



Agricultural Policies in OECD Countries

MONITORING AND EVALUATION 2000

AGRICULTURE AND FOOD



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MONITORING AND EVALUATION

2000



ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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FOREWORD

This is the 13th report in a series on agricultural and related trade policies in OECD countries, following the request by the OECD Council at Ministerial level to monitor annually the implementation of the principles for agricultural policy reform adopted in 1987. In 1998, OECD Agriculture Ministers agreed to a set of shared goals for the agro-food sector and operational criteria for policy instruments, which also serve as a reference for this evaluation. The Secretariat has used a comprehensive system for classifying support to agriculture in order to measure and provide insight into the nature of increasingly complex policy measures.

This year's report consists of three parts. Part I provides a summary of the economic and market background underpinning current policy developments, a review of changes in the level and composition of agricultural support in OECD countries over the last decade, an evaluation of recent policy developments, and an update on emerging issues affecting the agro-food sector. Part II presents detailed information on policy developments in individual Member countries (and for the member States of the European Union), and describes the method used to estimate support to agriculture. Part III contains the support estimates and other background information referred to in Parts I and II.

The OECD's Committee for Agriculture and its Trade Committee approved the publication of Part I of the report; the remaining parts are published under the responsibility of the Secretary-General of the OECD.

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ACRONYMS AND ABBREVIATIONS

Acronyms

AMS	Aggregate Measurement of Support
BSE	bovine spongiform encephalopathy
BST	bovine somatotrophin
CAP	Common Agricultural Policy (of the European Union)
CSE	Consumer Support Estimate
DSB	Dispute Settlement Body (of the WTO)
EEA Agreement	Agreement on the European Economic Area
EFTA	European Free Trade Association
EU	European Union
FAO	Food and Agricultural Organization of the United Nations
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GHG	greenhouse gas
GMO	genetically modified organism – <i>i.e.</i> , plant, micro-organism or virus
GSSE	General Services Support Estimate
HACCP	hazard analysis and critical control points (system of)
MPS	market price support
NAC	nominal assistance coefficient
NAFTA	North American Free Trade Agreement
OECD	Organisation for Economic Co-operation and Development
OIE	<i>Office international des épizooties</i> (World Organisation for Animal Health)
PSE	Producer Support Estimate
R&D	research and development
SPS Agreement	Agreement on the Application of Sanitary and Phytosanitary Measures
STE	state trading enterprise
TRQ	tariff-rate quota
TSE	Total Support Estimate
URAA	Uruguay Round Agreement on Agriculture
WTO	World Trade Organisation

For an explanation of technical terms, see the Glossary

Abbreviations and symbols

A\$	Australian dollar(s)	mn	million(s)
bn	billion(s)	MN\$	peso – currency unit of Mexico
C\$	Canadian dollar(s)	NZ\$	New Zealand dollar(s)
c.i.f.	cost, insurance and freight	zł	zloty – currency unit of Poland
CKr	koruna – currency unit of the Czech Republic	NKr	krone – currency unit of Norway
€	euro, or European currency unit	£	pound Sterling – currency unit of the UK
f.o.b.	free on-board	SF	Swiss franc(s)
Ft	forint – currency unit of Hungary	t	metric tonne(s)
FY	fiscal year	TL	Turkish lira
ha	hectare	US\$	United States dollar(s)
IKr	króna – currency unit of Iceland	won	currency unit of Korea
kg	kilogramme	¥	Japanese yen

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EXECUTIVE SUMMARY

The upward movement in support to agriculture, first evident in 1998, continued in 1999, with support reaching the high levels of a decade earlier. Low world commodity prices, and the resulting pressure they put on farm incomes, led many OECD countries to introduce new measures or to provide additional support to farmers. The ways in which these measures were implemented were, in many cases, inconsistent with the longer-term principles of agricultural policy reform.

The level of support to agriculture increased again in 1999: total support to agriculture rose by almost 3 per cent, to an estimated US\$361 billion in 1999 – equivalent to 1.4 per cent of GDP on average over the OECD area. Of this amount, nearly four-fifths went to agricultural producers individually. Another 15 per cent paid for general services provided collectively to agriculture, such as infrastructure, research, marketing and promotion, and public stockholding. Despite consumer subsidies being provided in a few countries, OECD consumers of primary farm commodities were implicitly taxed, through the surcharge created by market price support policies. Two-thirds of total support to agriculture was financed by consumers, with taxpayers picking up the remainder of the bill.

Support to producers has mounted steadily over the last three years: rising from 31 per cent of total gross farm receipts in 1997 to 40 per cent in 1999 – and is now, in percentage terms, back to where it was in the mid-1980s. Falling world prices for the main agricultural commodities, which were only partially matched by reductions in domestic prices, explain most of the increase, although direct payments also increased somewhat. On average across the OECD, total farm gross receipts were 66 per cent higher than they would have been had all producers sold their produce at world market prices and received no budgetary support. Concealed behind these average figures are wide national differences in rates of support, which ranged from less than 10 per cent in Australia and New Zealand to 65 per cent or higher in Iceland, Japan, Korea, Norway, and Switzerland. In the latter group of countries, support exceeded 85 per cent for the most-protected commodities, with the highest levels generally going to producers of milk and – in Japan and Korea – rice. High support for sugar and milk was evident in almost all OECD Member countries.

Market price support and output-related payments still dominated: around two-thirds of support to producers was provided via market price support in 1999; budgetary payments based on output provided another 6 per cent. Together, these two forms of support, which are among the most production- and trade-distorting, accounted for almost three-quarters of producer support. Payments triggered by a farm income criterion increased in absolute terms, but still accounted for a small fraction of total support to producers. The various *ad hoc* “emergency” packages risk, through repeated use, generating expectations of continued support, which could alter future production decisions.

