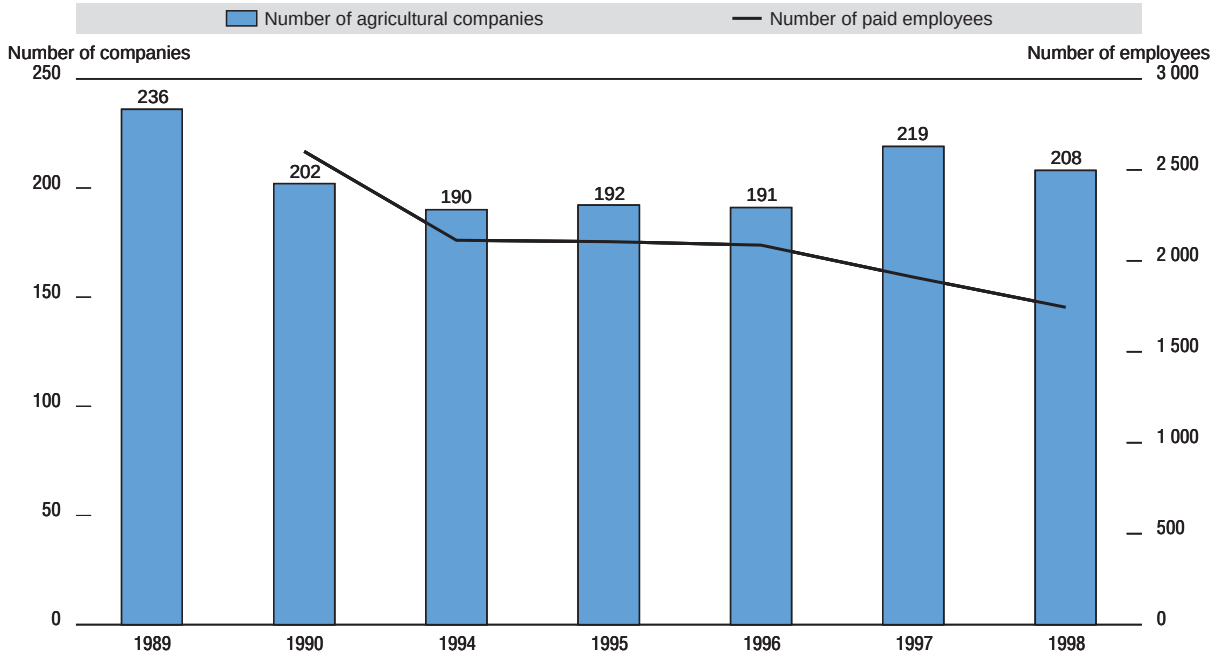
© OECD 2001

Figure II.16. **Changes in family farm numbers and area farmed by socio-economic farm type between 1991 and 1997**



Source: 1997 Farm Structure Survey; Statistical Office of the Republic of Slovenia.

Figure II.17. **The number of agricultural companies and employment**

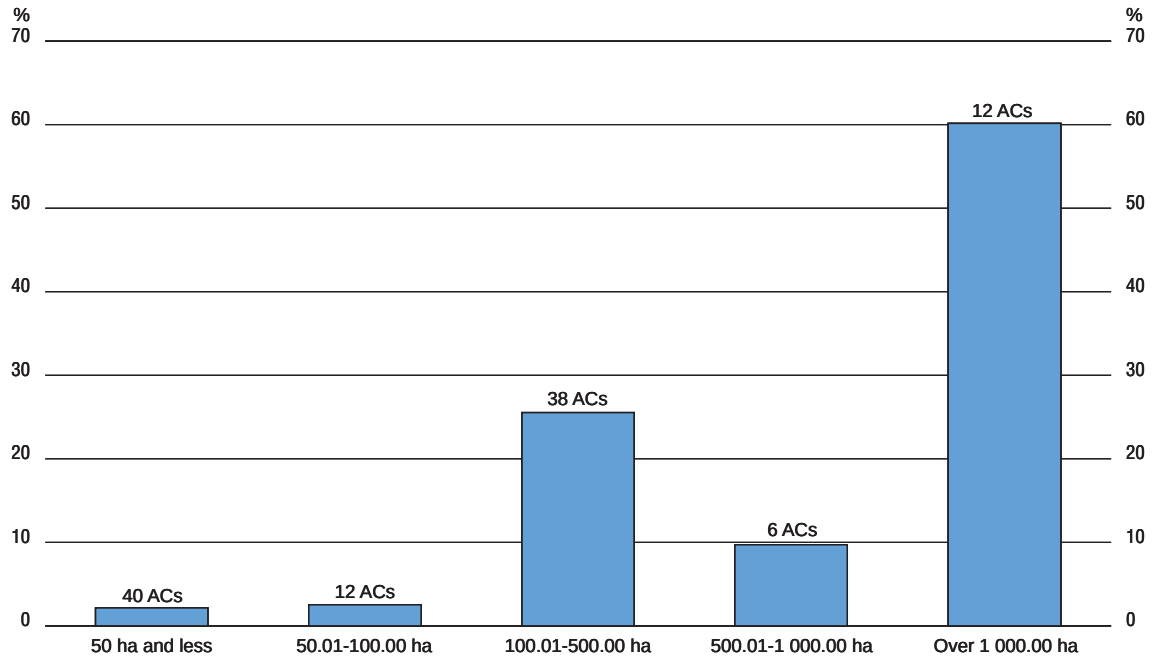


Source: Statistical Office of the Republic of Slovenia.

© OECD 2001

by former socially-owned farms, is concentrated in 12 agricultural companies with an average farmed area of over 1 000 hectares, another 25% is operated by 38 "medium-size" units, which farm between 100 and 500 hectares, and the remaining 14% is managed by 58 companies of various sizes (Figure II.18).

Figure II.18. **Distribution of agricultural land by agricultural companies (AC) of various sizes**



Note: Only companies with agricultural land are included.
Source: 1997 Farm Structure Survey.

Information on the performance of agricultural companies during the reform period is limited. The profitability of most companies is low, and some of them are barely solvent. About one third of agricultural companies register net loss. According to the Agency for Payment Transactions and Control, the total losses of agricultural companies exceeded total profits both in 1998 and 1999. The better-off companies are reluctant to modernise, make new investments or undertake any restructuring due to uncertainties concerning their ability to continue using the land they currently operate. Some cultivated agricultural land in agricultural enterprises, now formally under the co-ownership arrangement, is eligible for transfer to private owners. The previous restraints to this process were removed in 1999, although agricultural companies will continue to be "protected" for some time by the leasing contracts and inevitable technical time spans are needed to complete the restitution. Other part of the land currently used by the companies belongs to the state and is managed by the FALF. As mentioned above, the Fund has difficulty in collecting rents from companies, and much will depend on the Fund's position regarding insolvent tenants. Overall, agricultural companies are facing the need to compete efficiently with other potential land tenants or lose their land and go to liquidation.

E. Upstream and downstream sectors

1. *Input production*

The domestic input sector in Slovenia is very limited. Before the transition, the bulk of agricultural inputs was imported from other parts of former Yugoslavia, mostly from Croatia (fertilisers and

© OECD 2001

pesticides) and Serbia (seeds). Following independence, deliveries from ex-Yugoslavia have been progressively substituted by imports from other sources, notably from western Europe.

Small amounts of fertilisers and pesticides are produced domestically. There are also two relatively large manufacturers of tractors and farm equipment and several small agricultural machinery companies. The two large manufacturers produce for both the domestic and export markets, whereas the smaller firms concentrate on the domestic market. At the end of the 1990s, nine feed mills operated in Slovenia employing about 160 persons with an aggregate output of over 430 000 tonnes per year (Table II.15).

Table II.15. **Animal feed sector in Slovenia, 1992-1999**

	1992	1993	1994	1995	1996	1997	1998	1999
Number of enterprises	6	6	7	7	9	9	9	9
Production of animal feed, 1 000 tonnes	481	427	434	448	442	435	463	441
Number of employees	146	142	89	95	163	162	161	162

n.a. Not available.
Source: Slovenian Agency for Payment Transactions and Control; Statistical Office of the Republic of Slovenia.

2. *Agricultural co-operatives*

Agricultural co-operatives play an important role in providing supply, marketing and credit services to agricultural producers in Slovenia. Co-operatives first emerged in the 19th century and by the beginning of World War II were widely developed. After the war, many co-operatives were dissolved and their property confiscated. However, in the 1970s the official attitude to co-operatives changed and their role of linking farmers with input producers and food processors was promoted. Co-operatives supplied inputs and marketed large amounts of agricultural products, delivering them to processors and trading organisations. Co-operatives also rendered credit and extension services to private farmers. Co-operatives in Slovenia were predominantly local, each usually having a monopoly in specific types of services to farmers in their localities. Being service-oriented, co-operatives in Slovenia were close to the original concept of co-operation in contrast to most other CEECs, where co-operation was generally associated with collective agricultural production. However, Slovenian co-operatives were an integral element of the socialist economy, operating in close connection with socially-owned upstream and downstream enterprises and enjoying state budgetary support and social benefits.

After independence, agricultural co-operatives were reorganised. The new *Law on Co-operatives*, passed in 1992, laid the legal framework for this process. The Law reintroduced the traditional principles of organisation and operation of co-operatives, replacing the regulations designed to conform to the socialist economy. One of the most important features of the Law was its emphasis on member-promoting, *i.e.* that a co-operative must serve principally its members (FAO, 1998).

The property of co-operatives was divided into two parts: indivisible and the members'. Indivisible property corresponded to "socially-owned" property invested in the foundation of a co-operative and accumulated during its existence. In the case of dissolution, the indivisible part had to be assigned to the co-operative union and either transferred to another co-operative, used for establishment of a new one, or otherwise disposed of for "the development of co-operation" (FAO, 1998). Another important feature was that co-operatives are eligible for part of the property of privatised processing enterprises with which they have direct links (see Section E.3.2 of this Part).

Most agricultural co-operatives completed formal reorganisation in 1993. However, this process was complicated by the uncertain prospects for co-operative activity in Slovenia. Many former member-farmers decided not to renew membership in the transformed co-operatives, seeing no benefits in it. Therefore, by the end of the 1990s, the share of private producers participating in co-operatives had decreased to 30% compared to about 60% prior to independence.

© OECD 2001

At the end of the 1990s, there were 162 registered primary agricultural co-operatives in Slovenia involved in input supply, marketing and other services (*i.e.* supply of members and other rural inhabitants with personal consumption goods, retailing of agricultural products) (Figure II.19). About 80% of them are mixed, combining several types of activities. Most of these co-operatives are unified in the Co-operative Union of Slovenia (CUS). In 1991 the CUS established the Slovenian Agricultural Co-operative Bank (SACB) and the Co-operative Wholesale Society. SACB was one of the founders (with some individual co-operatives and other legal entities) of the Farmers' Company, which runs four investment funds. Seventy two Savings and Loan Services perform crediting of private producers. A Union of Savings and Loan Services is their apex organisation. About 500 retail stores are owned by co-operatives (FAO, 1998).

To this day, co-operatives continue to play an important role in agro-services. For example, in the mid-1990s, they marketed about 70% of all output sold by agricultural producers (both agricultural companies and private farmers). This portion was around 80% for livestock products and 50% for crops (FAO, 1998). Credit co-operatives account for a large share of lending to agricultural producers. However, the share of co-operatives in marketing and in other activities has been declining throughout the independence period. The co-operative sector in Slovenia is currently experiencing a serious recession. Many organisations have adapted poorly to the changed economic conditions. They barely cover costs or run deficits and frequently try to solve their financial problems by increasing debts and disinvesting, thus losing vital parts of their equity. Overstaffing, excessively diversified operations, and lack of managerial initiative lead to high costs and weaken the position of co-operatives *vis-à-vis* private companies offering similar services. Financial and business consolidation in the co-operative system should be considered as an important element of the institutional improvement needed in Slovenia's agro-food sector.

3. *Food industry*

3.1. *Food industry structure, employment and output*

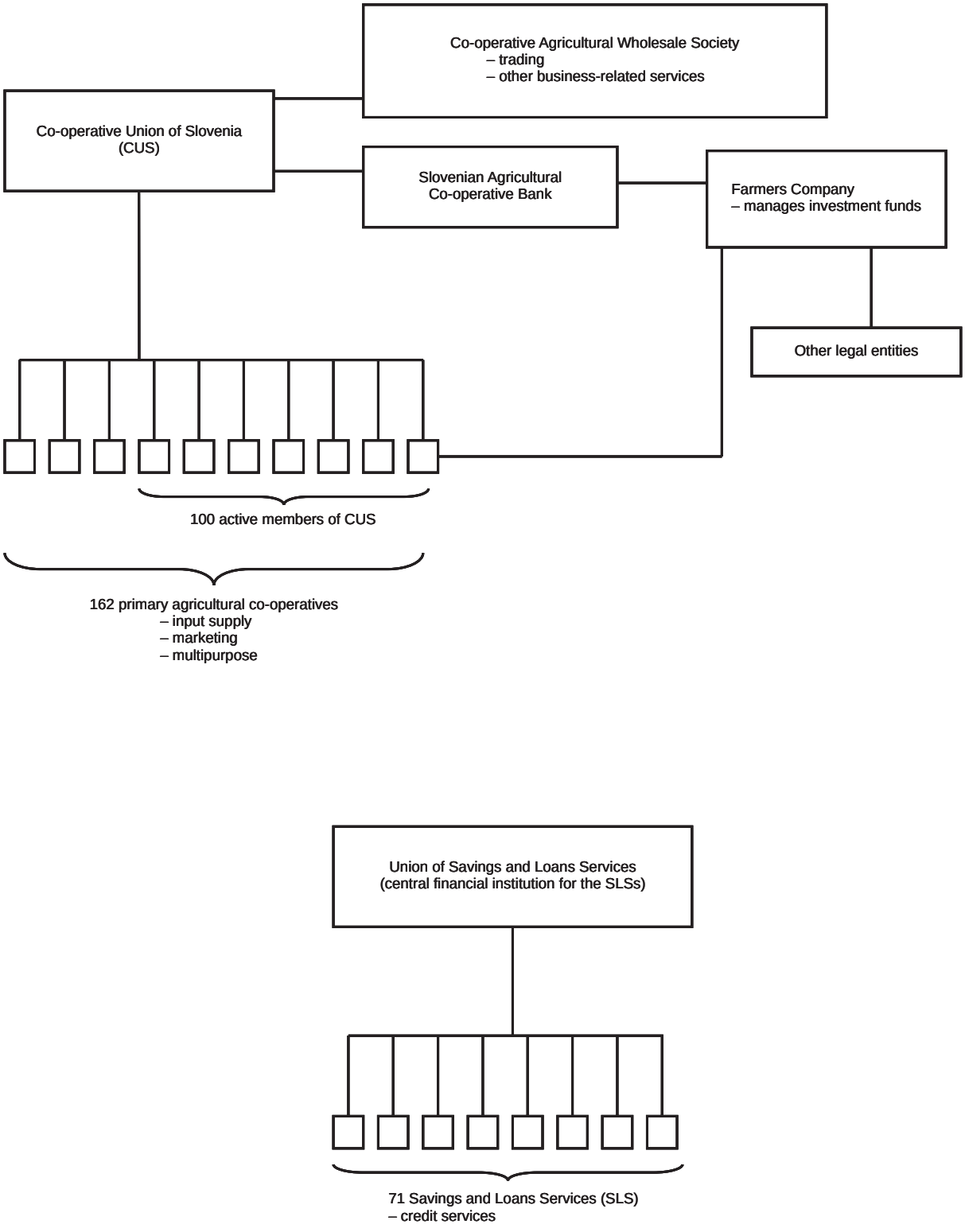
In the pre-reform period the food processing industry in Slovenia was to a great extent oriented to the all-Yugoslav market, and was largely dependent on supply and marketing zones outside Slovenia. Food industry capacity well exceeded domestic potential to supply raw materials and consume the output. The development of food processing also responded to social goals such as employment creation and preventing the depopulation of rural areas. Agro-food processing facilities were constructed in small towns and villages. This policy left Slovenia with a large number of small-scale enterprises, evenly located throughout the country (FAO, 1998).

At the beginning of 1992, there were about 200 food and tobacco processing enterprises in Slovenia, a high number for a population of about 2 million. Nevertheless, the number of processors has increased considerably during the transition, as new companies entered the market or socially owned enterprises were split up (Figure II.20). Against the growing number of enterprises, employment has generally been falling; but the rate of this decline has been slowing towards the end of the decade. The biggest drop in employment was experienced by the tobacco industry, largely driven by rationalisation programmes of foreign investors. Dismissals in the meat industry and in fruit and vegetable processing had levelled off by 1998 and these industries registered increases in employment in 1999. Pressures to reduce employment continue, however, given the need to approach productivity targets in order to compete in an enlarged EU market. As a result of growing company number and a falling trend in employment, the average company size (as measured by the number of workers) became even smaller than before independence. Of 369 food producers in 1998, 74.5% had fewer than 50 employees, 17.6% employed 50 to 249 workers, and only 7.9% had more than 250 employees.

The fragmented structure and small average size of operations in the Slovenian food sector is combined with rather high industry concentration. The four-firm concentration ratio for the entire food industry was 70% in 1996 as measured both by the number of employees and revenues. This ratio reached 90% or more in the milling industry, fruit and vegetable processing, sugar industry, confectionery, oil and

© OECD 2001

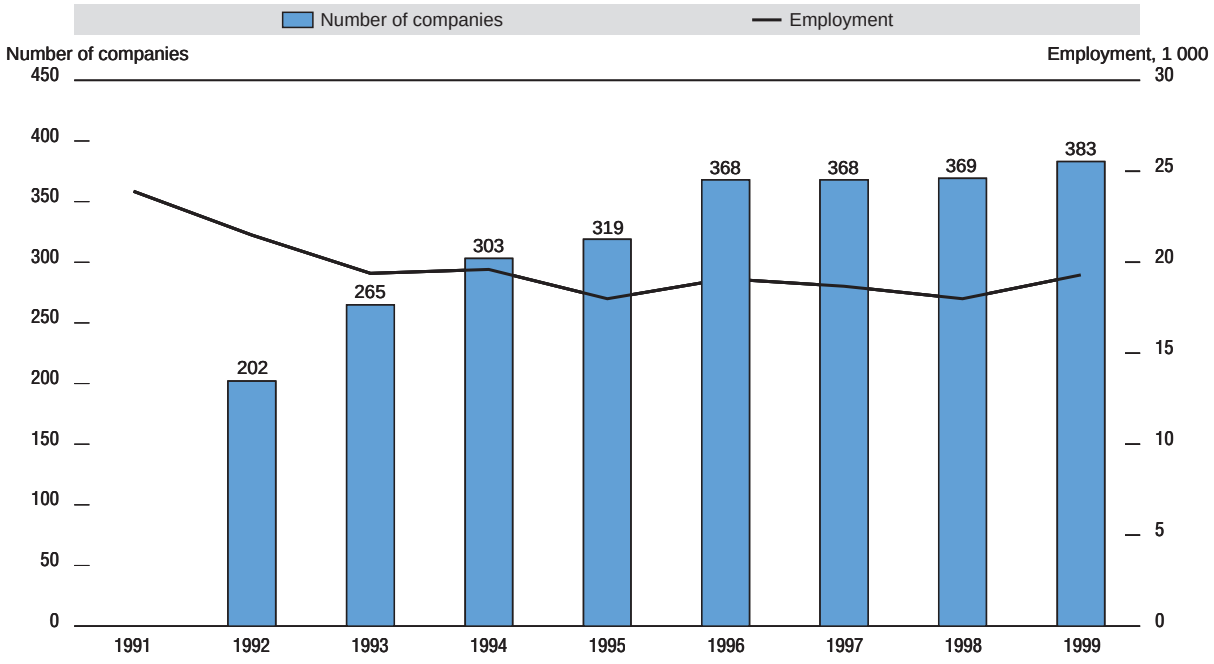
Figure II.19. **Organisation of Slovenia's co-operative sector**



Source: Adapted from FAO, 1998.

© OECD 2001

Figure II.20. **Number of enterprises in the food industry and employment, 1991-1999**



Source: Slovenian Agency for Payment Transactions and Control.

fat production (both by employees and revenues) and alcoholic beverage industry (by revenues). However, since the start of the transition, concentration ratios have been generally declining (at least up to 1996), largely due to entry by new firms (Gorton M. *et al.*, 1998).

The four largest branches are the meat industry, production of alcoholic and non-alcoholic beverages, fruit and vegetable canning, and dairy processing, accounting together for 42% of enterprise numbers, 58% of employment, 64% of sales value and 60% of export receipts of Slovenia's food and tobacco industry (Table II.16). Export markets play a key role in the tobacco industry, where exported output accounts for almost 42% of total sales. Fish, and fruit and vegetable canning are also strongly export-oriented, with about one-third of sales destined for abroad.

Table II.16. **Structure of Slovenia's food industry in 1999**

Per cent

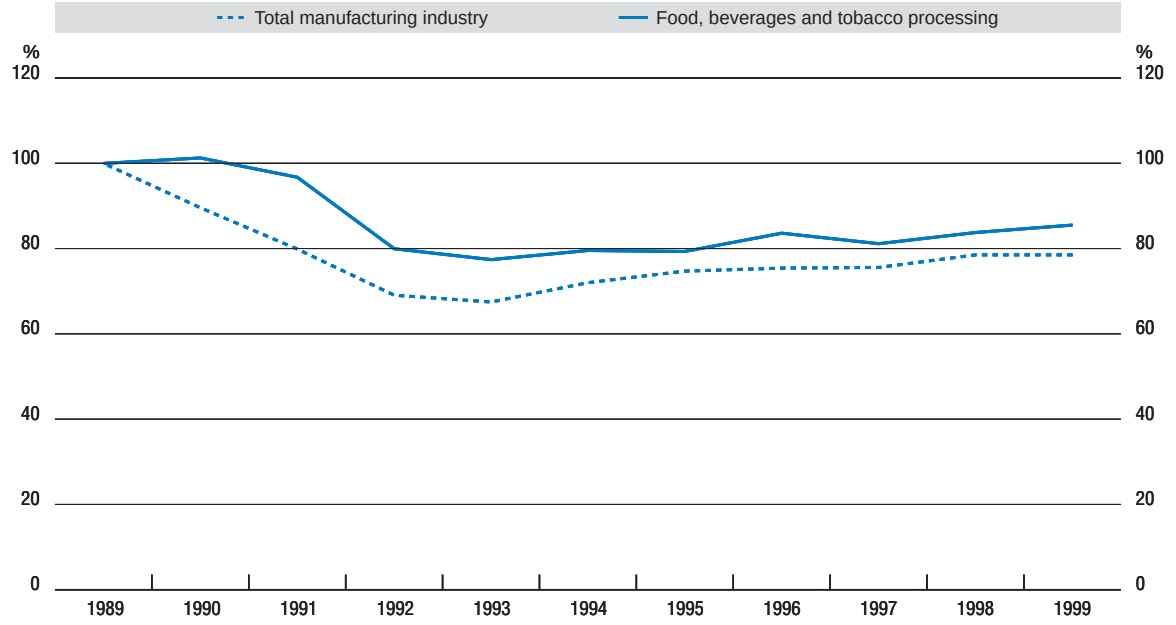
	Number of enterprises	Number of employees	Sales value	Export value	Share of exports in total sales
Total food, beverage and tobacco production	100.0	100.0	100.0	100.0	15.8
Production of food, beverages and animal feeds	99.7	97.7	94.2	82.2	13.8
Meat and meat products	14.9	24.5	20.9	15.2	11.5
Fish products	1.6	1.2	1.0	2.2	35.7
Processed fruit and vegetables	10.4	10.3	9.5	16.9	28.1
Oils and fats	1.8	1.3	2.6	1.7	10.2
Dairy products	5.7	9.1	16.3	12.3	12.0
Grain milling and starch production	4.2	5.0	4.6	4.8	16.4
Animal feeds	2.3	0.8	1.4	0.0	0.2
Other food products	47.3	31.2	21.1	14.4	10.8
Alcoholic and non-alcoholoic beverages	11.5	14.2	16.8	14.8	13.9
Tobacco products	0.3	2.3	5.8	17.8	48.3

Source: Slovenian Agency for Payment Transactions and Control; Kuhar and Erjavec, 1999.

© OECD 2001

With the break-up of the former Yugoslavia, the Slovenian food industry experienced a substantial decline, suffering from significant over-capacities, a large number of small, economically non-viable units, disruption of raw materials supplies and loss of traditional marketing outlets. Although the situation in food processing was less dramatic than in other manufacturing industry branches, food output contracted by almost one quarter during the first three years after independence (1991-1993) (Figure II.21). From 1994, some recovery was observed, driven by growing domestic demand and opening up of new export markets. However, in 1999 the food industry's output was 16% below the 1989 level. It should be stressed though, that the situation across industry sub-sectors differed. The strongest recession was experienced by those branches which were previously heavily oriented to the all-Yugoslav market, such as the dairy industry (production of milk powder, for example, decreased by almost 80% between 1992 and 1996) and vegetable and fish canning. More domestically-oriented sub-sectors (bread and bakery production) or those where the shift to new foreign markets was easiest (the beverage industry) were less affected by the disintegration effects and often staged a rapid and significant rebound in output.

Figure II.21. **Food industry output index**
1989 = 100



Source: Statistical Office of the Republic of Slovenia.

3.2. *Privatisation in the food industry*

Privatisation in the agro-food industry was regulated by the *Law on Ownership Transformation* (1992) and the *Law on Co-operatives* (1991). While the latter applied to all those food processors that had vertical links with agricultural producer co-operatives, the former, more general privatisation law, regulated the transformation of all other food processors.

© OECD 2001

According to the *Law on Ownership Transformation*, 40% of the assets of eligible enterprises were transferred to three state funds (10% to the Pension Fund, 10% to the Compensation Fund and 20% to the Development Fund) (Table II.17). The remaining 60% was allocated according to the following scheme (OECD 1997):

- internal free distribution to present and former workers (up to 20%), including present and former employees and relatives of employees;
- internal buy-out (up to 40%) under which shares of ownership certificates could be sold for cash to insiders. Present and former employees received a 50% discount;
- sales to outsiders (public offering, tender or auction of shares);
- liquidation of a company through sale of its assets (all liabilities are assumed by the Development Fund);
- ownership transformation by raising additional private equity (the new shares should be issued for more than 10% of the existing equity); and
- transfer of the remaining shares, if any, to the Development Fund.

Table II.17. **Distribution of company shares in privatisation of food processing enterprises**

	Shares in capital according to the Law on Co-operatives, %	Shares in capital according to the Law on Ownership Transformation, %
Associated co-operatives	Up to 45	–
Internal and external investors	–	40
Government agencies:		
– Development Fund	20	20
– Pension Fund	10	10
– Compensation Fund	10	10
Internal distribution to employees	Up to 20	20
Total	100	100

Source: OECD, 1998*b*.

The privatisation of food processing enterprises which had contractual relations with agricultural co-operatives as suppliers of raw materials was implemented according to a different scheme. Part of the enterprise's equity was allocated to agricultural co-operatives as indivisible property. This part was to equal 45% of that portion of the enterprise with which co-operatives were directly associated. For example, a dairy co-operative received 45% of the capital directly attributable to the dairy within a particular enterprise. However, the co-operative was not eligible for any share of capital attributable to other enterprise operations (FAO, 1998). The remaining 55% of the capital was to be privatised either through the scheme set in the *Law on Ownership Transformation* or through a combination of internal distribution (up to 20%) and selling of shares to past and present workers as well as to the members of the co-operative. This form of privatisation (a joint application of the *Law on Co-operatives* and the *Law on Ownership Transformation*) covered about two-thirds of all socially-owned food enterprises. It was particularly important for the milk, meat, sugar, and wine sectors, where co-operatives traditionally played an important role in supplying processors with raw materials.

Although the legal framework for privatisation of socially owned enterprises had been set up in 1991-1992, there was little progress in implementation of the privatisation programme until 1994. Privatisation in food processing had been virtually completed by the beginning of 1999 (Table II.18).

© OECD 2001

Table II.18. **Progress of privatisation in Slovenia's food industry between 1992 and 1999**

	Obliged to privatise, 1992			Privatised by 1 January 1998			Privatised by 1 February 1999
	Number of firms	Value of output, mn SIT	Number of employees	Number of firms	Value of output, mn SIT	Number of employees	Number of firms
Milling industry	4	9	939	3	6	750	4
Bread and pastry production	18	15	3 581	14	11	2 199	17
Fruit and vegetable processing	4	15	1 793	4	15	1 793	4
Meat and fish processing	20	41	3 719	15	31	2 725	12[1]
Dairy industry	6	30	1 680	4	9	458	6
Sugar production	1	5	426	1	5	426	1
Alcoholic beverages	7	27	1 917	4	21	1 360	7
Non-alcoholic beverages	5	7	766	2	3	270	3[2]
Animal feed production	3	2	79	3	2	79	3

1. The figure refers to meat processing only. Of 13 meat enterprises obliged to privatise in 1992, 12 had been privatised and one liquidated by 1 February 1999.
2. Of five non-alcoholic beverages enterprises obliged to privatise in 1992, three had been privatised, one liquidated and one was still in the process of privatisation in February 1999.

Source: OECD Secretariat.

3.3. *Impediments to efficiency in the food industry*

- Policy distortions in the marketing chain

Basic agro-food segments continue to be subject to various forms of intervention throughout the marketing chain (see Part III). In some cases, border and domestic price support at producer level, translated into an increase in the cost of raw materials for processors, imposes an implicit tax on food processors. Such a situation has become characteristic for the milling industry. Low tariffs for wheat flour coupled with relatively high tariffs and domestic price support for wheat, place an extra burden on the industry and have resulted in an increasing substitution of imported wheat flour for domestically produced flour. In other cases, high producer support is combined with countervailing border and domestic measures at processor level. The milk processing industry is a case in point, where high protection at producer level co-exists with high import tariffs for milk products and substantial export aids to processors. In other cases, like for example in fruit juice processing and wine production, with low tariffs for the raw materials and high protection for the final product, processors enjoy extra benefits, *i.e.* high effective rates of protection.

No matter what particular groups gain or lose, it is important to highlight that interventions interfere with market forces, distort relative prices in the agro-food chain and lead to misallocation of resources. Current policies tend to shield some processing sectors from international competition, and tax others. In any case, industry restructuring is impeded and improvements in food sector competitiveness are delayed.

- Fragmented structure and small size of operations

As was stressed before, Slovenia's food industry is characterised by a large number of small-scale processing facilities. Even the largest food companies that command a dominant share of the domestic market are at best medium-sized by international comparison. Fragmentation of the industry means that food processors are not able to benefit from scale economies. Moreover, in some sub-sectors, such as meat and wine processing, profitability is negatively affected by excess capacities. Small operations and excess capacity suggest that the average production costs are higher than those of most

© OECD 2001

competitors in markets abroad. Lack of cost advantage is compounded by the fact that small enterprises often lack the resources for marketing and promotion, especially on foreign markets. This calls for further consolidation which is crucial for the Slovenian food industry to be competitive in an enlarged EU market.

The consolidation process in Slovenia is complicated by the preference of employee shareholders to keep their firms independent. This position is based on the notion of greater job security in a small independent operation and the desire of agricultural producers to retain closely located processing plants. These shareholders have been able to receive considerable political support for their goals, particularly in rural areas. Economic factors, however, push for consolidation in the industry. A trend towards consolidation has already emerged in the dairy sector and milling and baking industry, but there are few changes yet in the meat processing and wine industries.

- Weaknesses of privatisation process

Privatisation procedures generally accorded important preferences to enterprise employees over outsiders. Despite the political and social considerations underlying this choice, "social" privatisation had certain economic weaknesses.

First, privatisation did not generate the necessary inflow of capital into the sector. Up to 55-60% of the enterprise's shares could be distributed to present or former workers and their family members partly free of charge, partly with a substantial discount. Sizeable portions of equity were transferred to state funds or, where applied, to agricultural co-operatives. The dominance of employees and suppliers as shareholders makes banks and other outside investors reluctant to invest in the newly privatised firms. Similarly, foreign direct investment remains rather limited. Even if there are potential investors, the highly fragmented ownership structure complicates the inflow of funds. The multitude of owners makes it difficult for potential investors to identify shareholders, buy a substantial portion of shares or acquire a controlling stake in a company. This applies to the majority of firms that are too small to be listed on the stock exchange.

The substantial influence of managers and employees over corporate control has often impeded managerial changes, since pre-privatisation management teams have remained in their positions. They have tended to delay the establishment of supervisory boards and the convocation of annual shareholder meetings in order to safeguard the *status quo*. As the privatisation process often dragged on for several years, and suppliers and employees generally received the majority of shares, food industry managers primarily concentrated on maintaining stable corporate structures and traditional marketing channels.

F. Agriculture and the environment

Agriculture is uniquely bound to natural resources – soil, water, and air. Agricultural activities have both beneficial and harmful impacts on the environment through changing the quality and the quantity of locally available natural resources. The negative impacts of agriculture on the environment can come from the emissions of hazardous substances contained in fertilisers, pesticides, and manure, into soil, water and air. Improper land cultivation can be a cause of soil erosion and degradation of its fertility. Reduction of these negative agricultural impacts has therefore direct implications for the overall environmental stability. Farming can have both positive and negative impacts on the cultural landscape, biodiversity and wildlife habitats.

The pressures on the environment in Slovenia come mainly from industrial activity. Inadequate urban waste treatment is also a problem. As far as agriculture is concerned, the negative impacts on the environment are rather limited. Some typical and fragile eco-systems (*e.g.* karst region and alpine valleys) have been preserved from deterioration and, in terms of bio-diversity, Slovenia is one of the richest countries in Europe. The share of arable land is relatively small and natural conditions limit the scope for intensive agriculture, which is associated with high environmental risks. However, environmental problems linked to agriculture still exist. Agricultural pollution occurs in lowland

© OECD 2001

areas, characterised by intensive arable farming, fruit and wine growing and intensive livestock operations, such as large pig and poultry complexes. Fertiliser, pesticide and manure run-offs in these areas lead to pollution of water and soil. Negative environmental developments also take place in the mountainous and hilly regions. Thus, abandonment of farming in marginal areas leads to overgrowing of agricultural land and afforestation, resulting in degradation of the cultural landscape (Smrkolj and Hrustel, 1999).

1. *Slovenia's soil surface nitrogen balance*

Nutrients, such as nitrogen, phosphorus and potash are essential to agricultural production and to raising productivity. But a build up of nutrients in the soil in excess of immediate crop needs can be a source of potential environmental damage to water, and air quality and contribute to global warming (greenhouse effect). However, if soil nutrients are not replenished, this can lead to declining fertility and impair agricultural sustainability through "soil mining" of nutrients.

The OECD has adopted the concept of a soil surface nitrogen balance that measures the difference between the nitrogen available to an agricultural system and the uptake of nitrogen by agriculture (Box II.5). A persistent surplus indicates potential environmental pollution, while a persistent deficit indicates potential agricultural sustainability problems.

The OECD methodology has been applied to calculate a soil nitrogen balance for Slovenia. Nitrogen inputs in agriculture originate from two principal sources: applications of mineral fertiliser and of organic products (mainly manure from livestock production) (Figure II.22). Fodder production accounts for the major share of nitrogen uptake and it is interesting to note that this outweighs that of arable crops.

Between 1995 and 1997, Slovenia's nitrogen balance recorded an average surplus of 40 kg per hectare of agricultural land (Figure II.23). This was higher than the OECD average, but well below the EU level. In the group of five CEECs, Slovenia had one of the highest levels of nitrogen surplus. This, however, reflects more the strong decline in nitrogen surpluses in other CEECs over the past decade[6] (and even a deficit in the case of Hungary).

The indicator of nitrogen efficiency represents a ratio of total nitrogen uptake to total nitrogen input (OECD 2001) It is important to emphasise that this is an indicator of physical and not economic efficiency of nitrogen use in agriculture. With this ratio equalling 72% in 1995-1997, Slovenia ranks among the most efficient nitrogen users (Figure II.24). High efficiency in conjunction with relatively low nitrogen surplus level (compared, for instance, to the European Union average) also indicates that agriculture is unlikely to be a major nitrogen pollution source for the country as a whole.

However, the countrywide averages disguise nitrogen problems in some specific regions. In particular, problems of manure disposal contributed to excessive nitrogen levels and ground water pollution in the vicinity of large pig operations, for instance in Pomursko or Celjsko. In other areas, like the Celje region, intensive hops production has added to nitrogen oversupplies. As a result, agriculture has become the main contributor to drinking water quality problems in some areas. Particularly worrying is the fact that these regions are not only the country's most fertile areas, with their agriculture potentially becoming even more intensive, but that they are also the most densely populated areas. A similar problem relates to the application of pesticides. Typically, production of hops, sugar beets, fruit, and wine is associated with very high levels of pesticide applications. While production of these crops is limited to certain areas, the high pesticide use in these areas results in a relatively high average level of pesticide use for the country as a whole.

2. *Agro-tourism*

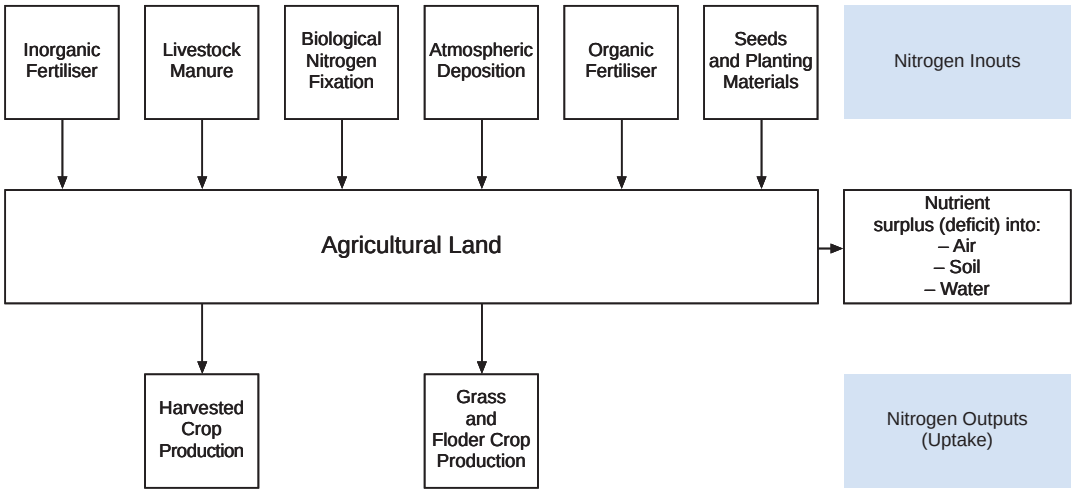
Slovenia's favourable ecological situation, rich landscape and biodiversity create favourable preconditions for the development of tourism. The 85 000 hectares of the Triglav National Park absorb

© OECD 2001

Box II.5. **The OECD soil surface nitrogen balance**

The soil surface nitrogen balance is calculated as the difference between the total quantity of nitrogen inputs entering the soil and the quantity of nitrogen outputs leaving the soil over one year (Box Figure II.1).

Box Figure II.1. **The main elements in the OECD soil surface nitrogen balance**



The annual total ***quantity of inputs*** for the soil surface nitrogen balance, includes the summation of the following elements:

- *inorganic or chemical nitrogen fertiliser*: quantity consumed by agriculture;
- *net livestock manure nitrogen production*: total numbers of livestock categorised according to species (*e.g.* chickens, turkeys), gender, age, purpose (*e.g.* milk cows, beef cattle) and weight/milk yield of animal (*e.g.* the manure production of a dairy cow varies considerably according to its annual average milk yield), multiplied by coefficients describing the quantity of nitrogen contained in the manure generated per animal per year, net of the nitrogen loss through the volatilisation of ammonia to the atmosphere from livestock housing and stored manure;
- *biological nitrogen fixation*: area of harvested legume crops and legume pasture systems (*e.g.* soybeans, alfalfa) multiplied by coefficients of nitrogen fixation, plus the nitrogen fixation by free living soil organisms computed from the total agricultural land area multiplied by a single coefficient of nitrogen fixation;
- *atmospheric deposition of nitrogen*: total agricultural land area multiplied by a single coefficient of nitrogen deposited/kg/hectare;
- *nitrogen from recycled organic matter*: quantity of sewage sludge applied to agricultural land multiplied by a single coefficient of nitrogen content of sewage sludge;
- *nitrogen contained in seeds and planting materials*: quantity of seeds and planting materials (*e.g.* cereals, potato tubers) multiplied by coefficients of nitrogen content of seeds and planting materials.

The annual total ***quantity of outputs*** or nitrogen uptake, for the nitrogen balance includes:

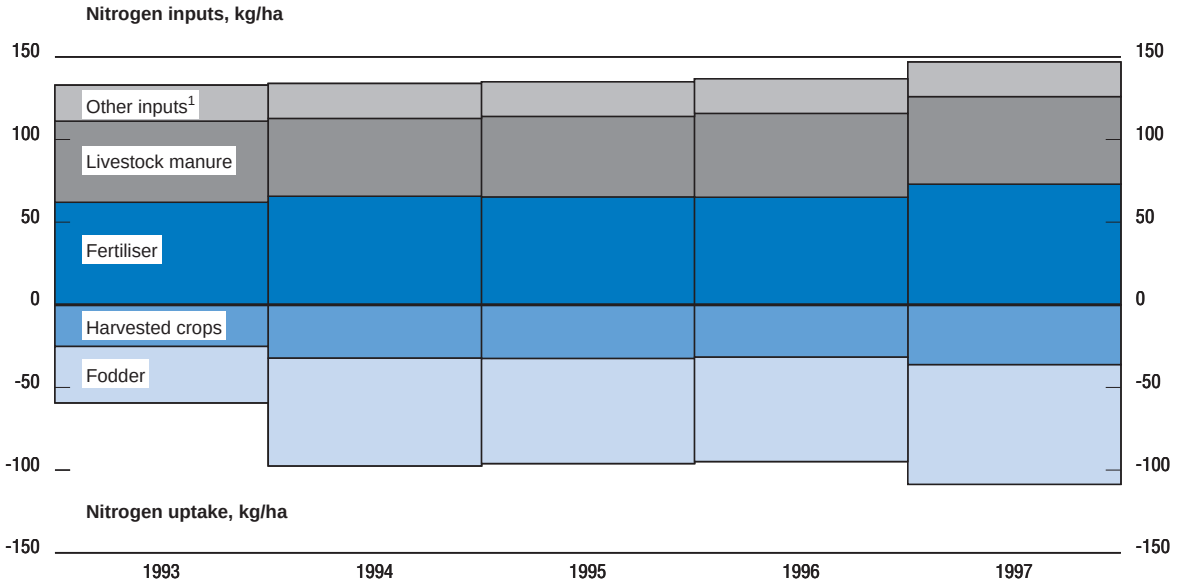
- *crop and fodder production*: quantity of harvested crop production (*e.g.* cereals, root crops, fruit and vegetables); harvested fodder crops (*e.g.* fodder beets, silage maize); and grass from temporary and permanent pasture, respectively multiplied by coefficients of nitrogen uptake to produce a kilogram of output.

The calculation of the soil surface balance, as defined above, is a modified version of the so-called "gross balance", which provides information about the complete surplus (deficit) of nutrients in the soil, water and air from an agricultural system. The OECD calculation excludes nitrogen loss through the volatilisation of ammonia to the atmosphere from livestock housing and manure, as the key issue for many OECD countries is the potential impact of excess nitrogen on water, rather than, air pollution. A nutrient balance surplus or deficit, at least over the short term, does not unambiguously indicate a beneficial or harmful environmental or resource impact. A nutrient balance can only show the potential for environmental damage or unsustainable use of soil resources, not actual pollution or resource depletion. Nutrient balances do, however, provide a practical and relatively low cost, if indirect, estimate of potential environmental and resource sustainability effects.

Source: OECD, 2001.

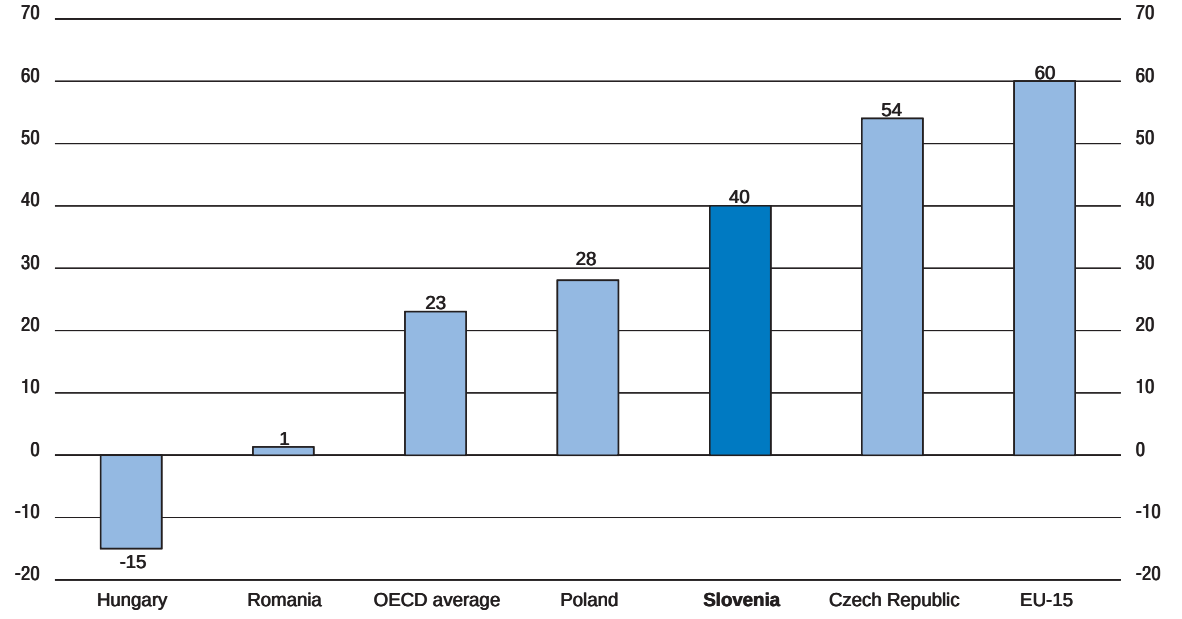
© OECD 2001

Figure II.22. **Slovenia's soil nitrogen balance: inputs and crop uptake**



1. "Other inputs" include atmospheric deposition and biological fixation of nitrogen, nitrogen in seeds and planting material.
Source: OECD Secretariat.