Trade barriers are falling, but agricultural markets are still distorted: the Uruguay Round Agreement on Agriculture (URAA), with its disciplines on market access, export subsidies and domestic support, provided a framework for opening up trade in agricultural products. Implementation of these commitments in 1999 – as in every year since the URAA went into effect in 1995 – has helped further integrate agriculture into the multilateral trading system. But many trade distortions remain. As well, some countries raised applied tariffs for some commodities in 1999, and several made greater use of export subsidies, export credits or other export-enhancing policies to encourage the disposal of domestic supplies on foreign markets, thereby further distorting trade.

Food-safety attracted considerable attention: responding to a series of well-publicised incidents relating to the safety of food, many countries re-examined their institutional and regulatory frameworks governing food safety and, in a number of cases, established new, often more independent bodies to deal with issues in this area. Many of these initiatives were aimed at enhancing public confidence in the regulatory system; it is too early to assess what, if any, impact they will have on trade.

Progress in reforming policies and liberalising trade in agriculture stalled, or even reversed, when market pressures emerged: by the early 1990s, most Member countries had begun reforming their agricultural policies with the long-run aim of reducing support and trade distortions, and in general making producers more responsive to market signals. Some progress towards these goals was and continues to be made. In particular, part of the burden of support to farmers that was previously borne by consumers has been shifted to taxpayers, which is, among other attributes, a less regressive way of financing it. More recently, some state-trading enterprises have begun to be dismantled, though not always in ways that could lead to greater competition in both export and import markets. And Member countries have paid more attention to environmental and rural development objectives. But events in some countries over the last three years show that the process of agricultural policy reform and trade liberalisation can stall or reverse course when market pressures emerge. And current forecasts suggest that these market pressures will not abate significantly during 2000 and 2001.

In March 1998, the OECD's Agriculture Ministers adopted a set of shared goals, policy principles and operational criteria. However, the increases in support in 1998 and 1999 were not always delivered in ways consistent with these principles. Food safety, food security, viability of rural areas and protection of the environment, as well as the economic efficiency of the sector, are common concerns facing all OECD countries. The challenge for Member countries is to design policies and approaches for addressing these common concerns in ways that **maximise benefits, are cost-effective, and avoid distorting production and trade.**

Part 1

MONITORING AND EVALUATION

MONITORING AND EVALUATION

1. ECONOMIC AND AGRICULTURAL MARKET BACKGROUND

The macroeconomic environment

OECD Countries

Judged by the usual indicators of macroeconomic performance, 1999 was a good year world-wide. The strength of global economic activity, following so close on the heels of the slowdown witnessed in 1998, surprised many observers. The world economy recovered much faster than projected from the financial crises affecting Asian and Russian economies in 1997 and 1998 and the Brazilian economy in late 1998. And, while uneven, that recovery was widespread. Every OECD country posted an increase in its GDP but the gains were especially strong in North America. Overall, OECD economies grew at a rate of 2.8 per cent in 1999 compared with 2.4 per cent in 1998. But that gain was dwarfed by an acceleration in the rate of growth of nearly 1.5 percentage points in the non-OECD region (3.3 per cent in 1999 compared with only 1.9 per cent in 1998).

Economic expansion in the United States continued, and at a pace showing little evidence of the deceleration that had been widely forecast. The economies of America's NAFTA partners, Mexico and Canada, also did well in 1999 (see Table I.1). The pace of economic activity in the European Union, although down fractionally for the year as a whole, picked up rapidly during the second half. In Japan, although economic performance still lags behind that of other large OECD economies, the recovery came sooner and was more robust than had been predicted. The most dramatic reversal of economic fortune occurred in Korea, which posted a 9 per cent increase in GDP following negative growth in 1998. The New Zealand economy also grew in 1999 while, in Australia, the strong trend in economic performance of the past several years was sustained, albeit at a somewhat slower pace.

Table I.1. Key macroeconomic indicators

	Real GDP % change		Inflation ¹ % change		Unemployment Percentage of labour force		Short-term interest rates ² Per cent	
	1998	1999	1998	1999	1998	1999	1998	1999
United States	4.3	3.8	1.2	1.4	4.5	4.2	4.8	4.6
Canada	3.1	3.7	-0.6	1.5	8.3	7.8	5.0	4.9
Mexico	4.8	3.4	13.8	16.0	3.2	2.8	26.1	22.5
European Union	2.7	2.1	1.9	1.5	10.1	9.4	3.9	2.9
Japan	-2.8	1.4	0.4	-0.6	4.1	4.7	0.7	0.3
Korea	-5.8	9.0	5.3	-0.5	6.8	6.4	15.2	6.7
Australia	5.1	3.9	0.3	1.3	8.0	7.3	5.0	4.9
New Zealand	-0.7	2.7	1.6	1.4	7.5	7.1	7.4	4.8
OECD	2.4	2.8	3.2	2.6	6.9	6.7		

1. GDP deflator.

2. Japan: 3-month Credit Deposits; Euro area: 3-month interbank rates.

Source: OECD Economic Outlook, December 1999.

These gains in economic activity were accompanied by equally widespread reductions in the rates of unemployment across OECD countries. Especially encouraging were the reductions in the relatively high unemployment rates in EU countries, which occurred despite the sluggish growth early in 1999. Moreover, and contrary to the historical pattern, increases in economic growth rates and reductions in unemployment did not trigger inflation. For the OECD as a whole, the percentage increase in the GDP deflator was on average lower in 1999 than in 1998.

However, this average masks some important differences both among countries and, especially, among the various commodity and non-commodity components of the GDP price index. Oil prices, for example, nearly doubled over the course of the year, reversing one of the factors that contributed substantially to low inflation in 1998 and before. Price trends for non-oil commodities were mixed, with prices of food and beverages down compared with those of industrial materials.

Concerned with the possible emergence of inflationary pressures, monetary authorities in many OECD countries began increasing interest rates in 1999. This progression of interest-rate increases was reflected in longer-term interest rates, which rose steadily throughout the year.

Non-OECD countries

Although growth in economic activity in countries outside the OECD area in 1999 was not as evenly spread as it was among OECD countries, it was stronger than expected in most regions, including those worst hit by the financial crises of the past two years (Table I.2). China remained the most important engine of economic expansion among non-OECD countries, experiencing yet another year of more than 7 per cent growth. The Russian economy, having posted a more than 4 per cent loss in GDP in 1998, grew by over two per cent in 1999. The Latin American region is expected to exhibit zero growth for the year. The economy of Indonesia, hard hit by the financial crises in 1998, registered another year of negative growth in 1999.

Table I.2. **Macroeconomic indicators for selected non-member countries**

	Real GDP ¹ % change		Inflation ² % change	
	1998	1999	1998	1999
Brazil	-0.1	-1.0	1.8	8.0
China	7.8	7.1	-2.5	-2.8
Indonesia	-13.2	-0.5	60.0	22.0
Russia	-4.6	2.0	84.4	40.0

1. Real GDP corresponds to the percentage change relative to the previous year. For China it is the GNP change.

2. Annual percentage change in the consumer price index, except for China where it is measured by the retail price change.

Source: OECD *Economic Outlook*, December 1999.

Agricultural markets

Developments in agricultural markets in many OECD countries in 1999 contrasted starkly with the generally favourable macroeconomic situation in those same countries. Prices of many agricultural commodities, cereals and oilseeds especially, either remained at the depressed levels of 1998 or fell further. But low output prices were not the only factor contributing to a deterioration of the economic situation facing many agricultural producers in 1999. Oil prices and interest rates constitute two key variables determining the costs of agricultural production. As noted above, both of these and the price of oil especially (which cost 10 per cent more in 1999 than in 1998), rose over the course of the year, undoubtedly reducing further the margin between market revenues and costs for many agricultural producers. Table I.3 shows the evolution of net farm incomes in selected OECD Member countries during recent years.

Table I.3. Farm income developments in selected OECD countries

	Percentage change		
	1996 to 97	1997 to 98 ¹	1998 to 99 ²
Australia	-9	-3.4	1
Canada	-45	43	12
EU 15	-3	-3.7	-3.7
Japan	-13	4	6
United States	-11	-9	9

Note: Year over year per cent change in net farm income.

1. All 1998 figures are preliminary estimates.

2. All 1999 figures are forecasts made by the respective national agencies.

For Japan the estimate is based on monthly data through September.

Sources: Figures were taken from the following sources:

Australia: Australian Commodities, Vol. 6, No. 4, December 1999, ABARE.

Canada: Farm Income, Financial Conditions and Government Assistance, Data Book, Agriculture and Agri-Food Canada, Policy Branch, 1999.

European Union: Statistics in Brief, Eurostat, 11 December 1998.

Japan: Monthly Statistics of Agriculture Forestry and Fisheries, 11 November 1999 Statistics and Information Department, Ministry of Agriculture, Forestry and Fisheries.

United States: US Department of Agriculture, Economic Research Service, November 1999.

The sharp falls in market prices in 1999 reflect in part the cyclical developments in both the global market supply of and demand for agricultural commodities but also the continuing response of supply to high support prices. World production of many products has been rising in recent years, partly in response to higher prices of earlier years. There has also been a sequence of several years of generally favourable weather, complemented by continuing advances in, and adoption of, new crop production technologies, which have generated sustained rises in crop yields and livestock productivity. Supplies in recent years have failed to respond to the slowdown in demand associated with the assorted crises in the economies of key food-importing countries.

Globally, cereal production (wheat and coarse grains) for the 1999/2000 season is estimated to have fallen slightly. However, the harvests in some major cereal exporting countries were at record or near-record levels. At the end of the year, and despite some upturn in consumption, world market prices for cereals were on average well below the depressed levels witnessed at the end of the 1998/99 season. World production of rice for consumption in the 1999/2000 season, bolstered by an especially large crop in China, is estimated to surpass the previous record. The increase in rice consumption was not as great, so stocks rose and world prices fell. The same pattern of changes – record harvests and falling world prices – was repeated in the global oilseeds markets. Falling world prices for feed ingredients resulted in lower prices for pork and, to a lesser extent, poultry. Despite strong increases in milk production globally, prices for dairy products were generally high.

In considering these developments, it is useful to view them against the relative importance of the agro-food sector in each Member country's national economy (Table I.4). Total economic output has grown faster than agro-food output in OECD countries, leading to a decline in agriculture's share over time. OECD-wide, agriculture and food-processing together account for only around 4 per cent of total GDP. The decline in the agro-food sector's share of total economic output is typically associated with both a shrinking of the share of the workforce employed in agriculture and food-processing and a decrease in the absolute numbers of people employed on farms.