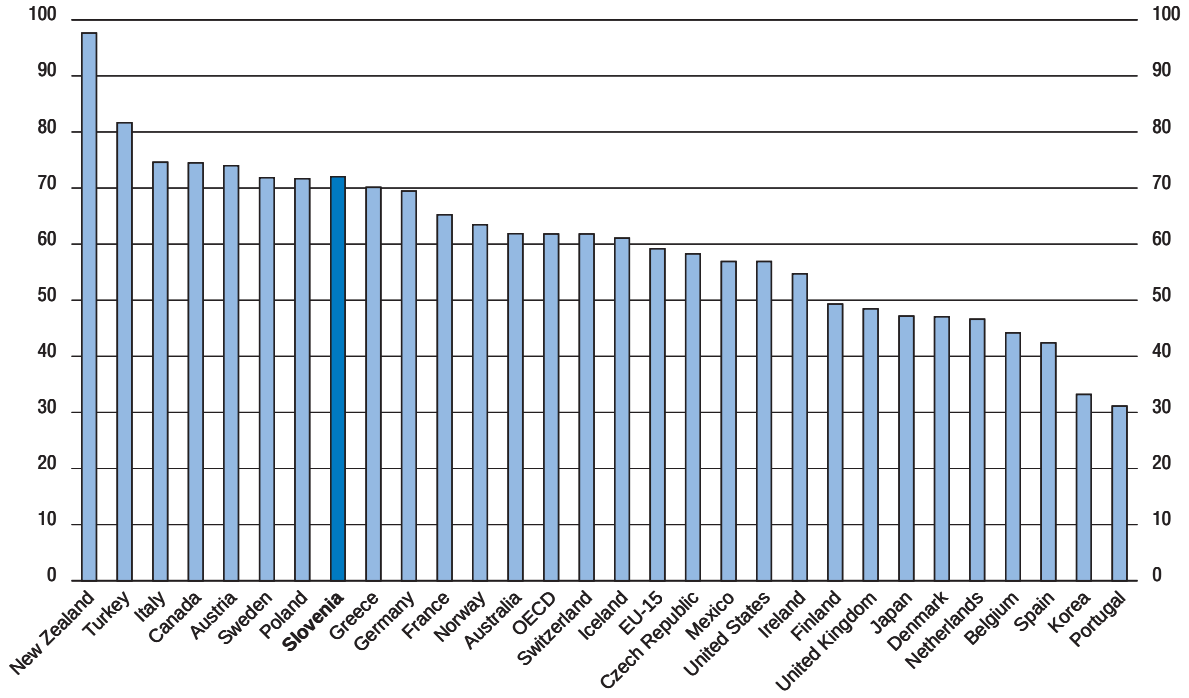
Figure II.23. **Soil nitrogen balance estimates for Slovenia and selected countries, 1995 and 1997 average**
Nitrogen kg per hectare of agricultural land



Source: OECD Secretariat.

© OECD 2001

Figure II.24. **Nitrogen efficiency in Slovenia and selected European countries, 1995-1997 average**
Ratio of N-uptake to N-input, per cent



Source: OECD Secretariat.

some 2 million visitors a year. Some famous karstic caves (Postojna and Škocjanske) represent another important tourist area. Many leisure activities are possible both in summer and winter. Day trips are very popular, for instance, for mountain walking and during the ski season in the Alps. At present, there is a general orientation towards individual rather than mass tourism.

Tourism offers employment opportunities for both farmers and non-farmers who are seeking employment outside agriculture (*e.g.* provision of tourist services during the winter and summer holidays). Farm tourism plays an important role in the overall framework of developing tourism services in mountainous areas. This is evident from the integrated system of a wide range of tourist facilities, utilisation of common rural infrastructure and the supply of local food specialities to large tourist resorts. The economic advantages of agro-tourism for agriculture arise from:

- direct sales of farm products to tourists (without any transport or marketing costs);
- increased employment opportunities (especially for young people) helping to supplement agricultural income;
- generation of supplementary farming activities (*e.g.* home manufacture) which in turn positively affect the quality of farm tourism services.

Some of the natural disadvantages for agriculture are offset by the opportunities to generate income through agro-tourism. There are additional options to promote farm products including through regional tourist boards. Local farmers can also participate in the region's tourist development and offer agro-tourist services. Efforts are already underway locally and nationally (*e.g.* creation of the National association of holiday farms). Possibilities for farming communities to earn off-farm income can help to maintain the rural population. CRPOV programmes (see Section F.3.*i* of Part III) provide an essential contribution by developing integrated programmes for tourism.

© OECD 2001

NOTES

1. Members of the European Free Trade Association (EFTA): Iceland, Liechtenstein, Norway and Switzerland.
2. Based on the current Eurostat definition, only some 112 000 holdings would be considered as "farms" in 1991. The statistical definition of a holding with agricultural activity in the former Yugoslavia included units with: *a*) either at least 0.1 hectare of arable land or *b*) less than 0.1 hectare of arable land but owning at least: *i*) a cow and a calf, or a cow and a heifer; or *ii*) a cow and two beef cattle; or *iii*) three grown-up pigs; or *iv*) four adult sheep and pigs; or *v*) fifty adult poultry; or *vi*) twenty beehives. According to the present Eurostat definition, a holding qualified as a "farm" should have *a*) at least 1 hectare of agricultural land; *b*) or if less than 1 hectare of agricultural land, at least: *i*) 0.1 hectare of agricultural land and 0.9 hectare of forests; or *ii*) 0.3 hectare of vineyards and/or orchards; or *iii*) two or more heads of cattle; or *iv*) 0.15 to 0.3 hectare of vineyards and one or two heads of cattle.
3. The cited land areas represent the cadastral data, which may over-estimate the land currently suitable for agricultural production (see Box II.1).
4. This opened the way to diverse local approaches to the restitution of land properties consolidated within one production unit.
5. It should be noted that these areas cannot be directly compared with those transferred to the FALF in 1993 due to the movement of land in and out of the Fund through selling and buying.
6. A substantial reduction in nitrogen surpluses was registered in Poland, Hungary, Czech Republic and Romania during the transition. This was driven by transition factors such as the sharp decrease in cattle numbers, implying a fall in application of organic fertilisers; and reduction in use of inorganic fertilisers. These were triggered by the fall in output due to reduced food demand, collapse in agricultural support levels, the downsizing of input subsidies and deteriorating financial situation of the farm sector.

© OECD 2001

Part III

AGRICULTURAL AND FOOD POLICIES: OBJECTIVES AND MEASURES

A. Agricultural policy framework

1. *Policy framework before independence*

Prior to Slovenia's independence, agricultural policy was generally the prerogative of the Federal Government of Yugoslavia. The Slovenian government, as well as those of other republics of Yugoslavia, held only certain competencies in the field of structural policies.

The main goals of agricultural policy remained largely unchanged throughout the socialist period. The central objective of agricultural policy was to ensure food security and adequate food supply in order to meet the demands of an increasingly affluent population. Within this broad context, improving the well being of industrial workers was the prime political goal, particularly pronounced during the post-war period of accelerated industrialisation.

The strategy was to maximise agricultural production. Purchases of intermediate goods were subsidised by the local, republic, and federal authorities. Farm prices for many products were fixed (guaranteed) by the federal government, most importantly for wheat, milk, sugar, and meat. The price levels were set above the world market but well below EU levels. The highest price support was applied to crop production. The livestock sector was mainly supported through input subsidies and investment assistance, coming from the republic level. Flows of farm produce were controlled. Foreign trade was controlled by the state through the foreign currency monopoly. Trade operations were in the hands of regional agro-food companies and Commodity Reserve Funds.

The largest share of budgetary support was channelled to the socially-owned sector, *i.e.* large farms and upstream and downstream enterprises. Socially-owned farms and agro-processing enterprises also benefited from loans at very low or even negative real interest rates provided by the National Bank of Yugoslavia. Socially owned enterprises were far better endowed with capital than the private sector, which enabled them to create and operate processing plants and trading facilities.

The official attitude towards private agriculture evolved during the socialist period. The growing recognition that collectivisation failed to achieve its stated objectives brought about greater freedom for private farming by the mid-1950s. This was also a period of revival for pre-war service and marketing co-operatives. Private farms and the co-operatives were the main contributors to rapid production growth. This period was essentially limited to the second half of the 1950s. The progress made through private initiatives was incompatible with framework of the communist ideology and the authorities again changed their attitude towards private agriculture. Private farms, for instance, were restricted in their access to large-scale agricultural machinery. This forestalled productivity gains and lowered the profitability of private farms. The new policy shift heralded a period of low agricultural growth over much of the 1960s. Despite considerable political support and substantial budgetary transfers to the "social agricultural sector", the "modern socialist agriculture on socially owned holdings" was unable to meet the food needs of the developing economy. By the end of the 1960s, Yugoslavia had to import food. This, together with a general trend towards political liberalisation, contributed to a renewed gradual easing of the policy bias against private agriculture.

© OECD 2001

At a special conference of the league of communists of Slovenia held in the early 1970s, the political leadership adopted documents, which placed private farmers in a more favourable position from a policy perspective. Most importantly, their production role was acknowledged. While private farms were considered only a "transitional" form of agricultural production, the authorities started to take various measures aimed at promoting technological progress and investments in private farms. Farmers benefited, for instance, from newly established agricultural extension services and became increasingly acquainted with modern plant production techniques. Livestock producers benefited too. They became eligible for public investment support and were able to modernise stables and improve the genetic resources of their herds. As a result, production increased markedly and output growth remained strong for much of the 1970s and 1980s.

The positive developments recorded in the final period of the previous social regime were also a result of the greater independence gained by the Slovenian authorities. Growing liberalisation led to a clearer division of responsibilities between the federal and republican authorities. The Yugoslav government continued to implement overall price regulation, major input, credit and investment support measures, as well as remaining in charge of macroeconomic policies. At the same time, the governments of the republics gained more authority in structural and rural development policies. This enabled Slovenia to introduce new structural measures, such as support to LFAs. Increased authority of the government of the republic led to the creation of a special governmental body in Slovenia, first as a committee and then as a secretariat of agriculture, forestry and food. This body was the foundation of Slovenia's Ministry of Agriculture, Forestry and Food after Slovenia gained independence.

2. *Agricultural policy objectives and measures during independence*

In the initial years of independence Slovenia generally maintained previous agricultural measures. Agricultural reform was not a key priority in transition. It took more than two years after Slovenia's independence before the first comprehensive agricultural policy document was adopted. The *Strategy for Slovenian Agriculture* (1993) formulated the main agricultural policy goals, which included:

- stable production of quality food at reasonable prices and food security;
- retention of the population in rural areas, preservation of cultural landscape and agricultural production potential, protection of agricultural land and water from pollution and misuse;
- permanent increase in competitiveness; and
- guaranteed parity income in agriculture (MAFF, 1993).

The goals of food security (largely equated with self-sufficiency), retention of population in rural areas and guaranteed parity income translated as a strong political endorsement of high producer support. Slovenia maintained fixed prices for basic agro-food products, operated state monopolies for trade in wheat and sugar; and subsidised agricultural inputs. To reduce the burden of high producer price support on consumers, the government resorted to various ways of subsidising processors. Most of these measures belonged to the arsenal inherited from the pre-transition period.

However, there were important innovations. Stronger emphasis was put on border measures. In 1993 Slovenia introduced variable import levies, which shielded domestic producers from competing imports. For the first time, the government emphasised environmental protection and social roles of agriculture. Agricultural policy was re-oriented further towards the small-scale private sector. Along with the removal of limitations on private land ownership and use, the government stated its commitment to improve production structures and enhance the competitiveness of domestic producers. In this context, the Slovenian government broadened programmes to support LFAs, rural development, and on-farm investments.

By the mid-1990s, Slovenia's growing integration into international markets prompted a new turn in agricultural policies. WTO membership necessitated a shift to less distortive types of support. The commitments taken towards lower border protection made the sustainability of open-ended price support highly problematic. This required more targeted and less production-linked measures. In 1995,

© OECD 2001

Slovenia began introducing area and headage payments, reducing in parallel price aids and input subsidies.

By 1998, the debate over the future of Slovenia's agricultural policy had gained new momentum. This was again prompted by the commitments that Slovenia had to fulfil towards opening its borders. A first round of trade liberalisation under the CEFTA was due in 1998. Another important driving force of policy reform was the approaching EU accession. In 1998, accession negotiations began (Box III.1). With the movement towards the adoption of the A*cquis*, policy-making took on a practical dimension. The accession required bringing Slovenia's agricultural policy into conformity with the CAP framework and building adequate institutional capacities. A more general rationale of the reform was the recognition that the previous policies proved to be costly and ineffective. Despite high producer support, farmer incomes have been declining and domestic producers had weak competitive positions against most agro-food imports.

In 1998 the government adopted the A*gricultural* P*olicy* R*eform* P*rogramme* 1999-2002 *and in* 1999, the N*ational* D*evelopment* P*rogramme for* A*griculture*, F*ood*, F*orestry and* F*isheries for the period* 2000-2002. While no major changes in the policy objectives were considered, the main thrust of the reform was the re-instrumentation of agricultural policies to achieve their stated goals more effectively and efficiently. This re-instrumentation can generally be characterised as a shift from market price support to direct payments and a greater emphasis on structural, environmental and rural development measures. The reform package rested on four major pillars:

- Pillar I deals with market and price policy. There is a broad consensus that Slovenia will have to keep its markets more open and reduce price supports. Lower prices for agricultural raw materials should enhance Slovenia's competitiveness at home and abroad and allow for cheaper food for Slovenian consumers. Direct payments should progressively replace price supports as a more transparent and better targeted policy instrument.
- Pillar II addresses the eco-social role of agriculture and introduces new measures focusing on environmentally-friendly production systems, preservation of the cultural landscape as well as settlement structures in the marginal areas.
- Pillar III concentrates on structural issues with the prime goal to promote the competitiveness of Slovenian agriculture and food industry. This component includes a diversified range of

Box III.1. **Key dates of Slovenia's accession to the European Union**

1996:	June	– Slovenia applies for EU Membership. The Europe Agreement is signed; its ratification is pending upon the resolution of some property rights issues.
1997:	January	– An Interim Agreement comes into force, limited to trade relations between Slovenia and the European Union.
1998:	March	– Screening of the A*cquis* and accession negotiations begin (chapter on agriculture is not yet opened for negotiations); Accession Partnership between the European Union and Slovenia is adopted.
1999:	February	– The European Union ratifies the Europe Agreement with Slovenia, the last of the candidate countries.
	October	– Screening of agricultural legislation is completed.
	December	– Slovenia submits its negotiating position in agriculture.
2000:	May	– Agreement on further Slovenia-EU trade liberalisation within the Europe Agreement is reached.
	June	– Negotiations on agriculture are formally opened.

© OECD 2001

measures, such as investments in farm structures and food processing; land improvement; farm consolidation; promotion of producer associations and marketing.

- Pillar IV deals with rural development, promoting a concept of integrated rural development and setting these policies in an EU-compatible framework.

Based on the reform programme, the *Law on Agriculture* was adopted in June 2000. It laid down the broad legal framework for the Slovenia's future agricultural policy. The agricultural policy goals, as defined by the Law, by and large remained in line with those stated in the 1993 *Strategy* and included:

- stable production of quality food, which is as inexpensive as possible and safe;
- retention of the population in rural areas;
- protection of agricultural land from pollution and mis-use;
- permanent increase in the competitiveness of agriculture;
- ensuring adequate income levels for agricultural holdings; and
- promotion of principles of environmental protection and preservation of nature.

The Law distinguishes two broad groups of policies: *i*) market and price regulation and *ii*) structural measures. It defines the scope of measures and instruments under each group and designates the institutions and agencies in charge of policy implementation and monitoring. Other major blocks of the Law concern quality and labelling of agro-food products; trading in agro-food products; producer associations; public services to agriculture; scope and organisation of agricultural data collection; and control over implementation of the Law and penalties.

The *Agricultural Law* is also intended to facilitate the EU accession, and from this standpoint it represents a substantial move towards establishing an EU-compatible policy framework and administrative system in Slovenia. As an EU acceding country Slovenia will have to fully harmonise its domestic agricultural policies with the CAP by the time of joining the Union. The harmonisation with the CAP will involve:

- Establishment of market intervention systems for principal agricultural products (milk and dairy products, beef, pigmeat, cereals, sugar, fresh fruit and vegetables, and wine) based on intervention purchases, administered pricing (for milk and dairy products, beef, cereals, and sugar), and private storage subsidies. It is envisaged that all the necessary regulations and administrative structures for implementation of market interventions will be completed by the end of 2002. The establishment of CAP-like intervention mechanisms began in 2000 in the grain sector, and is foreseen in 2001 in the milk sector.
- Harmonisation of direct income payments with those of the European Union, involving increase in their scope and gradual alignment of payment rates with the EU levels.
- Introduction of trade licensing, price and quantity monitoring systems similar to those of the European Union.
- Broadening of the structural and rural development programmes, and an increase in agro-environmental aids.

The harmonisation of Slovenia's domestic policies with the CAP is developing in a changeable economic and political situation. First of all, the accession process is taking place in the era of CAP reform. The new round of WTO negotiations may exert pressures on the European Union to further reduce agricultural protection, which may lead to new adjustments in the CAP. Secondly, until now (end of 2000) it is still uncertain whether CAP support will fully apply to the new EU members upon accession. The European Commission's initial position was that no direct income payments should be provided to new members during the transition period, and the Commission has not yet taken a final position on this issue. And, thirdly, the accession negotiations on agriculture between Slovenia and the European Union began in 2000, and the possible differences between the final agreements and Slovenia's initial negotiating position are also uncertain.

© OECD 2001

In its negotiating position, submitted in December 1999, Slovenia stated that it accepts the A*cquis* in agriculture, which it also understands as gaining all rights attributable to the current Member States in this field. In particular, Slovenia expects to become a full fledged beneficiary of the direct payments system upon joining the European Union. The availability of direct payments has special significance for Slovenia. In contrast to other candidate countries, Slovenia most probably will benefit little from producer price support in the common agricultural market, as Slovenian producer prices are close or exceed the EU levels. Therefore, for Slovenia direct payments become particularly important for ensuring support for its producers.

Further, Slovenia seeks "considerably higher" (than if based on current output levels) production quotas for milk and sugar, as well as quotas for beef and sheepmeat premium rights. Several derogations and transition periods were requested. Thus, Slovenia asked that the national production quota for milk and premium rights for suckler cows and sheep and goats not be allocated to individual producers until 2012. It argued that immediate introduction of the quotas would impede already slow structural adjustment in the sectors concerned. In the area of trade, Slovenia's current WTO commitments do not allow it to use export subsidies and special safeguard measures, but Slovenia expects to implement these measures upon accession, as is permitted for the European Union under the URAA. The first exchange of views on Slovenia's negotiating position between the European Union and Slovenia took place in 2000. The issues of quota levels and direct payments were moved to a later stage of negotiations, while Slovenia agreed to put its original request for transition periods in milk, beef and sheep sectors under further consideration. At the same time the Slovenian government once again stressed that it regards equal treatment to be a core issue of agricultural negotiations and that direct payments are of "vital interest of Slovenian agriculture".

3. I*nstitutional arrangements*

At the onset of independence Slovenia created a new Ministry of Agriculture, Forestry and Food (the MAFF) and other administrative structures for the implementation of agricultural policies. However, over much of the transition period the core of agricultural policies was under the responsibility of the Ministry of Economic Relations and Development, which was in charge of agricultural market regulation and trade regimes. MAFF only assumed the functions of regulation of agricultural markets in the most recent period, while the Ministry of Economic Relations and Development continues to be in charge of foreign trade policy, including for agrofood trade.

Other state administrative bodies concerned with agricultural policies are:

- Agencies subordinated to the Ministry of Economic Relations and Development:
  - the Agency for Commodity Reserves (the ACR), in charge of managing state agro-food stocks and undertaking purchases on agricultural markets;
  - the Market Inspectorate in charge of food quality control at the consumer level.
- Agencies subordinated to the Ministry of Agriculture, Forestry and Food:
  - the Veterinary Administration of the Republic of Slovenia, an agency responsible for the veterinary and, partly, public health control;
  - the Inspectorate of the Republic of Slovenia for Agriculture, Forestry, Hunting and Fisheries, a body supervising the implementation of laws and other regulatory acts concerning agricultural production and markets, the phytosanitary sphere, forestry, hunting and fishery;
  - the Administration of the Republic of Slovenia for Development in Agriculture (Agricultural Extension Service).
- The Fund for Agricultural Land and Forests, responsible for management of state land and land restitution (see Part II, Section D);
- The Ministry for Environment and Territorial Planning;
- The Ministry for Health (pesticide control);
- The Ministry for Education (agricultural education);

© OECD 2001

- The Ministry for Science and Technology (agricultural research);
- Regional Veterinary and Agricultural Institutions;
- Local administrative units of the state administration.

Under the policy reform, a new subsidiary body of the MAFF, the Agency for Agricultural Markets and Rural Development was created in 1999. It will be responsible for the institutional arrangements for implementing the reforms. The Agency will also be responsible for the administration of all pre-accession support from the European Union, all domestic measures in the pre-accession period and, at a later stage, for the transfer of EU policies into the national framework. It will also be in charge of the information and administrative control system (IACS, harmonised with the European Union). The policy decision making process, legislative functions and policy programming tasks will remain under the MAFF. New phytosanitary, seed management, and food quality control institutions will also be created as subsidiary bodies of the MAFF.

According to the new *Law on the Agricultural and Forestry Chamber* (AFC), AFC will become an umbrella organisation, co-ordinating all service and support institutions in agriculture and forestry, such as Agricultural Extension Service, plant and livestock services, etc .

4. *Main agricultural policy instruments*

Agro-food policies applied following independence used a wide range of instruments, of which the major ones were:

- import tariffs, licences for low-tariff imports and "export promotion" payments to food processors;
- producer and consumer price regulation/control, based on fixed prices and per tonne payments;
- per head and per hectare payments;
- subsidies to inputs and farm services;
- preferential credits to agricultural producers and downstream agents with subsidised interest rates;
- capital grants;
- tax concessions and subsidies for the pension system;
- support for agricultural research, education, extension, livestock and crop services.

B. Domestic support of market prices

1. *Direct price regulation measures*

Since 1991, Slovenia has applied a wide range of direct and indirect price support measures. Direct price regulation was based on administratively fixed prices and per tonne payments. Indirect price support included export promotion payments ("subsidies for the preparation for exports"), preferential credit to food processors and, in most recent years, intervention and food aid purchases of some agricultural products.

Up until 1998-mid 1999, three important food chains, milling wheat – flour; milk – pasteurised milk; and sugar beet – sugar were subject to *administered pricing*.

In the grain sector, the government controlled virtually all purchases of milling wheat from producers and its supplies to grain millers. These functions were performed by the Agency for Commodity Reserves (the ACR). The ACR not only operated on the domestic market, but was practically the sole importer of milling wheat, entitled to duty-free imports. The government set prices for the purchase of milling wheat from producers and also for selling it to millers. Purchase prices were higher than selling prices. The difference was largely absorbed through pooling mechanism, under which the ACR blended higher priced domestic purchases with lower priced imports. This made it possible to reduce the average price charged to processors. This kind of state oligopoly/monopoly, on the one hand provided support to producers, and on the other, decreased the taxing impact of this support on

© OECD 2001

processors. In the sugar sector, the government fixed minimum purchase prices for sugar beet. Part of this price was then compensated to the sugar factory by the government. In 1998, the price regulation was partially dismantled in the grain sector, when domestic millers were allowed to buy wheat not only from the ACR but also from alternative sources, including imports. The following year, in 1999, the government stopped fixing the purchase price for milling wheat and setting minimum prices for sugar beet. This was in line with the new policy package, which foresaw the replacement of previous administrative price regulation mechanisms by CAP-like market interventions (see below).

Until 2001, the government continued to fix farmgate price for raw milk, which was uniform throughout the country. Fixing of the milk price at the farmgate level was supplemented by a control on prices for pasteurised milk. With raw milk prices fixed at a high level and pasteurised milk prices at a low level, dairies operated at squeezed margins and resorted to subsidising pasteurised milk processing from other operations. In 1998, the control on the prices of pasteurised milk was lifted, but the farmgate milk price was still administratively fixed. The fixed farmgate milk price was abolished in 2001.

Another instrument of direct price regulation in Slovenia is *per tonne payments* (price aids) (Table III.1). In the first half of the 1990s, this assistance was most important in the milk sector, accounting for 57% to 89% of total per tonne payments. More than half of milk payments went to producers in LFAs, as part of the LFA support programme. Milk payments served as an additional adjustment to the state-fixed milk price and were coupled with the administered price mechanism. From 1997, per tonne payments for milk were discontinued. This type of support was also abolished for sheep and goats and horses. However, price aids were maintained for cattle produced in LFAs, which accounted for the largest share of total per tonne payments towards the end of the 1990s. As far as crop products are concerned, per tonne payments are allocated almost exclusively for maize and wheat. This is a sporadic subsidy given in years when the market situation is unfavourable. In 1998-1999, when the Slovenian grain market was adversely affected by cheap imports, this assistance became quite important, and wheat and maize payments reached one third of all per tonne payments.

Table III.1. **Per tonne payments (price aids)**

	1992	1993	1994	1995	1996	1997	1998	1999
Total per tonne payments, thousand SIT	801.7	1 180.2	1 486.7	1 855.6	978.5	753.7	1 074.8	1 163.2
Distribution by programmes, per cent:								
General payments	40.8	35.1	23.3	5.9	24.5	17.0	40.5	32.8
Payments to LFAs	59.2	64.1	76.5	94.0	75.0	83.0	59.5	67.2
Distribution by products, per cent:								
Grain maize	–	–	–	–	–	17.0	6.7	15.6
Wheat and rye	18.0	–	–	–	24.5	–	33.8	17.2
Fruits	–	0.8	–	–	–	–	–	–
Milk	73.8	88.6	76.8	56.7	9.9	–	–	–
of which: payments under support of LFAs	51.0	53.6	53.5	50.8	9.9	–	–	–
Cattle (under support of LFAs)	8.1	10.4	22.4	42.3	62.5	83.0	59.5	67.2
Sheep and goats (under support of LFAs)	–	0.1	0.1	0.1	0.5	–	–	–
Horses (under support of LFAs)	0.1	0.1	0.7	0.9	2.5	–	–	–
Per tonne payments as per cent of total budgetary transfers to agro-food sector	11.7	17.8	18.8	20.1	9.2	5.1	6.3	5.0

– Supplementary payments were not paid in these years.
Source: OECD Secretariat.

Overall, the budgetary share of per tonne payments more than halved in the 1990s. This reflected the gradual dismantling of administered pricing and also the diversion of support to per hectare and headage payments.

© OECD 2001

2. *Indirect price regulation measures*

In addition to direct price regulation measures, there are other policies, linked to market price support (Table III.2). The most important is the *export promotion payments*, which are primarily targeted to reduce excess supplies from the domestic market. Such support is regularly given to milk processors, however in certain years other sectors (*i.e.* poultry, wine, apple) also benefited from this assistance. The decision on allocating export promotion payments to various products is made annually by the government based on the current situation on world and domestic markets.

Table III.2. **Indirect price support and market regulation measures**

	1992	1993	1994	1995	1996	1997	1998	1999
Indirect price support and market regulation measures, million SIT	1 075.2	1 025.2	1 275.1	1 473.7	1 574.2	2 340.8	3 159.8	7 384.9
of which in per cent:								
Export promotion payments	84.7	90.3	87.4	93.7	99.0	98.6	89.2	84.6
Interest rate subsidies to processors[2]	15.3	9.7	9.8	6.3	0.9	0.8	9.5	2.4
Intervention purchases	–	–	–	–	–	–	–	11.7
Food aid	–	–	2.8	0.0	0.2	0.6	1.3	1.3
Indirect price support and market regulation measures as per cent of total budgetary transfers to agro-food sector	15.7	15.5	16.2	16.0	14.7	15.9	18.6	31.6

– Not applicable.
2. In 1998 and 1999 also includes storage subsidy.
Source: OECD Secretariat.

Another indirect price regulation measure consists of *interest rate subsidies* to food processors. These subsidies are meant to reduce liquidity constraints for purchasing products from agricultural producers and, therefore, can be considered as a form of indirect producer price support. I*ntervention purchases*, as they are practised in the European Community, did not exist in Slovenia until recently. Given quite high border protection and relatively low self-sufficiency for many basic agricultural products, such intervention mechanisms were not applied. However, the market situation has changed significantly over the past few years. Growing domestic supplies in conjunction with problems in international markets (*e.g.* BSE crisis in 1997, swine fever in 1998/99, the Russian crisis in 1998), triggered the first intervention purchases of beef and pork. Intervention operations will become a regular feature of the new agricultural market regulation mechanism, which Slovenia is expected to establish in the course of EU accession.

Until 1998, the share of budgetary expenditures for indirect price support remained relatively stable, but in the most recent years it grew markedly, reaching almost one-third of the agro-food budget in 1999 (Table III.2). This increase was due to a rise in export promotion payments (which in 1999 more than doubled), substantial growth in interest rate subsidies (in 1998), and also first intervention purchases.

C. Area and headage payments

Area and headage payments are allocated under three programmes in Slovenia: *i*) general income support; *ii*) support to LFAs; and *iii*) the agro-environmental programme (Table III.3).

Slovenia began introducing *general area and headage payments* as an alternative to price support. Thus in 1995 general headage payments for cattle, sheep and horses were applied. Soon after the launch of general headage payments, the government introduced *special payments to* LFAs, which covered cattle, sheep and horses (see also description of LFA programme in section F.2 of this Part). In 1998 assistance was expanded to the crop sector, when per hectare payments to hops and

© OECD 2001

Table III.3. **Area and headage payments**

	1992	1993	1994	1995	1996	1997	1998	1999
Total area and headage payments, million SIT	17.2	133.8	141.3	624.0	1 845.0	2 774.1	3 094.4	4 730.0
Distribution of payments by programmes, per cent:								
General area and headage payments	–	–	–	84.8	32.8	43.8	53.4	72.0
Payments to producers in LFAs	–	–	–	–	62.6	53.1	44.1	24.6
Agro-environmental payments	100.0	100.0	100.0	15.2	4.6	3.0	2.5	3.5
Distribution of payments by products, per cent:								
Beef cattle	30.2	37.0	46.6	83.2	30.5	40.6	34.0	29.8
Dairy cattle	46.5	28.9	36.5	6.7	65.5	54.1	44.5	23.8
Sheep and goats	21.4	29.6	11.2	9.4	3.2	3.9	3.8	3.2
Horses	1.8	4.5	5.7	0.7	0.8	1.4	3.0	2.1
Sugar beet	–	–	–	–	–	–	5.5	9.2
Hops	–	–	–	–	–	–	9.3	5.8
Wheat and rye	–	–	–	–	–	–	–	22.6
Orchard crops	–	–	–	–	–	–	–	3.1
Unallocated (organic production)	–	–	–	–	–	–	–	0.4
Area and headage payments as per cent of total budgetary transfers to agro-food sector	0.3	2.0	1.8	6.8	17.3	18.9	18.2	20.2

– Not applicable.
Source: OECD Secretariat.

sugar beet growers were introduced. In 1999 wheat producers became eligible for the same type of assistance. Within the *environmental* package, there is headage support for the use of Alpine pastures for grazing (for beef cattle, cows, horses, sheep and goats). This is a traditional measure in Slovenia, which existed before independence. The agro-environmental programme also incorporates per hectare assistance to orchard growers running integrated production and also for organic farming (see description of the agro-environmental programme in section G of this Part). All area and headage support in Slovenia is currently implemented without limits on supported areas/ livestock numbers.

Expenditures for area and headage payments have been constantly growing (Table III.3). Their share in total budgetary support rose swiftly from less than 2% in 1994 to 17% in 1996, but in the following years remained relatively stable. Growing emphasis on this type of support was first of all prompted by the necessity to channel support to farmers more efficiently. Another driving was the need to align domestic agricultural policies with the CAP framework. Like in the European Union, there was growing recognition that support required reinstrumentation. To some extent, this was also a response to pressure on reducing the burden that agricultural support placed on consumers. In contrast to price support, area and headage payments, paid directly to farmers, do not increase the market price of a product, and therefore do not add to consumers' burden. The fact that farmers receive these payments directly also suggests that there is less subsidy leakage and more support reaches the targeted beneficiaries.

D. Reduction of input costs

Input subsidies were quite important in the former Yugoslavia and at the onset of Slovenia's independence they maintained an important role. However, starting from 1993, the policy was to limit input subsidies and shift resources to other types of support. Thus, the fuel subsidy was abolished and allocations to seeds and breeding animals remained frozen during most of the ensuing period. Subsidising of short-term loans was discontinued in 1999. The only important type of input subsidies remained compensation for the cost of services to producers, such as extension services and breeding control (Table III.4). The share of these service subsidies reached 85% of total input subsidies by 1999.

© OECD 2001

Table III.4. **Input subsidies**

	1992	1993	1994	1995	1996	1997	1998	1999
Total input subsidies, million SIT	1 857.4	1 693.3	1 915.3	2 122.3	2 269.4	2 543.6	2 042.2	1 845.1
of which in per cent								
Subsidy for breeding animals	10.8	10.9	10.3	9.7	11.3	10.6	14.9	5.5
Seed subsidy	18.6	10.9	11.1	11.1	11.3	9.9	2.8	6.7
Fuel subsidy	15.6	–	–	–	–	–	–	–
Compensation of cost of services	22.1	41.1	44.5	47.0	50.7	56.3	71.4	85.1
Interest rate subsidies on short-term loans	32.9	37.2	34.1	32.2	26.3	22.1	9.8	0.0
Miscellaneous	0.0	0.0	0.0	0.0	0.3	1.0	1.0	2.8
Total input subsidies as per cent of total budgetary transfers to agro-food sector	27.1	25.6	24.3	23.0	21.3	17.3	12.0	7.9

– Not applicable.
Source: OECD Secretariat.

E. Trade measures

Border protection is an important instrument of producer support in Slovenia. Prior to becoming a WTO member, Slovenia took limited steps towards freer agro-food trade, but these lacked consistency. While a number of nontariff barriers (notably, quantitative import restrictions and seasonal import regimes) were gradually dismantled, new protectionist measures were introduced in parallel. In 1993, a threshold price system with variable levies on the most important agro-food imports was established, providing high and variable protection in addition to the existing customs duties (EC 1998). Within this regime the government frequently adjusted import levies in order to lift import prices to the fixed threshold levels. This made it possible to support domestic prices effectively adjusting levels of protection to the market situation.

Following its accession to the WTO, Slovenia introduced a new import tariff regime in 1995. Variable levies were abolished and for many important agro-food products *ad valorem* and specific tariffs were fixed (Table III.5). The latter were set in absolute values and charged on top of the *ad valorem* rates. In 1996, a new *Law on Customs Tariffs* was adopted, which involved further changes in the import regime, including the introduction of zero import tariffs for soybeans and raw sugar.

The levels of *ad valorem* tariffs (with few exceptions) are relatively even across the main agricultural commodities, averaging 9-10% in 2000 (Table III.5). However, specific tariffs provide extra protection from external competition, which is particularly high for Slovenia's most sensitive agricultural commodities, such as for example milk powder, beef, live cattle and sugar (Figure III.1). Specific tariffs are not applied for grains and *ad valorem* rates for grains are fixed at relatively low or zero levels. Some important raw materials for the domestic processing industry (raw sugar and oilseeds) are also free from specific tariffs.

Between 1995 and 1998, only in the cases of Slovenia's major exportables (dairy products and poultry) and also in the case of refined sugar was the applied level of protection constantly above the WTO binding level for 2000 (Table III.6 and Figure III.2). For other main agricultural products the applied border protection was usually below the 2000 bindings. The fact that bound rates exceed, sometimes quite substantially, the applied tariffs means that it would be possible to increase protection without violating WTO commitments. This happened in 1998, when, due to strong import pressures, Slovenia resorted to temporary increases in specific tariffs. For maize, for instance, in addition to a 9.9% *ad valorem* tariff, a specific tariff was introduced at about USD 16 per tonne in September 1998, then increased to USD 87 in October 1998. As the situation eased in 1999, it was reduced to USD 30 in January and completely removed in March 1999. Similar rises in specific tariffs were observed in 1998 for pigs, pigmeat and wheat. A more general concern about the "water in the tariffs" is that high bound rates can

© OECD 2001

© OECD 2001

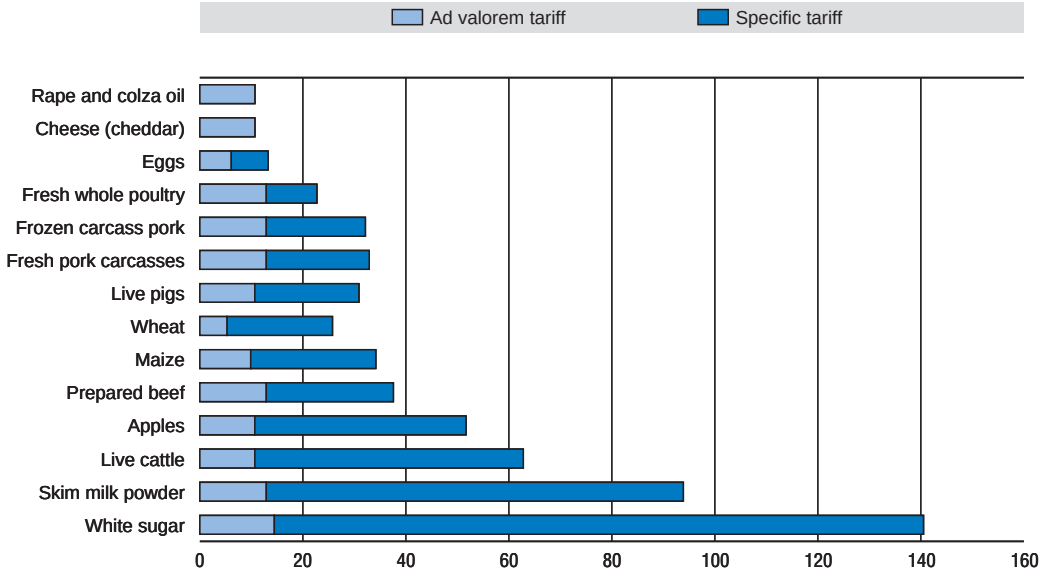
Table III.5. **Applied MFN import tariff rates for major agro-food products**

		1995		1996		1997		1998		1999		2000	
		Ad valorem, %	Average specific USD/kg	*Ad valorem*, %	Average specific USD/kg	*Ad valorem*, %	Average specific USD/kg	*Ad valorem*, %	Average specific USD/kg	*Ad valorem*, %	Average specific USD/kg	*Ad valorem*, %	Average specific USD/kg
010290	Live cattle	12	0.57	12	0.96	11.5	0.98	10.7	0.94	9.8	0.86	9	0.74
01092	Live pigs	12	0.19	12	0.21	11.5	0.09	10.7	0.24	9.8	0.33	9	0.16
020110	Fresh carcass beef	12	1.29	12	1.72	11.5	1.82	10.7	1.75	9.8	1.59	9	1.35
020210	Frozen carcass beef	12	1.10	12	1.57	11.5	1.76	10.7	1.69	9.8	1.44	9	1.19
020311	Fresh pork carcasses	15	0.35	15	0.35	14	0.15	12.9	0.29	11.9	0.38	10.9	0.18
020321	Frozen carcass pork	15	0.31	15	0.31	14	0.13	12.9	0.28	11.9	0.38	10.9	0.18
020410	Fresh carcass lamb	12	–	12	–	11.5	1.28	10.7	1.55	9.8	1.42	9	1.23
020710	Fresh whole poultry	15	0.30	15	0.27	14	0.23	12.9	0.22	11.9	0.20	10.9	0.17
040210	Skim milk powder	15	2.13	15	1.65	14	1.40	12.9	1.45	11.9	1.36	10.9	1.18
040690	Cheese (cheddar)	–	–	12	–	11.5	–	10.7	–	9.8	–	9	–
040899	Eggs	6	0.31	7	0.22	6.6	0.19	6.1	0.18	5.6	0.17	5.1	0.14
080810	Apples	5	0.14	12	0.09	11.5	0.15	10.7	0.14	9.8	0.13	9	0.11
100190	Wheat	5	0.10	6	0.09	5.8	0.08	5.3	0.03	4.9	0.09	4.5	0.08
100590	Maize	11	–	11	–	Free	–	9.9	0.02	9.1	0.01	8.3	–
1006109	Rice	Free	–	Free	–	Free	–	Free	–	Free	–	Free	–
120100	Soya beans	6	–	Free	–	Free	–	Free	–	Free	–	Free	–
151490	Rape and colza oil	12	–	20	–	11.5	–	10.7	–	9.8	–	9	–
160250	Prepared beef	15	0.55	15	0.89	14	0.75	12.9	0.72	11.9	0.66	10.9	0.57
170111	Cane sugar – for refining	17	–	Free	–	Free	–	Free	–	Free	–	Free	–
170112	Beet sugar – for refining	17	–	Free	–	Free	–	Free	–	Free	–	Free	–
170199	White sugar	17	0.31	16	0.41	15.6	0.40	14.5	0.40	13.3	0.36	12.2	0.32

Source: Ministry of Agriculture, Forestry and Food.

Figure III.1. **Applied *ad valorem* and specific tariffs for selected agro-food products in 1998**

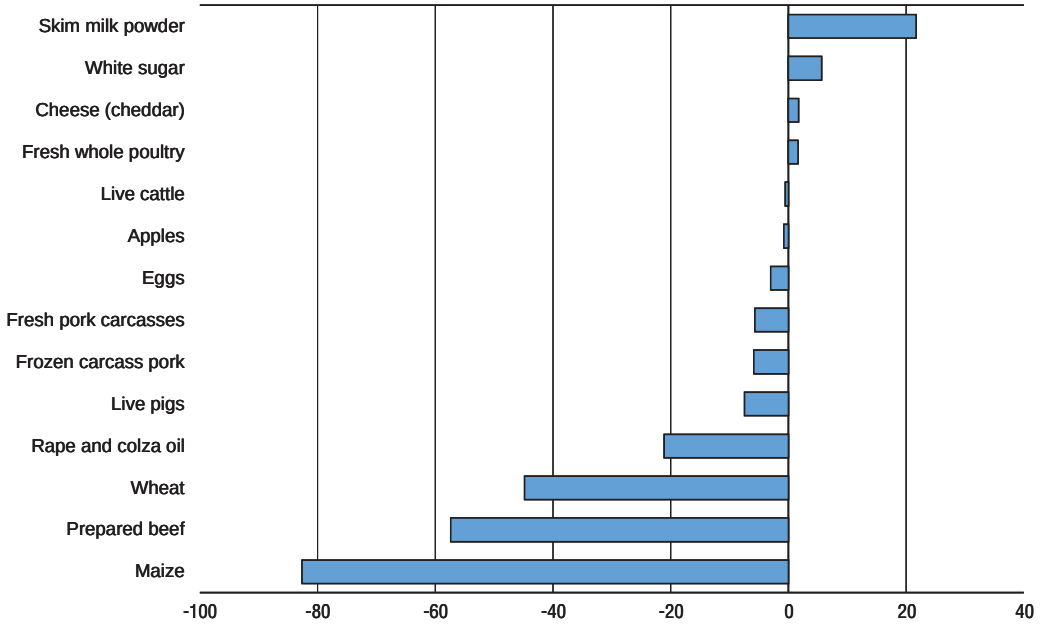
Per cent



Note: Specific tariff is recalcultated into *ad valorem* equivalent based on import unit values.
Source: OECD Secretariat.

Figure III.2. **Difference between bound and applied border protection, 1998**

Per cent



Source: Table III.6.

© OECD 2001

© OECD 2001

Table III.6. **Bound and applied levels of protection**

Per cent

		1995			1996			1997			1998		
		Bound tariff for 2000	Applied tariff	Difference	Bound tariff for 2000	Applied tariff	Difference	Bound tariff for 2000	Applied tariff	Difference	Bound tariff for 2000	Applied tariff	Difference
010290	Live cattle	70	42	–28	65	61	–5	69	70	2	63	63	–1
010392	Live pigs	34	24	–10	36	27	–9	35	18	–17	38	31	–7
020110	Fresh carcass beef	56	44	–12	58	58	0	…	…	…	…	…	…
020311	Fresh pork carcasses	35	33	–2	34	33	–1	31	21	–10	39	33	–6
020321	Frozen carcass pork	…	…	…	32	29	–2	36	22	–14	38	32	–6
020410	Fresh carcass lamb	45	12	–33	46	12	–34	…	…	…	…	…	…
020710	Fresh whole poultry	24	31	6	24	28	5	19	22	3	21	23	2
040210	Skim milk powder	133	217	84	148	197	49	69	87	18	72	94	22
040690	Cheese (cheddar)	9	–	–	9	12	3	9	12	3	9	11	2
040899	Eggs	17	17	0	16	14	–1	19	16	–3	16	13	–3
080810	Apples	54	41	–13	53	35	–18	68	68	1	52	52	–1
100190	Wheat	73	66	–7	60	51	–10	60	48	–12	71	26	–45
100590	Maize	107	11	–96	65	11	–54	…	…	…	117	34	–83
1006109	Rice	Free	Free	–	Free	Free	–	Free	Free	–	Free	Free	–
120100	Soya beans	Free	6	6	Free	Free	–	Free	Free	–	Free	Free	–
1514901	Rape and colza oil	32	12	–20	…	…	…	35	12	–23	32	11	–21
160250	Prepared beef	104	33	–71	117	49	–68	112	45	–68	95	38	–57
170111	Cane sugar – for refining	Free	17	17	Free	Free	–	Free	Free	–	Free	Free	–
170112	Beet sugar – for refining	Free	17	17	Free	Free	–	Free	Free	–	Free	Free	–
170199	White sugar	110	84	–26	122	118	–4	116	122	5	135	140	6

… Not calculated due to very small trade volumes.

Note: Bound tariff for 2000 is the sum of bound *ad valorem* rate for the year 2000 and bound specific rate for 2000 recalculated into *ad valorem* equivalent based on import unit values of respective products in a given year. Applied tariff is the sum of MFN *ad valorem* rate in a given year and the average MFN specific rate in a given year recalculated in *ad valorem* equivalent based on import unit values of respective products in a given year.

Source: OECD Secretariat.

become targets for internal political pressure, and the larger the gap between bound and applied rates, the greater the scope for reversing liberalising reforms.

F. Structural and rural development measures

Slovenia is a country where rural areas have a particular importance. They cover as much as 89% of the entire territory and 57% of the total population resides in rural areas. In Europe only Austria and Ireland have comparable shares of rural population. The low level of urbanisation is partly rooted in the previous policy of *polycentric development*. Under this policy, medium to small urban centres surrounded by small villages were created throughout Slovenia, so as to achieve a balanced distribution of population across the country. The result was that Slovenia had indeed a balanced but rather dispersed settlement pattern. This also meant that real urbanisation was much lower than elsewhere in Europe and was mainly restricted to lowland areas. Numerous small towns and villages (up to 200 inhabitants) dominate the settlement pattern in Slovenia, and there are only two towns with more than 100 000 inhabitants (Ljubljana and Maribor). Rural areas in Slovenia are sparsely populated and characterised by a wide variety of climate and landscape.

Slovenian rural areas suffer problems typical of many European countries. The demographic situation is deteriorating, with more and more people moving to towns and urban agglomerations. Mostly young people leave villages, which means ageing of the rural population, reduction of its economically active part, and diminishing entrepreneurial and innovative potential. Negative demographic developments are coupled with economic problems. The rural economy is based on a limited range of activities, which do not generate stable and sufficient income. All this leads to depopulation of the countryside and marginalisation of economic and social life in rural areas. As far as agriculture is concerned, one of the main obstacles to a more efficient and more commercially oriented production is highly fragmented farm structure. Difficult cultivation conditions and a lack of capital inhibit the utilisation of advanced technologies, meaning low labour productivity and long working hours for farmers. Farming is losing its attractiveness and more and more becomes an occupation of older generations.