The importance of agricultural trade varies among OECD countries. Exports of agricultural commodities and processed products, as a percentage of total exports, ranges from less than 5 per cent in Japan, Korea, Norway and Switzerland to over 20 per cent in Australia and New Zealand. In many OECD exporting countries, the relative importance of processed products has remained stable or increased, while it has declined for primary agricultural commodities. Imports of agricultural commodities and processed products represent less than 10 per cent of total imports in all OECD countries. Mirroring developments

Table I.4. Main agricultural indicators

	Percentage of								
	Agriculture in GDP ^a	Food processing in GDP ^b	Agricultural employment in total civilian employment ^c	Food processing in total civilian employment ^d	Agricultural commodities in total exports ^e	Processed prod. in total exports ^e	Agricultural commodities in total imports ^e	Processed prod. in total imports ^e	Food in total consumer expenditure ^f
Australia^g	3.2	n.a.	4.8	2.1	10.3	3.0	1.0	2.7	14.9
1992-94 average ^g	3.2	2.0	5.2	2.3	11.0	2.3	1.1	2.8	14.4
1986-88 average ^g	4.4	2.2	5.8	2.4	18.4	2.0	1.2	2.7	15.2
Canada	n.a.	1.8	5.0	1.6	4.7	2.0	2.5	2.5	10.2
1992-94 average	2.2	1.7	5.4	1.7	5.5	1.6	3.1	2.4	10.7
1986-88 average	2.7	1.7	6.2	1.9	5.9	1.3	3.1	2.2	11.9
Czech Republic^g	1.8	n.a.	5.5	2.6	1.8	2.0	2.5	2.6	23.5
1992-94 average ^g	3.4	n.a.	7.6	2.7	3.8	3.2	3.8	3.4	26.5
1989-91 average ^g	5.8	n.a.	11.4	3.0	n.a.	n.a.	n.a.	n.a.	27.0
European Union^h	2.0 ⁱ	1.8 ^j	4.8	2.2 ^k	4.2	3.7	4.8	3.5	14.8
1992-94 average ^h	2.2	2.0 ^k	5.6	2.4 ^k	5.5	4.0	6.0	3.6	15.8
1986-88 average ^h	2.5	2.1 ^k	7.6	2.7 ^k	5.7	3.5	6.7	3.6	17.8
Hungary^g	5.2	3.3	7.9	3.3	7.0	4.1	2.0	1.9	27.6
1992-94 average ^g	7.3	4.8	10.4	4.3	13.7	7.5	3.1	2.5	24.7
1989-91 average ^g	13.3	2.9	10.6	4.3	n.a.	n.a.	n.a.	n.a.	23.4
Iceland	9.4	n.a.	8.6	7.8	0.5	0.2	2.0	4.9	15.8
1992-94 average	9.4	6.6	9.6	7.7	0.7	0.3	2.7	5.9	17.1
1986-88 average	9.9	6.1	10.5	10.8	1.3	0.1	2.6	5.1	16.6
Japan	1.7	2.3	5.3	2.8	0.1	0.2	6.9	3.5	n.a.
1992-94 average	2.2	2.5	6.0	2.7	0.1	0.2	7.8	3.1	n.a.
1986-88 average	2.8	2.8	8.2	2.6	0.1	0.2	7.9	2.9	n.a.
Korea	5.7	1.9	12.2	0.9	0.5	0.5	4.0	1.2	n.a.
1992-94 average	7.2	2.1	14.8	1.0	0.5	0.5	3.6	1.2	n.a.
1986-88 average	10.5	2.1	22.1	1.3	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico^g	5.6	3.9	19.4	1.8	3.0	2.4	4.2	1.5	24.0
1992-94 average ^g	5.7	3.5	25.7	2.1	3.8	2.4	6.0	2.2	22.5
1989-91 average ^g	n.a.	3.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	25.2
New Zealand	7.3	n.a.	8.5	3.8	37.2	4.0	3.0	4.8	11.1
1992-94 average	7.9	3.8	10.6	4.1	36.8	3.4	3.1	3.8	12.1
1986-88 average	7.2	4.0	10.4	4.7	37.9	2.8	3.1	3.3	12.5
Norway	2.0	n.a.	4.7	2.4	0.5	0.4	2.2	2.5	n.a.
1992-94 average	2.6	2.0	5.5	2.4	0.5	0.4	2.5	2.7	n.a.
1986-88 average	3.3	1.5	6.8	2.5	0.7	0.4	2.6	2.6	n.a.
Poland^g	4.0	3.6	27.3	3.3	5.3	4.4	3.3	3.2	25.2
1992-94 average ^g	5.0	6.9	24.6	3.1	6.9	4.3	5.4	4.3	29.3
1989-91 average ^g	9.9	9.6	n.a.	2.5	n.a.	n.a.	n.a.	n.a.	33.5 ^l
Switzerland^g	1.1	n.a.	4.7	1.6	0.7	1.6	2.5	2.9	15.9
1992-94 average	1.5	n.a.	4.4	1.7	1.0	1.5	3.1	2.8	16.9
1986-88 average	2.1	n.a.	5.8	n.a.	1.2	1.4	3.3	3.0	n.a.
Turkey^g	14.4	4.8	42.3	n.a.	8.3	6.6	2.4	1.8	n.a.
1992-94 average ^g	15.3	4.8	44.3	n.a.	12.3	7.2	2.3	2.0	n.a.
1986-88 average ^g	18.2	4.6	47.3	n.a.	15.7	6.4	1.8	1.7	n.a.
United States	1.7	1.3	2.7	1.3	4.9	1.8	1.7	2.1	7.4
1992-94 average	1.7	1.4	2.8	1.4	6.5	1.8	1.9	2.2	8.1
1986-88 average	1.9	1.4	3.0	1.4	8.6	1.5	2.0	3.0	8.7
OECD average^m	2.1 ⁿ	1.7	7.9 ^o	1.7 ^p	3.9	2.7	3.8	3.0	11.7 ^r
1992-94 average ^m	2.4 ⁿ	1.9	9.0 ^o	1.8 ^p	5.0	2.8	4.9	3.1	12.5 ^r
1986-88 average ^m	2.8 ⁿ	2.0	8.8 ^o	2.2 ^p	5.6 ^q	2.6 ^q	5.2 ^q	3.3 ^q	13.1 ^r

Note: For definitions and sources, see following page.

n.a. Not available. The first row of data for each country provides the latest available year.

Definitions and sources for the key indicator Table I.4.

- a) % of agriculture in GDP:
National accounts gross value added for agriculture forestry and hunting as a percentage of Total Gross Domestic product for most countries. GVA at market prices is obtained by subtracting intermediate consumption from the value of output. Intermediate consumption, which is to measure all goods and services consumed in the production process, comprises the same items as in Eurostat's accounts database, plus one line for adjustment (*e.g.* to accommodate VAT under-compensation). GVA can therefore be considered as a residual, showing the contribution of agriculture to a country's Gross Domestic Product (GDP).
Data taken from OECD, *National Accounts* database.
- b) % of food processing in GDP:
STAN database for Industrial Analysis. Industry S3112 (Food). Value as a percentage of Total Gross Domestic Product (GDP).
Data taken from OECD, STAN database.
- c) % of agricultural employment in total civilian employment:
Civilian employment according to the International Standard Industrial Classification (ISIC) division agriculture, hunting, forestry, and fishing expressed as a percentage of total civilian employment. Latest year 1998. Definitions and data taken from OECD, *Labour Force Statistics* database.
- d) % of food processing in total civilian employment:
STAN database for Industrial Analysis. Industry S3100 (Including food, beverages, tobacco and fisheries products). Number engaged as a percentage of Civilian employment according to the International Standard Industrial Classification (ISIC). Latest year is 1997.
Data taken from OECD, STAN database.
- e) % of agricultural trade in total merchandise trade:
Trade data taken from the OECD *Foreign Trade Statistics*, Paris, January 2000, using the Standard International Trade Classification (SITC) (Revision 2) codes.
The categorisation of commodities is in accordance with the OECD Secretariat definition of Agricultural trade, which includes:
Agricultural commodities: 00 + 01 (including live animals) + 02 (excluding 025 eggs) + 041 to 045 + 054.1 + 054.2 + 054.4 + 054.5 + 054.81 + 057 + 06 + 08 (excluding 081.42 fishmeal) + 22;
Agricultural processed products: 091 (animal oils and fats) + 4 (vegetable oils and fats) excluding 411.1 (fish oils) + 046 to 048 + 054.6 to 056 + 058 (excluding 054.81 manioc) + 025 + 098 + 07 + 11; and
Agricultural raw materials: 261 + 263 + 268 + 232 + 264 + 265 + 12 + 21 + 29.
Latest available year is 1998 for all countries.
- f) % of food in total consumer expenditure:
Final Consumption Expenditure of Resident Households for Food as a percentage of total Final Consumption Expenditure.
Data taken from OECD, *National Accounts*.
- g) OECD Secretariat estimates based on national sources.
- h) EU-15.
- i) Excluding Denmark, Greece, Ireland, Netherlands, Portugal, Sweden.
- j) Excluding Ireland, Italy and Luxembourg.
- k) Excluding Ireland and Luxembourg.
- l) 1989-91 = 1990, from a national source.
- m) Excluding Czech Republic, Hungary and Poland.
- n) Excluding Switzerland.
- o) Excluding Mexico.
- p) Excluding Switzerland and Turkey (and in column 3 Mexico in 1986-88).
- q) Excluding Korea and Mexico.
- r) Excluding Japan, Korea, Mexico, Norway, Switzerland and Turkey.

on the export side, the relative importance of agricultural commodities in total imports has decreased, in contrast to imports of processed products, which have increased.

Food continues to account for a significant but declining share of total consumer expenditures. At the end of the 1990s it was around 12 per cent for the OECD as a whole, compared with 13 per cent a decade earlier. Food accounts for more than 20 per cent of total consumer expenditure in the Czech Republic, Mexico, Poland and Turkey.

2. EVOLUTION OF AGRICULTURAL SUPPORT

This chapter outlines developments in support to agriculture using the OECD method (see Box I.1). The analysis concentrates on developments in 1999 in particular, while taking trends over the longer-term into account. A more detailed analysis of support by country is contained in the Country Chapters and related tables in Part II.

Box I.1. Measurement and Definitions of the OECD indicators of support

In 1998, the OECD method of measuring support to agriculture was revised. There are now four indicators of support: the Producer Support Estimate (PSE), the Consumer Support Estimate (CSE), the General Services Support Estimate (GSSE) and the Total Support Estimate (TSE). In addition, producer and consumer Nominal Assistance Coefficients (NAC) are calculated from the PSE and CSE. (A detailed description of the methodology for calculating the indicators of support is contained in Part II.4).

Producer Support Estimate (PSE): an indicator of the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm-gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on farm production or income. The PSE measures support to farmers, from consumers through higher commodity prices and from taxpayers through budgetary transfers. The overall monetary value of this support is, of course, dependent on the size and structure of a country's agricultural sector, as well as on the monetary unit used. Support (PSE) expressed in relation to the number of farmers or area of farmland is influenced by differences among countries in factor endowment and the number, type, and size of farm holdings. By contrast, support expressed as a percentage of gross farm receipts (%PSE) shows the amount of support to farmers, irrespective of the sectoral structure of a given country. For this reason, the %PSE is the most widely used indicator for comparisons of support across countries, commodities, and time.