1. *Investment support*

Investment support is the most important component of structural policies in Slovenia. It is given in the form of subsidised long-term loans and capital grants. Currently four main agricultural investment programmes are being implemented in Slovenia:

- Land amelioration (consolidation, irrigation, etc.): this activity was very important before independence (in the 1970s and 1980s), leading to substantial improvements of the overall farm structure and production efficiency. This type of support continued after the independence. However, at present it requires new approaches to assure farmers' consent to such important activities as farmland consolidation and development of rural infrastructure.
- Farm investment programme, with interest rate subsidies and grants for different types of on-farm investments. In 1999 about 3 300 agricultural holdings benefited from the programme. The amount of support ranged from 5% to 25% of the value of investment.
- Special farm investment programmes for young farmers (launched in 1998). Assistance under this programme amounts to around Euro 7 000 per farm.
- Upgrading and renewal of permanent plantations (vineyards and orchards) and maintaining their production potential. The bulk of the funds under this programme were allocated in 1997 and 1998, but in 1999 and 2000 the number of applications was much below the expected level.

During the transition period, absolute amounts of budgetary allocations for interest rate subsidies and for capital grants have been growing (Table III.7). Every person involved in agricultural production, in general, can benefit from investment support and, there are no limitations on output-increasing subsidies. Participation in the programmes is, however, constrained. First, as in the European Union, investment support is becoming increasingly conditional on the availability of business plans. Also,

© OECD 2001

Table III.7. **Investment support to agriculture and the food sector**

	1992	1993	1994	1995	1996	1997	1998	1999
Interest rate subsidies on long-term loans, million SIT	45.0	31.8	47.9	55.3	175.7	215.1	1 016.3	1 053.7
Capital grants to agricultural producers, million SIT	1 038.5	1 114.9	1 033.2	882.2	1 442.3	1 740.7	1 775.2	2 050.8
of which in per cent								
On-farm investments	41.3	39.2	22.3	6.4	5.2	2.8	2.3	2.7
Renewal of permanent plantations	18.0	20.3	23.5	29.1	50.8	55.5	41.1	29.8
Land improvement	40.7	40.5	54.2	64.4	43.3	41.7	47.4	41.6
Programme for young farmers	–	–	–	–	–	–	3.1	14.4
Other capital grants	0.0	0.0	0.0	0.0	0.7	0.0	6.1	11.6
Investment support to food industry, million SIT	171.6	0.0	32.7	95.5	169.2	630.2	714.9	233.6
Total investment support to agriculture and food industry, million SIT	1 255.1	1 146.7	1 113.8	1 033.0	1 787.2	2 586.0	3 506.4	3 338.1
As per cent of total budgetary transfers to agro-food sector	18.3	17.3	14.1	11.2	16.7	17.6	20.7	14.3

– Not applicable.
Source: OECD Secretariat.

frequent changes in eligibility criteria and conditions of support limit the scope of participation in publicly-supported investment programmes.

In addition to programmes targeting the agricultural sector, investment support is also provided to the downstream sector for improvements in marketing, storage and processing of food products. The assistance is also given in the form of capital grants, long term loan subsidies and state guarantees for capital investments. This type of support was particularly high in 1997-1998, when significant investments were made in construction of storage facilities for fruits.

2. *Support to less favoured areas* (LFAs)

Support to LFAs is another important part of structural policies in Slovenia. The policy goals for LFAs encompass economic, social, and environmental principles: compensation of higher production costs due to unfavourable natural conditions, combating the abandonment of farming and out-migration from remote rural areas, preservation of the cultural landscape, and integrated rural development.

The population in LFAs has been declining since 1991. This has deepened the concerns that numerous mountainous regions would lose the critical mass of economic activity and thereby the minimum social and physical infrastructure necessary to maintain their economic viability. This has led to the creation of a special set of measures to support LFAs.

According to current criteria, about 74% of the agricultural area is eligible for such support (Box III.2). Until recently, Slovenia's LFA definition, did not fully correspond to EU criteria. In June 2000, a D*ecree on* LFA C*riteria* was adopted, and a new listing of LFAs is expected to be prepared. This will make eligibility for LFA programme in Slovenia consistent with EU principles and slightly increase the programme coverage to about 79% of Slovenia's agricultural area.

Support to LFAs encompasses the whole range of agricultural measures. This includes per tonne and area and headage payments, specifically targeted to LFAs (see also Sections B.1 and C of this Part). LFAs also benefit from general programmes for input compensation, investment support, and agro-environmental assistance.

Targeted support ranged between 7% and 20% of total budgetary transfers to the agro-food sector in 1992-1999 (Table III.8). Both the volume and composition of this support has been changing. In 1996-1997 per tonne payments for milk, sheep, goats and horses were replaced by headage payments. However, per tonne payments for cattle were maintained. Farmers whose livestock is part of the national selection programme are eligible for support.

© OECD 2001

Box III.2. **Classification of less favoured areas in Slovenia**

Agricultural land in Slovenia is divided into a lowland region and areas with less favourable conditions for agricultural production. Less favourable areas (LFAs) are further classified into four sub-categories: *i*) hilly and highland regions (subalpine hill regions); *ii*) mountainous and high altitude (alpine) regions; *iii*) "karst" region; *iv*) other regions with unfavourable conditions.

Hilly and highland regions as well as mountainous and high altitude regions are defined according to: *i*) the configuration of agricultural land limiting or preventing the use of machines; *ii*) climatic conditions in conjunction with soil categories; *iii*) distance of farms from economic and administrative centres; *iv*) access to farms, and altitude of farms.

The karst region includes areas where highly unfavourable natural conditions (stony surface, various depths of soil, undulating microrelief, deficit of surface water) also impede normal agricultural production. Other regions with difficult conditions for agricultural production comprise settlements in areas characterised by a rapid decrease in the role played by agriculture in the national economy and depopulation.

Table III.8. **Special payments to less favoured areas**

	1992	1993	1994	1995	1996	1997	1998	1999
Special payments to LFAs, million SIT	474.8	757.2	1 165.1	1 769.9	1 916.9	2 123.5	2 033.8	1 944.7
of which in per cent								
Per tonne payments to product prices	100.0	100.0	97.9	98.6	38.5	29.5	31.4	40.2
Area and headage payments	–	–	–	–	60.2	69.4	67.1	59.8
Other payments	–	–	2.1	1.4	1.3	1.2	1.5	0.0
Special payments to LFAs as per cent of total budgetary transfers to agro-food sector	6.9	11.4	14.8	19.2	18.0	14.5	12.0	8.3

– Not applicable.
Source: OECD Secretariat.

3. *Rural development measures*

3.1. *Rural development within the framework of agricultural support*

Much of the support to rural areas in Slovenia is delivered through agricultural measures. This mainly relates to the structural component of agricultural policies, including the LFA programme and publicly supported investment programmes in agriculture, both described in the preceding sections.

At the same time, the MAFF has gradually been extending its activity towards a wider scope of rural development measures. In 1991, *Programmes of Integrated Rural Development and Village Renewal* (the so-called CRPOV) were introduced.

The CRPOV programmes are based on initiatives at local community level, aiming to exploit endogenous development potential in the countryside. The CRPOV cycle comprises two stages: *i*) design of the project and preparation of the documentation, and *ii*) the implementation of individual projects. The projects address such issues as land management; generation of supplementary or alternative income sources; promotion of rural tourism; development of rural infrastructure; preservation of rural heritage. The CRPOV programmes serve as an important instrument, putting agriculture into the context of integrated rural development. In 1994, the CRPOV programmes were upgraded conceptually in order to increase their targeting and territorial coherence. Special programmes, *Wine Routes* and *Heritage Trails*, were also launched.

© OECD 2001

The *Wine Routes* programme encompasses 20 winegrowing areas in the three wine-growing regions of Slovenia. The project aims at enhancing employment opportunities in wine production and marketing, creating tourist services along the wine routes and integrating economic activities in the region. The *Heritage Trails* programme aims at integrating local communities and elaborating local development strategy for the longer-term development of tourism in the countryside. It connects 30 localities and monuments of natural and cultural heritage scattered through nine municipalities into a single regional tourist area.

The preparation and implementation of projects under the CRPOV, the *Wine Routes* and the *Heritage Trails* programmes, follows a similar procedure. After an annual tender (about 1520 locations are chosen each year), the programmes start with a one-year introductory stage. At this stage, local partners are encouraged to participate in the programme through a series of thematic workshops. A local development programme is then elaborated. It consists of an analysis of local development potential and identification of local development objectives and strategy. Once the introductory stage is successfully concluded, individual projects defined in local development programmes can become candidates for grants (mostly for development of agricultural infrastructure, upgrading of farmland, development of supplementary and alternative income sources, design of joint products and services).

Projects designed under the CRPOV, the *Wine Routes* and the *Heritage Trails* programmes are implemented in an interdisciplinary manner. Individual projects and operations are financed not only through the MAFF budget, but also through the participation of municipalities, local communities, and private investors. The rate of MAFF co-financing varies with the type of projects.

Table III.9 shows that the share of MAFF expenditures for rural development in total transfers to the agrofood sector has been rather low but steadily growing during the 1990s. A substantial shift in the structure of these allocations has occurred with a considerable rise in the share of funds channelled for project implementation. This is explained by the growing number of eligible projects, and thus, the increased demand for public support.

Table III.9. **Expenditures for special rural development programmes**

	1992	1993	1994	1995	1996	1997	1998	1999
Total expenditures on rural development,[1] million SIT	68.7	75.6	119.2	143.5	155.0	271.1	465.2	754.7
of which in per cent:								
Rural development programmes (CRPOV, Wine Roads, Heritage Trails)	100.0	100.0	100.0	95.8	86.7	94.9	92.1	78.3
of which:								
Introduction of projects and technical assistance	63.0	45.4	36.0	30.9	33.4	16.3	9.3	8.0
Implementation of projects	37.0	54.6	64.0	65.0	53.3	78.7	82.9	70.3
PHARE support for rural development	0.0	0.0	0.0	4.2	13.3	5.1	7.9	21.7
Total expenditures on rural development[1] as per cent of budgetary transfers to agro-food sector	1.0	1.1	1.5	1.6	1.5	1.8	2.7	3.2

1. MAFF expenditures only.
Source: OECD Secretariat.

While there are some encouraging results with the CRPOV programme at the local level, these are limited to small locations and often lack follow-up projects to maintain their functionality over a longer period of time. In addition, the objectives pursued in CRPOV projects may not reflect the most urgent needs in rural development. This suggests the need for a clear prioritisation of objectives in rural development followed by an evaluation of the most efficient policy measures to achieve these objectives.

Some of the activities within the EU pre-accession support supplement the rural development measures described above. This relates to measures implemented under the PHARE programme, and the forthcoming activities under the *Special Accession Programme for Agriculture and Rural Development*

© OECD 2001

(SAPARD). EU preaccession assistance under PHARE covers a wide range of rural development activities. Apart from technical support in establishing effective veterinary and phytosanitary control, an activity not related to rural development as such, a considerable share of technical assistance has been given to strengthen administrative capacities and establish information databases for a more effective rural development policy. This activity intensified in 1998 through the so-called "twinning process". A significant increase in the share of the PHARE support in 1999 related to the introduction of PHARE C*ross* B*order* programmes. These programmes consist mainly of pilot rural development actions in regions on the border with Austria and Italy (*e.g.* promotion of ecological production, food processing and marketing and alternative income sources, management of environmentally sensitive areas, and rural heritage).

The SAPARD is the new pre-accession facility of the European Union, specifically focused on rural development. The Programme is targeted for the period 2001-2006, and it is expected that the European Union and Slovenia will be investing Euro 6.3 million and 3.4 million respectively each year. Public financing (*i.e.* EU and Slovenia government funds) have to be supplemented by an approximately equal amount of private funds. The SAPARD will promote improvement of farm structures, economic diversification of farm activities, development of the processing industry and rural infrastructure.

3.2. R*ural development within the framework of regional measures*

Development of rural areas also lies within the scope of regional development policies. The Agency for Regional Development within the Ministry of Economic Relations and Development is the main body responsible for regional development in Slovenia. There is also a network of agencies, which are responsible for the preparation and implementation of regional development programmes.

In 1990, the L*aw on* D*evelopment* P*romotion of* D*emographically* E*ndangered* A*reas* was adopted, which laid the basis for new regional development policies in Slovenia. According to provisions of this Law, development assistance focuses on areas showing negative demographic trends as well as peripheral or mountainous regions, underscoring the Law's importance for rural areas. The overall coverage of areas is quite broad (61% of the total territory and 25% of the population). The main types of assistance are: *i*) co-funding of development plans; *ii*) partial funding of local infrastructure; *iii*) support of primary-education measures, training, scholarships, and basic health care, i*v*) social security measures and, *v*) the promotion of local projects. However, the support has proved to be quite limited. The share of public funds devoted to regional development decreased from 0.23% of GDP in 1993 to 0.08% in 1997, which is considerably lower than previous levels (*e.g.* 5.8% in 1972).

The Fund for Regional Development and Preservation of Slovene Rural Areas (the FRDPSRA) is responsible for the allocation and control of public support for regional development. Together with co-financing from the MAFF, the FRDPSRA makes allocations to individual investments in agricultural production, off-farm activities, small- and medium-sized enterprises (SMEs) and rural infrastructure. Support is limited to projects in areas designated by the L*aw on* D*evelopment* P*romotion of* D*emographically* E*ndangered* A*reas* or in the CRPOV, W*ine* R*outes* or H*eritage* T*rails*.

G. Agro-environmental measures

By the mid-1990s, Slovenia had introduced a number of important laws, which formed a new legal framework for environmental protection (Box III.3). The environmental goals of agricultural policy were first mentioned in the 1993 S*trategy for* S*lovenian*A*griculture*. They were formulated as "preservation of agricultural land, protection of agricultural land and water from pollution and misuse" (MAFF, 1993). The attention to agro-environmental issues was supported by Slovenia's progress towards EU accession. The N*ational* P*rogramme of* E*nvironmental* P*rotection* (1998) and the L*aw on* A*griculture* (2000), stipulated preparation of the S*lovenian* A*gricultural and* E*nvironment* P*rogramme*, which was expected to be finalised at the end of 2000. The relevant regulations and control measures are currently being elaborated by the MAFF together with the Ministry of Environment and Territorial Planning. The measures of the agro-environmental package are intended to ensure compatibility with, or progress towards, the agro-environmental regulations of the European Union. Protection of cultural landscape;

© OECD 2001

Box III.3. **Main legislation on environmental protection in Slovenia**

***Environmental Protection Law* (EPL) (1993)** a framework law, covering the main aspects of environmental protection and use of natural resources in Slovenia. The overall objectives and principles stated in the EPL aim at ensuring sustainable development by preservation, improvement, and development of the integrity, diversity and quality of nature in general and of valuable ecosystems in particular. Section VII, Articles 67-74 of the Law deal with agriculture and irrigation as well as with environmental monitoring and environmental protection information systems. On the basis of the Law, the government of Slovenia has issued regulations on the types of activities for which an environmental impact assessment is mandatory. This in particular, includes almost all irrigation projects, especially large ones.

Water Law provides a comprehensive legal framework for water management, regulating issues of water supply, preservation of water, water use, etc.

***Forest Law* (1993)** a basic law on management and preservation of forest resources in Slovenia.

***Law on Agricultural Land* (1996)** – see Box II.3 in Part II.

***Law on Plant Protection* (1995)** concerns plant protection and the use of plant protection products, including the issue of harmful effects from the use of pesticides on people, animals and the environment in general. The Law bans application of pesticides by aircraft. Application of pesticides classified as "Group I Poison" is also forbidden. Restrictions are imposed on the use of pesticides in water protection zones.

***Decree on Input of Dangerous Substances and Plant Nutrients into the Soil* (1996)** sets limits for annual input of hazardous substances and plant nutrients into or onto the soil, and other measures connected with such input. This decree also establishes limits on the application of livestock manure and defines safety band areas and other related restrictions for farming. It promotes the notion of good agricultural practices, including best practice recommendations to reduce nutrient leakage and improve the application of fertilisers, and establishes maximum numbers of livestock per hectare of land.

***Decree on the Critical Values of Hazardous Substances* (1996)** defines the critical concentrations of specific dangerous substances in the soil. It also includes the measures and actions to be taken if critical concentration levels are exceeded.

Nature Conservation Strategy sets the basis for long term nature conservation. Its main objectives include conservation of species and habitats, establishment of a spatial ecological structure and restoration of degraded ecosystems. The strategy focuses on the organisation of nature conservation (setting a system of protected areas and management, species and habitat conservation), and integration of nature conservation principles into other policies.

***Convention on Biological Diversity* (1996)**, The main goals of the Convention are to conserve biological and landscape diversity at the national and local levels and to integrate conservation principles into related sectors. With respect to agriculture, this objective in particular refers to preservation of genetic resources.

***National Biodiversity Strategy and Action Plan* (1998)** deals with the issues of implementation of the Convention on Biological Diversity. The main sectors requiring priority integration and co-operation are agriculture, forestry and tourism.

reduction of nutrient and pesticide impacts; preservation of biodiversity are the priorities of Slovenia's agro-environmental programme. Some types of payments were already introduced in 1999, complementing the few previously existing environmental measures.

Current agro-environmental payment schemes in Slovenia include payments to preserve alpine pastures (*i.e.* headage payments for promoting livestock grazing in these areas); and since 1999, payments for integrated fruit production and for organic farming. Financing of a gene bank is another important agro-environmental programme (Table III.10).

© OECD 2001

Table III.10. **Agro-environmental payments in 1992-1999**

	1992	1993	1994	1995	1996	1997	1998	1999
Agro-evironmental payments, total	17.2	142.0	152.9	108.4	111.8	112.0	104.5	269.1
of which in per cent:								
Payments to preserve alpine pastures	100.0	94.2	92.4	87.3	76.2	75.3	73.2	1.0
Integrated production	–	–	–	–	–	–	–	53.7
Organic farming	–	–	–	–	–	–	–	6.3
Gene bank programme	–	5.8	7.6	12.7	23.8	24.7	26.8	39.0
Agro-evironmental payments as per cent of total budgetary transfers to agro-food sector	0.3	2.1	1.9	1.2	1.0	0.8	0.6	1.2

– Not applicable.
Source: OECD Secretariat.

Promoting livestock grazing on alpine pastures has a long tradition in Slovenia and in the former Yugoslavia. Subsidies for livestock production on alpine pastures were introduced in the 1980s. This was aimed at sustaining the typical highland forms of agricultural land use and to preserve or revive pastures as an important element of the natural and cultural heritage. These traditional measures were transformed into a new system of direct payments in 1994. Under the new system, headage payments are made for all types of ruminants, *i.e*. cattle raised for meat and milk, horses, sheep and goats bred for meat and milk. Only farmers who keep livestock on highland pastures at least 80 days a year are eligible. Highland pastures are determined according to official criteria and the list of such areas is approved and published by the MAFF.

The integrated production programme is intended to contribute to the reduction of negative nutrient and pesticide impacts on the environment. The programme was launched in the mid-1990s in the fruit sector, and will be extended to the vegetable and viticulture sectors. Starting from 1999, producers participating in the programme receive special budgetary support, which reached over half of total agroenvironmental payments in 1999. In the same year, the government began providing support to organic producers. A *Decree on Organic Farming and Methods of Control* is expected to be adopted at the end of 2000, setting the regulatory framework for producing and marketing organic agro-food products in Slovenia.

Total outlays on agro-environmental measures remained relatively flat between 1995 and 1998, but after the introduction of new payments in 1999, they more than doubled (Table III.10). This increase was also due to a substantial rise in support to the gene bank programme. Consequently, the share of agro-environmental expenditures in the total agro-food budget increased sharply in 1999, after a constant reduction since the mid-1990s. The programmes are still in the process of development. Faster progress would require a greater budgetary commitment and a more comprehensive package of policy measures. EU membership is expected to facilitate introduction of a more comprehensive policy package and provide the possibility of tapping into greater funds through EU co-financing facilities.

Over and above strictly agro-environmental measures, other agricultural programmes also pursue environmental objectives. Thus, compliance with environmental criteria, such as good agricultural practices, is one of the conditions of support under the LFA programme. Activities with important implications for environmental protection are part of rural development measures. The CRPOV Programme, for example, is based on sustainable development objectives, and includes a wide range of measures for landscape and land improvement.

H. General services

Support of general services to agriculture is an important activity in Slovenia. It includes: *i*) support to research education and training; *ii*) extension services; *iii*) animal and plant breeding services; and *iv*) other activities of a general nature.

© OECD 2001

Slovenia traditionally had developed research, education and extension systems, as well as long-established infrastructure for various services to agricultural producers (breeding, testing, disease control, etc.). In view of the future accession of Slovenia to the European Union, further efforts have been made to develop general services to agriculture.

1. *Agricultural research*

The agricultural research network in Slovenia is represented by the Agricultural Institute of Slovenia and the Institute of Hop Research and Brewing Zalec. The Biotechnical and Veterinary Faculties of the University of Ljubljana and the Faculty of Agriculture of the University of Maribor undertake agricultural research as well. The Agricultural Institute is the leading public agricultural research institution, its multiple activities covering arable farming, seed production, horticulture and viticulture, plant protection, animal husbandry, mechanisation, agricultural economics and agrochemistry. Other institutions undertake more specialised research.

A special joint target research programme is carried out in Slovenia under public financing. It was introduced in 1994 and designed according to the model of the EU IV Framework Research Programme. The programme is intended to promote research activities, especially in the fields of environmental protection and EU accession issues linked to agriculture. There are annual tenders for research projects, for which a relatively stable flow of funds is provided.

2. *Agricultural education*

Biotechnical and Veterinary Faculties of the University of Ljubljana and the Faculty of Agriculture of the University of Maribor offer higher agricultural education in various fields, including agronomy, animal production, veterinary science, and food processing. There are also Agricultural, Food Processing and Forestry Schools, located in nine regions of Slovenia. The Schools are intended for lower vocational to higher technical levels of education, and their curricula combine general knowledge disciplines, a broad range of specialised subjects and much practical work.

The main responsibility for agricultural education lies with the Ministry of Education. Support from the MAFF mainly consists of co-financing the operational costs of vocational training and higher education in agriculture and related activities (building maintenance, purchase of research equipment and mechanisation).

3. *Extension service*

Agricultural extension has a long tradition in Slovenia. Already in the 19th century, agricultural societies and co-operatives provided advice to farmers and thus functioned as early extension structures. After World War II, local co-operative unions were established, which rendered extension services on a more professional and regular basis. In the 1960s, the local co-operatives and their unions were abolished and, with this, professional advisory activities were interrupted. However, in 1972 a "professional agricultural service" was formed, financed by the state, the municipalities and the farm co-operatives. In 1990, the service became part of the MAFF and was renamed the Agricultural Extension Service (AES). The AES is fully financed by the MAFF and its services are free.

The AES has regional offices throughout the country which are incorporated into the Regional Agricultural and Veterinary Institutions (see below). Altogether around 300 agricultural experts are employed in the AES, of which 180 are active in field work, around 60 are specialists and 50 household and social advisors, with the remainder employed in the administration. There is approximately one adviser per 300 farms and 1 500 hectares of the UAA. Field advisors provide general advice and if necessary, involve specialists from the regional office. Specialist teams are structured according to the prevailing regional production patterns. There is usually one specialist on farm economics and management; one of his main responsibilities is to co-ordinate data collection for Farm Accountancy Data Network.

© OECD 2001

The range of activities of the AES includes:

- training of farmers and their family members through lectures, courses, direct personal advice or through publications and mass media;
- organisation of professional events, such as exhibitions, presentations, demonstrations and field trips;
- design of development and investment programmes based on new farm management methods; introduction of supplementary activities on farms and development of programmes for ecological farming; and
- promotion of producer associations.

In 1999, the AES local network was transferred to the Agricultural and Forestry Chamber with no major change in the functions and funding of the AES.

4. *Plant and Livestock Services*

The main activities in this field are carried out by research institutions, of which the most important are the Agricultural Institute of Slovenia and the Biotechnical faculty of the Ljubljana University. The system includes seven Regional Veterinary and Agricultural Institutions. The plant and livestock services available are:

- selection and introduction of plant varieties; cultivation and supply of basic plant and stock material;
- selection and promotion of new animal breeds; supply of breeding material;
- analysis of farm products, fodder, seeds and seedlings, mineral fertilisers, etc.;
- testing of farm equipment;
- forecast of occurrences of pests and diseases.

The National Cattle Breeding Service of Slovenia is a diversified organisation, consisting of the Central Service (operating within the Agricultural Institute of Slovenia and the Biotechnical Faculty of the Ljubljana University), Regional Agencies, Insemination Centres and Test Stations. Similar services are provided for sheep breeders.

The government covers the costs of all services.

5. *Quality and sanitary control*

Since independence, food quality and safety legislation from the Yugoslav period has been mostly replaced and amended with new laws that are harmonised with EU regulations. The government has endorsed a harmonisation timetable that calls for the full implementation of EU compatible veterinary and phytosanitary legislation by the year 2003.

However, Slovenia faces a considerable task in the field of quality and sanitary control. For example, in 1999, many food processing facilities still failed to meet EU standards. This is particularly true of small-scale enterprises that produce for local markets. Overall, only 15% of all the tested plants were certified to export food products to the European Union. A large number of companies still fail to meet the criteria for registration as industrial outlets according to the EU hygienic and sanitary standards. The need for adjustment and harmonisation is particularly high in the meat and dairy industry.

The policy challenges for the Slovenian authorities in the area of food quality and safety are three-fold. First, a multitude of regulations still have to be changed. Adjustments range from the specifications of the final product, as in the Yugoslav period, to the control of the entire production process, as practised in the European Union. Second, the responsibilities for overseeing the implementation of food quality and safety legislation might have to be consolidated. At the moment, five inspection agencies, reporting to four different ministries are involved in food quality and safety

© OECD 2001

matters. And third, the financial and personal resources devoted to the harmonisation of Slovenian legislation with EU regulations need to be further increased.

I. Tax policies and social security measures

The existing tax system allows for specific treatment of agriculture in a number of areas. This refers to the special VAT regime, fuel excise duty and the profit tax assessment.

The VAT was introduced in Slovenia in 1999 and is consistent with the system of the European Union. There are two VAT rates: a general 19% rate which applies to the majority of goods and services, and a reduced rate of 8%, set for a number of goods and services with an important "social role", *e.g.* medicines and food. Agricultural producers enjoy VAT benefits as buyers of agricultural inputs and services, some of which are subject to reduced 8% VAT rate. These include animal feeds, live animals, seeds and saplings, fertilisers and phyto-pharmaceutical products, all services in agriculture, the veterinary sector, agricultural machinery and equipment as well as construction materials. A reduced VAT rate is also applied to food products. Furthermore, the existing tax regulation exempts "small taxpayers" from the VAT. A large share of Slovenian farmers fall under this category, and are therefore exempt from VAT payment.

Agricultural producers (physical and legal persons engaged in agriculture and forestry) enjoy a tax concession for fuel, which was introduced in July 1999 together with the VAT. Fuel is subject to a general 19% VAT rate and to excise duty (set in absolute value per litre). Current regulations provide for a 50% refund of the excise duty paid for fuel used for agricultural and forestry machinery. The refund is granted once a year (to physical persons) or monthly (to legal persons) based on the quantities of fuel purchased, within an established annual refund limit. The latter is set per agricultural holding on the basis of agricultural and forest areas in use and normative rates of fuel consumption per hectare.

Agriculture also has a special status with regard to *income tax*. Physical persons engaged in agriculture and forestry pay income tax on the basis of imputed cadastral income. Only poultry, vegetable, flower, and mushroom producers are subject to taxation of actual incomes at the same rate as income from other sources. Employees of agricultural companies are subject to the same income tax regime as workers of other economic sectors.

Self-employed farmers have the same social insurance opportunities as employees. However, the following particularities apply to self-employed farmers:

- the basis for basic health insurance is cadastral income (whereas for workers it is their wage), and the contribution rate is higher than that for workers;
- farmers are free to choose the basis for their pension contributions, provided that a minimum insurance level is met;
- farmers pay only the employee's contribution; the employer's contribution is covered by the state budget.

J. Commodity specific measures

1. *Grains*

About 70% of Slovenia's arable land is used for grain production. Food grains (wheat, rye, buckwheat, and millet) are cultivated on less than 20% of arable land. Maize accounts for about 40% of arable land and for more than half of the grain area. In addition to maize, about 10% of the arable land is used to grow other coarse grains (barley, oats, and triticale). Almost all of these coarse grains are destined for animal feed and most of Slovenia's maize production is used as feed stuff, either grain or silage.

During the 1990s, the area sown to grains has been decreasing while production tended to grow, reflecting relatively stable growth in yields (Table III.11). Average grain production towards the end of the 1990s exceeded pre-transition levels in Slovenia.

© OECD 2001

Table III.11. **Area and production of cereals**

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Area sown to grains	000 ha	111.0	110.7	103.3	100.7	99.3	95.5	95.1	91.1
of which:									
Wheat	000 ha	36.4	37.2	35.9	36.8	35.2	33.4	35.0	31.6
Rye	000 ha	2.7	2.7	2.1	1.9	1.9	1.3	1.2	0.9
Maize	000 ha	61.2	59.3	49.4	46.8	47.1	47.5	45.6	44.4
Barley	000 ha	8.1	9.1	12.7	12.7	12.5	10.8	10.9	10.9
Production of grains	000 tonnes	365.2	419.2	527.8	509.1	487.2	543.1	556.9	468.0
of which:									
Wheat	000 tonnes	152.7	142.9	155.3	155.6	137.1	138.9	169.1	117.3
Rye	000 tonnes	7.0	5.8	6.1	5.8	5.5	3.5	3.9	2.6
Maize	000 tonnes	172.5	238.4	313.0	296.3	296.9	355.3	333.5	308.0
Barley	000 tonnes	26.6	26.4	44.3	44.0	40.6	38.8	43.4	33.1
Yields, total grains	t/ha	3.3	3.8	5.1	5.1	4.9	5.7	5.9	5.1
Wheat	t/ha	4.2	3.8	4.3	4.2	3.9	4.2	4.8	3.7
Rye	t/ha	2.6	2.2	2.9	3.0	2.9	2.6	3.1	2.8
Maize	t/ha	2.8	4.0	6.3	6.3	6.3	7.5	7.3	6.9
Barley	t/ha	3.3	2.9	3.5	3.5	3.2	3.6	4.0	3.0

Source: Statistical Office of the Republic of Slovenia.

Slovenia is a net importer of grains. Since 1994, it has met around half of its grain demand with domestic production (Table III.12). Self-sufficiency for maize is somewhat higher, but for other types of feed grains production accounts for less than 30% of domestic consumption.

Until recently the wheat and rye market was heavily protected. On the other hand, protection for maize has been low, reflecting the policy to support industrial pig and poultry production.

Table III.12. **Commodity balance: Total grains, wheat and maize**
1 000 tonnes

	Calendar year							
	1992	1993	1994	1995	1996	1997	1998	1999
Total grains								
Production	365.2	419.2	527.8	509.1	487.2	543.1	556.9	468.0
Imports	634.5	785.2	721.7	592.6	519.9	552.7	498.8	487.7
Exports	26.0	25.8	41.4	24.6	46.9	40.5	32.1	34.5
Change in stocks	–17.7	112.6	173.7	51.8	–19.8	68.9	54.6	–46.7
Domestic use	991.5	1 066.0	1 034.3	1 025.4	979.9	986.3	969.0	967.9
Self-sufficiency (%)	36.8	39.3	51.0	49.6	49.7	55.1	57.5	48.3
Wheat and other food grains								
Production	159.9	148.8	162.1	163.0	144.1	143.8	174.7	121.2
Imports	219.1	388.8	311.1	215.9	133.9	219.6	213.7	143.3
Exports	18.1	17.9	29.7	14.6	38.8	32.7	23.8	27.7
Change in stocks	–11.5	7.6	96.3	75.0	–37.5	1.3	43.7	–56.0
Domestic use	372.3	512.1	347.2	289.3	276.7	329.4	320.9	292.9
Self-sufficiency (%)	42.9	29.1	46.7	56.3	52.1	43.7	54.4	41.4
Maize								
Production	172.5	238.4	313.0	296.3	296.9	355.3	333.5	308.0
Imports	309.5	248.0	252.4	239.3	272.1	251.4	162.3	244.4
Exports	6.7	7.1	10.0	9.0	7.6	7.3	7.0	6.3
Change in stocks	–7.5	106.0	66.8	–22.1	18.9	69.1	8.1	13.9
Domestic use	482.8	373.3	488.6	548.7	542.4	530.2	480.7	532.2
Self-sufficiency (%)	35.7	63.9	64.1	54.0	54.7	67.0	69.4	57.9

Source: Agricultural Institute of Slovenia; Statistical Office of the Republic of Slovenia.

© OECD 2001

Until 1998, the prices for wheat and rye were administratively fixed (Table III.13), and this was combined with state purchases under the responsibility of the Agency for Commodity Reserves (ACR). While the ACR was allowed to conduct duty free imports of wheat, imports by private traders were subject to regular import duties. Wheat from government stocks was sold to mills and other enterprises at a price below the fixed purchase price. The domestic market was therefore largely independent of external market developments, and wheat and rye prices remained relatively stable.

Table III.13. **Administred and average producer prices for wheat**

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Administered price[1]	SIT/tonne	17 000	23 000	25 900	26 500	29 210	31 800	29 800	–
Intervention price[1]	SIT/tonne	–	–	–	–	–	–	–	23 000
Average producer price	SIT/tonne	17 408	23 195	24 958	26 619	32 532	33 005	32 232	23 995
Supplementary per tonne payments	SIT/tonne	2 000	–	–	–	3 000	–	2 700	3 000
Administered price[1]	Euro (ECU)/tonne	162	174	170	173	172	176	160	–
Intervention price[1]	Euro (ECU)/tonne	–	–	–	–	–	–	–	119
Average producer price	Euro (ECU)/tonne	166	175	164	174	192	183	173	124
Supplementary per tonne payments	Euro (ECU)/tonne	19	–	–	–	18	–	14	15

– Not applicable.
1. For standard quality.
Source: Ministry of Agriculture, Forestry and Food, Statistical Office of the Republic of Slovenia.

Protocol 6 to the CEFTA Agreement of April 1998 substantially liberalised Slovenia's import regime for wheat. This triggered, in a very short period of time, large imports of wheat, in particular from Hungary. At the same time, domestic surpluses of bread cereals were recorded leading to a significant disruption in the market. Several policy measures were taken to tackle the situation. The government took recourse to safeguard measures provided by the CEFTA, which remained in place until April 2000). At the same time the fixed purchase price was lowered from 31.8 SIT/kg to 29.8 SIT/kg (Table III.13). The subsequent income reduction was compensated through per tonne payments on quantities marketed to the ACR. In 1999, fixed purchase prices were abolished, and per hectare payments (54 000 SIT per hectare) were introduced for commercial producers. In addition, the intervention price was set at a reduced level of 23 SIT/kg (approximately the same as the EU intervention price for wheat). Over the last decade, non-price support for wheat and rye was made available as:

- seed subsidising targeted to support the use of high quality seed (until 1998) ;
- interest rate subsidies for short-term production loans (until 1998);
- per hectare payments to seed producers (from 1999);
- per hectare payments to wheat producers (from 1999).

Further important changes in the market regime for food cereals occurred in 2000. The government set intervention price and implemented intervention purchases in the post-harvest period (previously ACR purchased food grains during the harvest time). Therefore, farmers had to sell their crop immediately to millers or bear storage costs.

Low border protection for coarse grains meant that feed grain prices remained close to world market levels. However, farmers received per tonne payments for maize sold in 1997 and 1998 (Table III.14). In addition to these payments, feed grain producers were given input subsidies, for instance in the form of interest rate concessions for short term loans or as support for seed production. However, the total amount of budgetary payments for feed grains was significantly lower than in the case of wheat.

As for food grains, a change in the market regime for feed grains occurred in 2000. Direct per hectare payments for maize, barley, oats, millet, and triticale were introduced for all farmers at an

© OECD 2001

Table III.14. **Average producer prices for maize**

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Average producer price	SIT/tonne	13 250	17 090	18 550	17 830	26 260	19 010	18 320	20 420
Supplementary per tonne payments	SIT/tonne	–	–	–	–	–	3 000	3 000	–
Average producer price	Euro (ECU)/tonne	126	129	122	116	155	105	98	105
Supplementary per tonne payments	Euro (ECU)/tonne	–	–	–	–	–	17	16	–

– Not applicable.
Source: Ministry of Agriculture, Forestry and Food, Statistical Office of the Republic of Slovenia.

overall level of 27 000 SIT/ha. These measures are meant to reflect the policy adjustments in the coarse grain market of the European Union.

2. *Sugar*

Sugar beet production began in Slovenia after the construction of the Ormož Sugar Factory (TSO) in the 1970s. Domestic production was considerably lower than the factory's processing capacity, so the main supplies of sugar beets were obtained from Croatia (the factory is located near the border). Following independence, supplies from Croatia were no longer available. Due to the loss of its raw materials base, the factory was converted from a specialised sugar beet processing plant to a combined processing and refinery plant. The successful restructuring process and strong policy incentives for domestic producers, led to substantial growth in the sugar beet area and production (Table III.15). This allowed full utilisation of the processing capacity of the plant. The import substitution policy led to a considerable increase in the sugar self-sufficiency rate in Slovenia (Table III.16).

Table III.15. **Area and production of sugar beet**

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Area	000 ha	3.2	3.5	4.9	6.1	6.3	6.4	7.7	10.8
Production	000 tonnes	96.6	132.6	221.9	265.1	308.0	288.8	380.2	467.1
Yield	t/ha	30.6	37.9	45.2	43.2	48.6	45.3	49.6	43.1

Source: Statistical Office of the Republic of Slovenia.

Table III.16. **Commodity balance: Sugar and sugar beets**
1 000 tonnes (white sugar equivalent)

	Calendar year							
	1992	1993	1994	1995	1996	1997	1998	1999
Production of sugar from sugar beet[1]	28.0	29.5	22.1	38.7	47.8	42.7	47.3	64.2
Imports[2]	55.2	64.2	71.2	77.4	60.2	51.3	29.1	54.0
Exports[2]	29.5	33.9	24.4	23.1	14.4	12.8	10.8	10.6
Change in stocks	6.9	19.5	7.3	–24.9	–14.2	–13.9	10.8	–33.5
Internal use	60.6	79.3	76.2	68.1	79.4	67.3	76.4	74.1
Self sufficiency (%)	46.3	37.1	29.0	56.9	60.2	63.5	62.0	86.6

1. In 1992, 1993 and 1995 includes production from sugar beet imported from Croatia and Hungary.
2. Include sugar in processed products.
Source: Agricultural Institute of Slovenia; Statistical Office of the Republic of Slovenia.

© OECD 2001

The most important element of sugar market regulation is high border protection. High tariffs, combined (until mid-1999) with a minimum price for sugar beets (Table III.17) and a subsidised wholesale price assured significant protection of the domestic market. In June 1999, fixing of minimum price for sugar beet was stopped.

Table III.17. **Administered and average producer prices for sugar beets**

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Minimum price[1]	SIT/tonne	–	–	7 000	7 200	7 820	8 340	8 500	–
Average producer price	SIT/tonne	3 740	6 440	5 830	6 980	8 160	8 690	7 700	8 190
Minimum price[1]	Euro (ECU)/tonne	–	–	46	47	46	46	46	–
Average producer price	Euro (ECU)/tonne	36	49	38	46	48	48	41	42

– Not applicable.
1. For standard quality.
Source: Ministry of Agriculture, Forestry and Food, Statistical Office of the Republic of Slovenia.

In addition to price support and border protection, the sugar economy benefited from budgetary support. In 1998, per hectare payments to sugar beet producers were introduced. They replaced and/or supplemented subsidies to purchase seeds as well as interest concessions for output-linked short run loans. Some budgetary funds destined for price support to farmers was directly transferred to the TSO factory in 1997 and 1998 to compensate for a part of production costs and facilitate the plant's restructuring process.

3. *Potatoes*

Potatoes account for about 4% of total arable land. While the area sown to potatoes has been declining, rapidly rising yields brought about an increase in overall production (Table III.18). Most output is used for farm family consumption, sold directly on local markets, or used as animal feed. There are few measures applied in the potato sector:

- seasonal import protection;
- support for potato seed production;
- interest rate subsidies for the purchasing and storage for potatoes (until 1998);
- co-financing of the storage of potatoes for seed and for sale (from 1998).

Table III.18. **Area and production of potatoes**

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Area	000 ha	12.9	12.4	10.1	10.1	9.4	9.2	9.2	9.8
Production	000 tonnes	157.9	157.7	176.6	191.2	181.1	188.1	195.7	194.2
Yield	t/ha	12.1	12.6	17.3	19.0	19.3	20.5	22.5	19.7

Source: Statistical Office of the Republic of Slovenia.

Table III.19. **Average producer prices for potatoes**

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Average producer price	SIT/tonne	14 410	22 770	19 200	23 270	20 250	17 450	33 190	30 600
	Euro (ECU)/tonne	137	172	126	152	119	97	178	158

Source: Statistical Office of the Republic of Slovenia.

© OECD 2001

4. *Fruit and vegetables*

Fruit production is a traditional agricultural activity in Slovenia. Yields largely depend on weather conditions and vary considerably over time. Changing weather conditions affect both the total volume of fruit production and also its variety composition. Between 1992 and 1999, total annual production ranged between 95 000 and 160 000 tonnes (Table III.20). Accounting for more than two-thirds of total output, apples represent the most important fruit in Slovenia. A large proportion of fruit is grown in intensive orchards. Controlled integrated fruit production accounts for more than half of the output from intensive orchards. Commercialised operations managed to tap into the potential of export markets, primarily with specialised production of apples and pears. The commercial potential of the industry has been considerably improved in the past few years through investment in storage facilities, which has enabled storage of about 80% of production.

Table III.20. **Area and production of fruit and vegetables**

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Fruits									
Total production	000 tonnes	129.9	132.3	162.1	162.3	164.4	95.3	130.5	111.6
Production in intensive orchards:									
Area	000 ha	4.7	4.6	5.5	4.6	4.6	3.9	3.9	4.0
Output	000 tonnes	51.2	62.3	97.7	92.8	95.5	59.0	76.7	75.9
of which:									
Apples	000 tonnes	35.2	46.9	76.6	72.6	73.0	54.7	67.5	58.2
Peaches	000 tonnes	7.1	7.0	7.4	7.7	11.4	1.6	3.1	9.7
Pears	000 tonnes	5.2	4.2	7.7	7.9	7.1	1.2	4.2	4.4
Vegetables									
Area	000 ha	9.7	9.7	8.5	10.0	10.4	10.1	10.1	n.a.
Production	000 tonnes	85.3	94.9	148.8	203.8	205.4	203.2	195.2	n.a.

n.a. Not available.
Source: Statistical Office of the Republic of Slovenia.

Slovenia is a net importer of fresh fruit. The average rate of self-sufficiency in fresh fruit (excluding citrus) is about 95%. There is a constant surplus of apples of about 40% of domestic consumption, and apples are the main export fruit. Average annual apple exports range from 15 000 to 22 000 tonnes. Slovenia also has some exportable surpluses of pears and strawberries.

Vegetables are grown on a small area of around 10 000 hectares which has remained relatively constant over the 1990s. Output, however, has varied significantly, from 85 000 to slightly over 200 000 tonnes (Table III.20). A large share (about 25%) of vegetables are grown in backyard gardens. Cabbages account for most production, followed by lettuce, onions, peppers, and cucumbers. Only 10% of the total area under vegetables is irrigated and only 2% of vegetable production is protected (greenhouses and plastic tunnels). The average rate of self-sufficiency in vegetables is about 70%.

There are few agricultural policy measures for fruit and vegetables. A*d valorem* tariffs are applied in combination with special seasonal import levies for apples, pears, and peaches. Regional free trade constitutes an important element of the foreign trade in fruits and vegetables. Besides imports of fresh fruit and vegetables at reduced tariffs, these agreements also allow for exports of fresh fruit (mainly apples) and vegetables at reduced tariffs, particularly to Croatia, and the Former Yugoslav Republic of Macedonia.

Until 1999, interest rate subsidies were granted to downstream agents for purchasing and storing apples. These measures are deemed to have had only limited effects on output. A more important effect on production originated from co-financing facilities for upgrading and creating new orchards, a programme in place from the beginning of the transition.

© OECD 2001

5. *Hops*

Hops account for only a small share of total agricultural output. There are, however, regions where hops growing is economically important, particularly the Celje region. Hops are cultivated on about 2 000 hectares with an annual production of 2 500 to 4 000 tonnes (Table III.21). Aromatic varieties dominate the highly export-oriented production.

Table III.21. **Area and production of hops**

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Area	ha	2 398	2 466	2 292	2 205	2 233	2 163	2 010	1 803
Production	tonnes	3 431	3 429	3 372	3 507	3 348	4 134	3 384	2 691
Yield	t/ha	1.4	1.4	1.5	1.6	1.5	1.9	1.7	1.5
Exports	tonnes	3 619	2 832	4 304	3 434	2 714	3 178	3 631	3 047

Source: Statistical Office of the Republic of Slovenia.

Domestic prices for hops have traditionally followed developments in the international market. However, over the past few years some export promotion payments were granted to help exports and to support weakened domestic prices (Table III.22) in the situation of depressed international markets. In addition, there are investment subsidies and, in 1998, per hectare payments were introduced.

Table III.22. **Average producer prices for hops**

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Average producer price	SIT/tonne	335 970	427 840	520 440	518 420	557 680	533 350	463 970	499 230
	Euro (ECU)/tonne	3 197	3 234	3 416	3 386	3 290	2 957	2 491	2 578

Source: Statistical Office of the Republic of Slovenia.

6. *Grapes and wine*

Vineyards cover about 17 000 hectares in Slovenia and their productivity has tended to improve over the past few years (Table III.23). Almost a third of agricultural holdings have their own vineyards, but viticulture is primarily a supplementary farm activity or a farm-independent hobby. The average area per holding is only 0.28 hectares, with much of total output destined for own consumption. About two thirds of all vineyards are on steep slopes with an average inclination of 20%, the rest are on even steeper slopes (up to 45% inclination).

Table III.23. **Area and production of wine grapes**

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Area of vineyards[1]	000 ha	21.8	21.8	22.5	23.0	23.0	17.4	17.2	16.6
Production of grapes	000 tonnes	124.0	128.3	144.6	114.7	154.1	127.7	122.7	98.3
Yield	t/ha	6.1	6.2	6.8	5.3	7.1	7.3	7.1	6.6

1. Since 1997, new methodology for registration of vineyard area is applied. Only vineyards meeting the EU definition are registered.
Source: Statistical Office of the Republic of Slovenia.

© OECD 2001

Slovenia produces approximately 90 million litres of wine per year, 70% of which is high quality wine produced in specified regions. About 10 million litres, mainly white wines, are exported to the United States, Germany and Croatia. Per capita wine consumption in Slovenia has declined by almost one quarter since 1992 and equalled 35 litres in 1999, meaning total domestic consumption of about 70 million litres.