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 instruments that support agriculture, regardless of their nature, objectives or impacts on consumption of farm products. If negative, the CSE measures the implicit burden placed on consumers by agricultural policies, from higher prices and consumer charges or subsidies that lower prices to consumers. The %CSE measures the implicit tax (or subsidy, if CSE is positive) on consumers due to agricultural policy as a share of expenditure at the farm gate.

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. Examples of GSSE-measures include public expenditure on research, marketing and promotion, and infrastructure used by agriculture.

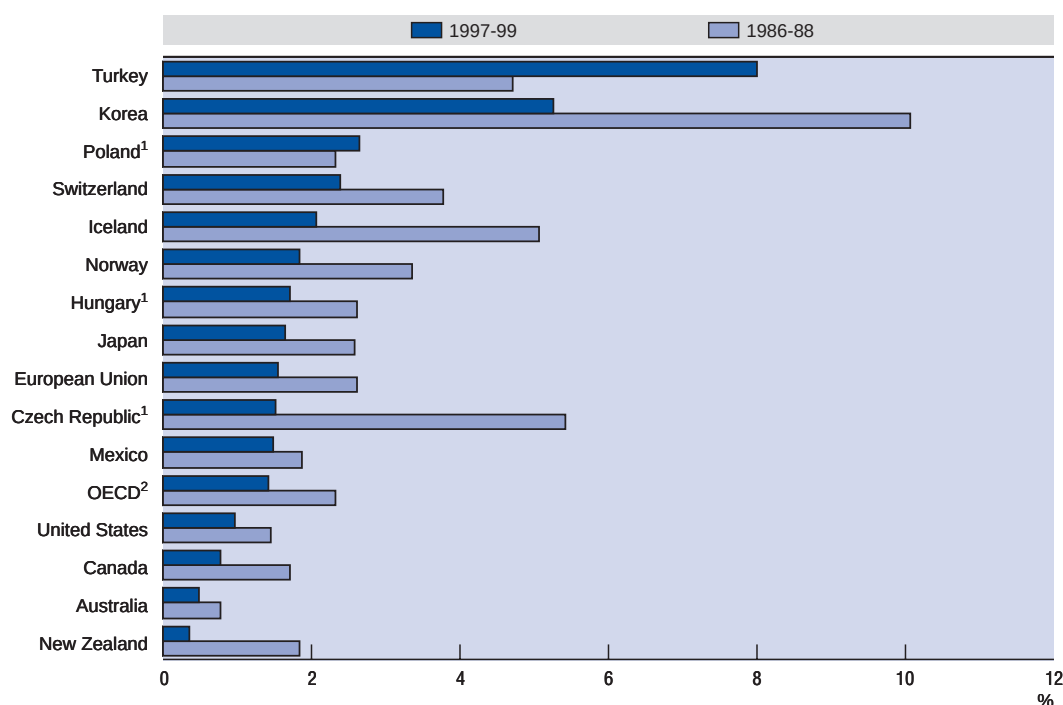
Total Support Estimate (TSE): an indicator of the annual monetary value of all gross transfers from taxpayers and consumers arising from policy measures that support agriculture, net of the associated budgetary receipts, regardless of their objectives and impacts on farm production and income, or consumption of farm products. When expressed as a percentage of GDP (the %TSE), it gives an indication of the burden this overall support represents for the economy.

Highlights

Against a background of considerable differences in the level and composition of support to agriculture among OECD countries and across commodities, the most recent developments can be summarised as follows:

- Total support to agriculture, as calculated by the OECD, comprising support to agricultural producers, consumer subsidies, and expenditure for general services (*e.g.* research, marketing, and

Graph I.1. **Total support estimate by country**
% of GDP



Notes: Countries are ranked according to 1997-99 levels. For more detail, see Table III.16.

1. For the Czech Republic, Hungary and Poland, 1986-88 is replaced by 1991-93.

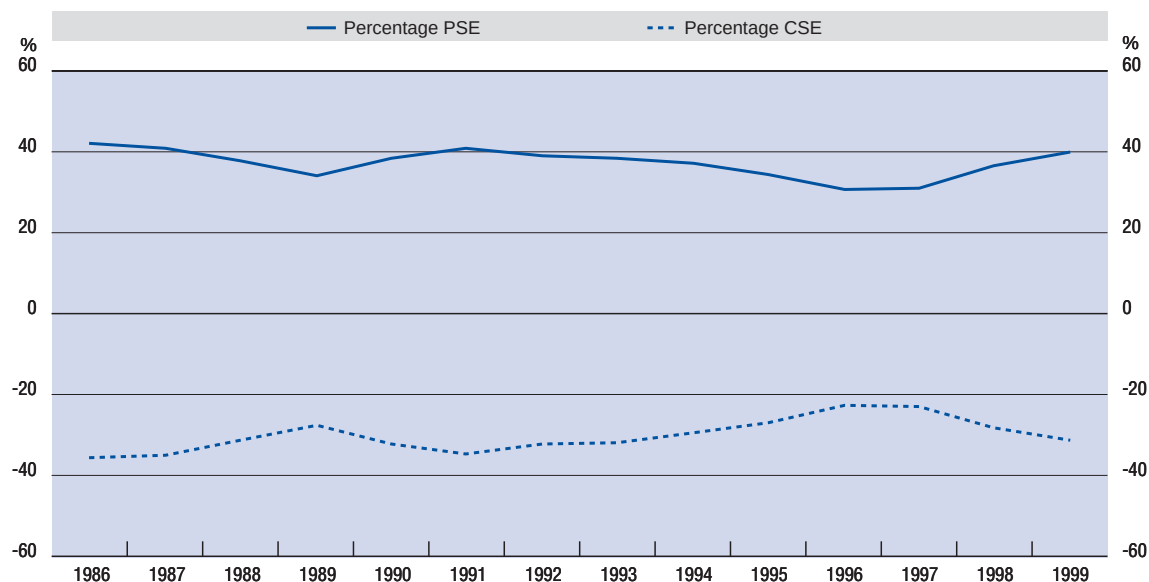
2. For 1986-88, the Czech Republic, Hungary and Poland are excluded.

Source: OECD, PSE/CSE database.

infrastructure used by agriculture) amounted to US\$361 billion (€ 339 billion) in 1999 (Table I.3). It has grown since 1996 at a similar rate as GDP in the OECD area, so that the percentage share of total support in GDP (the %TSE) has been stable at 1.4 per cent. However it ranges across countries from 0.4 per cent (in New Zealand) to 8.3 per cent (in Turkey). In 1986-88 the average %TSE was 2.3 per cent (Graph I.1).

- The bulk of support in 1999 was due to measures that support agricultural producers (78 per cent), while consumer subsidies and support for general services provided collectively to agriculture accounted for 7 per cent and 15 per cent of the total, respectively.
- Support to agricultural producers in the OECD increased for the second consecutive year, following a decade of gradual decline. In 1999, the %PSE, a measure of the combined share of market price support and budgetary payments in gross farm receipts, amounted to 40 per cent, compared with 36 per cent in 1998 and 31 per cent in 1997 (Graph I.2). Support levels in 1999 were similar to those in the 1986-88 period, which marked the launch of OECD-wide agricultural policy reforms.
- The %PSE increased in all OECD countries during 1999, except for Australia and Turkey. The most notable increases were measured for Korea (18 percentage points), Hungary (7 percentage points), and Mexico (5 percentage points). Other countries with support increases of 3 percentage points or more included the Czech Republic, the European Union, Japan and Switzerland (Graph I.6).
- The increase in the %PSE was mainly the result of an increase in market price support, because the fall in world commodity prices was not fully reflected in decreases in domestic prices, and

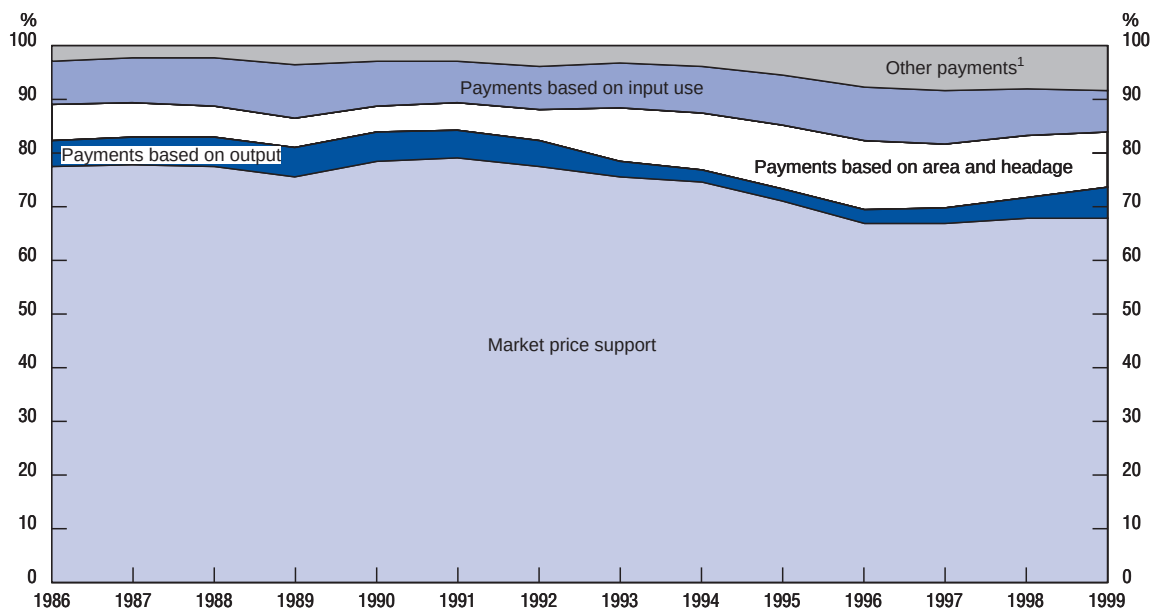
Graph I.2. Evolution of support in the OECD area in 1986-1999
Percentage PSE and CSE



Note: For more detail, see Table III.1.

Source: OECD, PSE/CSE database.

Graph I.3. Evolution of the OECD PSE structure



Notes: For more detail, see Tables III.1 and III.19.

1. Other payments comprise payments based on historical entitlements, on input constraints, on overall farming income as well as miscellaneous payments.

Source: OECD, PSE/CSE database.

because output-based payments increased. Market price support and output-based payments continued to represent over 70 per cent of total support to producers.

- The gap between the countries with the highest and lowest levels of %PSEs widened in 1999, with the %PSEs ranging from 2 per cent in New Zealand to 74 per cent in Korea (Graph I.6).
- Levels of support continued to vary widely across commodities. Rice, milk, and sugar remained the products with the highest levels of support, while wool, poultry, and eggs received relatively little support. For most commodities, support went up during 1999, with the largest increases in %PSEs for sugar (10 percentage points), rice (7 percentage points), and pigmeat (6 percentage points). Support for beef and veal declined slightly (Graphs I.10 and I.11).
- In the two most recent years, the implicit tax on consumers from agricultural policies, as measured by the %CSE, rose sharply from 23 per cent in 1997 to 28 per cent in 1998 and 31 per cent in 1999. However, since 1986-88, the %CSE has declined from a level of 34 per cent as support to agricultural producers has gradually shifted from market price support to budgetary payments, which are financed by taxpayers (Graph I.2).