Slovenia imports mostly table wines and has an exportable surplus of quality wine. In 1998, wine stocks were extremely high after three consecutive years of good yields and decreasing domestic consumption. As a result, producer prices fell precipitously in 1998. It is also important to note that the drop in prices of grapes for processing was significantly steeper than the drop in prices for wine (Table III.24).

Table III.24. **Average producer prices for wine grapes and wine**

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Wine grape	SIT/tonne	45 420	45 380	54 910	78 190	98 790	116 750	65 520	77 990
	Euro (ECU)/tonne	432	343	360	511	583	647	352	403
Wine	SIT/litre	121	172	224	273	321	357	350	334
	Euro (ECU)/litre	1.1	1.3	1.5	1.8	1.9	2.0	1.9	1.7

Source: Statistical Office of the Republic of Slovenia.

The large share of quality wines is also a result of recent efforts to replant and upgrade vineyards to produce high quality grapes. The government supports the replanting of vineyards through investment subsidies. Other policy measures include border protection for grapes and wine. Until 1998, interest rate subsidies for purchasing and storing wine supplemented these measures. In 1998, new market stabilisation measures were introduced to ease the drastic slump in prices, including financing of wine stocks and intervention through withdrawal of wine from the market.

7. *Milk*

Milk production is one of the main sub-sectors of Slovenian agriculture. About 70% of all farm holdings are involved in milk and/or cattle production. While the number of dairy cows has been decreasing over the past few years, average milk yields have been rising, resulting in a rather stable level of milk output at some 530 000 to 600 000 litres (Table III.25). At the same time the share of milk collected by the dairies has been increasing and with that, the quality of milk has improved.

Table III.25. **Commodity balance: Milk**
Million litres, raw milk equivalent

	Calendar year							
	1992	1993	1994	1995	1996	1997	1998	1999
Number of cows, 000 heads	210.2	215.3	209.6	209.9	199.5	184.7	181.9	183.4
Yield, litres/cow	2 680	2 475	2 668	2 811	2 885	3 085	3 199	3 356
Production of cow milk	563.3	533.0	559.1	590.0	575.5	569.6	581.8	615.4
Imports	26.9	19.1	11.5	13.7	17.2	20.9	21.8	22.7
Exports	117.4	70.0	81.1	91.1	96.4	87.2	117.2	141.4
Change in stocks	9.7	2.6	0.8	1.2	–4.7	1.2	3.2	–4.6
Domestic use	463.1	479.6	488.7	511.4	501.0	502.1	483.2	501.3
Self-sufficiency (%)	121.6	111.1	114.4	115.4	114.9	113.4	120.4	122.7

Source: Agricultural Institute of Slovenia; Statistical Office of the Republic of Slovenia.

© OECD 2001

Structural improvements in the dairy sector are occurring only gradually. The average herd size is increasing, but holdings still remain small. In 1997, for instance, only 10% of all holdings had more than 10 cows and 70% of all cows were in holdings with 10 cows or less, which were located mainly in LFAs. Average milk production per farm was as low as 12 000 litres and the average herd size, 3.8 cows.

The small-farm structure also has negative implications for milk marketing. It affects the profitability of investment in machinery (particularly chilling equipment) and involves higher cost of deliveries to dairy plants. Although deliveries to dairy plants have increased in recent years, more than 30% of total milk production is still marketed through other channels or consumed on the farm. The surpluses are sold as fresh milk (or in the form of home-made dairy products) directly off the farm. 14 dairies compete for about 400 000 tonnes of commercially marketed milk. Only two dairies have an annual milk intake of more than 50 000 tonnes.

Milk production exceeds domestic consumption and generates a constant surplus of milk (Table III.25). Former Yugoslavia republics are the most important export markets. Slovenia imports most milk products from the European Union.

Given the importance of milk production for agriculture in general and for farmers in LFAs in particular, the milk sector has always been a strong focus of Slovenian agricultural policies. The Uruguay Round Agreement on Agriculture provided the possibility of maintaining – at least for certain products – a relatively high level of border protection. For milk, much of this potential to protect the domestic market is applied in practice. Border protection represents the first important element of Slovenia's dairy policy regime and is complemented by numerous domestic policy measures. The most important was administrative fixing of the purchase price for raw milk (until 2001) and "export promotion" payments to processors that help them to export the domestic surplus of 20% to markets abroad. The basic goal for the government is to ensure parity income for farmers by pushing for a high price *vis-à-vis* the processors. The processors, in turn, try to negotiate higher export promotion payments or lower purchase prices in order to maximise their returns from sales on the domestic and export markets. Substantial change in the milk market regulation is foreseen in 2001. According to the government Decree issued in December 2000, fixed price for milk is abolished, and CAP-like intervention system is established beginning from January 2001, based on target milk price, intervention prices for butter and milk powder and intervention purchases.

Up to 1996, in addition to fixed prices, milk producers (both in LFA and other areas) received per tonne payments (Table III.26), which were later abolished. LFA producers continue to receive support, but in the form of per head payments. Producers in Alpine areas also receive special headage payments. Subsidies for breeding heifers were granted until 1999.

Table III.26. **Administrered and average producer prices for milk**

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Administered price (3.7% fat content)	SIT/tonne	19 770	25 710	33 060	35 410	39 240	44 690	50 150	50 150
Average producer price (actual fat content)	SIT/tonne	20 965	27 685	36 227	39 335	42 016	48 076	54 443	56 169
Supplementary per tonne payments	SIT/tonne	250	1 270	1 130	250[1]	–	–	–	–
Administered price (3.7% fat content)	Euro (ECU)/tonne	188	194	217	231	231	248	269	259
Average producer price (actual fat content)	Euro (ECU)/tonne	200	209	238	257	248	267	292	290
Supplementary per tonne payments	Euro (ECU)/tonne	2.4	9.6	7.4	1.6[1]	–	–	–	–

– Not applicable.
1. For the period January – March only.
Source: Ministry of Agriculture, Forestry and Food, Statistical Office of the Republic of Slovenia.

© OECD 2001

8. Beef

Beef production in Slovenia is based on two production systems. The dairy sector is the first contributor with cow beef as a by-product of milk production. This part of the beef sector is prevalent on small-scale farms, as is milk production. The second part of domestic beef comes from a specialised beef industry, which is predominantly represented by agricultural companies. The latter typically buy (import) calves from other former Yugoslavia republics to fatten and finish the animals in Slovenia. Traditionally, most of the carcasses have then been exported to the lucrative Italian market. This part of production declined after independence as Slovenia lost part of its external calf supplies.

With growing opportunity costs for labour, suckler cow production has become gradually more important over recent years. Low labour requirements and suitability of marginal land mean that suckler cow production is expected to become an important contributor to beef production in LFAs. As for many other agricultural activities, the most serious constraint is the limited size of operations as well as the unfavourable cost/revenue developments for beef production. The average producer keeps only eight head of cattle. According to the 1997 Farm Structure Survey, over 90% of all farms kept up to 20 heads and accounted for over 70% of all cattle.

As for milk, the production structure also has an impact on the marketing system. A significant proportion of the cattle are slaughtered directly on the farm or in small butcher shops. Only 60% to 70% of the total cattle slaughter takes place in slaughterhouses. In addition, about 35 professional slaughterhouses are competing for a stagnant or declining number of animals.

Trade balance for beef and veal in recent years shows a slight surplus (Table III.27). This, however, reflects a decline in beef and veal consumption and also the fact that Slovenia is a net importer of live cattle.

Table III.27. **Commodity balance: Beef and veal**
1 000 tonnes, carcass weight

	Calendar year							
	1992	1993	1994	1995	1996	1997	1998	1999
Live animals								
Gross indigenous production	45.8	54.0	46.6	46.1	51.7	54.1	44.5	42.8
Imports	6.2	3.9	5.6	5.1	2.1	1.9	3.2	3.6
Exports	2.7	0.2	0.0	0.0	0.1	0.2	0.0	0.0
Beef and veal								
Production	49.3	57.7	52.2	51.2	53.7	55.8	47.7	46.4
Imports	4.5	6.9	11.6	5.9	3.4	1.5	1.9	1.6
Exports	8.7	8.5	7.6	5.0	2.1	4.1	4.0	3.7
Change in stocks	0.0	0.2	–0.1	0.0	0.0	0.0	0.0	–0.4
Domestic use	45.1	56.3	56.1	52.0	55.0	53.3	45.6	44.0
Self-sufficiency, %	101.4	95.9	83.1	88.5	94.1	101.6	97.7	97.3

Source: Agricultural Institute of Slovenia; Statistical Office of the Republic of Slovenia.

Border protection is the main agricultural policy instrument in the beef and veal market. Specific import tariffs are in place for live animals, beef/veal and beef products. Bilateral and regional trade agreements allow for imports under more favourable terms but preferential import volumes are limited by quotas.

Support to the beef sector also includes per tonne payments to producers in LFAs, a measure continued from the pre-reform period. Another traditional type of support is special headage payments to support the use of Alpine pastures. In 1995, general headage payments were introduced for suckler cows. In addition there was support for breeding heifers (particularly of meat breeds) as well as interest rate subsidies for short-term loans. These last two measures were abolished in 1999.

© OECD 2001

Table III.28. **Average producer prices for beef cattle**
Carcass weight

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Average producer price	SIT/tonne	223 755	279 758	366 882	444 271	444 368	450 614	490 404	501 247
	Euro (ECU)/tonne	2 129	2 115	2 408	2 901	2 621	2 498	2 633	2 589

Note: Carcass weight co-efficient 0.54.
Source: Statistical Office of the Republic of Slovenia, Agricultural Institute of Slovenia.

9. *Sheep and goats*

Sheep and goat production is essentially limited to LFAs, where it gained importance during the 1980s. It became the fastest growing farm activity in these regions in recent years. Between 1992 and 1999, sheep and goat meat inventories almost tripled (Table III.29). Per capita consumption is low, dominated by seasonal demand for lambs. The level of self-sufficiency remained at 98% over the past two years. As in milk and beef farming, structural problems impede further growth in production and profitability. About 50% of all sheep and 92% of the goat producers have 10 animals or less. Only 2% of sheep breeders have above 100 animals per holding. Most of the slaughter is done directly on farms. Slaughter in slaughterhouses represents less than 15% of total meat production.

Table III.29. **Sheep and goat inventories and production**

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Number of sheep, end of year	000 heads	22	27	29	39	43	53	72	73
Number of goats, end of year	000 heads	10	11	11	12	13	21	17	15
Meat production (carcass weight)	000 tonnes	0.2	0.3	0.3	0.4	0.5	0.6	0.7	1.0

Source: Statistical Office of the Republic of Slovenia.

During the transition, agricultural policy has put more focus on sheep meat production, which has been growing steadily in response to high demand and favourable prices (Table III.30). Direct budgetary support has been the main means of assisting the sector. As of 1995, sheep and goat producers benefited from general headage payments. In addition, special subsidies were provided for breeding animals until 1999. Producers in LFAs are entitled to special headage payments for sheep and goats, there are also special headage payments for support of grazing in Alpine regions.

Table III.30. **Average producer prices for sheep and lamb**
Carcass weight

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Average producer price for sheep	SIT/tonne	277 810	290 230	303 430	367 260	396 760	401 250	478 130	362 710
	Euro (ECU)/tonne	2 644	2 194	1 992	2 399	2 341	2 224	2 567	1 873
Average producer price for lamb	SIT/tonne	486 120	597 520	715 530	864 100	878 460	929 000	898 320	835 070
	Euro (ECU)/tonne	4 626	4 517	4 696	5 643	5 182	5 150	4 823	4 313

Note: Carcass weight co-efficient 0.5.
Source: Statistical Office of the Republic of Slovenia, Agricultural Institute of Slovenia.

© OECD 2001

10. *Pig meat*

Pig production is an important agricultural activity in Slovenia. Three different production systems can be distinguished. First, there are eight large, specialised industrial complexes accounting for about 40% of total output. At the other end, there are non-specialised small-scale family farms. This is the most widespread production type with much of the output consumed directly on the farm. Specialised family farms represent the third production type. These units are – as far as technology and product marketing are concerned closer to large industrial farms. The most important distinguishing feature is that they rely to a larger extent on domestically produced feed stuffs.

Slovenia is a net importer of pigmeat, the rate of self-sufficiency averaging 78% between 1992 and 1999 (Table III.31). Slovenia imports mainly from CEFTA countries and exports processed pigmeat products mainly to the former Yugoslavia region. There are currently around 30 slaughterhouses in Slovenia. Only two of them slaughter more than 1 000 pigs per week, while 19 slaughter fewer than 200 pigs.

Table III.31. **Commodity balance: Pigmeat**
1 000 tonnes, carcass weight

	Calendar year							
	1992	1993	1994	1995	1996	1997	1998	1999
Live animals								
Gross indigenous production	50.3	60.1	61.3	58.4	59.4	59.2	60.6	67.5
Imports	2.7	0.9	1.4	2.4	1.1	1.8	0.4	4.9
Exports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Pigmeat								
Production	53.0	61.0	62.7	60.8	60.5	61.0	61.0	72.2
Imports	20.5	24.8	25.5	21.2	21.2	24.9	26.7	20.4
Exports	9.2	6.4	9.0	6.8	10.7	9.3	8.9	10.1
Change in stocks	0.0	0.1	0.1	0.1	0.6	0.2	–0.2	–0.2
Domestic use	64.3	79.5	79.3	75.3	71.6	76.9	78.5	82.4
Self-sufficiency (%)	78.3	75.6	77.3	77.6	83.0	77.0	77.1	82.0

Source: Agricultural Institute of Slovenia; Statistical Office of the Republic of Slovenia.

Border protection is the main component of the pork policy regime. However, bilateral and regional agreements provide import access under more favourable conditions within agreed import quotas. Domestic pork producers benefit from budgetary support and until 1999, they also had access to preferential credit. There were no domestic market interventions up until 1998. Various financial and economic crises in 1998 as well as sectoral problems (swine fever in the European Union and elsewhere) led to falls in domestic pork prices (Table III.32). This prompted the first public intervention purchases of pig meat at the end of 1998 and in 1999. Domestic market intervention was supplemented by border measures, notably introduction of higher import tariffs for pork carcasses between May 1998 and November 1999.

Table III.32. **Average producer prices for pigmeat**
Carcass weight

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Average producer price	SIT/tonne	193 100	201 034	236 088	256 217	279 622	322 889	296 697	273 882
	Euro (ECU)/tonne	1 838	1 520	1 550	1 673	1 650	1 790	1 593	1 414

Note: Carcass weight co-efficient 0.78.
Source: Statistical Office of the Republic of Slovenia, Agricultural Institute of Slovenia.

© OECD 2001

11. *Poultry and eggs*

Poultry production was growing rapidly until the late 1980s and Slovenia was an important supplier of poultry to a number of regions of the former Yugoslavia. The collapse of this market resulted in a sharp decline in poultry production. By changing the production programme (expanded breeding of turkeys) and a reorientation to other markets, production picked up again after 1994 (Table III.33). Slovenia remains a net exporter of poultry meat and records considerable surpluses. Poultry comes mainly from highly specialised industrial types of operations, which are entirely dependent on imported feeds. Domestic poultry consumption tends to increase. As in many other markets, poultry benefited from a re-orientation of consumers towards healthier diets in general and white meat in particular.

Table III.33. **Commodity balance: Poultry**
1 000 tonnes, carcass weight

	Calendar year							
	1992	1993	1994	1995	1996	1997	1998	1999
Live poultry								
Gross indigenous production	56.0	48.5	49.1	56.0	58.2	59.7	58.7	54.5
Imports	4.6	1.2	0.1	0.1	0.0	0.0	0.0	0.0
Exports	2.5	1.0	0.4	0.1	0.0	0.0	0.0	0.0
Poultrymeat								
Production	58.1	48.8	48.8	56.0	58.2	59.7	58.7	54.5
Imports	3.0	2.1	1.3	1.4	2.4	3.0	4.7	3.7
Exports	27.1	21.0	15.1	13.9	12.2	12.0	10.0	11.4
Change in stocks	0.0	2.3	0.9	–1.9	–0.2	1.6	–0.8	1.1
Domestic use	34.1	32.2	35.9	41.7	48.2	52.3	52.6	47.8
Self-sufficiency (%)	164.2	150.5	136.8	134.5	120.7	114.0	111.6	113.9

Source: Statistical Office of the Republic of Slovenia, Agricultural Institute of Slovenia.

Table III.34. **Average producer prices for poultry (carcass weight) and eggs**

	Units	1992	1993	1994	1995	1996	1997	1998	1999
Average producer price for poultrymeat	SIT/tonne	128 823	146 971	170 400	177 183	209 183	216 822	209 494	205 648
	Euro (ECU)/tonne	1 226	1 111	1 118	1 157	1 234	1 202	1 125	1 062
Average producer price for eggs	SIT/tonne	134 596	148 449	183 556	200 593	243 950	246 871	242 123	222 369
	Euro (ECU)/tonne	1 281	1 122	1 205	1 310	1 439	1 368	1 300	1 148

Note: Carcass weight co-efficient 0.75.
Source: Statistical Office of the Republic of Slovenia, Agricultural Institute of Slovenia.

Table III.35. **Commodity balance: Eggs**
1 000 tonnes

	Calendar year							
	1992	1993	1994	1995	1996	1997	1998	1999
Usable production	21.6	20.0	19.7	19.3	22.8	25.0	24.5	24.2
Imports	1.4	0.7	0.7	0.6	0.8	0.7	0.8	0.7
Exports	4.2	3.2	2.5	2.1	2.2	2.2	0.7	0.4
Domestic use	18.8	17.5	17.8	17.8	21.3	23.5	24.5	24.5
Self-sufficiency (%)	115.1	114.0	110.3	108.8	106.7	106.2	99.8	98.8

Source: Statistical Office of the Republic of Slovenia, Agricultural Institute of Slovenia.

© OECD 2001

During most of the independence period Slovenia produced moderate surpluses of eggs (Table III.35). As in the pork sector, egg production is based on different production systems with industrial production on the one hand and family farm production on the other. Following independence, production declined considerably due to the loss of the Yugoslav market.

Except for border measures and export promotion payments there are no other specific policies in the poultry and eggs sectors.

K. Overall budgetary outlays on agro-food policies

In real terms, after considerable reduction in 1993, budgetary transfers to the agro-food sector remained flat until 1997, and have been growing steadily since; in 1999 they exceeded the 1992 level by 36% (Table III.36). There was a marked growth in budgetary transfers in 1999, mainly due to an increase in outlays for market price support and area and headage payments.

Table III.36. **Budgetary transfers to agro-food sector in 1992-1999**

	1992	1993	1994	1995	1996	1997	1998	1999p
Budgetary transfers to agro-food sector:[1]								
In current prices, billion SIT	6.9	6.6	7.9	9.2	10.7	14.7	17.0	23.4
In 1991 prices, billion SIT	2.2	1.6	1.6	1.6	1.7	2.2	2.4	3.1
Budgetary transfers to agro-food sector[1] as per cent:								
Of consolidated budgetary expenditure	n.a.	1.1	1.0	1.0	1.0	1.2	1.2	1.4
Of GDP	n.a.	0.5	0.4	0.4	0.4	0.5	0.5	0.6
Overall budgetary transfers to agro-food sector, forestry, fishery and administration, billion SIT	8.4	8.9	10.8	14.7	17.2	22.4	25.6	33.2
As per cent of consolidated budgetary expenditure	n.a.	1.4	1.3	1.5	1.6	1.8	1.8	2.1
As per cent of GDP	n.a.	0.6	0.6	0.7	0.7	0.8	0.8	1.0

p Provisional.
n.a. Not available.
1. Expenditures for forestry, fishery and administration not included.
Source: OECD Secretariat.

Support to the agro-food sector places a relatively small burden on the Slovenian economy. The share of agro-food budgetary transfers in the overall national budget ranged between 1.1% and 1.4%, and between 0.4% and 0.6% of GDP in 1992-1999. However, these shares tended to grow particularly in 1999, following the marked increase in the budgetary transfers to the agro-food sector in that year.

It should be noted that financing the agro-food sector is only a part of the overall MAFF budget. A notable share of the Ministry's finance is allocated to the forestry and fishery sectors, as well as for the veterinary service, which is quite important in Slovenia. Therefore, taking into account all activities, the aggregate MAFF outlays comprised about 2% of total national budget expenditures and almost 1% of GDP in 1999 (Table III.36). In the analysis that follows, only expenditures on the agro-food sector are considered.

The composition of budgetary transfers to the agro-food sector has undergone substantial changes since 1992 (Table III.37 and Figure III.3). The most important change is a shift to area and headage payments from input subsidies and, up to 1998, from expenditures related to market price support. In 1998-1999, however, the share of allocations to market price support resumed, reaching about the same level as in the first half of the 1990s. At the beginning of the transition, there was a rise in the share of outlays for general services, this share then stabilised and even tended to decline in most recent years. The part of budgetary transfers destined for investment support has fluctuated, without showing any distinct trend.

Overall, during most of the transition period, the structure of budgetary transfers to the agro-food sector in Slovenia has been shifting from more to less distortive types of support. Between 1992 and 1998, the share of area and headage payments, as well as the "green box"-type measures, such as

© OECD 2001

Table III.37. **Composition of budgetary transfers to agro-food sector**

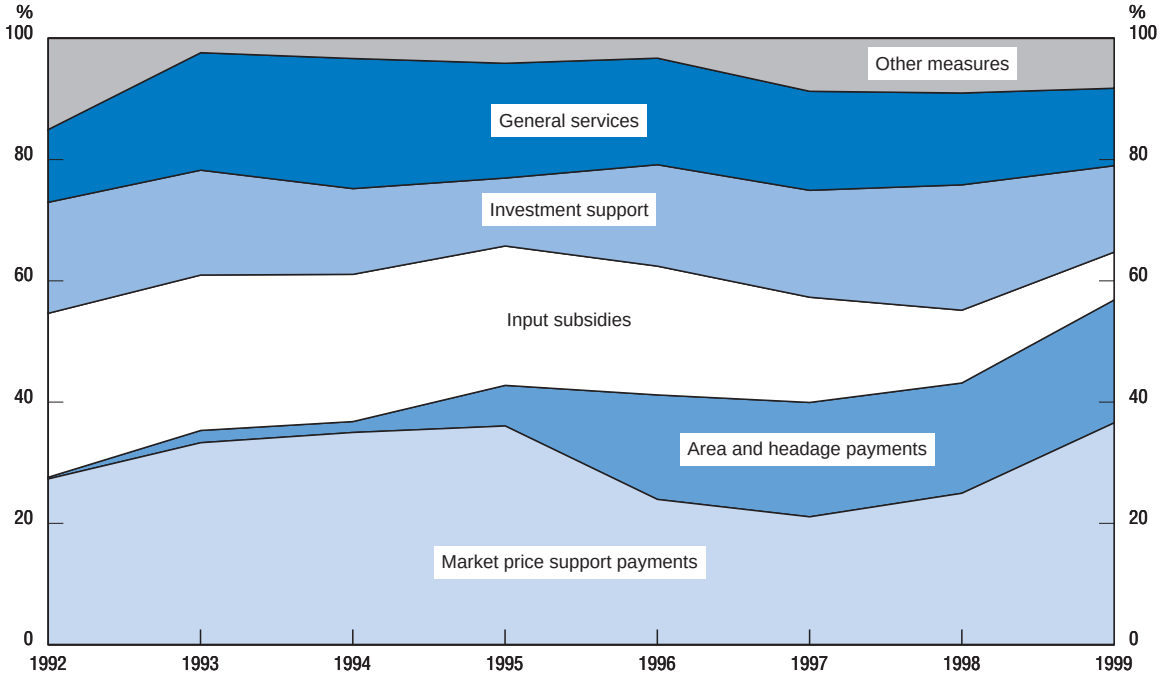
Per cent

	1992	1993	1994	1995	1996	1997	1998	1999
Total budgetary support to agro-food sector	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Allocations for price support and market regulation[1]	27.4	33.3	35.0	36.0	23.9	21.1	24.9	36.6
Area and headage payments[2]	0.3	2.0	1.8	6.8	17.3	18.9	18.2	20.2
Input subsidies	27.1	25.6	24.3	23.0	21.3	17.3	12.0	7.9
Investment support to agriculture and food industry	18.3	17.3	14.1	11.2	16.7	17.6	20.7	14.3
General services	12.0	19.4	21.5	19.0	17.5	16.4	15.2	12.8
Other expenditures[3]	15.0	2.3	3.3	4.1	3.3	8.7	9.0	8.2

1. Direct and indirect price support, including payments to LFAs.
2. Including payments to LFAs and agro-environmental payments.
3. Unallocated rural develoment and structural funds, gene bank programme and miscellaneous expenditures.

Source: OECD Secretariat.

Figure III.3. **Composition of budgetary transfers to agro-food sector**



Source: OECD Secretariat.

support of investments, general services, rural development and agro-environmental measures, increased from 46% to 63% of total transfers to agro-food sector. However, this trend was partly reversed in 1999 when a considerable increase in allocations for market price support took place, and the budgetary part of other than market price support components fell to 55%. Such a reversal goes against the reform objective to shift away from distortive policies. Pressures to increase market interventions may, however, strengthen as a result of further opening of Slovenia's borders to EU and CEFTA imports in 2000. Slovenia's domestic support commitments to the WTO will be a serious counterbalancing force to such pressures, as Slovenia's domestic support is quite close to the WTO ceiling (see Table II.9 in Part II).

© OECD 2001

Part IV

EVALUATION OF SUPPORT TO AGRICULTURE

The evaluation of support to Slovenian agriculture presented in this report has been done in accordance with the OECD methodology, and is based on the following indicators: Producer Support Estimate (PSE), Consumer Support Estimate (CSE), Total Support Estimate (TSE) and General Services Support Estimate (GSSE) (Box IV.1). The description of the methodology, including the new OECD classification, as well as detailed tables of PSE/CSE calculations and results are presented in the Annex.

PSEs and CSEs have been estimated for all OECD countries, as well as for several non-member transition countries for which OECD has carried out agricultural policy reviews. The PSE/CSE estimates make up part of the annual OECD monitoring of agricultural policies in both member and non-member countries.

Although one of the objectives of the new OECD classification is to make the indicators more consistent and more comparable between countries, the results presented in this study should be interpreted with care. In any use of PSE and CSE indicators, such as for comparison between countries,

Box IV.1. **OECD indicators of support: Definitions**

Producer Support Estimate (PSE): an indicator of the annual monetary value of gross transfers from consumers and taxpayers to support agricultural producers, measured at the farm gate level, arising from policy measures which support agriculture, regardless of their nature, objectives or impacts on farm production or income. The PSE can be expressed in monetary terms; as a ratio to the value of gross farm receipts valued at farm gate prices, including budgetary support (percentage PSE); or as a ratio to the value of gross farm receipts valued at world market prices, without budgetary support (producer Nominal Assistance Coefficient, NAC).

Consumer Support Estimate (CSE): an indicator of the annual monetary value of gross transfers to (from) consumers of agricultural commodities, measured at the farm gate level, arising from policy measures which support agriculture, regardless of their nature, objectives or impacts on consumption of farm products. The CSE can be expressed in monetary terms; as a ratio to the value of consumption expenditure valued at farm gate prices, including budgetary support to consumers (percentage CSE); or as a ratio to the value of consumption expenditure valued at world market prices, without budgetary support to consumers (consumer NAC).

General Services Support Estimate (GSSE): an indicator of the annual monetary value of gross transfers to general services provided to agriculture collectively, arising from policy measures which support agriculture, regardless of their nature, objectives and impacts on farm production, income, or consumption of farm products. The GSSE can be expressed in monetary terms or as a percentage of the total support to agriculture (percentage GSSE).

Total Support Estimate (TSE): an indicator of the annual monetary value of all gross transfers from taxpayers and consumers arising from policy measures which support agriculture, net of the associated budgetary receipts, regardless of their objectives and impacts on farm production and income, or consumption of farm products. The TSE can be expressed in monetary terms or as a percentage of the Gross Domestic Product (Percentage TSE).

© OECD 2001

it is important to bear in mind the limitations of these indicators with respect to policy and commodity coverage and data availability. It is also necessary to stress that the macroeconomic and institutional framework in which agricultural policy measures have been applied has impact on the results. Thus, the market price support (MPS) element, measured as a price gap between domestic and world reference prices, may capture the impact not only of agricultural policies as such, but also of macroeconomic policies (for example, through the exchange rate), and domestic market inefficiencies which isolate agricultural producers from developments on world markets. This qualification is particularly relevant when the PSE/CSE method is used for countries in transition: where macroeconomic and structural reforms have been taking place, the downstream sector is inefficient and the data collection systems lag behind changes in the economy.

While recognising its limitations, it should be underlined however, that the PSE/CSE method is a useful tool in analysing agricultural reforms and the level of support to agricultural producers, as well as the progress towards more market-oriented agriculture in transition countries.

A. Aggregate results

1. *Producer* Support Estimate

PSE/CSE calculations have been made for 10 agricultural products, accounting for about 80% of total value of agricultural output in Slovenia. This includes virtually the entire livestock sector; however, the coverage for the crop sector is less complete. Notably potatoes, vegetables, grapes and fruit are not included in the support estimates.

The changes in the PSE level largely reflect fluctuations in its market price support element (MPS), *i.e*. the difference between domestic and world prices. During the 1990s, the following four periods in the evolution of PSE in Slovenia were observed (Table IV.1):

- ***Between* 1992 *and* 1993** producer support declined to the lowest level observed during the period analysed. To a large extent, this was due to a considerable weakening of domestic prices in 1993, reduction in budgetary support and a nominal depreciation of the *tolar*. Growth in world prices for several PSE products (maize, sugar, poultry and eggs) also contributed to the squeezing of the price gap between Slovenian domestic and world prices, thus reducing the implicit support.
- **I*n* 1994 *and* 1995** measured support rebounded. Domestic prices improved and budgetary transfers grew. In 1995, even if for the most important commodities the world market prices increased, this did not have substantial impact on their equivalents in domestic currency due to the nominal appreciation of the *tolar*. Altogether, these factors contributed to the rise in support during this period.
- **I*n* 1996**, the PSE fell again, this time in response to a considerable growth in world prices for almost all PSE products. The positive price gap between domestic and reference prices was reduced, pushing the PSE down significantly. Strengthened domestic prices, the real appreciation of the tolar in 1996 and a continued growth in budgetary transfers were no longer sufficient to counter-balance the impact of rising international prices on the level of support.

Table IV.1 **Aggregate percentage PSEs and CSEs for Slovenia**

	1992	1993	1994	1995	1996	1997	1998p	1999e
Percentage PSE	35	28	32	37	29	37	46	52
Percentage CSE	–28	–26	–28	–31	–23	–31	–41	–46

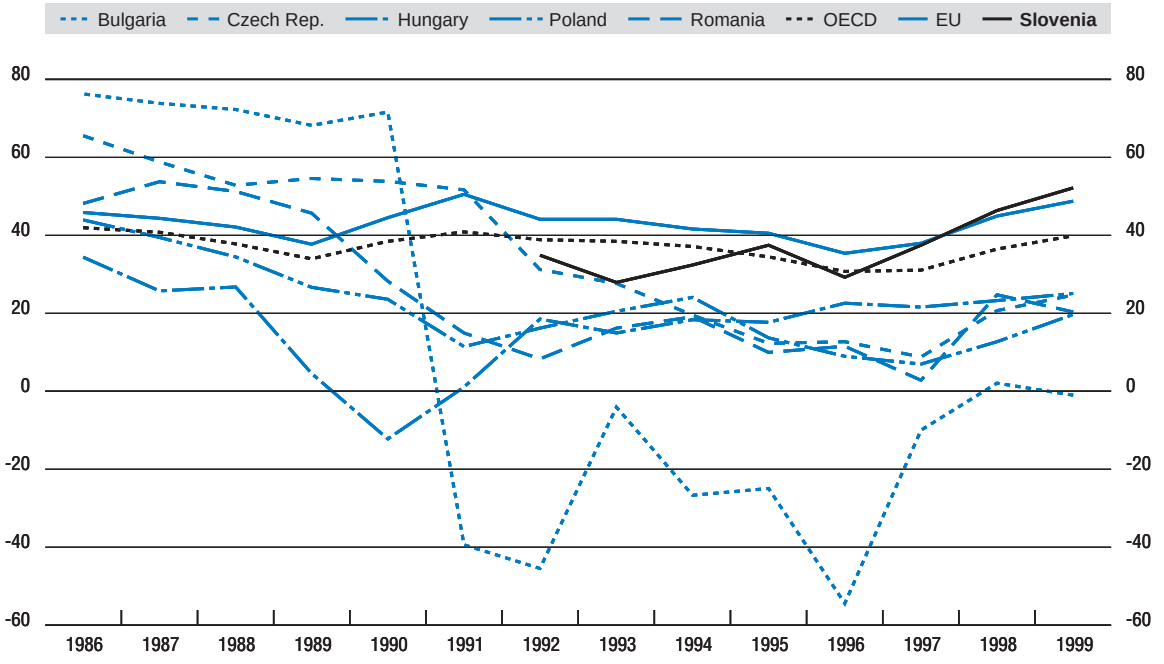
e Estimate.
p Provisional.
Source: OECD Secretariat.

© OECD 2001

– ***Between* 1997 *and* 1999** another upward shift in the PSE was observed, again influenced strongly by world market developments. World prices for many PSE commodities shifted downward in 1997. In the following two years, world markets experienced a strong depression, with prices for some commodities hitting new historical lows. The fall in international prices was the major contributor to the growing MPS estimate, and, hence, of the PSE in Slovenia during this period. This trend was characteristic not only for Slovenia, but also for many other countries. In Slovenia, a marked increase in budgetary transfers, especially in 1999, was an additional factor of the growth in producer support.

In 1995-1999, the average percentage PSE in Slovenia (41%) was above the OECD level (35%) and nearly the same as in the European Union (42%). During the whole period under review, the level of support in Slovenia exceeded that in any other CEEC country for which OECD has carried out similar estimates (Figure IV.1). Thus, in 1995-1999, the Slovenian percentage PSE was well over average levels observed in Poland (22%), the Czech Republic (16%), Hungary (12%), Slovakia (19%), Estonia (9%), Lithuania (10%), Romania (14%) and Bulgaria (minus 18%). The high PSE level in Slovenia reflects substantial domestic price support and border protection for the most important Slovenian agricultural commodities (milk products, beef, and pigmeat), as well as steadily growing budgetary transfers to producers.

Figure IV.1. **Percentage PSEs by country, EU and OECD average, 1986-1999**



Source: OECD Secretariat.

2. *Consumer Support Estimate*

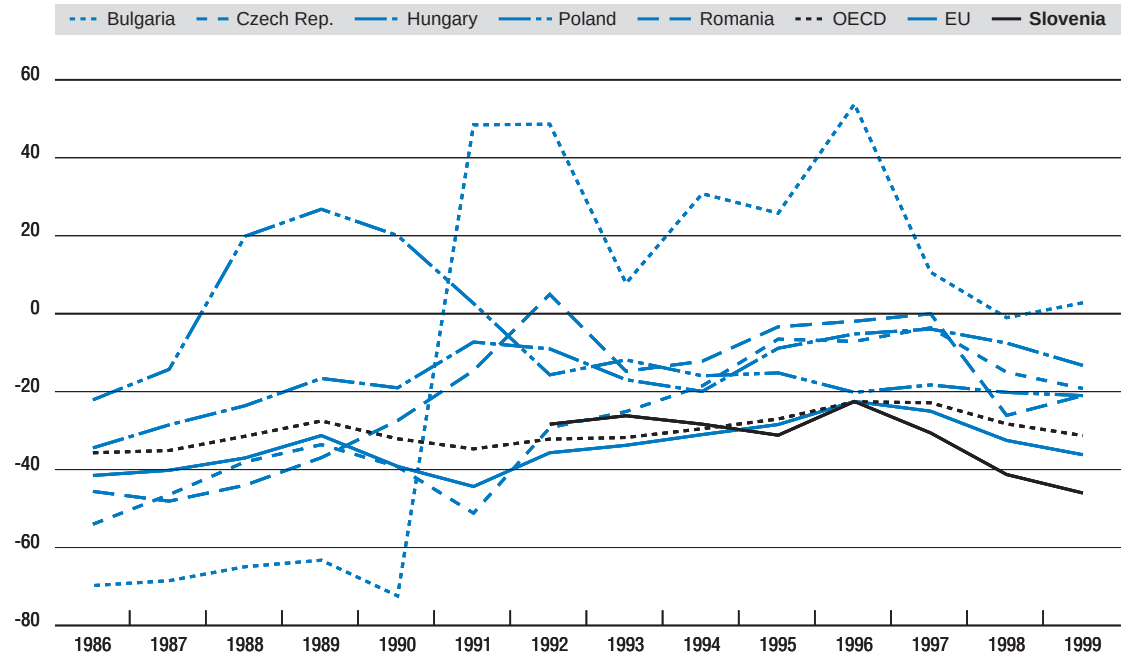
High and positive producer support in Slovenia translates into implicit taxation of consumers.* Thus, between 1992 and 1999 the aggregate percentage CSE was negative, and changed from minus 28% in 1992 to minus 46% in 1999 (Table IV.1). Movements in the CSE largely mirror the evolution of the MPS: increases in market price support for agricultural producers mean increases in tax on consumers, and

* In the OECD PSE/CSE methodology, the consumer is assumed to be the immediate buyer of agricultural products.

© OECD 2001

vice versa. The burden placed by agricultural policies on Slovenian consumers is much higher than in Poland, Hungary, the Czech Republic and since the mid-1990s exceeds the EU level (Figure IV.2).

Figure IV.2. **Percentage CSEs by country, EU and OECD average, 1986-1999**



Source: OECD Secretariat.

3. *Composition of* PSE *and* CSE

In 1992-1999, market price support comprised 83% of PSE, meaning that the "wedge" between domestic and world markets prices was the major determinant of producer support in Slovenia (Table IV.2 and Figure IV.3). The importance of budgetary transfers tended to decline, falling from 22% to

Table IV.2. **Composition of PSEs and CSEs in Slovenia**

Per cent

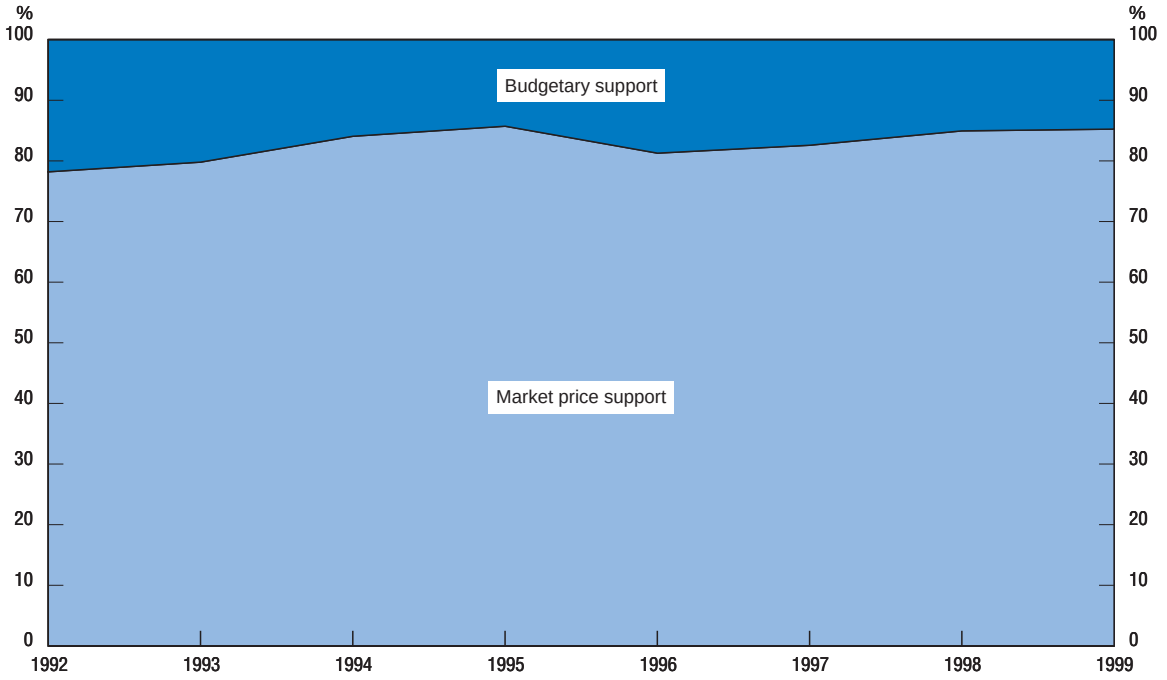
	1992	1993	1994	1995	1996	1997	1998p	1999e
Producer Support Estimate (PSE)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Market Price Support	78.2	79.8	84.1	85.8	81.3	82.6	84.9	85.2
Budgetary support	21.8	20.2	15.9	14.2	18.7	17.4	15.1	14.8
Consumer Support Estimate (CSE)[1]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Transfers to producers from consumers	89.3	81.7	86.8	89.5	95.2	92.5	89.5	91.0
Other transfers from consumers	21.2	31.7	21.9	13.4	8.5	8.9	13.1	10.7
Transfers to consumers from taxpayers	–0.2	0.0	0.0	–0.1	0.0	–0.4	–0.4	–0.3
Excess feed cost[2]	–10.3	–13.4	–8.7	–2.8	–3.7	–1.0	–2.3	–1.4

e Estimate.
p Provisional.
1. A share greater than 100% was possible because the strong negative transfers from consumers to producers were partly compensated by direct consumer subsidies and feed cost adjustment.
2. A supplementary cost resulting from Market Price Support on quantities of crops domestically produced and consumed as feed by livestock producers.

Source: OECD Secretariat.

© OECD 2001

Figure IV.3. **Composition of Producer Support Estimate, 1992-1999**



Source: OECD Secretariat.

15% of total transfers to producers over the same period. This seems counter-intuitive, given the relatively stable rise in budgetary payments to producers in Slovenia. Apparently, the decrease in the share of the budgetary component in the PSE meant that the implicit support through prices (*i.e.* the price gap) tended to grow faster than the budgetary support.

The most important component of CSE is market transfers (transfers to producers and other transfers from consumers), which are the corollary on the consumer side of market price support for producers. Direct consumer subsidies (transfers to consumers from taxpayers) as well as feed cost adjustment compensated for only a small part of market transfers from Slovenian consumers (Table IV.2).

4. *Total Support Estimate*

The level of total support to agriculture (TSE) in Slovenia has been gradually increasing over the transition period, although with some fluctuations. Since independence, two major upward shifts in support took place: one from 1993 to 1995 and the other one from 1996 onwards (Table IV.3). By 1999, total support to agriculture in Slovenia has accumulated to the equivalent of 2.3% of GDP. This level is higher than OECD and EU averages and close to the average recorded for other CEECs for which OECD has measured the level of support (Figure IV.4). The latter means that high producer support in Slovenia (as measured by the PSE) related to the rather high GDP places almost the same burden on the Slovenian economy, as does the lower support in other transition countries.

Producer support (PSE) is the major component of TSE in Slovenia, comprising 92% of total transfers to the agricultural sector in 1992-1999. Two other elements, support for general services and direct consumer subsidies, accounted for about 8% and less than 1% of TSE respectively during the same period. Until 1997, the structure of TSE remained fairly stable, but in the most recent years there was an increasein the share of general services (Figure IV.5).

© OECD 2001

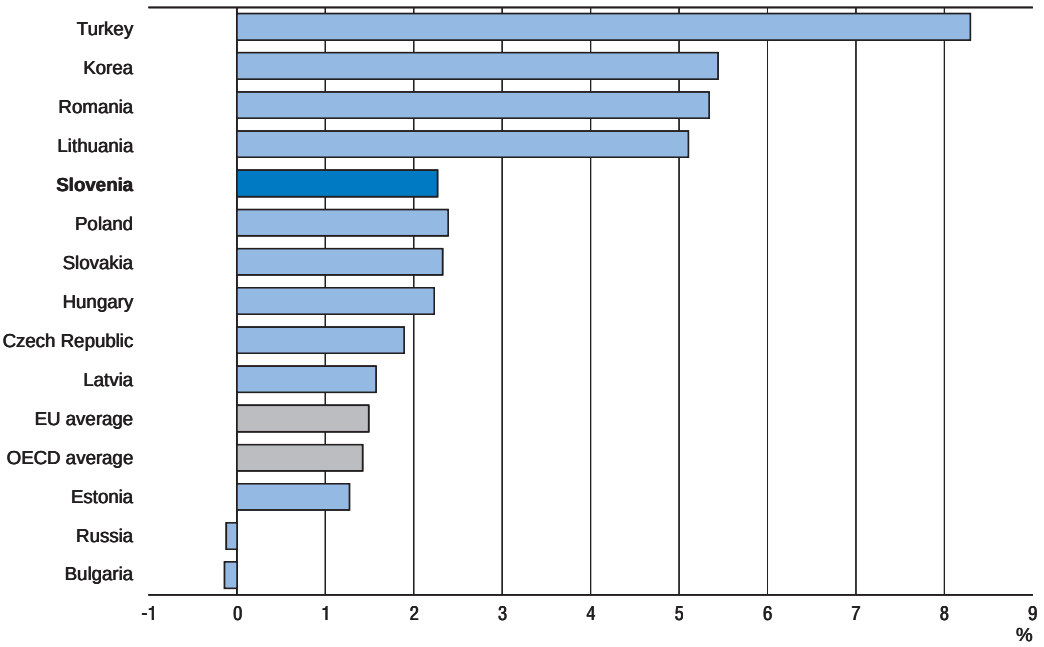
Table IV.3. **Indicators and composition of total support to Slovenian agriculture**

	1992	1993	1994	1995	1996	1997	1998p	1999e
Total Support Estimate (TSE)								
Million SIT	23 244	23 466	33 466	44 590	41 586	56 442	70 096	79 272
Millon USD	286	207	260	376	307	353	422	436
Million Euro	221	177	220	291	245	313	376	409
TSE as share of GDP, per cent	2.3	1.6	1.8	2.0	1.6	1.9	2.2	2.3
Composition of TSE, per cent								
Total Support Estimate (TSE)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Producer Support Estimate (PSE)	93.5	91.9	92.5	93.9	92.4	90.9	91.5	91.2
of which:								
Market Price Support	73.2	73.3	77.8	80.5	75.1	75.1	77.7	77.7
Budgetary support	20.4	18.6	14.7	13.4	17.3	15.8	13.8	13.5
General Services (GSSE)	6.3	8.1	7.5	6.0	7.6	8.8	8.2	8.5
Transfers to consumers from taxpayers	0.1	0.0	0.0	0.1	0.0	0.3	0.3	0.3

e Estimate.
p Provisional.
1. A share greater than 100% was possible because the strong negative values of MPS were partly compensated by budget expenditures.
Source: OECD Secretariat.

Figure IV.4. **Total support estimate by country, EU and OECD average, 1999**

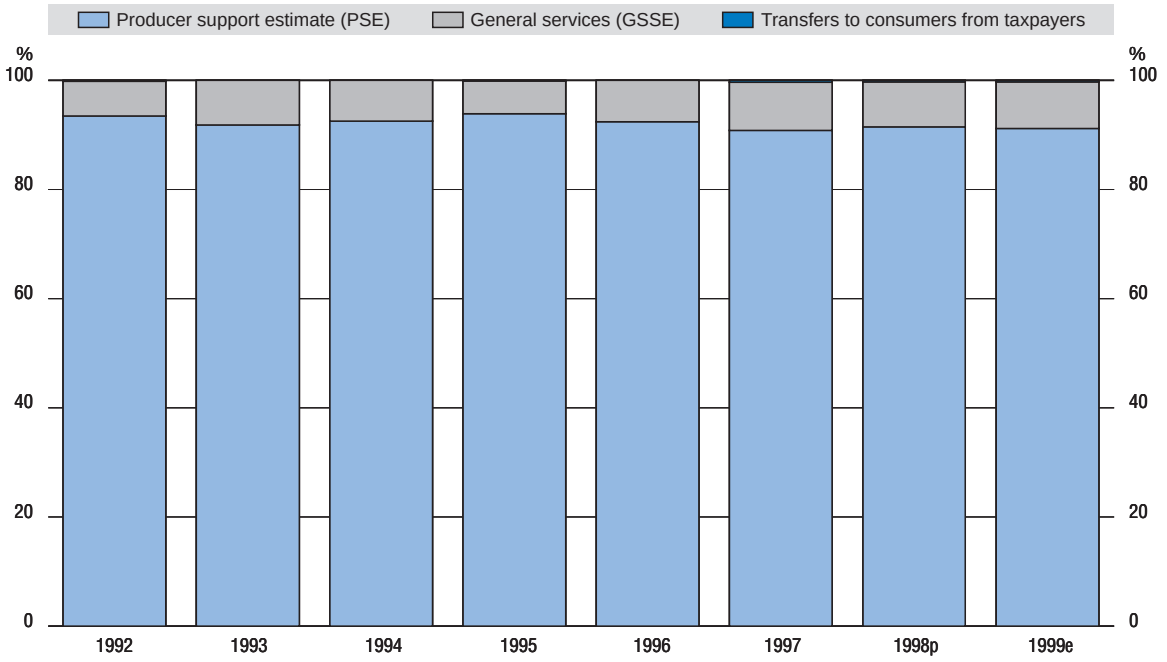
In per cent of GDP



Source: OECD Secretariat.

© OECD 2001

Figure IV.5. **Composition of total support estimate, 1992-1999**



Source: OECD Secretariat.

B. Commodity profile of producer support

1. *Distribution of support across commodities*

The distribution of support across commodities is highly uneven. On average as much as much as 85% of total producer support was related to livestock products over 1992-1999. Milk is the most important beneficiary accounting for one third of total support, followed by beef, which absorbs 19% on average (Table IV.4). Given the fact that milk and beef production are usually complementary

Table IV.4. **Distribution of producer support by commodities**

Per cent

	1992	1993	1994	1995	1996	1997	1998p	1999e	1992-99
Wheat	9	10	8	5	5	4	6	4	6
Maize	5	7	5	2	3	–1	0	1	3
Other grains	2	2	2	1	1	1	1	0	1
Sugar	3	6	4	4	6	4	4	5	5
Crops	**18**	**26**	**19**	**11**	**15**	**8**	**11**	**11**	**15**
Milk	31	37	38	32	33	30	36	31	33
Beef and Veal	19	3	10	23	22	29	22	23	19
Pigmeat	10	20	18	15	10	17	18	20	16
Poultry	15	10	10	12	12	9	5	8	10
Eggs	7	4	4	6	7	6	6	5	6
Sheepmeat	0	1	1	1	1	1	1	1	1
Livestock	**82**	**74**	**81**	**89**	**85**	**92**	**89**	**89**	**85**
All commodities	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

e Estimate.
p Provisional.
Source: OECD Secretariat.

© OECD 2001

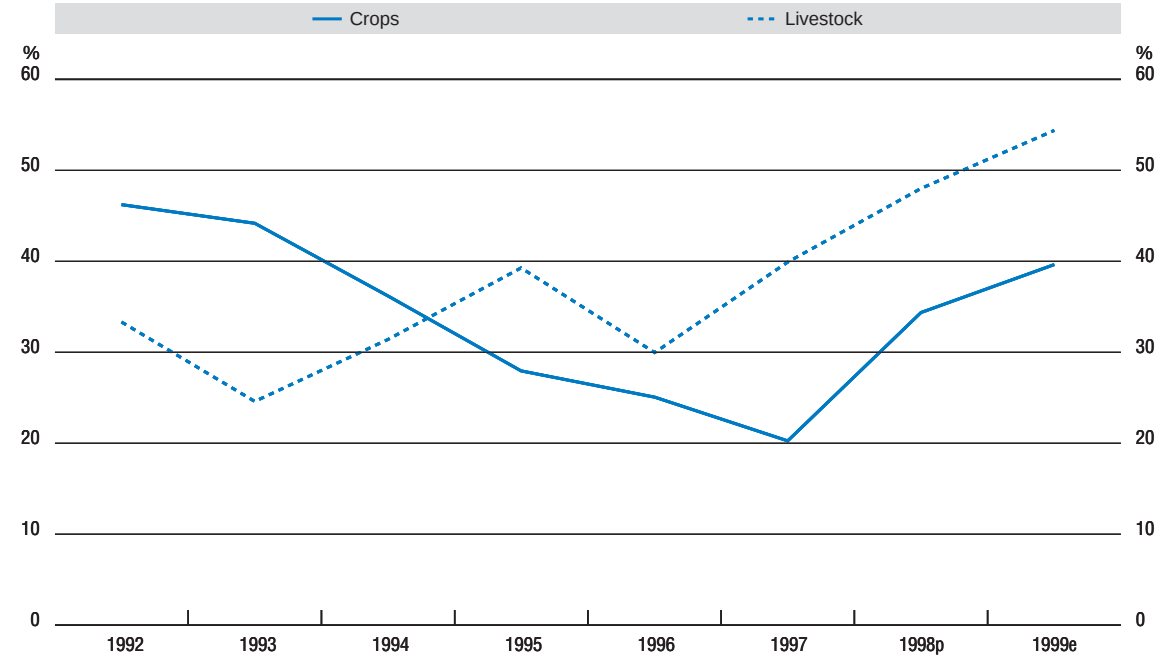
operations in Slovenia, existing within one farming unit, it can be concluded that producer support in Slovenia is concentrated on one specific producer group, *i.e.* cattle breeders with mixed milk/beef production. Pigmeat and poultrymeat are the next most important recipients of support. Production of these commodities is concentrated in large-scale industrial-type units, meaning that this part of producer support is allocated to a relatively limited number of beneficiaries.

Crop products accounted for only 15% of total support between 1992 and 1999, with the bulk going to wheat and sugar. Feed grains (barley) benefited from a very small share of total producer support, which was considerably reduced towards the end of the 1990s.

2. *Level of support by commodities*

In 1992, the percentage PSE for crop products exceeded that for livestock products, but between 1993 and 1997 it fell. The livestock PSE, on the contrary, took two upward turns from 1993 (Figure IV.6). The divergence in trends for the two sectors led to a shift (in 1995) in their relative support levels, with the livestock PSE exceeding that for crops. Reflecting the importance of livestock production in total agricultural output, the livestock PSE almost fully dominated the evolution of the aggregate level of producer support in Slovenia.

Figure IV.6. **Percentage PSE for crops and livestock, 1992-1999**



Source: OECD Secretariat.

There are marked differences in the levels of support for individual commodities in Slovenia (Table IV.5 and Figure IV.7). The highest levels of support are observed for sugar, sheepmeat, milk, pigmeat, beef and veal, eggs and wheat. A comparison of the current (1999) PSE levels for the key commodities in Slovenia and the European Union, shows that most livestock products (except beef and veal) enjoy higher support in Slovenia, particularly pigmeat and eggs, while milk support is at about the same level. In contrast, crop commodities are less supported in Slovenia, with the exception of sugar, whose PSE level is significantly higher than in the European Union (Figure IV.8).

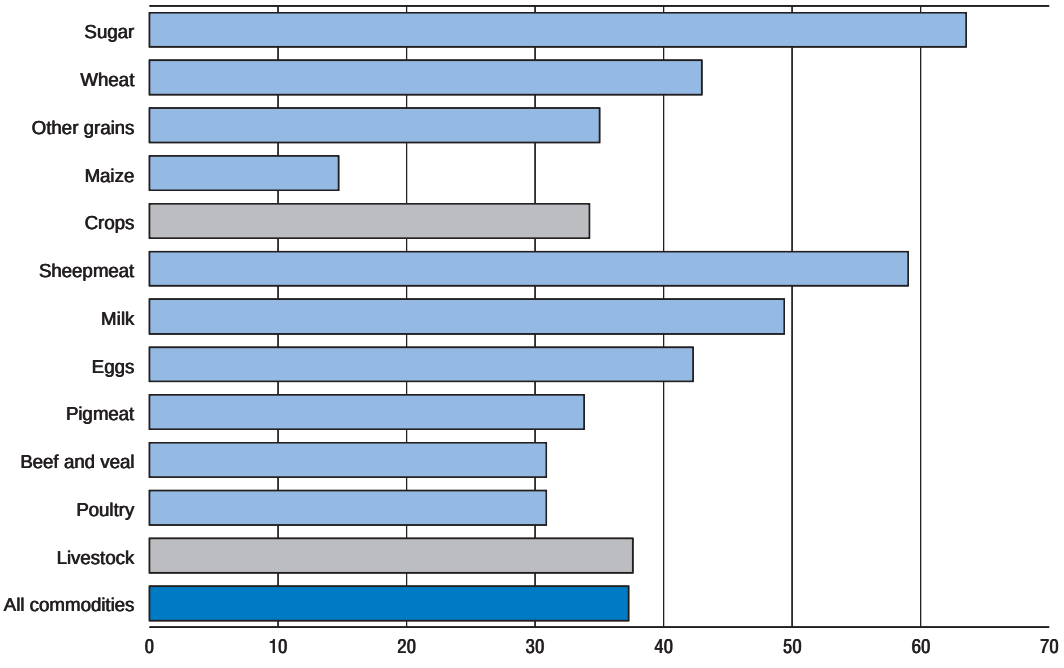
© OECD 2001

Table IV.5. **Percentage PSE by commodity, 1992-1999**

	1992	1993	1994	1995	1996	1997	1998p	1999e
Wheat	50	48	47	35	29	32	50	53
Maize	34	29	20	12	12	–3	3	11
Other grains (barley)	53	57	48	23	17	22	31	28
Sugar	61	69	63	56	58	60	68	72
Crops	**46**	**44**	**36**	**28**	**25**	**20**	**34**	**40**
Milk	48	46	50	48	42	47	59	55
Beef and veal	29	3	14	33	25	42	46	55
Pigmeat	17	28	30	32	18	35	49	62
Poultry	37	25	29	40	28	27	20	40
Eggs	45	24	31	52	40	42	50	53
Sheepmeat	61	57	51	74	59	55	60	56
Livestock	**33**	**25**	**31**	**39**	**30**	**40**	**48**	**54**
All commodities	**35**	**28**	**32**	**37**	**29**	**37**	**46**	**52**

e Estimate.
p Provisional.
Source: OECD Secretariat.

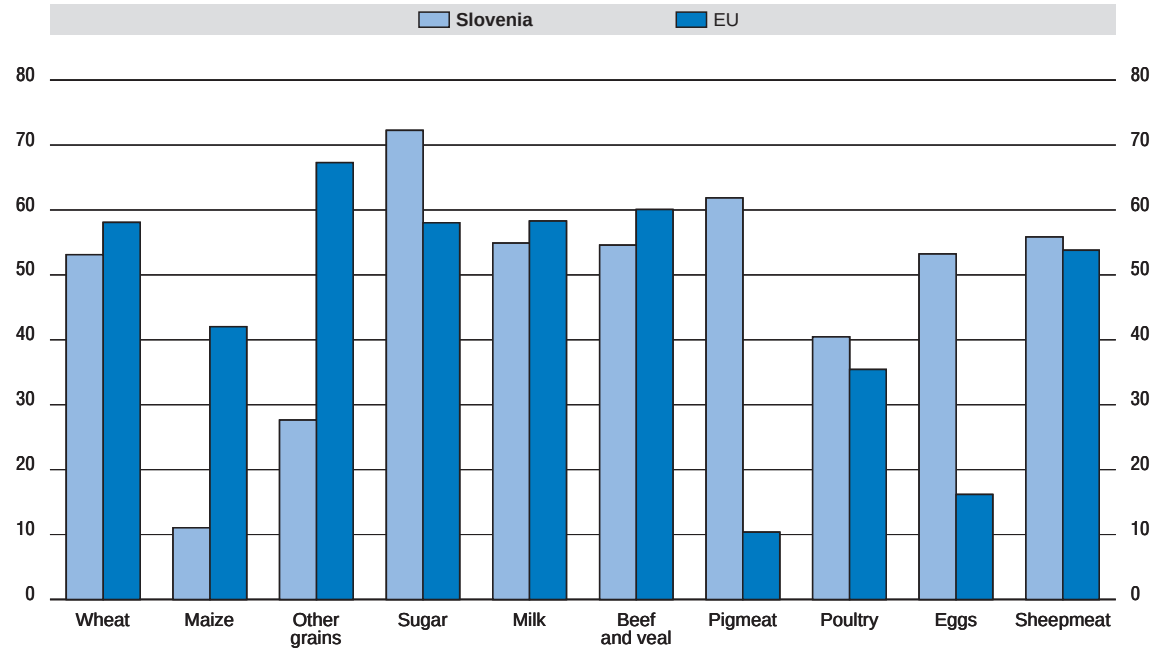
Figure IV.7. **Slovenian percentage PSE by commodity, average 1992-1999**



Source: OECD Secretariat.

© OECD 2001

Figure IV.8. **Percentage PSEs by commodities for Slovenia and the European Union, 1999**



Source: OECD Secretariat.

3. *Analysis of support by commodities*

Commodity specific PSEs and CSEs are summarised in Table IV.5 and Table IV.6 below and in Annex Tables.

Table IV.6. **Percentage CSE by commodity, 1992-1999**

	1992	1993	1994	1995	1996	1997	1998p	1999e
Wheat	–6	–22	–24	–21	–10	–14	–34	–25
Maize	–21	–9	–7	–4	–4	3	0	–3
Other grains (barley)	–39	–46	–35	–16	–11	–12	–20	–17
Sugar	–49	–45	–39	–42	–45	–44	–57	–67
Crops	**–21**	**–25**	**–21**	**–16**	**–11**	**–11**	**–24**	**–21**
Milk	–44	–42	–47	–44	–37	–41	–56	–52
Beef and veal	–24	0	–11	–27	–20	–37	–41	–49
Pigmeat	–19	–36	–36	–33	–19	–35	–52	–63
Poultry	–41	–35	–36	–43	–31	–28	–22	–42
Eggs	–51	–36	–39	–56	–42	–43	–52	–55
Sheepmeat	–63	–39	–45	–67	–51	–41	–50	–43
Livestock	**–30**	**–26**	**–30**	**–36**	**–27**	**–37**	**–46**	**–53**
All commodities	**–28**	**–26**	**–28**	**–31**	**–23**	**–31**	**–41**	**–46**

e Estimate.
p Provisional.
Source: OECD Secretariat.

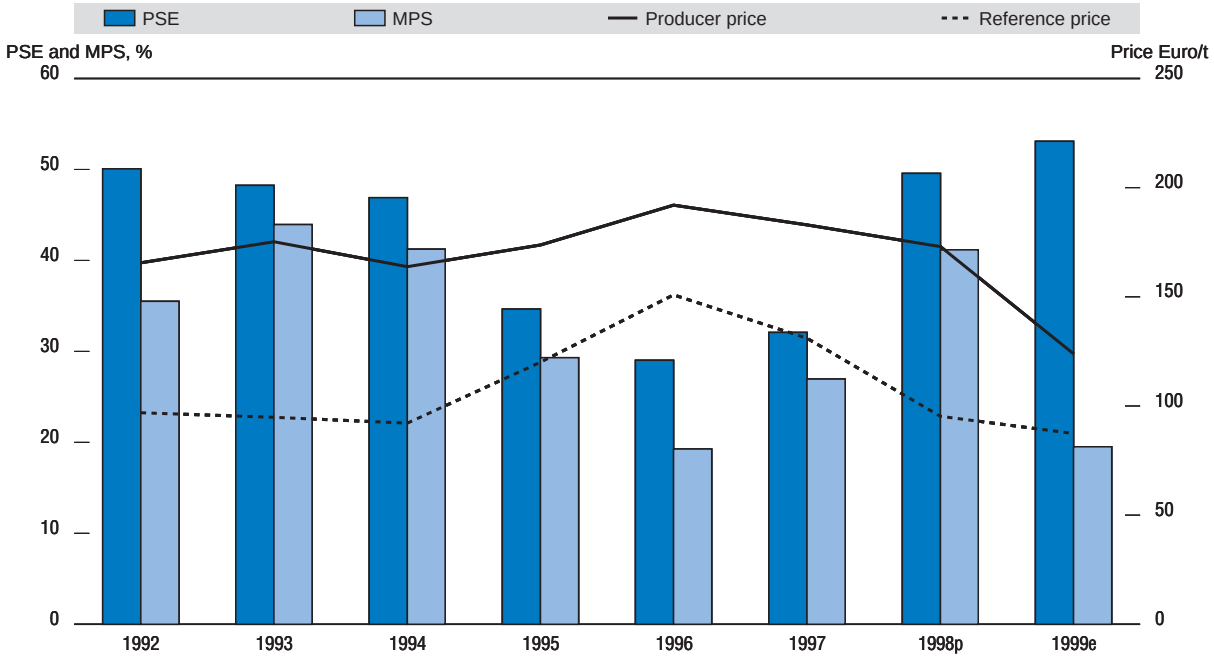
3.1. *Wheat*

Wheat production represents about 4% of total agricultural output in Slovenia, equivalent to about 27% of crop production. The average percentage PSE for wheat reached some 48% during 1992-1994,

© OECD 2001

which was largely due to the fact that border measures and domestic policies allowed Slovenia to maintain the domestic farm prices substantially above the world market price levels. PSEs declined in the mid 1990s when high world prices squeezed the level of implicit support for grains in Slovenia, as well as in many OECD countries. Wheat PSEs increased again to about 50% in 1998 as international prices declined, more precisely, when the fall in international prices outpaced the fall in domestic prices. With much more moderate decreases in international prices, but much stronger declines in producer prices, market price support contracted again in 1999. The decline in MPS was more than offset by increased budgetary support (partly due to introduction of per hectare payments for wheat in 1999) and resulted in an overall rise in support to 53% for wheat producers for this year (Figure IV.9).

Figure IV.9. **Percentage PSEs, producer and reference prices for wheat**



Source: OECD Secretariat.

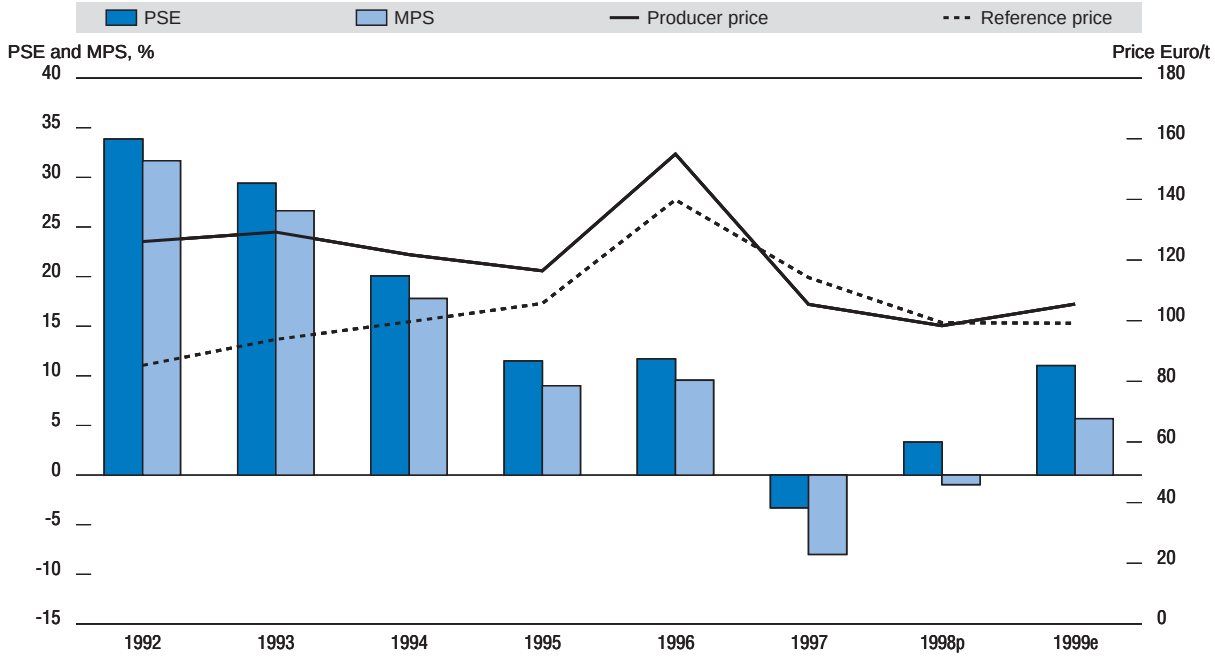
Wheat CSEs were negative during the whole period under review, mirroring the developments on the PSE side. However, the mechanism of administered pricing for wheat, applied from 1992 to 1998, ensured a reduction in the price charged to consumers (see Part III, Section J.1), thus lowering transfers from consumers. This price regulation system explains why wheat CSEs for this period were lower than the MPS wedge from the PSE would have suggested. Despite the subsidising, consumers were still taxed relative to consumption of wheat at world market prices.

3.2. *Maize*

Maize is the most important cereal in Slovenia, accounting for about 52% of grain output, 35% of total crop production or about 5% of total agricultural production. The level of support to maize has always been lower than for wheat both in absolute and percentage terms. Percentage PSEs for maize declined strongly during 1992-1996 from 34% to 11% (Figure IV.10). Import tariffs were relatively low and market price support was even negative in 1997 and 1998. With insignificant non-price support in these years, this resulted in negative overall PSEs except for 1998 when budget transfers were large enough to offset the effects of the negative MPS. In 1999 the rise in the producer price led to a positive MPS and consequently to a positive level of support of 11%.

© OECD 2001

Figure IV.10. **Percentage PSEs, producer and reference prices for maize**



Source: OECD Secretariat.

The CSE for maize was primarily the result of market transfers and the feed cost adjustment. Maize consumers were implicitly taxed during the whole period, except for 1997 and 1998 when domestic prices fell below the reference price and pushed the market price element into negative territory.

3.3. *Other grains*

Other grains are represented by barley, which accounts for about 6% of crop production or 1% of the total agricultural output. Support to other grains was generally higher than for maize but much lower than for wheat. The PSEs for other grains peaked in 1992-1994 to an average of 53%, but dropped to 23% in 1995 and 17% in 1996 following the sharp increase in the EU reference price for barley (Figure IV.11). After 1995 changes in the domestic producer price closely followed the developments in the world reference price, with the PSE level remaining somewhat above 20%.

Levels and changes of the CSEs were – in the absence of consumer subsidies – largely the result of market transfers and the feed cost adjustment. The positive MPS meant a tax on consumers throughout the 1990s.

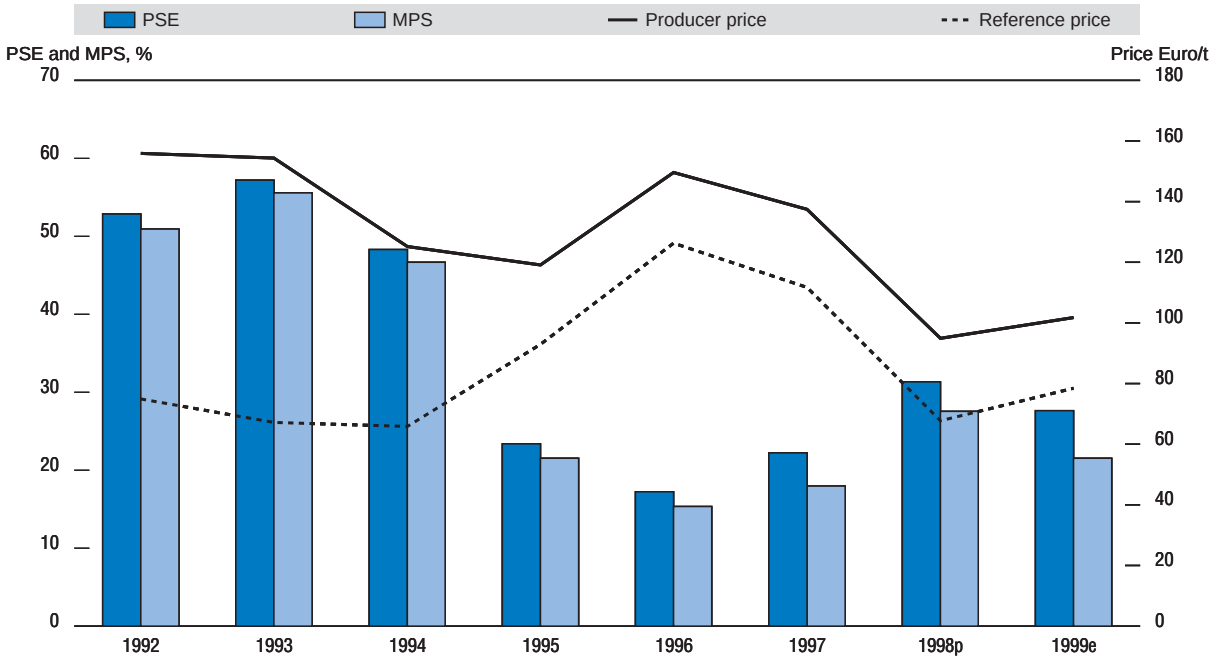
3.4. *Sugar*

Sugar beet production accounts for about 2% of agricultural output, equivalent to 13% of crop production. Percentage PSEs of around 60% and more suggest that Slovenia's sugar beet producers enjoyed high support during the entire period under review. The level of support even increased in the second half of the 1990s, which was due to the fact that external reference prices declined faster than the corresponding domestic prices (Figure IV.12). By 1999 the percentage PSE reached a record level of 72%, as the price wedge widened and additional support was provided through per hectare payments.

High and negative CSEs for sugar, indicating a strong tax on consumers, largely mirror the MPS. As market price support to sugar beet producers grew, the tax on sugar beet consumers increased. At peak levels, the government tried to offset this burden on consumers by subsidising consumers. This was done in 1992, 1997, 1998 and 1999. It was, however, insufficient to offset the implicit tax on consumers

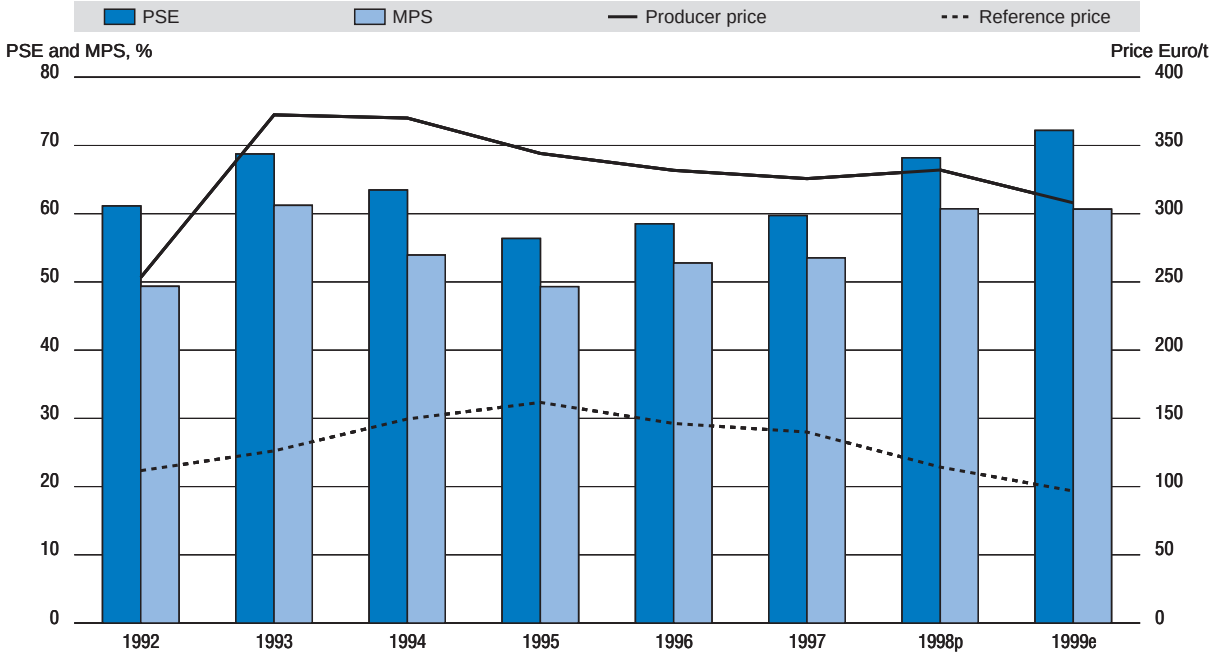
© OECD 2001

Figure IV.11. **Percentage PSEs, producer and reference prices for other grains**



Source: OECD Secretariat.

Figure IV.12. **Percentage PSEs, producer and reference prices for sugar**



Source: OECD Secretariat.

© OECD 2001

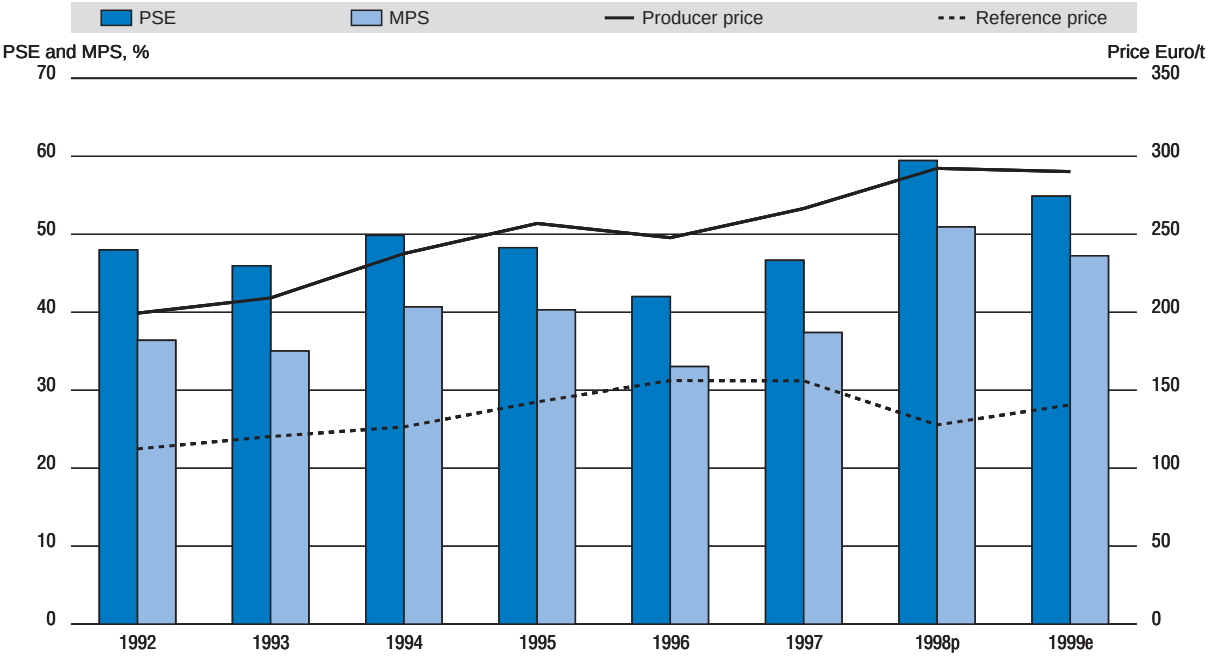
resulting from high producer prices, and CSEs for sugar were at an average level of minus 48% during 1992-1999, one of the highest among the PSE commodities.

3.5. *Milk*

Milk is the most important product for Slovenia's agriculture. Milk production accounts for about 20% of the total value of agricultural output and for 23% of the value of livestock production. The milk sector is also one of the most important recipients of producer support in Slovenia. Protection is provided first of all through border measures. High border protection is coupled with substantial budgetary support to milk producers, as well as by export promotion measures that allow processors to dispose of the domestic surpluses on international markets. All this maintains domestic prices significantly above international price levels (New Zealand reference price). During 1992-1999, percentage PSEs were above 45% (except in 1996) (Figure IV.13). Milk PSEs peaked in 1998 at 59%, due to combined effect of higher domestic prices and a drop in the reference price. In 1999 support declined to 55%, largely reflecting the recovery in the reference price.

The CSEs for milk were strongly negative, reaching on average 45% in 1992-1999 and showing one of the highest levels of consumer taxation across the PSE commodities. The CSEs largely reflected changes in market price support on the producer side.

Figure IV.13. **Percentage PSEs, producer and reference prices for milk**



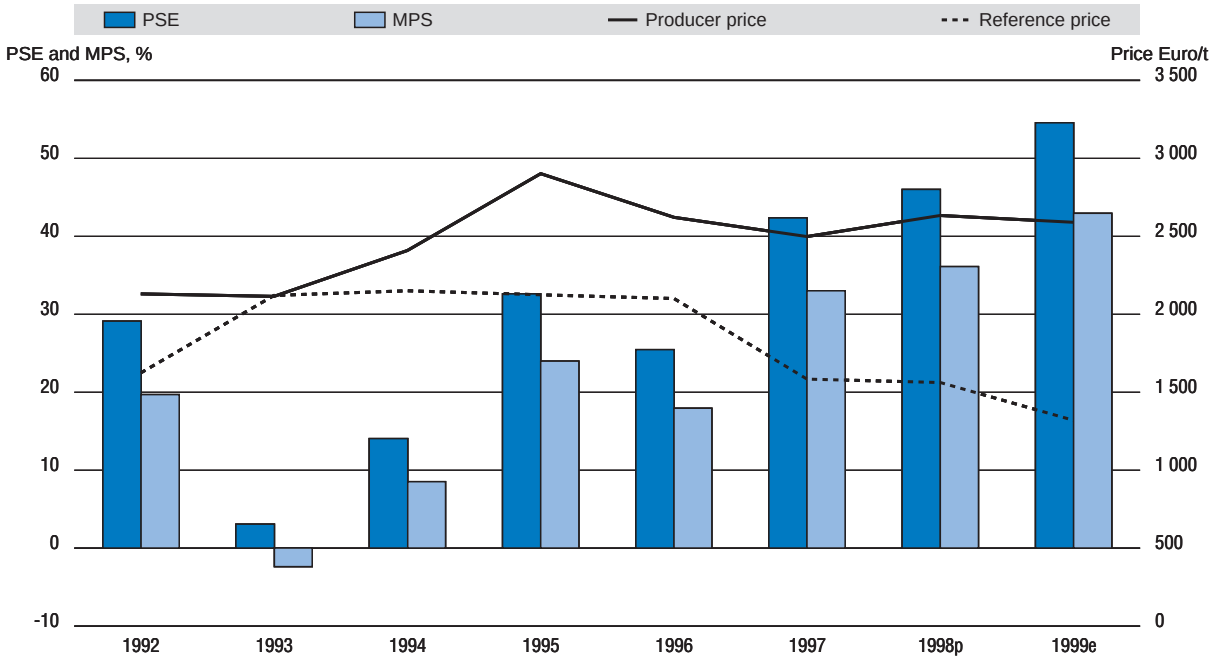
Source: OECD Secretariat.

3.6. *Beef and veal*

Beef and veal production accounts for 19% of total agricultural output or 22% of the value of livestock production. Support for beef and veal is lower than for milk. After a decline to 3% in 1993, PSEs gradually increased to about 55% by the end of the 1990s. The increase in the PSEs largely reflected a decline in the reference price while domestic prices remained high and relatively stable (Figure IV.14).

© OECD 2001

Figure IV.14. **Percentage PSEs, producer and reference prices for beef and veal**



Source: OECD Secretariat.

The evolution of the CSEs was largely a reflection of this widening price gap on the producers' side and consumers were implicitly taxed during the whole period.

3.7. *Pigmeat*

Pigmeat production represents about 15% of the value of total agricultural output and 18% of total livestock production. The percentage PSE for 1992-1995 reached an average level of 27%. It fell to 18% in 1996, but increased to almost 50% in 1998. The swings in the PSE are largely a reflection of movements in the MPS (Figure IV.15). Pigmeat producers as well as poultry producers benefit from low tariffs on imported feed stuffs. It should also be noted that much of domestic pigmeat production is in large operations. This suggests that a substantive proportion of support is distributed among only a few operators.

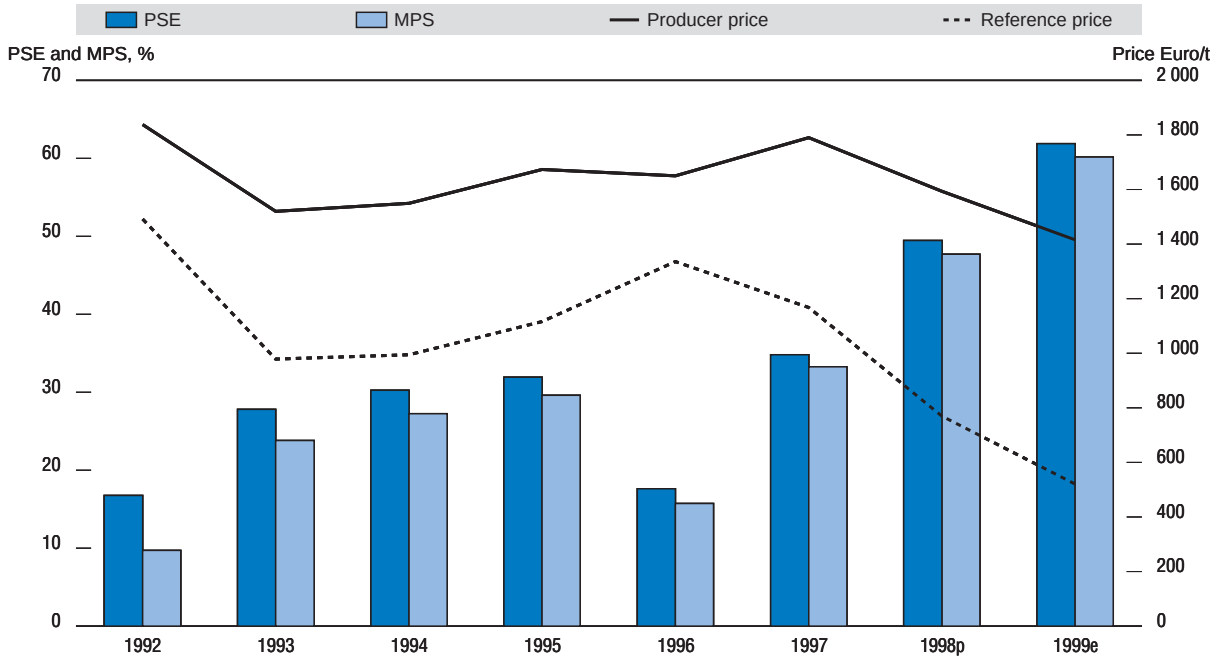
The CSEs largely reflected changes in the MPS component and indicates that pork consumers were implicitly taxed during the whole period under review.

3.8. *Poultry*

Poultry production accounts for 10% of total agricultural output or 12% of livestock production. Support to poultry producers was positive during the whole period under review with the percentage PSE ranging from 20% to 40%. Market price support was by far the most important component of the PSEs, as no major budget transfers were provided to poultry producers. Support rose to a high level in 1995 (40%), but decreased in 1996-1998, reflecting largely the rise in EU reference prices (Figure IV.16). In 1999, the PSE increased again to 40% due to a sharp fall in the reference price.

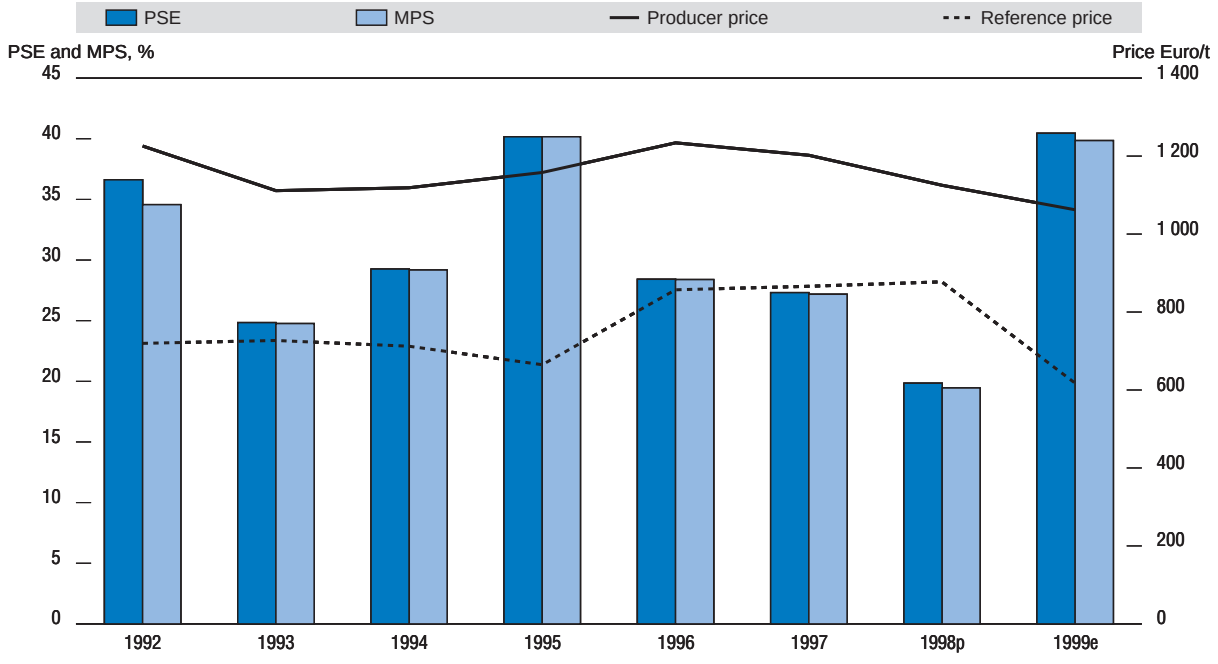
© OECD 2001

Figure IV.15. **Percentage PSEs, producer and reference prices for pigmeat**



Source: OECD Secretariat.

Figure IV.16. **Percentage PSEs, producer and reference prices for poultry**



Source: OECD Secretariat.

© OECD 2001

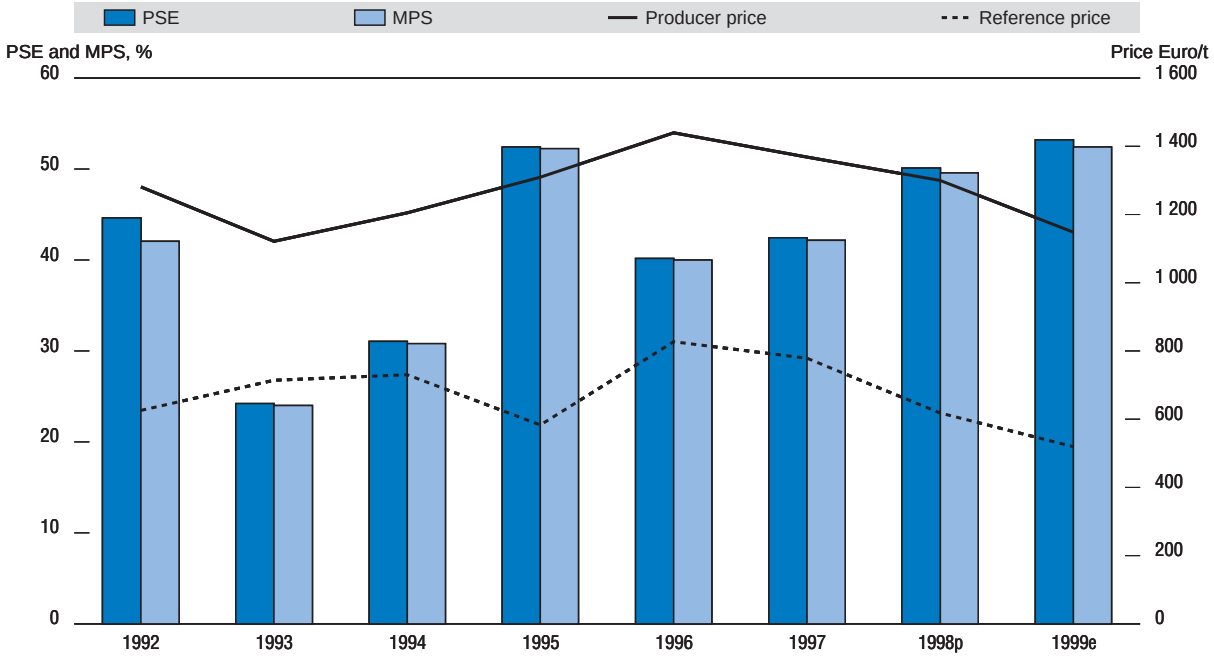
Poultry consumers have been implicitly taxed through higher domestic prices. The percentage CSE averaged minus 35% in 1992-1999.

3.9. *Eggs*

Egg production accounts for 4% of agricultural output or 5% of livestock production. The egg sector was strongly supported during the whole period 1992-1999, recording a marked upward trend after 1993, which was almost entirely due to growing market price support over this period (Figure IV.17). The high PSEs essentially reflect a higher domestic producer price compared with the EU reference prices, as no major budget transfers were allocated to egg producers.

Egg consumers were implicitly taxed during the whole period. Like for other commodities, the negative CSEs largely mirrored the developments in market price support and were ranging from minus 36% to minus 56% in 1992-1999.

Figure IV.17. **Percentage PSEs, producer an reference prices for eggs**



Source: OECD Secretariat.

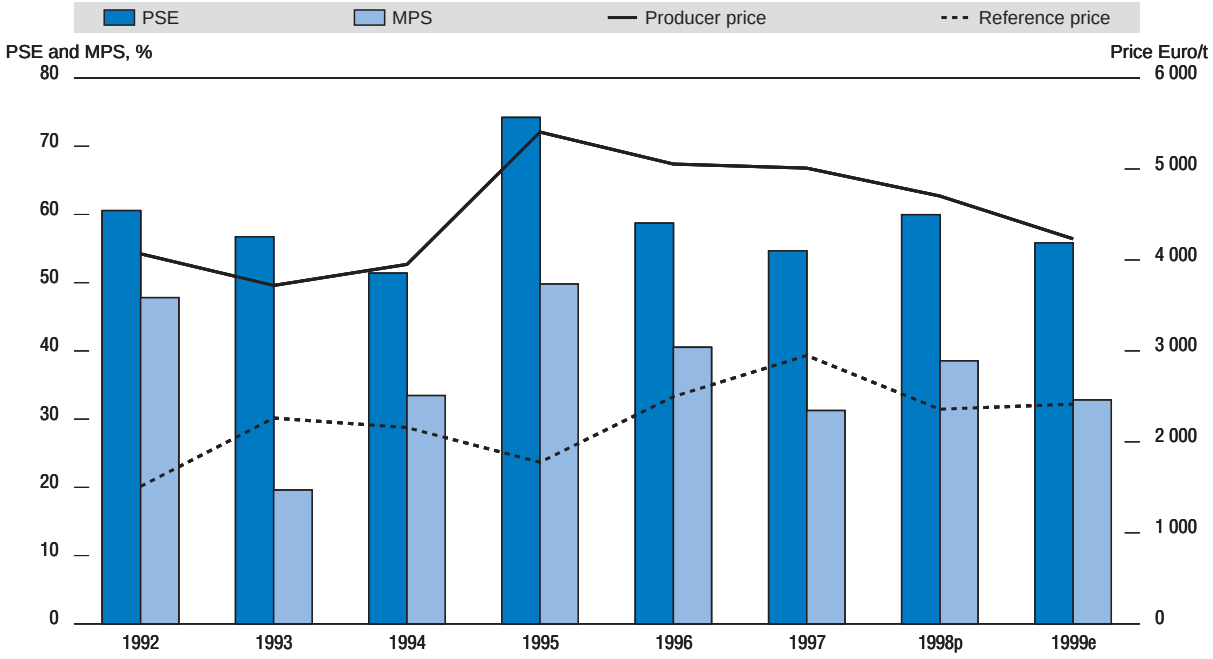
3.10. *Sheep meat*

Sheep and goat meat production accounts for about 1% of total agricultural output and of livestock production. Support to sheep meat producers also represents only a minor part of total support. The level of support was highly positive during the whole period, ranging from 51% to 74%. The swings in the percentage PSE were substantially less pronounced than the domestic-to-international price wedge. This is largely explained by the fact that budgetary support accounts for a significant share of total transfers to sheepmeat producers (Figure IV.18).

© OECD 2001

Consumers of sheepmeat were implicitly taxed over the whole period 1992-1999 at an average level of about minus 50%.

Figure IV.18. **Percentage PSEs, producer and reference prices for sheepmeat**



Source: OECD Secretariat.

© OECD 2001

Annex

ASSISTANCE TO SLOVENIAN AGRICULTURE

Introduction

In this Annex, section A briefly explains the concepts of Producer Support Estimates (PSE), Consumer Support Estimates (CSE) and Total Support Estimates (TSE). Some particular methodological issues concerning the estimation of PSEs and CSEs for Slovenia are discussed in section B. Section C contains the main PSE and CSE results and related data in tabular form.

A. Concepts and methodology

The OECD classification of total transfers associated with agricultural policies (TSE), groups the policy measures into three main categories: transfers to producers individually (PSE), transfers to consumers individually (CSE), and transfers to general services to agriculture collectively (GSSE) as in Annex Box 1.

I. Producer Support Estimate (PSE): an indicator of the annual monetary value of gross transfers from consumers and taxpayers to support agricultural producers, measured at farm gate level, arising from policy measures which support agriculture, regardless of their nature, objectives or impacts on farm production or income.

The PSE measures support arising from policies targeted to agriculture relative to a situation without such policies, *i.e.* when producers are subject only to general policies (including economic, social, environmental and tax policies) of the country. The PSE is a **gross** notion implying that any costs associated with those policies and incurred by individual producers are not deducted.[1] It is also a **nominal assistance** notion meaning that increased costs associated with import duties on inputs are not deducted. But it is an indicator **net** of producer contributions to help finance the policy measure (*e.g.* producer levies) providing a given transfer to producers. The PSE includes implicit and explicit payments such as price wedges on output or inputs, tax exemptions, and budgetary payments, including those for remunerating non-market goods and services. Therefore, the indicator measures more than the "subsidy element". Although **farm receipts** (revenues)[2] are increased (or farm expenditure reduced) by the amount of support, the PSE is not in itself an estimate of the impacts of support on farm production or income.

A. Market Price Support (MPS): *an indicator of the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers arising from policy measures creating a gap between domestic market prices and border prices of a specific agricultural commodity, measured at the farm gate level.*

Conditional on the production of a specific commodity, MPS includes the transfer to producers associated with both production for domestic use and exports, and is measured by the price gap applied to current unlimited production (1. B*ased on unlimited output*); or to current limited production (2. B*ased on limited output*). The MPS is **net** of financial contributions from individual producers through producer levies on sales of the specific commodity or penalties for not respecting regulations such as production quotas (3. P*rice levies*); and in the case of livestock production is net of the market price support on domestically produced coarse grains and oilseeds used as animal feed (4. E*xcess feed cost*).

B. Payments based on output: *an indicator of the annual monetary value ofgross transfers from taxpayers to agricultural producers arising from policy measures based on current output of a specific agricultural commodity or a specific group of agricultural commodities.*

Conditional on producing a specific commodity or a specific group of commodities, it includes payments per tonne, per hectare or per head of animals to current unlimited (1. B*ased on unlimited output*), or limited (2. B*ased on limited output*) production.

C. Payments based on area planted/animal numbers: *an indicatorof the annual monetary value ofgross transfers from taxpayers to agricultural producers arising from policy measures based on current plantings, or number of animals of a specific agricultural commodity or a specific group of agricultural commodities.*

Conditional on planting, or animal numbers of a specific commodity or a specific group of commodities, it includes payments per hectare or per head to current unlimited (1. B*ased on unlimited area or animal numbers*), or limited (2. B*ased on limited area or animal numbers*) area planted or animal numbers.

© OECD 2001

Annex Box 1. **Classification of policy measures included in the OECD indicators of support**

I. Producer Support Estimate (PSE) [Sum of A to H]

A. *Market Price Support*

1. Based on unlimited output
2. Based on limited output

B. *Payments based on output*

1. Based on unlimited output
2. Based on limited output

C. *Payments based on area planted/animal numbers*

1. Based on unlimited area or animal numbers
2. Based on limited area or animal numbers

D. *Payments based on historical entitlements*

1. Based on historical plantings/animal numbers or production
2. Based on historical support programmes

E. *Payments based on input use*

1. Based on use of variable inputs
2. Based on use of on-farm services
3. Based on use of fixed inputs

F. *Payments based on input constraints*

1. Based on constraints on variable inputs
2. Based on constraints on fixed inputs
3. Based on constraints on a set of inputs

G. *Payments based on overall farming income*

1. Based on farm income level
2. Based on established minimum income

H. *Miscellaneous payments*

1. National payments
2. Sub-national payments

II. General Services Support Estimate (GSSE) [Sum of I to O]

I. *Research and development*
J. *Agricultural schools*
K. *Inspection services*
L. *Infrastructure*
M. *Marketing and promotion*
N. *Public stockholding*
O. *Miscellaneous*

III. Consumer Support Estimate (CSE) [Sum of P to S]

P. *Transfers to producers from consumers*
Q. *Other transfers from consumers*
R. *Transfers to consumers from taxpayers*
S. *Excess Feed Cost*

IV. Total Support Estimate (TSE) [I + II + R]

T. *Transfers from consumers*
U. *Transfers from taxpayers*
V. *Budget revenues*

© OECD 2001

D. Payments based on historical entitlements: *an indicatorof the annual monetary value ofgross transfers from taxpayers to agricultural producers arising from policy measures based on historical support, area, animal numbers, or production of a specific agricultural commodity or a specific group of agricultural commodities without obligation to continue planting or producing such commodities.*

Conditional on being a producer of a specific commodity or a specific group of commodities at the time of introduction of the payment, it includes payments based on historical plantings/animal numbers or production of such commodities (1. B*ased on plantings/animal numbers or production*); and payments based on historical support programmes for such commodities (2. B*ased on historical support programmes*).[3]

E. Payments based on input use: *an indicator of the annual monetary value of gross transfers from taxpayers to agricultural producers arising from policy measures based on the use of a specific fixed or variable input or a specific group of inputs or factors of production.*

Conditional on the on-farm use of specific fixed or variable inputs, it includes explicit and implicit payments affecting specific variable input costs (1. B*ased on use of variable inputs*); the cost of on-farm technical, sanitary and phytosanitary services (2. B*ased on use of on-farm services*); or affecting specific fixed input costs, including investment costs (3. B*ased on use of fixed inputs*).

F. Payments based on input constraints: *an indicator of the annual monetary value of gross transfers from taxpayers to agricultural producers arising from policy measures based on constraints on the use of a specific fixed or variable input or a specific group of inputs through constraining the choice of production techniques.*

Conditional on the application of certain constraints (reduction, replacement, or withdrawal) on the on-farm use of specific variable inputs (1. B*ased on constraints on variable inputs*); or fixed inputs (2. B*ased on constraints on fixed inputs*); or based on constraints on the use of a set of farm inputs through constraining the choice of production techniques of marketed commodities for reducing negative externalities or remunerating farm inputs producing non-market goods and services (3. B*ased on constraints on a set of inputs*).[4]

G. Payments based on overall farming income: *an indicator of the annual monetary value of transfers from taxpayers to agricultural producers arising from policy measures based on overall farming income (or revenue), without constraints or conditions to produce specific commodities, or to use specific fixed or variable inputs.*

Conditional on farm(er) eligibility, it includes payments to compensate for farm income fluctuations or losses (1. B*ased on farm income level*); or for ensuring a minimum income guarantee (2. B*ased on established minimum income*).[5]

H. Miscellaneous payments: *an indicator of the annual monetary value of all transfers from taxpayers to agricultural producers that cannot be disaggregated and allocated to the other categories of transfers to producers.*

Conditional on being an aggregate of payments to producers which cannot be disaggregated due, for example, to a lack of information, it includes payments funded by national governments (1. National payments), or state, regional, prefectural, or provincial governments (2. Sub-national payments).

II. General Services Support Estimate (GSSE): an indicator of the annual monetary value of gross transfers to general services provided to agriculture collectively, arising from policy measures which support agriculture, regardless of their nature, objectives and impacts on farm production, income, or consumption of farm products.

Conditional on being an eligible private or public general service provided to agriculture collectively, including collective actions for agri-environmental purposes, it includes taxpayers transfers to: improve agricultural production (**I. R*esearch and development***); agricultural training and education (**J. A*gricultural schools***); control of quality and safety of food, agricultural inputs, and the environment (**K. I*nspection services***); improve off-farm collective infrastructures, including downstream and upstream industry (**L. I*nfrastructures***); assist marketing and promotion **(M. M*arketing and promotion***); meet the costs of depreciation and disposal of public storage of agricultural products (**N. P*ublic stockholding***); other general services that cannot be disaggregated and allocated to the above categories due, for example, to a lack of information (**O. M*iscellaneous***). Unlike the PSE and CSE transfers, these transfers are not received by producers or consumers individually, and do not affect **farm receipts** (revenue) or consumption expenditure by their amount, although they may affect production and consumption of agricultural commodities.

III. Consumer Support Estimate (CSE): an indicator of the annual monetary value of gross transfers to (from) consumers of agricultural commodities, measured at the farm gate level, arising from policy measures which support agriculture, regardless of their nature, objectives or impacts on consumption of farm products.

The CSE includes explicit and implicit consumer transfers to producers of agricultural commodities, measured at the farm gate (first consumer) level and associated with: market price support on domestically produced consumption (**P. T*ransfers to producers from consumers***); and transfers to the budget and/or importers on the share of consumption that is imported (**Q. O*ther transfers from consumers***); and is **net** of any payment to consumers to compensate them for their contribution to market price support of a specific commodity (**R. T*ransfers to consumers from taxpayers***); and the producer contribution (as consumers of domestically produced crops) to the market price support on crops used in animal feed (**S. E*xcess feed cost***). When negative, transfers from consumers measure the implicit tax on consumption associated with policies to the agricultural sector. Although consumption expenditure is increased/reduced by the amount of the implicit tax/payments, this indicator is not in itself an estimate of the impacts on consumption expenditure.

IV. Total Support Estimate (TSE): an indicator of the annual monetary value of all gross transfers from taxpayers and consumers arising from policy measures which support agriculture, net of the associated budgetary

© OECD 2001

receipts, regardless of their objectives and impacts on farm production and income, or consumption of farm products.

The TSE is the sum of the explicit and implicit gross transfers from consumers of agricultural commodities to agricultural producers net of producer financial contributions (in MPS and CSE); the gross transfers from taxpayers to agricultural producers (in PSE); the gross transfers from taxpayers to general services provided to agriculture (GSSE); and the gross transfers from taxpayers to consumers of agricultural commodities (in CSE). As the transfers from consumers to producers are included in the MPS, the TSE is also the sum of the PSE, the GSSE, and the transfers from taxpayers to consumers (in CSE). The TSE measures the overall cost of agricultural support financed by consumers (**T. *Transfers from consumers***) and taxpayers (**U. *Transfers from taxpayers***) net of import receipts (**V. B*udget revenues*).**

P*ercentage* PSE/CSE *and producer/consumer* NAC

The PSE by country and by commodity can be expressed in monetary terms – the **PSE**; as a ratio to the value of total gross farm receipts,[6] measured by the value of total production (at farm gate prices), plus budgetary support – the **percentage PSE**; or a ratio to the value of total gross farm receipts valued at world market prices, without budgetary support – the **producer NAC** (Nominal Assistance Coefficient).

In algebraic form, these PSE expressions can be written as follows:

$$\%PSE = I.PS/(Q.Pp + PP) \times 100 \quad [1]$$

$$(100 - \%PSE) = Q.Pb/(Q.Pp + PP) \times 100 \quad [2]$$

$$[1/(100 - \%PSE) \times 100] = [\%PSE/(100-\%PSE) + 1] = [(I.PSE/Q.Pb) + 1] = NACp \quad [3]$$

where,

PP = Payments to producers = I. PSE – I.A. Market Price Support = Σ I.B to I.H (see Annex Box 1)

Q.Pp = value of production at producer prices
Q.Pb = value of production at border prices

In other words, the above equations can be explained as follows:

- for example, a percentage PSE of 60%, expresses the share of transfers to agricultural producers in the total value of gross farm receipts (as measured by the PSE), or the share of gross farm receipts derived from policies (equation [1]); hence
- some 40% of gross farm receipts is derived from the market without any support (equation [2]); and
- the value of gross farm receipts is 250% of (or 150% higher than) what they would be if entirely obtained at world prices without any budgetary support (equation [3]) – a producer NAC of 2.50.

All transfers included in the CSE are implicit taxes or explicit budgetary transfers to consumers of agricultural commodities affecting consumer expenditure (valued at farm gate) of agricultural commodities. Therefore, *the* CSE *by country and by commodity can be expressed in monetary terms – the* **CSE**; *as a ratio to the total value of consumption expenditure on commodities domestically produced, measured by the value of total consumption (at farm gate prices), minus budgetary support to consumers – the* ***percentage*** **CSE**; *or as a ratio to the total value of consumption expenditure on commodities domestically produced valued at world market prices, without budgetary support to consumer – the* ***consumer*** **NAC**.

In algebraic form, the CSE expressions can be written as follows:

$$\%CSE = III.CSE/(Qc.Pd - TC) \times 100 \quad [4]$$

$$(100 - \%CSE) = Qc.Pb/(Qc.Pd - TC) \times 100 \quad [5]$$

$$[1/(100 - \%CSE) \times 100] = [1 + \%CSE/(1-\%CSE) + 1] = [(III.CSE/Qc.Pb) + 1] = NACc \quad [6]$$

where,

TC = taxpayer transfers to consumers = III.R. T*ransfers to consumers from taxpayers* (Annex Box 1)

Qc.Pd = value of consumption at domestic prices (at farm gate)
Qc.Pb = value of consumption at border prices

In other words, the above equations can be explained as follows:

- for example, a percentage CSE of 60%, expresses the share of transfers to (from) consumers in the total consumption expenditure on agricultural commodities (as measured by the CSE), or the share of the consumption expenditure created by policies (equation (4)); hence
- some 40% of total consumption expenditure is derived from the market without any market support to domestic agricultural producers (equation [5]); and
- the amount of consumption expenditure is 250% of (or 150% higher than) what it would be if entirely created at world market prices without any budgetary support to consumers (equation [6]) – a consumer NAC of 2.50.

The consumer NAC measures the **consumer price differential** or the ratio between the price paid by consumers (at farm gate) and the border price. When the price paid by consumers (at farm gate) is on average the producer price,

© OECD 2001

Annex Box 2. **Transfers associated with market price support**

Consider the case of a country where there are border measures and government purchasing agencies (GPAs) importing, and buying and selling in the domestic market in order to maintain the domestic price close to an administered domestic price higher than the world border price.

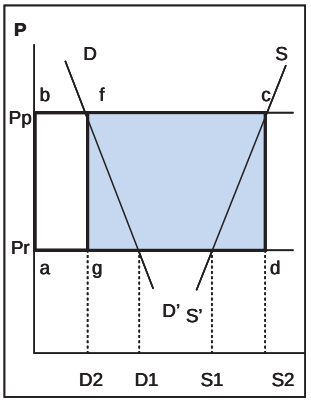
In the case of exported commodities (Annex Figure 1), farmers sell all their production to domestic consumers (D2) and GPAs (S2-D2) at an average producer price (Pp) higher than the world reference price (Pr). The quantities purchased by the GPAs are sold in the same year in the domestic market at the average price Pp, offered as ***domestic food aid*** at the opportunity cost of Pp, sold in the world market (with ***export subsidies***) at the average price Pr, offered as ***foreign food aid*** at an opportunity cost of Pr, or kept in ***public storage*** for later sale.

As in a given year domestic consumers and GPAs purchase all domestic production at the average price (Pp) higher than the price at which the GPAs export the commodity (Pr), the transfers to producers associated with MPS to the commodity is measured by the area abcd = (Pp-Pr)*S2 and considered under **I.A**. ***Market Price Support.*** Where the area abfg = (Pp-Pr)*D2 measures the share of MPS financed by consumers considered under **I.A MPS** in the PSE, and **III.P. *Transfers to producers from consumers*** in the CSE; and area gfcd = (Pp-Pr)*(S2-D2) measures ***transfers to producers from taxpayers***, *i.e.* the share of MPS financed by taxpayers considered under **I.A MPS** in the PSE (through food aid, export subsidies, or public storage).

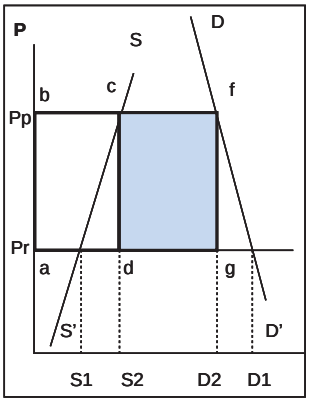
The CSE is the share of MPS financed by consumer [area abfg = (Pp-Pr)*D2] (**III.P. *Transfers to producers from consumers***) *minus* consumption subsidies in cash or in kind, and price compensating aids to processors financed by taxpayers (**III.R. *Transfers to consumers from taxpayers***). The total of the transfers associated with MPS are therefore obtained by adding to the MPS in the PSE [area abcd = (Pp-Pr)*S2], those under marketing and stockholding in the GSSE, and the consumption subsidies in cash and price compensation in the CSE.

In the case of imported commodities (Annex Figure 2), both, domestic production (S2) and imports (D2-S2) are sold in the domestic market at the average producer price (Pp). But in both cases price compensation is provided by Government to processors (first consumers) to help them to stay competitive in the world market of processed products, and some consumption subsidies in cash and in kind are also provided. The quantities domestically produced and those imported by the GPAs are sold in the same year in the domestic market at the average price Pp, offered as ***domestic food aid*** at the opportunity cost of Pp or as ***foreign food aid*** at the opportunity cost of Pr, or kept in ***public storage*** for later sale.

Annex Figure 1. **Exported commodities**



Annex Figure 2. **Imported commodities**



In these conditions, the transfers to producers associated with MPS to the commodity are measured by area abcd = (Pp-Pr)*S2 and considered under **I.A *Market Price Support*** in the PSE and **III.P. *Transfers to producers from consumers*** in the CSE. While this area also represents the transfers from consumers to producers, the area dcfg = (Pp-Pr)*(D2-S2) measures the transfers from consumers to the budget through import receipts or as rents to importers or exporters due to tariff quotas (**III. Q. O*ther transfers from consumers or* IV.V. B*udget revenues***).

© OECD 2001

Annex Box 2. **Transfers associated with market price support** (*cont.*)

The CSE is measured by the area abfg = (Pp-Pr)*D2 (**III.P. *Transfers to producers from consumer*** and **III.Q. O*ther transfers from consumers***) **minus** the consumption subsidies in cash or in kind, or price compensation financed by taxpayers (**III.R. *Transfers to consumers from taxpayers***). The total of transfers associated with MPS is therefore obtained by adding to the MPS in the PSE [area abcd = (Pp-Pr)*S2], those under marketing and stockholding in the GSSE, and the consumption subsidies in cash and price compensating aids in the CSE, *minus* the transfers from consumers to the budget and/or importers.

In both cases, exported and imported commodities, to provide such transfers to producers through MPS, other transfers are generated, mainly in the form of operational costs of GPAs, and stock depreciation and disposal costs of public stockholding. However, although these transfers contribute to creating the *price gap* received by producers, they are not in themselves a transfer to producers. They are transfers to general services provided to agriculture considered in the GSSE under **II.M. M*arketing and promotion*** in the case of the operational costs of GPAs, and **II.N. P*ublic stockholding*** in the case of the stock depreciation and disposal costs, which are in most of the cases dead-weight losses.

and there are no consumption subsidies, the consumer NAC also measures the **producer price differential**. In all the other cases, this differential or the ratio between the producer and border prices can only be measured through the MPS calculation, as the ratio between the unit MPS and the border price.

P*ercentage* GSSE *and* TSE

For a given country or commodity, the calculation of any of the indicators in percentage terms needs to have a precise meaning. This is the case when both the numerator and the denominator have an economic meaning, and the value of the transfers in the numerator can be seen as an integral part of the denominator.[7] Moreover, as percentage indicators take account of the effect of inflation on both numerator and denominator, this effect is eliminated. As a result percentage indicators are more representative and appropriate measures of support for analysis over time and across countries.

The **percentage GSSE** is defined as the share of support to general services provided to agriculture in the total support to agriculture (TSE), the rest being the support to individual producers and consumers of domestic agricultural commodities. In a situation of public support to agriculture, the higher the percentage GSSE, the lower the share of support affecting individual decisions on domestic production and consumption of agricultural commodities.

The TSE contains taxpayers transfers that are a component of the total current government expenditure, and transfers from consumers which are a component of the total domestic consumption expenditure. But, both of these transfers, from taxpayers and consumers, are included in Gross Domestic Product (GDP). Therefore, the **percentage TSE** is defined as the share of total support to agriculture in the total GDP. The higher the percentage TSE, the larger the share of national wealth used to support agriculture.

B. Estimation of Slovenian PSEs and CSEs from 1992 to 1999

1. B*udget expenditures*

The calculation of the PSE involves allocating budgetary expenditures among various commodities. For most of the subsidies in Slovenia, commodity-specific data were available. In a few cases, the breakdown of the total amount of funds by commodities was not available. Allocation of these expenditures to specific commodities was done according to the share of respective commodity in the total value of agricultural production.

2. R*eference prices*

Two key reference prices are used in the measurement of a price gap: external reference price and domestic producer reference price.

© OECD 2001

External reference price

The external price is in principle the unit export value or average export price for a product for which the country is a net exporter and the unit import value or average import price for a product for which the country is a net importer. The trade prices should, as far as possible, be those of the country being assessed to ensure a comparison of "like with like". In the case of many OECD countries, unit trade values have proven to be unreliable and quoted trade prices have been used as reference prices (*e.g.* the annual average of a regularly quoted export price of a specific commodity at a specific location). The chosen price is one that, as far as possible, is representative of the product produced domestically. When a country's own unit trade values are not available or deemed to be unreliable and no suitable quoted trade prices are available, previous practice has been to use the trade prices of a third country. This practice does carry the risk of poor comparability between the domestic product and the reference product. If this can be demonstrated, an adjustment for quality differences can be attempted. For many countries in transition, the OECD practice has been to use EU reference prices when problems with the country's own trade prices are found. This is a useful approach for a number of reasons. The European Union is a major trader in the region and as such tends to determine trade prices for the region. The European Union is also Slovenia's major trade partner. Hence, its reference prices are a good indicator of the alternative price that Slovenia would have faced in the absence of its own trade barriers or systemic failures. In addition, as exported products would be competing with the EU export price on any third market, the same EU export price can be used when the country is a net exporter of the product in question.

This was the approach adopted, therefore. EU reference prices (as used for the calculation of the European Union's own PSEs and those of some neighbouring countries) were used for most products. Exception was milk where the OECD methodology applies the adjusted New Zealand export price for all countries. The external reference prices are then adjusted by technical coefficients and margins to arrive, as close as possible, at prices comparable to the domestic reference price applied.

Domestic producer reference price

In principle, when a price comparison is made between the two reference prices (domestic and external), the comparison should be for the identical product in terms of quality and stage of processing. If the external reference price is for a quality of product very different from the average product produced, unit value of production would not be the appropriate domestic price for measurement of the price gap. In the case of Slovenia, the choice of domestic price was based on data availability. The data on domestic producer prices are based on Slovenia's official statistics. The domestic producer prices applied reflect the price levels registered for the main agricultural marketing channels.

3. *Farm gate comparison*

It is OECD practice to measure support to agriculture as near as practicable to the farm gate. However, external reference prices (if for traded goods) are applied to a product to which some value has been added after the farm gate. Hence, comparison of a farm gate domestic price with an external reference price will exclude this value-added and tend to understate the price gap.

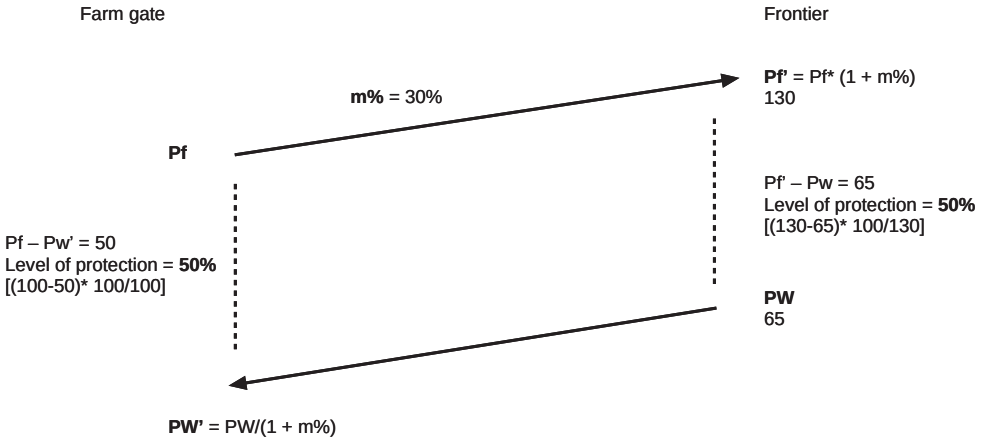
This problem has led to two practices. First, the external reference price should be sought for a product that is as little transformed as possible. An export price for salami as a reference price for pork would create severe problems in identifying both the technical and economic margins involved between the farm gate product and the highly processed product. The same problem would arise in using an external price for flour to measure the price gap for milling wheat. The errors in such a procedure are likely to be very large. It is for this reason that for meats generally external reference prices for a carcass with minimal processing or value-added are preferred, while for grains an export price for the grain in its rawest form is preferred. The second practice involves making technical and value-added adjustments to the prices on which the comparison is based. The first practice of choosing a product with minimal transformation minimises the errors in making these adjustments. The appropriate margin can be added to the farm gate price to bring it to the frontier for comparison or, alternatively, the margin can be subtracted from the external reference price to bring it back to the farm gate for comparison. The resulting price gap will be the same at the farm gate, if percentage margins are used. A simple example may help clarify this issue and is illustrated on Annex Figure 3.

If the farm gate price (Pf) is 100 and 30% is added to the value in getting the product to the frontier, the frontier price (Pf") is 130. If the external reference price (Pw) is 65, the price gap (Pf'-Pw) is also 65. The level of protection at the frontier is 50% (50% = [130-65]*100/130). Similarly, when the export price (Pw) of 65 is deflated by the 30% margin, it gives an external reference price (Pw"), "taken" to farm gate, of 50. This gives the same result at the farm gate, *i.e.* a level of protection of 50% (50% = [100-50]*100/100).

Due to lack of data on marketing margins in Slovenia, Slovenian margins were assumed equal to those of the European Union for most products, except for beef and eggs for which special margin estimates were made.

© OECD 2001

Annex Figure 3. **Measurement of the margin between farm gate and frontier**



4. *Exchange rate in* PSE *estimation*

Currency exchange rates enter into the calculation of the PSE in two ways: firstly, when an external reference price is used that is expressed in a foreign currency, and secondly, when total PSEs are converted to some *numéraire* currency such as the US dollar for comparison with other country values. Slovenia's official exchange rate was used in all calculations.

© OECD 2001

NOTES

1. In other words, elements in the PSE are, in general, gross transfers to producers because to receive a given payment producers have to produce or plant a specific commodity, or use a specific input, and therefore incur costs, which are not deducted from the amount of the payment, although these costs may absorb a part of the payment.
2. Farm receipts (revenues) are not the same as farm income, which is farm receipts less farm costs.
3. Unlike the others payments to commodities, these payments directly increase farm income by the amount of the payment as producers do not have to incur any specific cost (other than those associated with being a farmer).
4. A payment remunerating farm inputs on condition they are used for producing a non-market good can be seen as a payment associated with constraints on the use of a set of inputs or on the choice of production techniques.
5. Unlike most of the others, these payments directly increase farm income by the amount of the payment as producers do not have to incur any specific cost (other than those necessary to generate an (or the) eligible level of farm income).
6. Gross farm receipts are not the same as farm income, which is farm receipts less farm costs.
7. That is the case of the percentage PSE and CSE as defined above. The GSSE and the TSE are not a part of the total value of farm receipts (as the PSE) nor a part of the total value of consumption expenditure of agricultural commodities (as the CSE).

© OECD 2001

C. SUPPORTING TABLES: ESTIMATES OF SUPPORT TO AGRICULTURE

DEFINITIONS AND SOURCES

GENERAL NOTES

The country Total Support Estimate(TSE) and derived indicators in Annex Table IV.1.1 cover all agricultural production, *i.e.* all agricultural commodities produced in the country. For the Producer Support Estimate (PSE) and Consumer Support Estimate (CSE), the description of policy measures indicates the commodities covered by the measures, as well as the method of allocation of the corresponding transfers among commodities.

Market Price Support (MPS) and Consumer Support Estimate (CSE) by commodity in Annex Tables IV.2.1 to IV.2.10. are calculated for commodities produced in the country within a common set of commodities (wheat and rye, maize, barley, sugar, milk, beef and veal, pigmeat, poultrymeat, sheepmeat and eggs); provided that the value of production of the commodity exceeds 1% of the total value of production in the country concerned. Definitions are provided only for basic data sets from which all the other data sets in these tables are derived, following the formula indicated in each commodity table. Specific sources are numerated into brackets.

Producer Support Estimates (PSEs) by commodity in Annex Tables IV.3.1 to IV.3.10 are also calculated for commodities produced in the country within the set of common commodities. All data sets in the calculation of PSEs by commodities come from Annex Tables IV.2.1 to IV.2.10 where definitions are included.

Level of production and consumption, producer price and reference price for all products as well as budgetary payments are on a calendar year.

© OECD 2001

ANNEX TABLE IV.1. TOTAL SUPPORT ESTIMATE

Definitions

I. Total value of production (at farm gate): total agricultural production valued at farm gate prices, *i.e.*, value (at farm gate) of all agricultural commodities produced in the country.

1. Of *which share of common commodities* (%): share of commodities for which MPS is explicitly calculated (in Annex Tables IV.2) in the total value of agricultural production.

II. Total value of consumption (at farm gate): consumption of all commodities domestically produced valued at farm gate prices, and estimated by increasing the value of consumption (at farm gate) of the common commodities according to their share in the total value of agricultural production [(II.1) / (I.1) x 100].

1. Of *which common commodities*: sum of the value of consumption (at farm gate prices) of the common commodities produced in the country as indicated in Annex Tables IV.2.

III.1. Producer Support Estimate (PSE): associated with total agricultural production, *i.e.* for all commodities domestically produced [Sum of A to H; when negative, the amounts represent an implicit or explicit tax on producers].

A. Market Price Support: on quantities domestically produced (excluding for on-farm feed use – *excess feed cost*) of all agricultural commodities, estimated by increasing the MPS for the common commodities according to their share in the total value of production [(A.1) / (I.1)].

1. Of *which common commodities*: sum of the MPS (net of *price levies* and *excess feed cost*) for the common commodities produced in the country as calculated in Annex Tables IV.2.

B. Payments based on output

1. Based *on unlimited output*

Wheat

Price aid for wheat and rye (1992, 1996, 1998, 1999): per tonne payments for quantities marketed to the Agency for Commodity Reserves.

Maize

Price aid for grain maize (1997-1999): per tonne payments for quantities marketed.

Dairy

Price aid for milk (1992-1995): per tonne payments for quantities marketed to dairies.

LFA *milk premium* (1992-1995): per tonne payments to producers in LFAs for quantities marketed to dairies.

Beef

LFA *beef premium* (1992-1999): payments per tonne of live weight gain to producers in LFAs.

Sheepmeat

LFA *sheep premium* (1992-1996): payments per tonne of live weight gain to producers in LFAs.

Horsemeat

LFA *horse premium* (1992-1996): payments per tonne of live weigh gain to producers in LFAs.

Fruit and vegetables

Price aid for currants (1993): per tonne payments.

C. Payments based on area planted/animal numbers

1. Based *on unlimited area or animal numbers*

Wheat

Per hectare payments to wheat and rye producers (1999).

Sugar beet

Per hectare payments to sugar beet producers (1998-1999).

Dairy

Compensatory allowances for production in less favoured areas (1996-1999): payments per milk cow.

Premium for grazing on alpine pastures (1992-1999): payments per milk cow.

Beef

Suckler cow premium (1995-1999): per cow payments to producers not supplying milk or dairy products.

© OECD 2001

Premiums for other categories of bovine animals (1995-1999): headage payments for heifers bred for slaughter; special quality bovines; and calves designated for special fattening system.

Premium for grazing on alpine pastures (1992-1999): headage payments.

Sheepmeat

Ewe and goat premiums (1995-1999): headage payments to producers not supplying milk or dairy products.

Premium for grazing on alpine pastures (1992-1999): headage payments.

Compensatory allowances for production in LFAs (1997-1999): payments per ewe (goat).

Horsemeat

Horse premium (1996-1999): payments per animal for meat production.

Premium for grazing on alpine pastures (1992-1999): headage payments.

Compensatory allowances for production in less favoured areas (1997-1999): headage payments.

Hops

Per hectare payments to hop producers (1998, 1999).

D. Payments based on historical entitlements

E. Payments based on input use

1. *Based on use of variable inputs*

Subsidies for fuel

Payments granted in 1992 only on the basis of marketed quantities of agricultural products.

Seed payments

Wheat

Seed subsidy (1992-1997): partial compensation for the cost of purchased wheat seeds.

Per hectare payments to seed producers (1996, 1999).

Maize

Per hectare payments to seed producers (1996-1999).

Other grains

Per hectare payments to seed producers (1996-1999).

Sugar beet

Seed subsidy (1992-1997): partial compensation for the cost of purchased sugar beet seeds.

Per hectare payments to seed producers (1997-1999).

Potatoes

Payments to seed producers: per tonne payments in 1992-1997, per hectare payments in 1996-1999.

Rapeseed

Seed subsidy (1992): partial compensation for the cost of purchased seeds.

Buckwheat

Seed subsidy (1992-1994): partial compensation of the cost of purchased seeds.

Subsidies for breeding animals

Partial compensation for the cost of purchased animals and animals raised on farm for herd renewal: bovine animals: headage payments, milk and beef (1992-1998); pigs (1992-1999); sheep, goats (1992-1998); horses (1992-1994, 1996-1998); rabbits (1992, 1993, 1998); queen bees (1992-1998).

Interest concession on short-term loans for production (1992-1998).

Wheat (1993-1998); maize (1993-1998); sugar beet (1993-1998); beef (1992-1998); pigs (1992-1998); potatoes (1993-1998); rapeseed (1993-1995); fruits (1997-1998).

Other input subsidies

Sugar subsidies for beekeepers (1996-1999).

2. *Based on use of on farm services*

Transfers to Agricultural Extension Service (50% of all budgetary transfers to this Service).

Transfers to Breeding Control Service (70% of all budgetary transfers to this Service).

Partial compensation of milk collection costs in LFAs (1994-1998).

© OECD 2001

3. *Based on use of fixed inputs*

Interest rate concessions for on farm investments.

Capital grants for on farm investments (1992-1994).

Capital grants for investments in permanent crops: support for improvement and modernisation of fruit, hop and wine production.

Capital grants for irrigation programme: financing of on-farm infrastructure.

F. Payments based on input constraints

1. *Based on constraints on variable inputs*

Integrated production of fruit (1999): payments per hectare of orchards.

2. *Based on constraints on fixed inputs*

3. *Based on constraints on a set of inputs*

Organic farming (1999): per hectare payments.

G. Payments based on overall farming income

1. *Based on farm income level*

Support for young farmers (1998 and 1999).

Payments to producers to compensate losses due to natural disasters (1992, 1997, 1999).

Payments to farms and co-operatives experiencing serious financial constraints (1996, 1998, 1999).

2. *Based on established minimum income*

H. Miscellaneous payments

1. *National payments*

Transfers to communities for agricultural support at the local level (30% of total transfers to communities): investment support, some special organic farming programs, etc.

2. *Sub-national payments*

III.2. Percentage PSE [100*(III.1)/((I)+(B) + (C) + (D) + (E) + (F) + (G) + (H))]

III.3. Producer NAC [1 + (III.2)/(100 – (III.2))]

IV. General Services Support Estimate (GSSE): total budgetary expenditure to support general services provided to agriculture [Sum(I to O)]

I. Research and development

Transfers to Breeding Control Service (30% of total transfers to the Service).

Transfers to research institutions.

Transfers to livestock services: budgetary support for genetic improvement and animal performance appraisal.

Transfers to plant services: budgetary support for the development of new varieties, pest and disease control, testing stations and research.

Plant and animal genetic resources management.

Agricultural extension service, administration.

Other transfers: information system programme; pollution monitoring; investment aid to the laboratories, etc.

J. Agricultural schools

Transfers to Agricultural Extension Service (50% of total transfers to this Service).

Transfers to professional agricultural schools and financing of agricultural education infrastructure.

K. Inspection services

Transfers to the Veterinary Administration.

Transfers to the Inspectorate for Agriculture, Forestry, Hunting and Fisheries.

L. Infrastructure

Land improvement operations.

Rural development programmes (CRPOV, rural infrastructure, tourist wine routes, diversification of activities).

Transfers to communities for agricultural support agriculture at the local level (70% of total transfers to communities): land improvement; local infrastructure; etc.

Other payments: grain quality testing, development of co-operative insurance system, etc.

M. Marketing and promotion

Investment aid to food processors.

© OECD 2001

Transfers to co-operatives: subsidies to improve marketing through co-operatives, investment aid, etc.

Transfers to producer organisations and associations.

Other expenditures for marketing and promotion of agro-food products.

N. Public stockholding

Budgetary expenditures to cover the operating costs of intervention purchases (1999).

O. Miscellaneous

Transfers to Lipica Horse Breeding Centre.

V.1. Consumer Support Estimate (CSE): associated with agricultural production, *i.e.* for the quantities of commodities domestically produced, excluding the quantities used on-farm as feed – *excess feed costs* [(P) + (Q) + (R) + (S); when negative, the amounts represent an implicit tax on consumer].

P. Transfers to producers from consumers: associated with market price support on all domestically produced commodities, estimated by increasing the transfers calculated for the common commodities according to their share in the total value of production [(P.1)/(I.1) x 100].

1. Of *which common commodities*: sum of the values of transfers from consumers to producers associated with market price support on the common commodities produced in the country as calculated in Annex Tables IV.2.

Q. Other transfers from consumers: transfers to the budget associated with market price support on the quantities imported of domestically produced commodities, estimated by increasing the transfers calculated for the common commodities according to their share in the total value of production [(Q.1)/(I.1) x 100].

1. Of *which common commodities*: sum of the transfers to the budget associated with market price support on the quantities imported of the common commodities produced in the country as calculated in Annex Tables IV.2.

R. Transfers to consumers from taxpayers

Sugar beet

Compensatory payments for sugar beet (1992, 1997-1999): compensation to the sugar factory for paying the minimum guaranteed price for sugar beet.

Rape seeds

Compensatory payments for rape seed (1995): compensation to processors for paying the minimum guaranteed price for rape seed.

Apples

Compensatory payments for apples (1997-1999): reimbursements to processors for paying a minimum guaranteed price for apples.

S. Excess Feed Cost: associated with market price support on quantities domestically produced and used on-farm as feed as calculated in Annex Tables IV.2.

V.2. Percentage CSE (V.1)/[(II) – (R)].

V.3. Consumer NAC (V.2)/[1 – (V.2)].

VI. Total Support Estimate [(T) + (U) + (V)] or [(III.1) + (IV) + (R)].

T. Transfers from consumers – [(P) + (Q)].

U. Transfers from taxpayers [(III.1) + (P) + (IV) + (R)].

V. Budget revenues (–) [(Q)].

Source: Ministry of Agriculture, Forestry and Food: Annual Report, various years.

© OECD 2001

ANNEX TABLES IV.2. MARKET PRICE SUPPORT AND CONSUMER SUPPORT ESTIMATE BY COMMODITY

Definitions:

I. Level of production[1]

***Wheat, grain maize and feed barley*:** Total domestic production.

Sugar beet/white sugar: Total usable production of white sugar obtained from domestically produced sugar beet.

Milk: Total production of milk from dairy cows, excluding milk for on farm feed use

Meats: Gross indigenous production, carcass weight.

Eggs: Total usable production of eggs in shell.

II. Producer prices

***Wheat, grain maize and feed barley*:** Annual average of farm gate prices (all qualities).[2]

***White sugar*:** Annual average of sugar beet prices at farm gate[2] converted to white sugar equivalent by dividing sugar beet price by the ratio of white sugar production to sugar beet production.[3]

***Milk*:** Annual average farmgate prices of cow milk.[2]

***Beef and Veal*:** Annual average farmgate prices for all categories of adult bovine animals for slaughter, live weight (2), converted to carcass equivalent by dividing the liveweight price by 0.54.

***Pigmeat*:** Annual average farmgate prices for all pigs for slaughter, live weight,[2] converted to carcass equivalent by dividing the liveweight price by 0.78.

***Poultry*:** Annual average farmgate prices of live chickens,[2] converted to carcass equivalent by dividing the liveweight price by 0.75.

***Sheepmeat*:** Annual average of farmgate prices of animals for slaughter (mostly lambs), live weight,[2] converted to carcass equivalent by dividing the liveweight price by 0,50.

***Eggs*:** Annual average of farmgate prices of fresh eggs for consumption per egg[2] converted to a per tonne basis by dividing by average egg weight (60 g).

III. Value of production (at farm gate) [(I)*(II)]

IV. Level of consumption[4]

***Wheat, grain maize and feed barley*:** Total domestic use (total production, plus net trade, plus change in stocks).

White sugar: Total domestic use (total production, plus net trade, plus change in stocks), white sugar equivalent.

Milk: Total domestic use (total production, plus net trade, plus change in stocks) of cow milk, milk equivalent excluding milk used on farm feed.

Meats: Total domestic use (total production, plus net trade, plus change in stocks), carcass weight.

Eggs: Total domestic use (total production, plus net trade, plus change in stocks).

Consumption prices (at farm gate)

Implicit prices corresponding to reference prices plus the unit value of market transfers.

VI. Value of consumption (at farm gate) [(IV)*(V)]

VII. Reference prices

***Wheat*:** EU export price of standard quality common wheat to specified zones, fob Rouen, calendar year, minus EU handling and marketing costs.[5]

***Maize*:** EU import price of USA Yellow Corn No. 3, c.i.f. Rotterdam, calendar year, minus EU handling and marketing costs.[5]

***Other grains (barley)*:** EU export price for feed barley, minimum prices fob Rouen or price ranges at weekly free market tenders, net of export restitutions or taxes, calendar year, minus EU handling and marketing costs.[5]

***Sugar beet, white sugar*:** EU export price of white sugar, Bourse de Paris (daily prices), fob Europe, calendar year, dividing by the EU ratio of white sugar intervention price to basic sugar beet price.[5]

***Milk*:** New Zealand farm gate price of milk, calendar year, actual fat content (x%), plus transport cost for butter and skimmed-milk powder in milk equivalent (56 kg and 82 kg per tonne of milk, respectively) from New Zealand to the United Kingdom (NZP), adjusted to Slovenian fat content (y%). The reference price is (NZP)*((x%) + (y%))/2*(x%).

***Beef and Veal*:** EU unit export value in extra-EU trade of meat of bovine animals, fresh, chilled or frozen (code 0111 SITC, Rev. 3), calendar year, minus processing and handling costs and adjusted for quality difference by a co-efficient of 1.20.[5]

© OECD 2001

P*igmeat*: Unit values of EU exports of pigmeat, fresh, chilled or frozen to third countries, calendar year, minus EU processing and handling costs.[5]

P*oultrymeat*: Unit values of EU exports to third countries of 70% chickens, frozen (weighted average of NC 02071015 and NC 02072110 of external trade statistics), calendar year, minus processing and handling costs and adjusted for quality difference by a co-efficient of 1.25.[5]

S*heepmeat*: EU import price of frozen New Zealand lamb, grade PM, c.i.f. United Kingdom, calendar year, net of slaughter and freezing costs, plus 30% adjustment to account for the difference in weight and quality between frozen New Zealand lamb and fresh UK lamb.[5]

E*ggs*: EU unit export value in extra-EU trade poultry eggs in shell, fresh or preserved, other than eggs for hatching (NC 04070030 of external trade statistics), calendar year, minus processing and handling costs.[5]

Sources:

1. Statistical Office of the Republic of Slovenia – Agriculture production statistics.

2. Statistical Office of the Republic of Slovenia – Purchase statistics.

3. TSO Tovarna sladkorja d.d. – Annual report of the sugar beet production.

4. Agricultural Institute of Slovenia – Supply Balance Sheets.

5. OECD PSE/CSE database for the European Union – EU reference price data.

© OECD 2001

Annex Table IV.1.1. SLOVENIA: Total Support Estimate / Total Transfers

	Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Total value of production (at farm gate)	SIT mn	57 584	72 918	90 726	105 671	123 971	127 860	128 546	127 767
1. Share of standard PSE commodities (%)	%	80	81	80	77	76	79	79	79
II. Total value of consumption (at farm gate)	SIT mn	65 666	87 388	107 414	121 353	140 530	141 780	141 112	138 269
1. Standard PSE commodities	SIT mn	52 533	70 784	85 931	93 442	106 803	112 006	111 478	109 233
III.1 Producer Support Estimate (PSE)	SIT mn	21 737	21 560	30 964	41 854	38 433	51 284	64 129	72 306
A. Market price support	SIT mn	17 005	17 206	26 028	35 890	31 245	42 365	54 473	61 627
1. Standard PSE commodities	SIT mn	13 604	13 937	20 822	27 635	23 746	33 469	43 034	48 686
B. Payments based on output	SIT mn	802	1 180	1 487	1 856	979	754	1 075	1 163
1. Based on unlimited output	SIT mn	802	1 180	1 487	1 856	979	754	1 075	1 163
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
C. Payments based on area planted/animal numbers	SIT mn	17	134	141	624	1 845	2 774	3 094	4 568
1. Based on unlimited area or animal numbers	SIT mn	17	134	141	624	1 845	2 774	3 094	4 568
2. Based on limited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
D. Payments based on historical entitlements	SIT mn	0	0	0	0	0	0	0	0
1. Based on historical plantings/animal numbers or production	SIT mn	0	0	0	0	0	0	0	0
2. Based on historical support programmes	SIT mn	0	0	0	0	0	0	0	0
E. Payments based on input use	SIT mn	3 010	3 039	3 308	3 484	4 355	5 170	5 182	3 820
1. Based on use of variable inputs	SIT mn	1 447	997	1 064	1 124	1 118	1 111	584	275
2. Based on use of on-farm services	SIT mn	718	1 188	1 438	1 701	1 963	2 497	2 541	1 570
3. Based on use of fixed inputs	SIT mn	844	854	806	660	1 273	1 563	2 057	1 975
F. Payments based on input constraints	SIT mn	0	0	0	0	0	0	0	162
1. Based on constraints on variable inputs	SIT mn	0	0	0	0	0	0	0	145
2. Based on constraints on fixed inputs	SIT mn	0	0	0	0	0	0	0	0
3. Based on constraints on a set of inputs	SIT mn	0	0	0	0	0	0	0	17
G. Payments based on overall farming income	SIT mn	904	0	0	0	10	101	164	966
1. Based on farm income level	SIT mn	904	0	0	0	10	101	164	966
2. Based on established minimum income	SIT mn	0	0	0	0	0	0	0	0
H. Miscellaneous payments	SIT mn	0	0	0	0	0	120	141	0
1. National payments	SIT mn	0	0	0	0	0	120	141	0
2. Sub-national payments	SIT mn	0	0	0	0	0	0	0	0
III.2 Percentage PSE	**%**	**35**	**28**	**32**	**37**	**29**	**37**	**46**	**52**
III.3 Producer NAC		**1.54**	**1.39**	**1.48**	**1.60**	**1.41**	**1.60**	**1.87**	2.09
IV. General Services Support Estimate (GSSE)	SIT mn	1 473	1 906	2 502	2 680	3 152	4 979	5 761	6 765
I. Research and development	SIT mn	499	794	971	1 107	1 244	1 534	1 661	2 060
J. Agricultural schools	SIT mn	302	418	646	563	636	892	943	1 023
K. Inspection services	SIT mn	145	175	241	273	437	726	744	846
L. Infrastructure	SIT mn	331	448	484	517	508	947	1 370	1 367
M. Marketing and promotion	SIT mn	195	56	144	165	248	765	878	422
N. Public stockholding	SIT mn	0	0	0	0	0	0	0	867
O. Miscellaneous	SIT mn	1	15	18	55	78	115	166	181
V.1 Consumer Support Estimate (CSE)	SIT mn	-18 580	-22 877	-30 411	-37 850	-31 707	-43 337	-58 124	-63 450
P. Transfers to producers from consumers (-)	SIT mn	-16 585	-18 700	-26 385	-33 892	-30 170	-40 083	-52 033	-57 728
1. Standard PSE commodities	SIT mn	-13 268	-15 147	-21 108	-26 097	-22 929	-31 665	-41 106	-45 605
Q. Other transfers from consumers (-)	SIT mn	-3 947	-7 249	-6 659	-5 074	-2 695	-3 872	-7 636	-6 813
1. Standard PSE commodities	SIT mn	-3 158	-5 872	-5 327	-3 907	-2 048	-3 059	-6 032	-5 383
R. Transfers to consumers from taxpayers	SIT mn	34	0	0	57	0	179	206	201
S. Excess feed cost	SIT mn	1 918	3 071	2 633	1 060	1 158	439	1 339	890
V.2 Percentage CSE	%	**-28**	**-26**	**-28**	**-31**	**-23**	**-31**	**-41**	-46
V.3 Consumer NAC		**1.39**	**1.35**	**1.39**	**1.45**	**1.29**	**1.44**	**1.70**	1.85
VI. Total Support Estimate (TSE)	SIT mn	23 244	23 466	33 466	44 590	41 586	56 442	70 096	79 272
T. Transfers from consumers	SIT mn	20 532	25 948	33 044	38 966	32 865	43 954	59 669	64 541
U. Transfers from taxpayers	SIT mn	6 660	4 766	7 081	10 698	11 416	16 359	18 063	21 545
V. Budget revenues (-)	SIT mn	-3 947	-7 249	-6 659	-5 074	-2 695	-3 872	-7 636	-6 813

p: provisional; e: estimate; NAC: Nominal Assistance Coefficient.
Source: OECD.

© OECD 2001

Annex Table IV.1.2.i. SLOVENIA: Producer support estimate by commodity

		1992	1993	1994	1995	1996	1997	1998p	1999e
Wheat									
	SIT mn	1 632	1 740	2 010	1 589	1 508	1 604	3 049	2 327
	Percentage PSE	50	48	47	35	29	32	50	53
	Producer NAC	2.00	1.93	1.88	1.53	1.41	1.47	1.98	2.13
Maize									
	SIT mn	791	1 232	1 192	624	931	-235	212	734
	Percentage PSE	34	29	20	12	12	-3	3	11
	Producer NAC	1.51	1.42	1.25	1.13	1.13	0.97	1.03	1.12
Other grains (Barley)									
	SIT mn	290	380	493	217	206	253	280	225
	Percentage PSE	53	57	48	23	17	22	31	28
	Producer NAC	2.12	2.34	1.93	1.31	1.21	1.29	1.46	1.38
Sugar (refined equivalent)									
	SIT mn	516	1 079	874	1 236	1 668	1 597	2 158	3 123
	Percentage PSE	61	69	63	56	58	60	68	72
	Producer NAC	2.57	3.20	2.74	2.29	2.41	2.48	3.14	3.60
Crops[1]									
	SIT mn	3 229	4 431	4 569	3 665	4 312	3 220	5 699	6 408
	Percentage PSE	46	44	36	28	25	20	34	40
	Producer NAC	1.86	1.79	1.57	1.39	1.33	1.25	1.52	1.66

p: provisional; e: estimate; NAC: Nominal Assistance Coefficient.

1. Only PSE commodities included in aggregation.

Source: OECD.

© OECD 2001

© OECD 2001

Annex Table IV.1.2.ii. SLOVENIA: Producer support estimate by commodity (cont')

		1992	1993	1994	1995	1996	1997	1998p	1999e
Milk									
	SIT mn	5 365	6 345	9 348	10 289	9 479	11 893	18 052	17 910
	Percentage PSE	48	46	50	48	42	47	59	55
	Producer NAC	1.92	1.85	1.99	1.93	1.72	1.88	2.47	2.22
Beef and Veal									
	SIT mn	3 288	485	2 540	7 302	6 311	11 380	11 147	13 226
	Percentage PSE	29	3	14	33	25	42	46	55
	Producer NAC	1.41	1.03	1.16	1.48	1.34	1.73	1.85	2.20
Pigmeat									
	SIT mn	1 751	3 498	4 512	4 891	2 989	6 759	9 037	11 633
	Percentage PSE	17	28	30	32	18	35	49	62
	Producer NAC	1.20	1.39	1.43	1.47	1.21	1.53	1.98	2.62
Poultry									
	SIT mn	2 695	1 772	2 451	3 987	3 459	3 555	2 448	4 560
	Percentage PSE	37	25	29	40	28	27	20	40
	Producer NAC	1.58	1.33	1.41	1.67	1.40	1.38	1.25	1.68
Eggs									
	SIT mn	1 176	649	1 026	1 854	2 074	2 448	2 776	2 699
	Percentage PSE	45	24	31	52	40	42	50	53
	Producer NAC	1.81	1.32	1.45	2.10	1.67	1.74	2.00	2.14
Sheepmeat									
	SIT mn	59	125	131	292	293	384	491	606
	Percentage PSE	61	57	51	74	59	55	60	56
	Producer NAC	2.54	2.31	2.06	3.88	2.42	2.21	2.50	2.26
Livestock[1]									
	SIT mn	14 811	13 454	20 734	29 439	25 423	37 188	44 681	51 227
	Percentage PSE	34	25	32	40	31	40	48	55
	Producer NAC	1.52	1.34	1.47	1.66	1.44	1.68	1.94	2.21
All commodities [1]									
	SIT mn	21 737	21 560	30 964	41 854	38 433	51 284	64 129	72 306
	Percentage PSE	35	28	32	37	29	37	46	52
	Producer NAC	1.54	1.39	1.48	1.60	1.41	1.60	1.87	2.09

p: provisional; e: estimate; NAC: Nominal Assistance Coefficient.
1. Only PSE commodities included in aggregation.
Source: OECD.

Annex Table IV.1.3.i Estimates of support to agriculture in selected CEECs, Russia, EU and OECD average, 1986-1999

	Units	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998p	1999e
Estonia															
Total PSE	mn USD	2 472	2 606	2 765	2 704	3 058	1 707	-274	-114	-43	-2	42	25	98	53
	mn Euro	2 519	2 260	2 339	2 456	2 409	1 381	-212	-97	-36	-1	33	22	88	50
General Support Estimate	mn USD	25	21	21	28	30	34	6	10	10	18	13	11	14	12
Total Support Estimate	mn USD	3 490	3 705	3 851	3 813	4 287	1 790	-265	-104	-32	16	55	36	112	66
	% GDP	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	-25.4	-6.2	-1.4	0.4	1.3	0.8	2.2	1.3
Percentage PSE	**%**	**76**	**76**	**79**	**74**	**71**	**59**	**-97**	**-32**	**-10**	**0**	**7**	**5**	**19**	**15**
Latvia															
Total PSE	mn USD	4 251	4 323	5 523	5 256	5 507	13 286	-486	-223	40	40	21	30	106	95
	mn Euro	4 331	3 750	4 674	4 774	4 338	10 749	-375	-190	34	31	17	27	95	90
General Support Estimate	mn USD	249	279	275	313	187	1 666	7	6	10	16	11	10	14	8
Total Support Estimate	mn USD	5 669	5 898	7 004	6 947	7 862	15 611	-479	-217	49	56	32	40	120	103
	% GDP	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	-10.0	1.4	1.3	0.6	0.7	1.9	1.6
Percentage PSE	**%**	**83**	**81**	**82**	**77**	**75**	**83**	**-101**	**-40**	**6**	**5**	**3**	**4**	**17**	**18**
Lithuania															
Total PSE	mn USD	5 205	5 537	7 403	6 610	7 665	-918	-733	-335	-153	1	71	128	363	344
	mn Euro	5 304	4 803	6 264	6 003	6 038	-742	-566	-286	-129	0	56	113	324	323
General Support Estimate	mn USD	1 010	266	504	498	119	10	13	18	40	43	52	60	54	55
Total Support Estimate	mn USD	7 970	7 719	9 831	9 129	9 552	-907	-720	-317	-113	43	122	188	416	398
	% GDP	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	-37.4	-11.9	-2.7	0.7	1.6	2.0	4.0	5.1
Percentage PSE	**%**	**79**	**77**	**80**	**75**	**72**	**-262**	**-124**	**-37**	**-15**	**0**	**4**	**7**	**20**	**21**
Czech Republic															
Total PSE	mn USD	5 044	4 546	4 194	5 242	5 293	2 326	1 326	1 198	804	560	640	370	879	919
	mn Euro	5 140	3 944	3 549	4 761	4 170	1 882	1 024	1 023	678	428	504	326	785	863
General Support Estimate	mn USD	57	58	59	96	74	36	35	35	116	119	124	110	106	98
Total Support Estimate	mn USD	5 917	5 425	5 034	6 764	6 102	2 362	1 361	1 234	920	679	764	480	984	1 017
	% GDP	13.6	12.1	10.8	13.9	12.0	8.5	4.3	3.5	2.2	1.3	1.3	0.9	1.7	1.9
Percentage PSE	**%**	**66**	**59**	**53**	**55**	**54**	**52**	**31**	**28**	**20**	**12**	**13**	**9**	**21**	**25**
Hungary															
Total PSE	mn USD	3 367	3 001	2 676	2 109	1 850	715	855	1 030	1 318	805	627	394	692	898
	mn Euro	3 432	2 603	2 265	1 916	1 457	578	660	880	1 111	616	494	348	619	842
General Support Estimate	mn USD	87	84	79	82	76	73	84	87	90	95	122	92	171	202
Total Support Estimate	mn USD	3 857	3 469	2 872	2 286	1 990	835	938	1 118	1 408	900	749	486	864	1 100
	% GDP	8.7	8.0	6.6	5.5	5.3	2.5	2.5	2.9	3.4	2.0	1.7	1.1	1.8	2.2
Percentage PSE	**%**	**44**	**39**	**35**	**27**	**24**	**11**	**16**	**20**	**24**	**14**	**9**	**7**	**13**	**20**
Poland															
Total PSE	mn USD	5 258	3 769	2 814	424	-772	119	2 428	2 081	2 455	3 266	4 404	3 507	3 760	3 296
	mn Euro	5 358	3 270	2 381	386	-608	96	1 876	1 777	2 070	2 498	3 469	3 094	3 362	3 094
General Support Estimate	mn USD	294	303	277	212	231	488	383	330	428	458	533	507	482	340
Total Support Estimate	mn USD	6 527	4 701	5 914	2 181	-399	610	2 813	2 413	2 886	3 725	4 939	4 016	4 245	3 639
	% GDP	4.7	3.5	6.3	2.6	-0.7	0.8	3.3	2.8	2.9	2.9	3.5	2.8	2.7	2.4
Percentage PSE	**%**	**34**	**26**	**27**	**5**	**-12**	**1**	**18**	**15**	**18**	**18**	**23**	**22**	**23**	**25**
Slovakia															
Total PSE	mn USD	1 754	1 712	1 636	2 306	2 030	959	585	477	422	382	234	277	503	388
	mn Euro	1 787	1 485	1 384	2 094	1 599	776	452	407	356	292	184	245	450	364
General Support Estimate	mn USD	112	128	145	143	139	122	79	54	62	67	59	55	56	40
Total Support Estimate	mn USD	2 127	2 118	2 063	2 999	2 435	1 081	664	531	484	450	293	332	559	428
	% GDP	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	4.1	3.5	2.6	1.6	1.7	2.8	2.3
Percentage PSE	**%**	**56**	**51**	**46**	**50**	**50**	**35**	**28**	**26**	**23**	**18**	**11**	**13**	**26**	**25**

© OECD 2001

© OECD 2001

Annex Table IV.1.3.ii Estimates of support to agriculture in selected CEECs, Russia, EU and OECD average, 1986-1999 (cont')

	Units	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998p	1999e
Slovenia															
Total PSE	mn USD	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	267	190	240	353	284	321	386	398
	mn Euro	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	207	163	203	273	227	284	344	373
General Support Estimate	mn USD	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	18	17	19	23	23	31	35	37
Total Support Estimate	mn USD	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	286	207	260	376	307	353	422	436
	% GDP	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	2.3	1.6	1.8	2.0	1.6	1.9	2.2	2.3
Percentage PSE	**%**	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	**35**	**28**	**32**	**37**	**29**	**37**	**46**	**52**
Romania															
Total PSE	mn USD	5 589	6 413	6 534	5 148	3 414	1 490	598	1 624	2 070	1 223	1 414	327	2 890	1 679
	mn Euro	5 695	5 563	5 529	4 676	2 689	1 206	462	1 386	1 746	936	1 114	288	2 584	1 576
General Support Estimate	mn USD	262	301	317	314	251	212	105	148	157	178	88	103	137	88
Total Support Estimate	mn USD	5 851	6 714	6 851	5 463	3 665	1 853	1 218	2 163	2 412	1 775	1 892	502	3 040	1 781
	% GDP	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	8.0	5.3
Percentage PSE	**%**	**48**	**54**	**51**	**46**	**28**	**15**	**8**	**16**	**19**	**10**	**12**	**3**	**25**	**20**
Bulgaria															
Total PSE	mn USD	8 934	8 922	9 032	10 231	15 862	-955	-997	-93	-482	-618	-1 045	-295	60	-23
	mn Euro	9 104	7 739	7 643	9 292	12 495	-772	-770	-79	-407	-472	-823	-260	54	-21
General Support Estimate	mn USD	271	293	307	448	583	31	28	68	23	22	13	11	4	6
Total Support Estimate	mn USD	9 220	9 230	9 356	10 698	16 501	-923	-961	-20	-457	-586	-1 031	-283	64	-17
	% GDP	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	0.5	-0.1
Percentage PSE	**%**	**76**	**74**	**72**	**68**	**72**	**-39**	**-45**	**-4**	**-27**	**-25**	**-54**	**-10**	**2**	**-1**
Russia															
Total PSE	mn USD	161 292	166 435	187 055	192 200	150 651	87 759	-14 467	-5 601	-3 656	6 193	11 556	12 622	4 114	-661
	mn Euro	164 363	144 393	158 302	174 569	118 670	71 002	-11 179	-4 782	-3 082	4 738	9 103	11 137	3 678	-621
General Support Estimate	mn USD	6 475	7 326	8 266	8 509	7 452	4 768	362	591	1 002	787	758	2 973	293	444
Total Support Estimate	mn USD	216 867	223 985	268 335	278 259	226 848	124 547	-13 721	-4 594	-2 455	6 981	12 314	15 595	4 407	-218
	% GDP	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	-13.9	-2.5	-0.9	2.0	2.9	3.5	1.6	-0.1
Percentage PSE	**%**	**82**	**81**	**81**	**77**	**70**	**60**	**-93**	**-24**	**-15**	**16**	**24**	**29**	**15**	**-3**
EU[1]															
Total PSE	mn USD	87 921	97 348	100 373	80 195	125 653	143 195	126 799	117 847	118 508	131 038	118 367	112 260	122 946	114 450
	mn Euro	89 595	84 456	84 944	72 839	98 979	115 853	97 976	100 610	99 911	100 238	93 248	99 056	109 929	107 416
General Support Estimate	mn USD	9 519	11 247	11 555	8 487	12 976	17 392	17 947	14 616	8 043	7 677	9 230	8 208	8 282	7 495
Total Support Estimate	mn USD	101 562	113 450	116 960	93 219	143 964	166 461	151 308	138 897	131 927	144 125	131 818	124 965	135 570	125 873
	% GDP	2.9	2.6	2.4	1.9	2.3	2.5	2.1	2.1	1.9	1.7	1.5	1.5	1.6	1.5
Percentage PSE	**%**	**46**	**44**	**42**	**38**	**45**	**51**	**44**	**44**	**42**	**41**	**35**	**38**	**45**	**49**
OECD															
Total PSE	mn USD	236 458	252 020	250 200	222 172	287 367	304 129	294 777	287 270	294 351	286 079	263 274	246 167	270 869	282 780
	mn Euro	240 960	218 644	211 740	201 791	226 364	246 057	227 769	245 254	248 159	218 838	207 405	217 213	242 190	265 400
General Support Estimate	mn USD	39 772	39 029	44 371	45 754	51 967	64 798	67 187	68 712	61 605	68 290	60 518	54 773	54 585	52 267
Total Support Estimate	mn USD	295 784	310 605	316 973	289 958	363 312	393 711	389 877	385 110	384 036	382 803	351 802	328 762	352 058	361 493
	% GDP	2.5	2.3	2.1	1.8	2.1	2.1	1.9	1.9	1.8	1.6	1.4	1.4	1.5	1.4
Percentage PSE	**%**	**42**	**41**	**38**	**34**	**38**	**41**	**39**	**38**	**37**	**35**	**31**	**31**	**36**	**40**

Notes: p: provisional; e: estimate; n.c.: not calculated;

1. EU-12 for 1986-1994, EU-15 from 1995; as from 1990, includes ex-GDR.

Source: OECD, PSE/CSE database.

Annex Table IV.1.4. SLOVENIA: Border reference prices

Commodity	Reference price country	Currency	1992	1993	1994	1995	1996	1997	1998	1999p
Wheat	EU	Euro/t	101.7	99.8	97.2	125.0	155.9	136.0	100.2	92.5
Maize	EU	Euro/t	90.2	98.8	104.6	110.7	144.9	119.3	104.4	104.2
Feed Barley	EU	Euro/t	79.9	72.1	70.8	98.0	131.3	116.8	72.8	83.5
Refined sugar	EU	Euro/t	212.1	244.2	302.6	303.5	288.7	279.3	228.0	193.0
Milk	NZ	USD/t	143.8	137.8	147.4	184.0	190.8	169.0	137.0	139.2
Beef and Veal (CWE)	EU	Euro/t	1 885.3	2 296.3	2 394.0	2 350.3	2 273.5	1 819.3	1 827.0	1 487.7
Pigmeat (CWE)	EU	Euro/t	2 133.7	1 523.5	1 547.7	1 684.9	1 913.6	2 014.3	1 469.0	990.1
Poultry (CWE)	EU	Euro/t	969.9	981.4	987.6	943.3	1 107.3	1 182.9	1 069.1	884.1
Eggs	EU	Euro/t	715.4	793.1	814.0	674.3	928.6	874.5	709.2	600.4
Sheepmeat (CWE)	NZ	Euro/t	1 507.6	2 259.4	2 158.4	1 774.2	2 497.4	2 951.0	2 359.7	2 411.8

p: provisional; CWE: carcass weight equivalent.
Source: OECD.

© OECD 2001

© OECD 2001

Annex Table IV.2.1. Wheat : Market Price Support and Consumer Support Estimate

		Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	data	000t	160	149	162	163	144	144	175	121
1. of which feed	data	000t	124	262	101	45	31	85	80	48
II. Producer price (at farm gate)	data	SIT/t	17 408	23 195	24 958	26 619	32 532	33 005	32 232	23 995
III. Value of production (at farm gate)	[(I) * (II)/1000]	SIT mn	2 783	3 451	4 046	4 338	4 688	4 745	5 631	2 909
IV. Level of consumption	data	000t	392	482	347	289	277	329	321	293
V. Consumption price (at farm gate)	(II)-((5)+(8))/(I)*1000+((5)+(6))/(IV)*1000	SIT/t	13 241	20 359	22 786	24 781	29 242	30 437	32 174	23 995
VI. Value of consumption (at farm gate)	(IV) * (V) / 1000	SIT mn	5 195	9 814	7 912	7 169	8 092	10 025	10 326	7 027
VII. Reference price (at farm gate)	((2)-(3))*(4)	SIT/t	10 174	12 542	14 047	18 376	25 582	23 627	17 742	16 938
2. Border reference price	data	Euro/t	102	100	97	125	156	136	100	92
3. Handling and processing cost	data	Euro/t	5	5	5	5	5	5	5	5
4. Exchange rate	data	SIT/Euro	105	132	152	153	170	180	186	194
VIII. Producer price differential	(II) - (VII)	SIT/t	7 234	10 653	10 910	8 243	6 950	9 379	14 490	7 057
IX. Market transfers	(5) + (6) - (7)	SIT mn	304	2 183	1 935	1 480	798	1 442	3 478	1 728
5. Transfers to producers from consumers	=IF((IV)>(I),(VIII)*(I)/1000,(VIII)*(IV)/1000)	SIT mn	1 156	1 585	1 769	1 343	1 002	1 348	2 532	856
6. Other transfers from consumers	data	SIT mn	47	2 183	1 266	510	11	895	2 100	1 211
7. Excess feed cost	=IF((1)<(I),(1)*(VIII)/1000,(I)*(VIII)/1000)	SIT mn	899	1 585	1 100	373	215	801	1 154	338
X. Budgetary transfers	(8) + (9) + (10)	SIT mn	0	0	0	0	0	0	0	0
8. Transfers to producers from taxpayers	=IF((IV)>(I),0,((I)-(IV))*(VIII)/1000)	SIT mn	0	0	0	0	0	0	0	0
9. Transfers to consumers from taxpayers	data	SIT mn	0	0	0	0	0	0	0	0
10. Price levies (-)	data	SIT mn	0	0	0	0	0	0	0	0
XI. Market Price Support (MPS)	(5) + (8) + (10)	SIT mn	1 156	1 585	1 769	1 343	1 002	1 348	2 532	856
XII. Consumer Support Estimate (CSE)	(9) - ((5) + (6) - (7))	SIT mn	- 304	- 2 183	- 1 935	- 1 480	- 798	- 1 442	- 3 478	- 1 728
XII.1 Unit CSE	(XII) / (IV)*1000	SIT/t	- 776	- 4 529	- 5 571	- 5 115	- 2 883	- 4 378	- 10 837	- 5 902
XII.2 Percentage CSE	100* (XII) / ((VI) - (9))	%	- 6	- 22	- 24	- 21	- 10	- 14	- 34	- 25
XII.3 Consumer NAC	1-(XII.2)/(100+(XII.2))		1.06	1.29	1.32	1.26	1.11	1.17	1.51	1.33

p: provisional ; e: estimate.
Source : OECD.

Annex Table IV.2.2. Maize : Market Price Support and Consumer Support Estimate

		Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	data	000t	173	238	313	296	297	355	333	308
1. of which feed	data	000t	415	288	409	467	451	438	387	438
II. Producer price (at farm gate)	data	SIT/t	13 251	17 094	18 554	17 835	26 265	19 008	18 323	20 424
III. Value of production (at farm gate)	[(I) * (II)/1000]	SIT mn	2 286	4 075	5 807	5 285	7 797	6 753	6 110	6 291
IV. Level of consumption	data	000t	483	358	489	549	542	530	481	532
V. Consumption price (at farm gate)	(II)-((5)+(8))/(I)*1000+((5)+(6))/(IV)*1000	SIT/t	13 251	17 094	18 554	17 835	26 265	19 008	18 323	20 424
VI. Value of consumption (at farm gate)	(IV) * (V) / 1000	SIT mn	6 397	6 124	9 065	9 786	14 247	10 078	8 807	10 870
VII. Reference price (at farm gate)	((2)-(3))*(4)	SIT/t	8 960	12 410	15 178	16 190	23 707	20 604	18 507	19 200
2. Border reference price	data	Euro/t	90	99	105	111	145	119	104	104
3. Handling and processing cost	data	Euro/t	5	5	5	5	5	5	5	5
4. Exchange rate	data	SIT/Euro	105	132	152	153	170	180	186	194
VIII. Producer price differential	(II) - (VII)	SIT/t	4 291	4 684	3 376	1 645	2 558	- 1 596	- 184	1 224
IX. Market transfers	(5) + (6) - (7)	SIT mn	1 331	561	593	415	628	- 279	- 27	274
5. Transfers to producers from consumers	=IF((IV)>(I),(VIII)*(I)/1000,(VIII)*(IV)/1000)	SIT mn	740	1 117	1 057	487	759	- 567	- 61	377
6. Other transfers from consumers	=IF((IV)<(I),0,((IV)-(I))*(VIII)/1000)	SIT mn	1 331	561	593	415	628	- 279	- 27	274
7. Excess feed cost	=IF((1)<(I),(1)*(VIII)/1000,(I)*(VIII)/1000)	SIT mn	740	1 117	1 057	487	759	- 567	- 61	377
X. Budgetary transfers	(8) + (9) + (10)	SIT mn	0	0	0	0	0	0	0	0
8. Transfers to producers from taxpayers	=IF((IV)>(I),0,((I)-(IV))*(VIII)/1000)	SIT mn	0	0	0	0	0	0	0	0
9. Transfers to consumers from taxpayers	data	SIT mn	0	0	0	0	0	0	0	0
10. Price levies (-)	data	SIT mn	0	0	0	0	0	0	0	0
XI. Market Price Support (MPS)	(5) + (8) + (10)	SIT mn	740	1 117	1 057	487	759	- 567	- 61	377
XII. Consumer Support Estimate (CSE)	(9) - ((5) + (6) - (7))	SIT mn	- 1 331	- 561	- 593	- 415	- 628	279	27	- 274
XII.1 Unit CSE	(XII) / (IV)*1000	SIT/t	- 2 758	- 1 567	- 1 213	- 757	- 1 158	527	56	- 516
XII.2 Percentage CSE	100* (XII) / ((VI) - (9))	%	- 21	- 9	- 7	- 4	- 4	3	0	- 3
XII.3 Consumer NAC	1-(XII.2)/(100+(XII.2))		1.26	1.10	1.07	1.04	1.05	0.97	1.00	1.03

p: provisional ; e: estimate.

Source : OECD.

© OECD 2001

© OECD 2001

Annex Table IV.2.3. Other Grains (Barley) : Market Price Support and Consumer Support Estimate

		Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	data	000t	33	32	53	50	46	44	49	39
1. of which feed	data	000t	87	127	150	135	116	83	128	103
II. Producer price (at farm gate)	data	SIT/t	16 390	20 420	19 080	18 240	25 370	24 810	17 691	19 710
III. Value of production (at farm gate)	[(I) * (II)/1000]	SIT mn	539	654	1 005	909	1 172	1 092	862	763
IV. Level of consumption	data	000t	136	181	199	187	161	127	167	143
V. Consumption price (at farm gate)	(II)-((5)+(8))/(I)*1000+((5)+(6))/(IV)*1000	SIT/t	16 390	20 420	19 080	18 240	25 370	24 810	17 691	19 710
VI. Value of consumption (at farm gate)	(IV) * (V) / 1000	SIT mn	2 235	3 689	3 788	3 418	4 079	3 145	2 963	2 814
VII. Reference price (at farm gate)	((2)-(3))*(4)	SIT/t	7 879	8 881	10 029	14 237	21 405	20 159	12 628	15 192
2. Border reference price	data	Euro/t	80	72	71	98	131	117	73	83
3. Handling and processing cost	data	Euro/t	5	5	5	5	5	5	5	5
4. Exchange rate	data	SIT/Euro	105	132	152	153	170	180	186	194
VIII. Producer price differential	(II) - (VII)	SIT/t	8 511	11 539	9 051	4 003	3 965	4 651	5 063	4 518
IX. Market transfers	(5) + (6) - (7)	SIT mn	881	1 715	1 320	551	454	385	601	470
5. Transfers to producers from consumers	=IF((IV)>(I),(VIII)*(I)/1000,(VIII)*(IV)/1000)	SIT mn	280	369	477	199	183	205	247	175
6. Other transfers from consumers	=IF((IV)<(I),0,((IV)-(I))*(VIII)/1000)	SIT mn	881	1 715	1 320	551	454	385	601	470
7. Excess feed cost	=IF((1)<(I),(1)*(VIII)/1000,(I)*(VIII)/1000)	SIT mn	280	369	477	199	183	205	247	175
X. Budgetary transfers	(8) + (9) + (10)	SIT mn	0	0	0	0	0	0	0	0
8. Transfers to producers from taxpayers	=IF((IV)>(I),0,((I)-(IV))*(VIII)/1000)	SIT mn	0	0	0	0	0	0	0	0
9. Transfers to consumers from taxpayers	data	SIT mn	0	0	0	0	0	0		
10. Price levies (-)	data	SIT mn	0	0	0	0	0	0	0	0
XI. Market Price Support (MPS)	(5) + (8) + (10)	SIT mn	280	369	477	199	183	205	247	175
XII. Consumer Support Estimate (CSE)	(9) - ((5) + (6) - (7))	SIT mn	- 881	- 1 715	- 1 320	- 551	- 454	- 385	- 601	- 470
XII.1 Unit CSE	(XII) / (IV)*1000	SIT/t	- 6 461	- 9 494	- 6 650	- 2 938	- 2 825	- 3 036	- 3 591	- 3 293
XII.2 Percentage CSE	100* (XII) / ((VI) - (9))	%	- 39	- 46	- 35	- 16	- 11	- 12	- 20	- 17
XII.3 Consumer NAC	1-(XII.2)/(100+(XII.2))		1.65	1.87	1.53	1.19	1.13	1.14	1.25	1.20

p: provisional ; e: estimate.
Source : OECD.

Annex Table IV.2.4. Refined Sugar: Market Price Support and Consumer Support Estimate

		Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production (sugar)	data	000t	28	29	22	39	48	43	47	64
1. Level of production in terms of beet	data	000t	97	133	222	265	308	289	380	467
II. Producer price (at farm gate) (sugar)	data	SIT/t	26 592	49 278	56 369	52 678	56 241	58 761	61 840	59 614
III. Value of production (at farm gate)	[(I) * (II)/1000]	SIT mn	745	1 452	1 245	2 039	2 690	2 510	2 928	3 826
IV. Level of consumption sugar	data	000t	68	71	67	71	77	70	76	74
V. Consumption price (at farm gate)	(II)-((12)+(15))/(I)*1000+((12)+(13))/(IV)*1000	SIT/t	23 452	30 500	37 217	42 801	44 865	47 128	50 826	59 614
VI. Value of consumption (at farm gate)	(IV) * (V) / 1000	SIT mn	1 594	2 159	2 476	3 047	3 434	3 282	3 884	4 419
VII. Reference price (at farm gate)	((2)-(3))*(4)	SIT/t	11 723	16 671	22 776	24 751	24 776	25 243	21 277	18 726
2. Border reference price	data	Euro/t	212	244	303	303	289	279	228	193
3. Handling and processing cost	data	Euro/t	101	118	153	142	143	139	114	96
4. Exchange rate	data	SIT/Euro	105	132	152	153	170	180	186	194
VIII. Producer price differential	(II) - (VII)	SIT/t	14 869	32 607	33 594	27 926	31 464	33 517	40 563	40 888
IX. Market transfers	(5) + (6)	SIT mn	797	979	961	1 285	1 538	1 524	2 258	3 031
5. Transfers to producers from consumers	=IF((IV)>(I),(VIII)*(I)/1000,(VIII)*(IV)/1000)	SIT mn	417	960	742	1 081	1 505	1 432	1 921	2 624
6. Other transfers from consumers	data	SIT mn	380	18	219	204	33	92	337	407
7. Excess feed cost	no excess feed cost	SIT mn	0	0	0	0	0	0	0	0
X. Budgetary transfers	(8) + (9) + (10)	SIT mn	34	0	0	0	0	150	134	189
8. Transfers to producers from taxpayers	=IF((IV)>(I),0,((I)-(IV))*(VIII)/1000)	SIT mn	0	0	0	0	0	0	0	0
9. Transfers to consumers from taxpayers	data	SIT mn	34	0	0	0	0	150	134	189
10. Price levies (-)	data	SIT mn	0	0	0	0	0	0	0	0
XI. Market Price Support (MPS)	(5) + (8) + (10)	SIT mn	417	960	742	1 081	1 505	1 432	1 921	2 624
XII. Consumer Support Estimate (CSE)	(9) - ((5) + (6))	SIT mn	- 763	- 979	- 961	- 1 285	- 1 538	- 1 374	- 2 124	- 2 842
XII.1 Unit CSE	(XII) / (IV)*1000	SIT/t	- 11 232	- 13 829	- 14 442	- 18 049	- 20 089	- 19 729	- 27 801	- 38 339
XII.2 Percentage CSE	100* (XII) / ((VI) - (9))	%	- 49	- 45	- 39	- 42	- 45	- 44	- 57	- 67
XII.3 Consumer NAC	1-(XII.2)/(100+(XII.2))		1.96	1.83	1.63	1.73	1.81	1.78	2.31	3.05

p: provisional ; e: estimate.
Source : OECD.

© OECD 2001

© OECD 2001

Annex Table IV.2.5. Milk : Market Price Support and Consumer Support Estimate

		Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	data	000t	472	444	470	499	489	481	510	537
II. Producer price (at farm gate)	data	SIT/t	20 965	27 685	36 227	39 335	42 016	48 076	54 443	56 169
III. Value of production (at farm gate)	(I) * (II)/1000	SIT mn	9 893	12 305	17 027	19 615	20 541	23 115	27 772	30 135
IV. Level of consumption	data	000t	378	378	391	414	412	411	411	422
V. Consumption price (at farm gate)	(II)-((6)+(9))/(I)*1000+((6)+(7))/(IV)*1000	SIT/t	20 965	27 685	36 227	39 335	42 016	48 076	54 443	56 169
VI. Value of consumption (at farm gate)	(IV) * (V) / 1000	SIT mn	7 924	10 457	14 160	16 290	17 293	19 761	22 400	23 730
VII. Reference price (at farm gate)	[((1)+(2))*((3)+(4))/(2*(4))] * (5)	SIT/t	11 813	15 922	19 288	21 836	26 468	28 144	23 793	27 230
1. Border reference price	data	USD/t	144	138	147	184	191	169	137	139
2. Transport cost, milk equivalent	data	USD/t	17	18	18	17	20	20	17	19
3. Fat content (domestic)	data	%	4	4	4	4	4	4	4	4
4. Fat content (New Zealand)	data	%	5	5	5	5	5	5	5	5
5. Exchange rate	data	SIT/USD	81	113	129	119	135	160	166	182
VIII. Producer price differential	(II) - (VII)	SIT/t	9 152	11 763	16 939	17 499	15 548	19 933	30 650	28 939
IX. Market transfers	(6) + (7)	SIT mn	3 459	4 443	6 621	7 247	6 399	8 193	12 611	12 226
6. Transfers to producers from consumers	=IF((IV)>(I),(VIII)*(I)/1000,(VIII)*(IV)/1000)	SIT mn	3 459	4 443	6 621	7 247	6 399	8 193	12 611	12 226
7. Other transfers from consumers	=IF((IV)<(I),0,((IV)-(I))*(VIII)/1000)	SIT mn	0	0	0	0	0	0	0	0
8. Excess feed cost	data	SIT mn	245	392	336	135	148	56	171	114
X. Budgetary transfers	(9) + (10) + (11)	SIT mn	859	785	1 341	1 479	1 202	1 391	3 024	3 300
9. Transfers to producers from taxpayers	=IF((IV)>(I),0,((I)-(IV))*(VIII)/1000)	SIT mn	859	785	1 341	1 479	1 202	1 391	3 024	3 300
10. Transfers to consumers from taxpayers	data	SIT mn	0	0	0	0	0	0	0	0
11. Price levies (-)	data	SIT mn	0	0	0	0	0	0	0	0
XI. Market Price Support (MPS)	(6) - (8) + (9) + (11)	SIT mn	4 074	4 837	7 626	8 591	7 453	9 527	15 464	15 413
XII. Consumer Support Estimate (CSE)	(10) - ((6) + (7))	SIT mn	- 3 459	- 4 443	- 6 621	- 7 247	- 6 399	- 8 193	- 12 611	- 12 226
XII.1 Unit CSE	(XII) / (IV)*1000	SIT/t	- 9 152	- 11 763	- 16 939	- 17 499	- 15 548	- 19 933	- 30 650	- 28 939
XII.2 Percentage CSE	100* (XII) / ((VI) - (10))	%	- 44	- 42	- 47	- 44	- 37	- 41	- 56	- 52
XII.3 Consumer NAC	1-(XII.2)/(100+(XII.2))		1.77	1.74	1.88	1.80	1.59	1.71	2.29	2.06

p: provisional ; e: estimate.
Source : OECD.

Annex Table IV.2.6. Beef : Market Price Support and Consumer Support Estimate

		Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production (carcass)	data	000t	46	54	47	46	52	54	45	43
II. Producer price (at farm gate) (carcass)	data	SIT/t	223 755	279 758	366 882	444 271	444 368	450 614	490 404	501 247
III. Value of production (at farm gate)	[(I) * (II)/1000]	SIT mn	10 239	15 106	17 114	20 459	22 973	24 378	21 837	21 441
IV. Level of consumption	data	000t	45	56	56	52	55	53	46	44
V. Consumption price (at farm gate)	(II)-((4)+(7))/(I)*1000+((4)+(5))/(IV)*1000	SIT/t	223 755	279 758	366 882	444 271	444 368	450 614	490 404	501 247
VI. Value of consumption (at farm gate)	(IV) * (V) / 1000	SIT mn	10 094	15 697	20 618	23 113	24 423	24 001	22 372	22 219
VII. Reference price (at farm gate)	((1)-(2))*(3)*(4)	SIT/t	170 598	280 578	327 648	325 218	355 818	285 693	290 663	255 453
1. Border reference price	data	Euro/t	1 885	2 296	2 394	2 350	2 274	1 819	1 827	1 488
2. Handling and processing cost	data	Euro/t	532	529	602	580	524	500	527	388
3. Quality adjustment	data		1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
4. Exchange rate	data	SIT/Euro	105	132	152	153	170	180	186	194
VIII. Producer price differential	(II) - (VII)	SIT/t	53 157	- 820	39 234	119 053	88 550	164 921	199 741	245 794
IX. Market transfers	(5) + (6)	SIT mn	2 398	- 46	2 205	6 194	4 867	8 784	9 112	10 895
5. Transfers to producers from consumers	=IF((IV)>(I),(VIII)*(I)/1000,(VIII)*(IV)/1000)	SIT mn	2 398	- 44	1 830	5 483	4 578	8 784	8 894	10 514
6. Other transfers from consumers	=IF((IV)<(I),0,((IV)-(I))*(VIII)/1000)	SIT mn	0	- 2	375	711	289	0	218	381
7. Excess feed cost	data	SIT mn	209	334	287	115	126	48	146	97
X. Budgetary transfers	(8) + (9) + (10)	SIT mn	34	0	0	0	0	138	0	0
8. Transfers to producers from taxpayers	=IF((IV)>(I),0,((I)-(IV))*(VIII)/1000)	SIT mn	34	0	0	0	0	138	0	0
9. Transfers to consumers from taxpayers	data	SIT mn	0	0	0	0	0	0	0	0
10. Price levies (-)	data	SIT mn	0	0	0	0	0	0	0	0
XI. Market Price Support (MPS)	(5) - (7) + (8) + (10)	SIT mn	2 224	- 378	1 544	5 367	4 452	8 874	8 748	10 417
XII. Consumer Support Estimate (CSE)	(9) - ((5) + (6))	SIT mn	- 2 398	46	- 2 205	- 6 194	- 4 867	- 8 784	- 9 112	- 10 895
XII.1 Unit CSE	(XII) / (IV)*1000	SIT/t	- 53 157	820	- 39 234	- 119 053	- 88 550	- 164 921	- 199 741	- 245 794
XII.2 Percentage CSE	100* (XII) / ((VI) - (9))	%	- 24	0	- 11	- 27	- 20	- 37	- 41	- 49
XII.3 Consumer NAC	1-(XII.2)/(100+(XII.2))		1.31	1.00	1.12	1.37	1.25	1.58	1.69	1.96

p: provisional ; e: estimate.
Source : OECD.

© OECD 2001

© OECD 2001

Annex Table IV.2.7. Pig meat : Market Price Support and Consumer Support Estimate

		Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production (carcass)	data	000t	50	60	61	58	59	59	61	68
II. Producer price (at farm gate) (carcass)	data	SIT/t	193 100	201 034	236 088	256 217	279 622	322 889	296 697	273 882
III. Value of production (at farm gate)	[(I) * (II)/1000]	SIT mn	9 719	12 076	14 465	14 964	16 621	19 118	17 967	18 494
IV. Level of consumption	data	000t	64	79	79	75	71	77	79	83
V. Consumption price (at farm gate)	(II)-((4)+(7))/(I)*1000+((4)+(5))/(IV)*1000	SIT/t	193 100	201 034	236 088	256 217	279 622	322 889	296 697	273 882
VI. Value of consumption (at farm gate)	(IV) * (V) / 1000	SIT mn	12 413	15 969	18 693	19 274	19 860	24 761	23 361	22 611
VII. Reference price (at farm gate)	((1)-(2))*(3)	SIT/t	156 743	129 460	151 495	170 849	226 448	210 662	143 247	100 715
1. Border reference price	data	Euro/t	2 134	1 523	1 548	1 685	1 914	2 014	1 469	990
2. Handling and processing cost	data	Euro/t	642	545	553	569	578	847	700	470
3. Exchange rate	data	SIT/Euro	105	132	152	153	170	180	186	194
VIII. Producer price differential	(II) - (VII)	SIT/t	36 358	71 574	84 593	85 368	53 174	112 227	153 450	173 166
IX. Market transfers	(4) + (5)	SIT mn	2 337	5 685	6 698	6 422	3 777	8 606	12 082	14 296
4. Transfers to producers from consumers	=IF((IV)>(I),(VIII)*(I)/1000,(VIII)*(IV)/1000)	SIT mn	1 830	4 299	5 183	4 986	3 161	6 645	9 293	11 693
5. Other transfers from consumers	=IF((IV)<(I),0,((IV)-(I))*(VIII)/1000)	SIT mn	507	1 386	1 515	1 436	616	1 962	2 790	2 603
6. Excess feed cost	data	SIT mn	815	1 305	1 119	451	492	187	569	378
X. Budgetary transfers	(7) + (8) + (9)	SIT mn	0	0	0	0	0	0	0	0
7. Transfers to producers from taxpayers	=IF((IV)>(I),0,((I)-(IV))*(VIII)/1000)	SIT mn	0	0	0	0	0	0	0	0
8. Transfers to consumers from taxpayers	data	SIT mn	0	0	0	0	0	0	0	0
9. Price levies (-)	data	SIT mn	0	0	0	0	0	0	0	0
XI. Market Price Support (MPS)	(4) - (6) + (7) + (9)	SIT mn	1 015	2 994	4 064	4 535	2 669	6 458	8 723	11 315
XII. Consumer Support Estimate (CSE)	(8) - ((4) + (5))	SIT mn	- 2 337	- 5 685	- 6 698	- 6 422	- 3 777	- 8 606	- 12 082	- 14 296
XII.1 Unit CSE	(XII) / (IV)*1000	SIT/t	- 36 358	- 71 574	- 84 593	- 85 368	- 53 174	- 112 227	- 153 450	- 173 166
XII.2 Percentage CSE	100* (XII) / ((VI) - (8))	%	- 19	- 36	- 36	- 33	- 19	- 35	- 52	- 63
XII.3 Consumer NAC	1-(XII.2)/(100+(XII.2))		1.23	1.55	1.56	1.50	1.23	1.53	2.07	2.72

p: provisional ; e: estimate.

Source : OECD.

Annex Table IV.2.8. Poultry : Market Price Support and Consumer Support Estimate

		Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	data	000t	56	49	49	56	58	60	59	54
II. Producer price (at farm gate)	data	SIT/t	128 823	146 971	170 400	177 183	209 183	216 822	209 494	205 648
III. Value of production (at farm gate)	[(I) * (II)/1000]	SIT mn	7 210	7 134	8 369	9 927	12 173	13 007	12 294	11 206
IV. Level of consumption	data	000t	34	30	35	44	48	51	53	47
V. Consumption price (at farm gate)	(II)-((4)+(7))/(I)*1000+((4)+(5))/(IV)*1000	SIT/t	128 823	146 971	170 400	177 183	209 183	216 822	209 494	205 648
VI. Value of consumption (at farm gate)	(IV) * (V) / 1000	SIT mn	4 390	4 404	5 965	7 710	10 125	11 012	11 191	9 606
VII. Reference price (at farm gate)	((1)-(2))*(3)*(4)	SIT/t	75 564	96 133	108 444	101 718	145 268	156 161	163 388	119 469
1. Border reference price	data	Euro/t	970	981	988	943	1 107	1 183	1 069	884
2. Handling and processing cost	data	Euro/t	395	400	418	412	422	490	367	390
3. Quality adjustment	data		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
4. Exchange rate	data	SIT/Euro	105	132	152	153	170	180	186	194
VIII. Producer price differential	(II) - (VII)	SIT/t	53 259	50 838	61 956	75 465	63 915	60 662	46 105	86 180
IX. Market transfers	(5) + (6)	SIT mn	1 815	1 523	2 169	3 284	3 094	3 081	2 463	4 026
5. Transfers to producers from consumers	=IF((IV)>(I),(VIII)*(I)/1000,(VIII)*(IV)/1000)	SIT mn	1 815	1 523	2 169	3 284	3 094	3 081	2 463	4 026
6. Other transfers from consumers	=IF((IV)<(I),0,((IV)-(I))*(VIII)/1000)	SIT mn	0	0	0	0	0	0	0	0
7. Excess feed cost	data	SIT mn	437	700	600	242	264	100	305	203
X. Budgetary transfers	(8) + (9) + (10)	SIT mn	1 166	944	874	945	626	558	243	670
8. Transfers to producers from taxpayers	=IF((IV)>(I),0,((I)-(IV))*(VIII)/1000)	SIT mn	1 166	944	874	945	626	558	243	670
9. Transfers to consumers from taxpayers	data	SIT mn	0	0	0	0	0	0	0	0
10. Price levies (-)	data	SIT mn	0	0	0	0	0	0	0	0
XI. Market Price Support (MPS)	(5) - (7) + (8) + (10)	SIT mn	2 543	1 767	2 442	3 987	3 455	3 539	2 400	4 493
XII. Consumer Support Estimate (CSE)	(9) - ((5) + (6))	SIT mn	- 1 815	- 1 523	- 2 169	- 3 284	- 3 094	- 3 081	- 2 463	- 4 026
XII.1 Unit CSE	(XII) / (IV)*1000	SIT/t	- 53 259	- 50 838	- 61 956	- 75 465	- 63 915	- 60 662	- 46 105	- 86 180
XII.2 Percentage CSE	100* (XII) / ((VI) - (9))	%	- 41	- 35	- 36	- 43	- 31	- 28	- 22	- 42
XII.3 Consumer NAC	1-(XII.2)/(100+(XII.2))		1.70	1.53	1.57	1.74	1.44	1.39	1.28	1.72

p: provisional ; e: estimate.

Source : OECD.

© OECD 2001

© OECD 2001

Annex Table IV.2.9. Eggs : Market Price Support and Consumer Support Estimate

		Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	data	000t	19	18	18	18	21	23	23	23
II. Producer price (at farm gate)	data	SIT/t	134 596	148 449	183 556	200 593	243 950	246 871	242 123	222 369
III. Value of production (at farm gate)	[(I) * (II)/1000]	SIT mn	2 568	2 674	3 293	3 533	5 154	5 752	5 508	5 035
IV. Level of consumption	data	000t	16	16	16	16	20	22	23	23
V. Consumption price (at farm gate)	(II)-((4)+(7))/(I)*1000+((4)+(5))/(IV)*1000	SIT/t	134 596	148 449	183 556	200 593	243 950	246 871	242 123	222 369
VI. Value of consumption (at farm gate)	(IV) * (V) / 1000	SIT mn	2 187	2 310	2 956	3 219	4 807	5 390	5 522	5 101
VII. Reference price (at farm gate)	((1)-(2))*(3)	SIT/t	65 749	94 515	111 175	89 207	140 332	140 479	115 155	100 685
1. Border reference price	data	Euro/t	715	793	814	674	929	875	709	600
2. Handling and processing cost	data	Euro/t	90	79	84	92	101	96	91	80
3. Exchange rate	data	SIT/Euro	105	132	152	153	170	180	186	194
VIII. Producer price differential	(II) - (VII)	SIT/t	68 847	53 934	72 382	111 387	103 618	106 392	126 968	121 685
IX. Market transfers	(4) + (5)	SIT mn	1 119	839	1 166	1 787	2 042	2 323	2 896	2 791
4. Transfers to producers from consumers	=IF((IV)>(I),(VIII)*(I)/1000,(VIII)*(IV)/1000)	SIT mn	1 119	839	1 166	1 787	2 042	2 323	2 888	2 755
5. Other transfers from consumers	=IF((IV)<(I),0,((IV)-(I))*(VIII)/1000)	SIT mn	0	0	0	0	0	0	7	36
6. Excess feed cost	data	SIT mn	205	328	282	113	124	47	143	95
X. Budgetary transfers	(7) + (8) + (9)	SIT mn	195	132	133	174	147	156	0	0
7. Transfers to producers from taxpayers	=IF((IV)>(I),0,((I)-(IV))*(VIII)/1000)	SIT mn	195	132	133	174	147	156	0	0
8. Transfers to consumers from taxpayers	data	SIT mn	0	0	0	0	0	0	0	0
9. Price levies (-)	data	SIT mn	0	0	0	0	0	0	0	0
XI. Market Price Support (MPS)	(4) - (6) + (7) + (9)	SIT mn	1 108	643	1 017	1 848	2 065	2 432	2 745	2 660
XII. Consumer Support Estimate (CSE)	(8) - ((4) + (5))	SIT mn	- 1 119	- 839	- 1 166	- 1 787	- 2 042	- 2 323	- 2 896	- 2 791
XII.1 Unit CSE	(XII) / (IV)*1000	SIT/t	- 68 847	- 53 934	- 72 382	- 111 387	- 103 618	- 106 392	- 126 968	- 121 685
XII.2 Percentage CSE	100* (XII) / ((VI) - (8))	%	- 51	- 36	- 39	- 56	- 42	- 43	- 52	- 55
XII.3 Consumer NAC	1-(XII.2)/(100+(XII.2))		2.05	1.57	1.65	2.25	1.74	1.76	2.10	2.21

p: provisional ; e: estimate.
Source : OECD.

Annex Table IV.2.10. Sheep meat : Market Price Support and Consumer Support Estimate

		Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production (carcass)	data	000t	0.2	0.3	0.3	0.4	0.5	0.6	0.7	1.0
II. Producer price (at farm gate) (carcass)	data	SIT/t	427 298	491 636	601 575	827 935	856 253	903 698	875 700	819 239
III. Value of production (at farm gate)	[(I) * (II)/1000]	SIT mn	86	139	209	297	409	538	642	835
IV. Level of consumption	data	000t	0.2	0.3	0.5	0.5	0.5	0.6	0.7	1.0
V. Consumption price (at farm gate)	(II)-((4)+(7))/(I)*1000+((4)+(5))/(IV)*1000	SIT/t	427 298	491 636	601 575	827 935	856 253	903 698	875 700	819 239
VI. Value of consumption (at farm gate)	(IV) * (V) / 1000	SIT mn	103	162	298	417	442	549	653	836
VII. Reference price (at farm gate)	(1)*(2)	SIT/t	158 417	298 872	328 866	271 655	423 336	532 347	439 530	466 976
1. Border reference price	data	Euro/t	1 508	2 259	2 158	1 774	2 497	2 951	2 360	2 412
2. Exchange rate	data	SIT/Euro	105	132	152	153	170	180	186	194
VIII. Producer price differential	(II) - (VII)	SIT/t	268 881	192 765	272 709	556 280	432 917	371 350	436 170	352 263
IX. Market transfers	(3) + (4)	SIT mn	65	63	135	280	224	226	325	359
3. Transfers to producers from consumers	=IF((IV)>(I),(VIII)*(I)/1000,(VIII)*(IV)/1000)	SIT mn	54	54	95	200	207	221	320	359
4. Other transfers from consumers	=IF((IV)<(I),0,((IV)-(I))*(VIII)/1000)	SIT mn	11	9	40	80	17	4	6	0
5. Excess feed cost	data	SIT mn	7	11	10	4	4	2	5	3
X. Budgetary transfers	(6) + (7) + (8)	SIT mn	0	0	0	0	0	0	0	0
6. Transfers to producers from taxpayers	=IF((IV)>(I),0,((I)-(IV))*(VIII)/1000)	SIT mn	0	0	0	0	0	0	0	0
7. Transfers to consumers from taxpayers	data	SIT mn	0	0	0	0	0	0	0	0
8. Price levies (-)	data	SIT mn	0	0	0	0	0	0	0	0
XI. Market Price Support (MPS)	(3) - (5) + (6) + (8)	SIT mn	47	43	85	196	203	220	315	356
XII. Consumer Support Estimate (CSE)	(7) - ((3) + (4))	SIT mn	- 65	- 63	- 135	- 280	- 224	- 226	- 325	- 359
XII.1 Unit CSE	(XII) / (IV)*1000	SIT/t	- 268 881	- 192 765	- 272 709	- 556 280	- 432 917	- 371 350	- 436 170	- 352 263
XII.2 Percentage CSE	100* (XII) / ((VI) - (7))	%	- 63	- 39	- 45	- 67	- 51	- 41	- 50	- 43
XII.3 Consumer NAC	1-(XII.2)/(100+(XII.2))		2.70	1.64	1.83	3.05	2.02	1.70	1.99	1.75

p: provisional ; e: estimate.
Source : OECD.

© OECD 2001

© OECD 2001

Annex Table IV.3.1. Wheat : Producer support estimate

	Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	000t	160	149	162	163	144	144	175	121
II. Value of production (at farm gate)	SIT mn	2 783	3 451	4 046	4 338	4 688	4 745	5 631	2 909
III. Producer Support Estimate (PSE)	SIT mn	1 632	1 740	2 010	1 589	1 508	1 604	3 049	2 327
A. Market price support	SIT mn	1 156	1 585	1 769	1 343	1 002	1 348	2 532	856
1. Based on unlimited output	SIT mn	1 156	1 585	1 769	1 343	1 002	1 348	2 532	856
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
B. Payments based on output	SIT mn	144	0	0	0	240	0	363	200
1. Based on unlimited output	SIT mn	144	0	0	0	240	0	363	200
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
C. Payments based on area planted/animal numbers	SIT mn	0	0	0	0	0	0	0	1 067
1. Based on unlimited area or animal numbers	SIT mn	0	0	0	0	0	0	0	1 067
2. Based on limited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
D. Payments based on historical entitlements	SIT mn	0	0	0	0	0	0	0	0
1. Based on historical plantings/animal numbers or production	SIT mn	0	0	0	0	0	0	0	0
2. Based on historical support programmes	SIT mn	0	0	0	0	0	0	0	0
E. Payments based on input use	SIT mn	332	154	241	246	266	251	142	182
1. Based on use of variable inputs	SIT mn	290	112	176	178	190	157	22	64
2. Based on use of on-farm services	SIT mn	13	19	23	27	31	43	44	49
3. Based on on-farm investment	SIT mn	28	23	42	41	44	51	75	70
F. Payments based on input constraints	SIT mn	0	0	0	0	0	0	0	1
1. Based on constraints on variable inputs	SIT mn	0	0	0	0	0	0	0	0
2. Based on constraints on fixed inputs	SIT mn	0	0	0	0	0	0	0	0
3. Based on constraints on a set of inputs	SIT mn	0	0	0	0	0	0	0	1
G. Payments based on overall farming income	SIT mn	0	0	0	0	0	0	7	22
1. Based on farm income level	SIT mn	0	0	0	0	0	0	7	22
2. Based on established minimum income	SIT mn	0	0	0	0	0	0	0	0
H. Miscellaneous payments	SIT mn	0	0	0	0	0	5	6	0
1. National payments	SIT mn	0	0	0	0	0	5	6	0
2. Sub-national payments	SIT mn	0	0	0	0	0	0	0	0
IV. Unit PSE	SIT/t	10 210	11 692	12 396	9 749	10 462	11 156	17 454	19 190
V. Percentage PSE	%	50	48	47	35	29	32	50	53
VI. Producer NAC		2.00	1.93	1.88	1.53	1.41	1.47	1.98	2.13

p: provisional ; e: estimate.

Source : OECD.

Annex Table IV.3.2. Maize : Producer support estimate

	Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	000t	173	238	313	296	297	355	333	308
II. Value of production (at farm gate)	SIT mn	2 286	4 075	5 807	5 285	7 797	6 753	6 110	6 291
III. Producer Support Estimate (PSE)	SIT mn	791	1 232	1 192	624	931	- 235	212	734
A. Market price support	SIT mn	740	1 117	1 057	487	759	- 567	- 61	377
1. Based on unlimited output	SIT mn	740	1 117	1 057	487	759	- 567	- 61	377
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
B. Payments based on output	SIT mn	0	0	0	0	0	128	72	182
1. Based on unlimited output	SIT mn	0	0	0	0	0	128	72	182
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
C. Payments based on area planted/animal numbers	SIT mn	0	0	0	0	0	0	0	0
1. Based on unlimited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
2. Based on limited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
D. Payments based on historical entitlements	SIT mn	0	0	0	0	0	0	0	0
1. Based on historical plantings/animal numbers or production	SIT mn	0	0	0	0	0	0	0	0
2. Based on historical support programmes	SIT mn	0	0	0	0	0	0	0	0
E. Payments based on input use	SIT mn	50	116	136	136	171	198	185	149
1. Based on use of variable inputs	SIT mn	0	64	57	54	79	84	40	5
2. Based on use of on-farm services	SIT mn	16	23	28	33	38	53	54	59
3. Based on on-farm investment	SIT mn	34	28	51	49	53	62	92	85
F. Payments based on input constraints	SIT mn	0	0	0	0	0	0	0	0
1. Based on constraints on variable inputs	SIT mn	0	0	0	0	0	0	0	0
2. Based on constraints on fixed inputs	SIT mn	0	0	0	0	0	0	0	0
3. Based on constraints on a set of inputs	SIT mn	0	0	0	0	0	0	0	0
G. Payments based on overall farming income	SIT mn	0	0	0	0	0	0	8	26
1. Based on farm income level	SIT mn	0	0	0	0	0	0	8	26
2. Based on established minimum income	SIT mn	0	0	0	0	0	0	0	0
H. Miscellaneous payments	SIT mn	0	0	0	0	0	6	7	0
1. National payments	SIT mn	0	0	0	0	0	6	7	0
2. Sub-national payments	SIT mn	0	0	0	0	0	0	0	0
IV. Unit PSE	SIT/t	4 583	5 169	3 810	2 105	3 136	- 660	634	2 383
V. Percentage PSE	%	34	29	20	12	12	- 3	3	11
VI. Producer NAC		1.51	1.42	1.25	1.13	1.13	0.97	1.03	1.12

p: provisional ; e: estimate.
Source : OECD.

© OECD 2001

© OECD 2001

Annex Table IV.3.3. Other Grains (Barley) : Producer support estimate

	Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	000t	33	32	53	50	46	44	49	39
II. Value of production (at farm gate)	SIT mn	539	654	1 005	909	1 172	1 092	862	763
III. Producer Support Estimate (PSE)	SIT mn	290	380	493	217	206	253	280	225
A. Market price support	SIT mn	280	369	477	199	183	205	247	175
1. Based on unlimited output	SIT mn	280	369	477	199	183	205	247	175
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
B. Payments based on output	SIT mn	0	0	0	0	0	0	0	0
1. Based on unlimited output	SIT mn	0	0	0	0	0	0	0	0
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
C. Payments based on area planted/animal numbers	SIT mn	0	0	0	0	0	0	0	0
1. Based on unlimited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
2. Based on limited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
D. Payments based on historical entitlements	SIT mn	0	0	0	0	0	0	0	0
1. Based on historical plantings/animal numbers or production	SIT mn	0	0	0	0	0	0	0	0
2. Based on historical support programmes	SIT mn	0	0	0	0	0	0	0	0
E. Payments based on input use	SIT mn	11	11	17	17	22	47	31	44
1. Based on use of variable inputs	SIT mn	0	0	0	0	3	23	0	14
2. Based on use of on-farm services	SIT mn	3	5	6	7	8	11	11	12
3. Based on on-farm investment	SIT mn	7	6	11	10	11	13	19	18
F. Payments based on input constraints	SIT mn	0	0	0	0	0	0	0	0
1. Based on constraints on variable inputs	SIT mn	0	0	0	0	0	0	0	0
2. Based on constraints on fixed inputs	SIT mn	0	0	0	0	0	0	0	0
3. Based on constraints on a set of inputs	SIT mn	0	0	0	0	0	0	0	0
G. Payments based on overall farming income	SIT mn	0	0	0	0	0	0	2	6
1. Based on farm income level	SIT mn	0	0	0	0	0	0	2	6
2. Based on established minimum income	SIT mn	0	0	0	0	0	0	0	0
H. Miscellaneous payments	SIT mn	0	0	0	0	0	1	1	0
1. National payments	SIT mn	0	0	0	0	0	1	1	0
2. Sub-national payments	SIT mn	0	0	0	0	0	0	0	0
IV. Unit PSE	SIT/t	8 833	11 879	9 367	4 350	4 449	5 750	5 756	5 801
V. Percentage PSE	%	53	57	48	23	17	22	31	28
VI. Producer NAC		2.12	2.34	1.93	1.31	1.21	1.29	1.46	1.38

p: provisional ; e: estimate.
Source : OECD.

Annex Table IV.3.4. Refined sugar : Producer support estimate

	Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	000t	28	29	22	39	48	43	47	64
II. Value of production (at farm gate)	SIT mn	745	1 452	1 245	2 039	2 690	2 510	2 928	3 826
III. Producer Support Estimate (PSE)	SIT mn	516	1 079	874	1 236	1 668	1 597	2 158	3 123
A. Market price support	SIT mn	417	960	742	1 081	1 505	1 432	1 921	2 624
1. Based on unlimited output	SIT mn	417	960	742	1 081	1 505	1 432	1 921	2 624
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
B. Payments based on output	SIT mn	0	0	0	0	0	0	0	0
1. Based on unlimited output	SIT mn	0	0	0	0	0	0	0	0
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
C. Payments based on area planted/animal numbers	SIT mn	0	0	0	0	0	0	171	437
1. Based on unlimited area or animal numbers	SIT mn	0	0	0	0	0	0	171	437
2. Based on limited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
D. Payments based on historical entitlements	SIT mn	0	0	0	0	0	0	0	0
1. Based on historical plantings/animal numbers or production	SIT mn	0	0	0	0	0	0	0	0
2. Based on historical support programmes	SIT mn	0	0	0	0	0	0	0	0
E. Payments based on input use	SIT mn	100	118	132	155	163	163	61	53
1. Based on use of variable inputs	SIT mn	82	100	104	126	131	123	10	2
2. Based on use of on-farm services	SIT mn	6	8	10	12	14	19	19	21
3. Based on on-farm investment	SIT mn	12	10	18	17	19	22	32	30
F. Payments based on input constraints	SIT mn	0	0	0	0	0	0	0	0
1. Based on constraints on variable inputs	SIT mn	0	0	0	0	0	0	0	0
2. Based on constraints on fixed inputs	SIT mn	0	0	0	0	0	0	0	0
3. Based on constraints on a set of inputs	SIT mn	0	0	0	0	0	0	0	0
G. Payments based on overall farming income	SIT mn	0	0	0	0	0	0	3	9
1. Based on farm income level	SIT mn	0	0	0	0	0	0	3	9
2. Based on established minimum income	SIT mn	0	0	0	0	0	0	0	0
H. Miscellaneous payments	SIT mn	0	0	0	0	0	2	2	0
1. National payments	SIT mn	0	0	0	0	0	2	2	0
2. Sub-national payments	SIT mn	0	0	0	0	0	0	0	0
IV. Unit PSE	SIT/t	18 425	36 624	39 556	31 939	34 885	37 384	45 571	48 665
V. Percentage PSE	%	61	69	63	56	58	60	68	72
VI. Producer NAC		2.57	3.20	2.74	2.29	2.41	2.48	3.14	3.60

p: provisional ; e: estimate.
Source : OECD.

© OECD 2001

© OECD 2001

Annex Table IV.3.5. Milk : Producer support estimate

	Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	000t	472	444	470	499	489	481	510	537
II. Value of production (at farm gate)	SIT mn	9 893	12 305	17 027	19 615	20 541	23 115	27 772	30 135
III. Producer Support Estimate (PSE)	SIT mn	5 365	6 345	9 348	10 289	9 479	11 893	18 052	17 910
A. Market price support	SIT mn	4 074	4 837	7 626	8 591	7 453	9 527	15 464	15 413
1. Based on unlimited output	SIT mn	4 074	4 837	7 626	8 591	7 453	9 527	15 464	15 413
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
B. Payments based on output	SIT mn	591	1 046	1 142	1 052	97	0	0	0
1. Based on unlimited output	SIT mn	591	1 046	1 142	1 052	97	0	0	0
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
C. Payments based on area planted/animal numbers	SIT mn	8	39	52	42	1 209	1 501	1 376	1 127
1. Based on unlimited area or animal numbers	SIT mn	8	39	52	42	1 209	1 501	1 376	1 127
2. Based on limited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
D. Payments based on historical entitlements	SIT mn	0	0	0	0	0	0	0	0
1. Based on historical plantings/animal numbers or production	SIT mn	0	0	0	0	0	0	0	0
2. Based on historical support programmes	SIT mn	0	0	0	0	0	0	0	0
E. Payments based on input use	SIT mn	417	424	529	604	717	841	1 151	1 257
1. Based on use of variable inputs	SIT mn	135	26	27	32	38	40	51	7
2. Based on use of on-farm services	SIT mn	211	388	485	560	643	756	762	805
3. Based on on-farm investment	SIT mn	71	10	17	12	36	44	338	446
F. Payments based on input constraints	SIT mn	0	0	0	0	0	0	0	7
1. Based on constraints on variable inputs	SIT mn	0	0	0	0	0	0	0	0
2. Based on constraints on fixed inputs	SIT mn	0	0	0	0	0	0	0	0
3. Based on constraints on a set of inputs	SIT mn	0	0	0	0	0	0	0	7
G. Payments based on overall farming income	SIT mn	274	0	0	0	2	0	33	106
1. Based on farm income level	SIT mn	274	0	0	0	2	0	33	106
2. Based on established minimum income	SIT mn	0	0	0	0	0	0	0	0
H. Miscellaneous payments	SIT mn	0	0	0	0	0	24	28	0
1. National payments	SIT mn	0	0	0	0	0	24	28	0
2. Sub-national payments	SIT mn	0	0	0	0	0	0	0	0
IV. Unit PSE	SIT/t	11 368	14 275	19 890	20 632	19 388	24 736	35 388	33 382
V. Percentage PSE	%	48	46	50	48	42	47	59	55
VI. Producer NAC		1.92	1.85	1.99	1.93	1.72	1.88	2.47	2.22

p: provisional ; e: estimate.
Source : OECD.

Annex Table IV.3.6. Beef : Producer support estimate

	Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	000t	46	54	47	46	52	54	45	43
II. Value of production (at farm gate)	SIT mn	10 239	15 106	17 114	20 459	22 973	24 378	21 837	21 441
III. Producer Support Estimate (PSE)	SIT mn	3 288	485	2 540	7 302	6 311	11 380	11 147	13 226
A. Market price support	SIT mn	2 224	- 378	1 544	5 367	4 452	8 874	8 748	10 417
1. Based on unlimited output	SIT mn	2 224	- 378	1 544	5 367	4 452	8 874	8 748	10 417
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
B. Payments based on output	SIT mn	65	123	333	786	611	626	639	782
1. Based on unlimited output	SIT mn	65	123	333	786	611	626	639	782
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
C. Payments based on area planted/animal numbers	SIT mn	5	49	66	519	563	1 127	1 051	1 409
1. Based on unlimited area or animal numbers	SIT mn	5	49	66	519	563	1 127	1 051	1 409
2. Based on limited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
D. Payments based on historical entitlements	SIT mn	0	0	0	0	0	0	0	0
1. Based on historical plantings/animal numbers or production	SIT mn	0	0	0	0	0	0	0	0
2. Based on historical support programmes	SIT mn	0	0	0	0	0	0	0	0
E. Payments based on input use	SIT mn	760	691	597	630	683	733	656	520
1. Based on use of variable inputs	SIT mn	616	481	419	435	431	421	234	16
2. Based on use of on-farm services	SIT mn	81	132	157	185	213	273	276	303
3. Based on on-farm investment	SIT mn	63	78	22	11	39	40	146	201
F. Payments based on input constraints	SIT mn	0	0	0	0	0	0	0	6
1. Based on constraints on variable inputs	SIT mn	0	0	0	0	0	0	0	0
2. Based on constraints on fixed inputs	SIT mn	0	0	0	0	0	0	0	0
3. Based on constraints on a set of inputs	SIT mn	0	0	0	0	0	0	0	6
G. Payments based on overall farming income	SIT mn	234	0	0	0	2	0	28	91
1. Based on farm income level	SIT mn	234	0	0	0	2	0	28	91
2. Based on established minimum income	SIT mn	0	0	0	0	0	0	0	0
H. Miscellaneous payments	SIT mn	0	0	0	0	0	20	24	0
1. National payments	SIT mn	0	0	0	0	0	20	24	0
2. Sub-national payments	SIT mn	0	0	0	0	0	0	0	0
IV. Unit PSE	SIT/t	71 854	8 983	54 445	158 555	122 080	210 357	250 337	309 182
V. Percentage PSE	%	29	3	14	33	25	42	46	55
VI. Producer NAC		1.41	1.03	1.16	1.48	1.34	1.73	1.85	2.20

p: provisional ; e: estimate.
Source : OECD.

© OECD 2001

© OECD 2001

Annex Table IV.3.7. Pig meat : Producer support estimate

	Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	000t	50	60	61	58	59	59	61	68
II. Value of production (at farm gate)	SIT mn	9 719	12 076	14 465	14 964	16 621	19 118	17 967	18 494
III. Producer Support Estimate (PSE)	SIT mn	1 751	3 498	4 512	4 891	2 989	6 759	9 037	11 633
A. Market price support	SIT mn	1 015	2 994	4 064	4 535	2 669	6 458	8 723	11 315
1. Based on unlimited output	SIT mn	1 015	2 994	4 064	4 535	2 669	6 458	8 723	11 315
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
B. Payments based on output	SIT mn	0	0	0	0	0	0	0	0
1. Based on unlimited output	SIT mn	0	0	0	0	0	0	0	0
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
C. Payments based on area planted/animal numbers	SIT mn	0	0	0	0	0	0	0	0
1. Based on unlimited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
2. Based on limited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
D. Payments based on historical entitlements	SIT mn	0	0	0	0	0	0	0	0
1. Based on historical plantings/animal numbers or production	SIT mn	0	0	0	0	0	0	0	0
2. Based on historical support programmes	SIT mn	0	0	0	0	0	0	0	0
E. Payments based on input use	SIT mn	552	504	448	355	319	284	273	246
1. Based on use of variable inputs	SIT mn	268	191	256	268	188	172	123	76
2. Based on use of on-farm services	SIT mn	22	32	38	45	52	71	73	80
3. Based on on-farm investment	SIT mn	262	282	154	43	79	41	77	90
F. Payments based on input constraints	SIT mn	0	0	0	0	0	0	0	0
1. Based on constraints on variable inputs	SIT mn	0	0	0	0	0	0	0	0
2. Based on constraints on fixed inputs	SIT mn	0	0	0	0	0	0	0	0
3. Based on constraints on a set of inputs	SIT mn	0	0	0	0	0	0	0	0
G. Payments based on overall farming income	SIT mn	184	0	0	0	1	0	22	71
1. Based on farm income level	SIT mn	184	0	0	0	1	0	22	71
2. Based on established minimum income	SIT mn	0	0	0	0	0	0	0	0
H. Miscellaneous payments	SIT mn	0	0	0	0	0	16	19	0
1. National payments	SIT mn	0	0	0	0	0	16	19	0
2. Sub-national payments	SIT mn	0	0	0	0	0	0	0	0
IV. Unit PSE	SIT/t	34 786	58 234	73 636	83 737	50 284	114 148	149 239	172 265
V. Percentage PSE	%	17	28	30	32	18	35	49	62
VI. Producer NAC		1.20	1.39	1.43	1.47	1.21	1.53	1.98	2.62

p: provisional ; e: estimate.
Source : OECD.

Annex Table IV.3.8. Poultry meat : Producer support estimate

	Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	000t	56	49	49	56	58	60	59	54
II. Value of production (at farm gate)	SIT mn	7 210	7 134	8 369	9 927	12 173	13 007	12 294	11 206
III. Producer Support Estimate (PSE)	SIT mn	2 695	1 772	2 451	3 987	3 459	3 555	2 448	4 560
A. Market price support	SIT mn	2 543	1 767	2 442	3 987	3 455	3 539	2 400	4 493
1. Based on unlimited output	SIT mn	2 543	1 767	2 442	3 987	3 455	3 539	2 400	4 493
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
B. Payments based on output	SIT mn	0	0	0	0	0	0	0	0
1. Based on unlimited output	SIT mn	0	0	0	0	0	0	0	0
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
C. Payments based on area planted/animal numbers	SIT mn	0	0	0	0	0	0	0	0
1. Based on unlimited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
2. Based on limited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
D. Payments based on historical entitlements	SIT mn	0	0	0	0	0	0	0	0
1. Based on historical plantings/animal numbers or production	SIT mn	0	0	0	0	0	0	0	0
2. Based on historical support programmes	SIT mn	0	0	0	0	0	0	0	0
E. Payments based on input use	SIT mn	9	5	8	1	3	3	17	12
1. Based on use of variable inputs	SIT mn	0	0	0	0	0	0	0	0
2. Based on use of on-farm services	SIT mn	0	0	0	0	0	0	0	0
3. Based on on-farm investment	SIT mn	9	5	8	1	3	3	17	12
F. Payments based on input constraints	SIT mn	0	0	0	0	0	0	0	0
1. Based on constraints on variable inputs	SIT mn	0	0	0	0	0	0	0	0
2. Based on constraints on fixed inputs	SIT mn	0	0	0	0	0	0	0	0
3. Based on constraints on a set of inputs	SIT mn	0	0	0	0	0	0	0	0
G. Payments based on overall farming income	SIT mn	142	0	0	0	1	0	17	55
1. Based on farm income level	SIT mn	142	0	0	0	1	0	17	55
2. Based on established minimum income	SIT mn	0	0	0	0	0	0	0	0
H. Miscellaneous payments	SIT mn	0	0	0	0	0	12	15	0
1. National payments	SIT mn	0	0	0	0	0	12	15	0
2. Sub-national payments	SIT mn	0	0	0	0	0	0	0	0
IV. Unit PSE	SIT/t	48 151	36 515	49 899	71 164	59 440	59 256	41 723	83 691
V. Percentage PSE	%	37	25	29	40	28	27	20	40
VI. Producer NAC		1.58	1.33	1.41	1.67	1.40	1.38	1.25	1.68

p: provisional ; e: estimate.
Source : OECD.

© OECD 2001

© OECD 2001

Annex Table IV.3.9. Eggs : Producer support estimate

	Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	000t	19	18	18	18	21	23	23	23
II. Value of production (at farm gate)	SIT mn	2 568	2 674	3 293	3 533	5 154	5 752	5 508	5 035
III. Producer Support Estimate (PSE)	SIT mn	1 176	649	1 026	1 854	2 074	2 448	2 776	2 699
A. Market price support	SIT mn	1 108	643	1 017	1 848	2 065	2 432	2 745	2 660
1. Based on unlimited output	SIT mn	1 108	643	1 017	1 848	2 065	2 432	2 745	2 660
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
B. Payments based on output	SIT mn	0	0	0	0	0	0	0	0
1. Based on unlimited output	SIT mn	0	0	0	0	0	0	0	0
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
C. Payments based on area planted/animal numbers	SIT mn	0	0	0	0	0	0	0	0
1. Based on unlimited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
2. Based on limited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
D. Payments based on historical entitlements	SIT mn	0	0	0	0	0	0	0	0
1. Based on historical plantings/animal numbers or production	SIT mn	0	0	0	0	0	0	0	0
2. Based on historical support programmes	SIT mn	0	0	0	0	0	0	0	0
E. Payments based on input use	SIT mn	7	6	9	6	8	11	17	16
1. Based on use of variable inputs	SIT mn	0	0	0	0	0	0	0	0
2. Based on use of on-farm services	SIT mn	3	4	5	6	7	9	10	11
3. Based on on-farm investment	SIT mn	4	2	4	0	1	1	7	5
F. Payments based on input constraints	SIT mn	0	0	0	0	0	0	0	0
1. Based on constraints on variable inputs	SIT mn	0	0	0	0	0	0	0	0
2. Based on constraints on fixed inputs	SIT mn	0	0	0	0	0	0	0	0
3. Based on constraints on a set of inputs	SIT mn	0	0	0	0	0	0	0	0
G. Payments based on overall farming income	SIT mn	61	0	0	0	0	0	7	24
1. Based on farm income level	SIT mn	61	0	0	0	0	0	7	24
2. Based on established minimum income	SIT mn	0	0	0	0	0	0	0	0
H. Miscellaneous payments	SIT mn	0	0	0	0	0	5	6	0
1. National payments	SIT mn	0	0	0	0	0	5	6	0
2. Sub-national payments	SIT mn	0	0	0	0	0	0	0	0
IV. Unit PSE	SIT/t	61 645	36 054	57 163	105 304	98 155	105 072	122 004	119 223
V. Percentage PSE	%	45	24	31	52	40	42	50	53
VI. Producer NAC		1.81	1.32	1.45	2.10	1.67	1.74	2.00	2.14

p: provisional ; e: estimate.
Source : OECD.

Annex Table IV.3.10. Sheep meat : Producer support estimate

	Units	1992	1993	1994	1995	1996	1997	1998p	1999e
I. Level of production	000t	0.2	0.3	0.3	0.4	0.5	0.6	0.7	1.0
II. Value of production (at farm gate)	SIT mn	86	139	209	297	409	538	642	835
III. Producer Support Estimate (PSE)	SIT mn	59	125	131	292	293	384	491	606
A. Market price support	SIT mn	47	43	85	196	203	220	315	356
1. Based on unlimited output	SIT mn	47	43	85	196	203	220	315	356
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
B. Payments based on output	SIT mn	0	1	2	1	5	0	0	0
1. Based on unlimited output	SIT mn	0	1	2	1	5	0	0	0
2. Based on limited output	SIT mn	0	0	0	0	0	0	0	0
C. Payments based on area planted/animal numbers	SIT mn	4	40	16	59	59	109	117	152
1. Based on unlimited area or animal numbers	SIT mn	4	40	16	59	59	109	117	152
2. Based on limited area or animal numbers	SIT mn	0	0	0	0	0	0	0	0
D. Payments based on historical entitlements	SIT mn	0	0	0	0	0	0	0	0
1. Based on historical plantings/animal numbers or production	SIT mn	0	0	0	0	0	0	0	0
2. Based on historical support programmes	SIT mn	0	0	0	0	0	0	0	0
E. Payments based on input use	SIT mn	6	41	28	36	27	56	58	31
1. Based on use of variable inputs	SIT mn	4	3	4	9	12	14	13	2
2. Based on use of on-farm services	SIT mn	2	4	5	8	10	12	15	16
3. Based on on-farm investment	SIT mn	0	34	18	20	5	29	31	14
F. Payments based on input constraints	SIT mn	0	0	0	0	0	0	0	65
1. Based on constraints on variable inputs	SIT mn	0	0	0	0	0	0	0	0
2. Based on constraints on fixed inputs	SIT mn	0	0	0	0	0	0	0	0
3. Based on constraints on a set of inputs	SIT mn	0	0	0	0	0	0	0	65
G. Payments based on overall farming income	SIT mn	3	0	0	0	0	0	0	1
1. Based on farm income level	SIT mn	3	0	0	0	0	0	0	1
2. Based on established minimum income	SIT mn	0	0	0	0	0	0	0	0
H. Miscellaneous payments	SIT mn	0	0	0	0	0	0	0	0
1. National payments	SIT mn	0	0	0	0	0	0	0	0
2. Sub-national payments	SIT mn	0	0	0	0	0	0	0	0
IV. Unit PSE	SIT/t	296 644	443 429	376 914	813 360	614 611	645 349	668 972	594 172
V. Percentage PSE	%	61	57	51	74	59	55	60	56
VI. Producer NAC		2.54	2.31	2.06	3.88	2.42	2.21	2.50	2.26

p: provisional ; e: estimate.
Source : OECD.

© OECD 2001

BIBLIOGRAPHY

Agra Europe,
Agra-Europe: *East Europe*, various editions.

Agricultural Institute of Slovenia (1998),
Agriculture and Environment – Proceedings of the Conference in Bled from 12-13 March 1998, Ljubljana.

Bergschmidt, A. and M. Hartmann (1998),
Agricultural Trade Policies and Trade Relations in Transition Economies, Institute of Agricultural Development in Central and Eastern Europe, Discussion Paper No. 12. Halle.

Bojnec, S. (1994),
"Agricultural Reform in Slovenia", in Swinnen, J.F.M (ed.), *Policy and Institutional Reform in Central European Agriculture*, Avebury: Aldershot.

Bojnec, S. and J. Swinnen (1997*a*),
"Agricultural Privatisation and Farm Restructuring in Slovenia", in Swinnen, J. (ed.), *Agricultural Privatisation, Land Reform and Farm Restructuring in Central and Eastern Europe*, Ashgate: Aldershot.

Bojnec, S. and J. Swinnen (1997*b*),
"Privatisation of Slovenian Agriculture: Process and Politics" in Swinnen, J.F.M. (ed.), *Political Economy and Agrarian Reform in Central and Eastern Europe*, Ashgate: Aldershot.

Bole, V. (1996),
"Stabilisation in Slovenia: From High Inflation to Excessive Inflow of Foreign Capital", Manuscript, Ljubljana.

Canon, M. (1998),
"Policy Options for Slovenian Agriculture in an EU Accession Environment: Report on Food Control and Quality Standards," report prepared for FAO, Rome.

Cunder, T. (1995),
Development Features of Areas with Aggravated Production Conditions in Slovenia, Paper prepared for seminar of EUROMONTANA in Vienna, Ljubljana.

Cunder, T. (2000),
"Changing of Agricultural Structures in Slovenia", Paper presented at the "Symposium 2000" EU-Erweiterung, organised by the Bundesanstalt für Agrarwirtschaft and Ökosoziales Forum Österreich, 7-8 June, Vienna.

Dax, T. and G. Wiesinger (ed.) (1998),
"Mountain Farming and the Environment: Towards Integration", Research Report No. 44, Bundesanstalt für Bergbauernfragen (Federal Institute for Less-favoured and Mountainous Areas), Vienna.

EC (1997),
Commission Opinion on Slovenia's Application for Membership of the European Union, Bulletin of the European Union, Supplement 15/97, Luxembourg.

EC (1998),
"Agricultural Situation and Prospects in the Central European Countries: Slovenia", Working document, Directorate General for Agriculture, Brussels.

EIU,
Country Report: *Slovenia*, The Economic Intelligence Unit, various editions.

Erjavec, E. and J. Turk (1997),
Agricultural Reform, Markets and Prices in Slovenia, Ljubljana.

Erjavec, E., M. Rednak and T. Volk (eds.), (1997),
Slovene Agriculture and the European Union (The extended summary), Ljubljana.

FAO (1988),
"Policy Options for Slovenian Agriculture in an EU Accession Environment, Current Slovenian Food and Agriculture Policies and an EU Pre-accession Strategy" (Final Draft), Rome.

© OECD 2001

FAO (1997),
"Agricultural Reforms in the Transition Economies of Central and Eastern Europe" (Warsaw Conference, March 1997), Rome.

Gorton, M., *et al*. (1998),
Impediments to Efficiency in the Agro-food Chain: Slovenia, Report prepared for OECD, Wye College, Wye.

Hovorka, G. (1998),
Die Kulturlandschaft im Berggebiet in Österreich, Politiken zur Sicherung von Umwelt- und Kulturleistungen und ländliche Entwicklung, Research Report No. 43 of the Bundesanstalt für Berg-bauernfragen (Federal Institute for Less-favoured and Mountainous Areas), Vienna.

Hrustel, M. (1996),
Sustainable Agriculture in Slovenia, Working paper, Ljubljana.

IMAD (1998),
"Strategy of the Republic of Slovenia for Accession to the European Union", Economic and Social Part, Institute of Macroeconomic Analysis and Development, Ljubljana.

IMAD
Slovenian Economic Mirror, Institute of Macroeconomic Analysis and Development, various issues.

IMF,
International Financial Statistics, various editions.

Koester, U. (1998),
"Policy Options for Slovenian Agriculture in an EU Accession Environment: Agricultural Trade Policy", Report prepared for the FAO, Rome.

Kuhar, A. and E. Erjavec (1999),
"Slovenian Food Industry Performance Indicators", Working Paper, University of Ljubljana, Ljubljana.

Kukar, S. (1995),
"Promotion of Regional Development in Slovenia", Working paper, Ljubljana.

Lynton-Evans, J. (1998),
Policy Options for Slovenian Agriculture in an EU Accession Environment: Agri-Business and Marketing Component, Report prepared for the FAO, Rome.

MAFF (1993),
Strategy for Slovenian Agriculture, Summary, Ministry of Agriculture, Forestry and Food, Ljubljana.

MAFF (1995),
CRPOV: *Integrated Development of Rural Areas and Revitalisation of Villages*, Ministry of Agriculture, Forestry and Food, Ljubljana.

MAFF (1996),
Heritage Trails through Dolenjska and Belakrajina in Slovenia, Ministry of Agriculture, Forestry and Food, Ljubljana.

MAFF (1997),
Slovene Agriculture, Forestry and Food Industry in Figures, Ministry of Agriculture, Forestry and Food, Ljubljana.

MAFF (1997*a*),
Slovene Agriculture and the European Union (the extended summary), Target Research Programme "Land", Ministry of Agriculture, Forestry and Food; Ministry of Science and Technology; Ljubljana.

MAFF (1998),
"Program of Integrated Rural Development in Slovenia", Working paper, Ministry of Agriculture, Forestry and Food, Ljubljana.

MAFF (2000),
Rural Development Plan 2000-2006, Ministry of Agriculture, Forestry and Food, Ljubljana.

Majcen, B. (1997),
"Slovenian Integration in the European Union – Trade Liberalisation Issues", Working Paper Series No. 55. Ljubljana.

Marke, M. (1996),
Aufbruch ins Ungewisse: Perspektiven für Berggebiete und sonstige benachteiligte Gebiete in Slowenien mit einer Abgrenzung nach EU-Kriterien, Forschungsbericht Nr. 35 der Bundesanstalt für Bergbauernfragen, Wien.

Mencinger, J. (1996),
"Privatisation Outcome in Slovenia", Paper prepared for the 3rd Agenda Workshop on Lessons from Transformation, 12-14 April, Vienna.

© OECD 2001

Ministry of Economic Relations and Development (1996),
Slovenia, Strategy of International Economic Relations, From Associated to Full-Fledged Membership in the European Union, Ljubljana.

Ministry of the Environment and Territorial Planning (1993),
The Environmental Protection Act, Ljubljana.

Ministry of the Environment and Territorial Planning (1996),
Environmental Report 1995, Ljubljana.

Ministry of the Environment and Territorial Planning (1997),
Convention on Biological Diversity, National Report of the Republic of Slovenia, Ljubljana.

Ministry of the Environment and Territorial Planning (1998),
Environmental Accession Strategy of Slovenia for Integration with the European Union, Ljubljana.

OECD (1995),
Agricultural Policies, Markets and Trade in the Central and Eastern European Countries, Selected New Independent States, Mongolia and China: Monitoring and Outlook 1995, Paris.

OECD (1997),
OECD *Economic Surveys – Slovenia*, Paris.

OECD (1998*a*),
Agricultural Policies in Emerging and Transition Economies: Monitoring and Evaluation 1998, Paris.

OECD (1998*b*),
Agricultural Policy, The need for further reform, Paris.

OECD (1998*c*),
Impediments to Efficiency in the Agro-Food Chain in Bulgaria, Romania and Slovenia, Agricultural Policy Papers No. 1998-02, Paris.

OECD (1999),
Agricultural Policies in Emerging and Transition Countries: Monitoring and Evaluation 1999, Paris.

OECD (2000*a*),
Agricultural Policies in Emerging and Transition Countries: Monitoring and Evaluation 2000, Paris.

OECD (2001),
Environmental Indicators for Agriculture Volume 3: Methods and Results, Paris.

Potocnik, J., M. Senjur, and F. Tiblar (1995),
Approaching Europe – Growth, Competitiveness and Integration, Ljubljana.

Rednak M. (2000),
"Slovenia's Agricultural Markets and Strategies in Market Policy", Paper presented at the "Symposium 2000" EU-Erweiterung, organised by the Bundesanstalt fur Agrarwirtschaft and Okosoziales Forum Osterreich, 7-8 June, Vienna.

Roblek, B. and M. Vodopivec (1998),
"Pension Systems in CEECs", Slovenia, in *The Vienna Institute Monthly Report* 1998/1, Vienna, pp. 19-22.

Rojec, M. (1998),
"Impact of Foreign Direct Investment on Efficiency and Restructuring of Slovenia's Manufacturing Sector", Phare-ACE Research Project, Impact of Foreign Direct Investment on Efficiency and Growth in CEEC Manufacturing, P96 -6183R, Ljubljana.

Smrkolj, C. and M. Hrustel (1999),
"Agricultural Policy Towards Rural Development", Paper presented at FAO Conference, 12-13 November, Rome.

SORS,
Statistical Yearbook of the Republic of Slovenia, Statistical Office of the Republic of Slovenia, Ljubljana, various editions.

Tanic, S. (1998),
Policy Options for Slovenian Agriculture in an EU Accession Environment: Farm structure, Productivity and Land Market, Report prepared for the FAO, Rome.

UN (1997),
Environmental Performance Reviews – Slovenia, Series No. 2, Economic Commission for Europe, Committee on Environmental Policy, New York and Geneva.

Vodopivec, M. (1996),
"The Slovenian Labour Market in Transition: Evidence from Micro-data", Paper prepared for the OECD workshop on "What Can We Learn from the Experience of Transition with Labour Market Policies", 30 November-2 December 1995, Vienna.

© OECD 2001

World Bank (1997),
"Slovenia – Agricultural Reforms and Protection of Sensitive Eco-Systems: A Challenging Agenda", Sector report, Washington, DC.

WTO,
Tariff schedule of the Republic of Slovenia.

Zizmond, E. and D. Kracun (1995),
"Slovenia – From Transitional Depression Towards Sustainable Growth" in *Südosteuopa* 8/1995, Munich, pp. 460-476.

© OECD 2001

OECD PUBLICATIONS, 2, rue André-Pascal, 75775 PARIS CEDEX 16
PRINTED IN FRANCE
(14 2001 03 1 P) ISBN 92-64-18593-3 – No. 51663 2001