Level of support in the OECD

Support to producers in the late 1990s has returned to the same level as in the 1986-88 period. Total support to the agricultural sector (the TSE) in OECD countries, comprising support to producers, support for general services, and consumer subsidies, increased to US\$361 billion (€ 339 billion) in 1999 (Table I.5). The share of TSE in GDP has remained largely unchanged at about 1.4 per cent since 1996, after having declined gradually from 2.3 per cent since 1986-88 (Graph I.1). While the share of TSE in GDP declined, the part financed by consumers of primary commodities fell from about two-thirds in 1986-88 to less than 60 per cent in 1997-99, and the share borne by taxpayers increased correspondingly.

Table I.5. **OECD: Estimates of support to agriculture**

	1986-88	1997-99	1997	1998	1999p
Producer Support Estimate (PSE)					
(US\$ billion)	246	267	246	271	283
(Euro billion)	224	242	217	242	265
Percentage PSE ¹	40	36	31	36	40
Producer NAC	1.7	1.6	1.5	1.6	1.7
General Services Support Estimate (GSSE)					
(US\$ billion)	41	54	55	55	52
(Euro billion)	37	49	48	49	49
Percentage GSSE ¹	13	16	17	16	14
Consumer Support Estimate (CSE)					
(US\$ billion)	-176	-168	-150	-171	-183
(Euro billion)	-159	-153	-133	-153	-172
Percentage CSE ¹	-34	-27	-23	-28	-31
Consumer NAC	1.5	1.4	1.3	1.4	1.5
Total Support Estimate (TSE)²					
(US\$ billion)	308	347	329	352	361
(Euro billion)	280	315	290	315	339
Percentage TSE ^{1, 3}	2.3	1.4	1.4	1.5	1.4

Note: See Part II for definitions.

p Provisional.

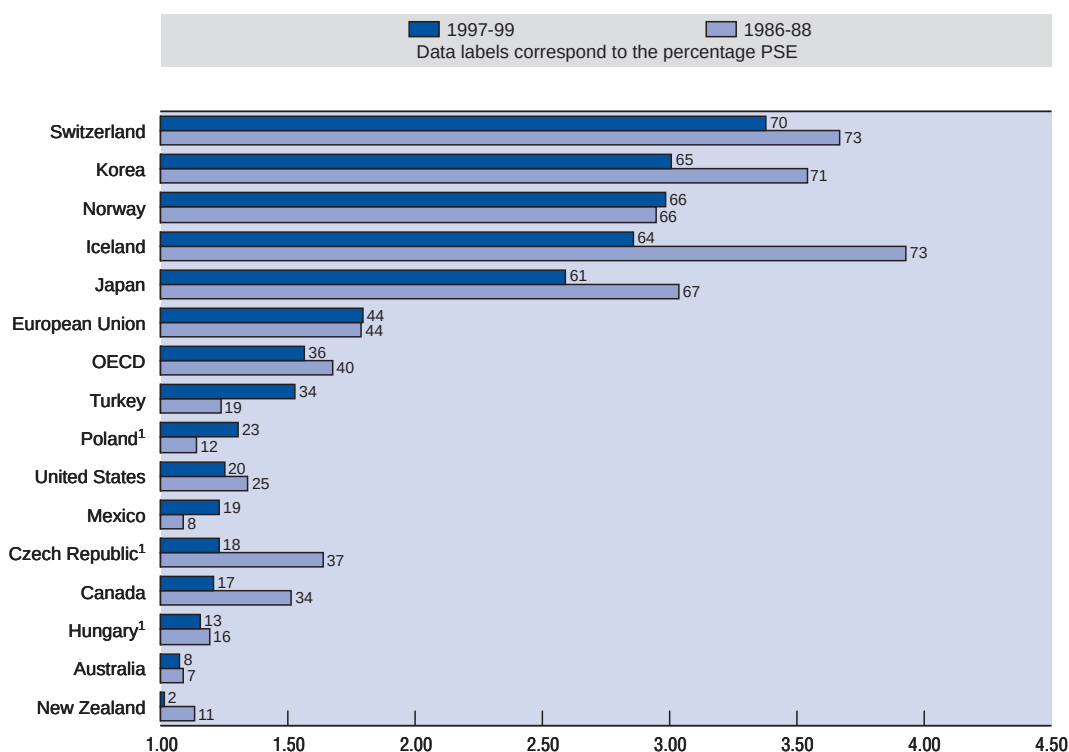
1. The denominators of the indicators in percentage are: PSE – the total farm receipts (including budgetary support); GSSE – the total value of support to agriculture as measured by the TSE; CSE – the total value of consumption expenditure on commodities domestically produced (measured at farm gate), including budgetary payments to consumers; and TSE – the total GDP.

2. TSE is the sum of PSE, GSSE and transfers from taxpayers to consumers in the CSE. Note that the TSE is not the addition of PSE, GSSE and CSE, as the transfers from consumers to producers appear with opposite signs in both the PSE and the CSE.

3. Excluding the Czech Republic, Hungary and Poland for which consistent GDP data are not available for 1986-88.

Source: OECD, PSE/CSE database.

Graph I.4. Producer nominal assistance coefficient by country



Notes: Countries are ranked according to 1977-99 levels. For more detail, see Table III.5.

1. For the Czech Republic, Hungary and Poland, 1986-88 is replaced by 1991-93.

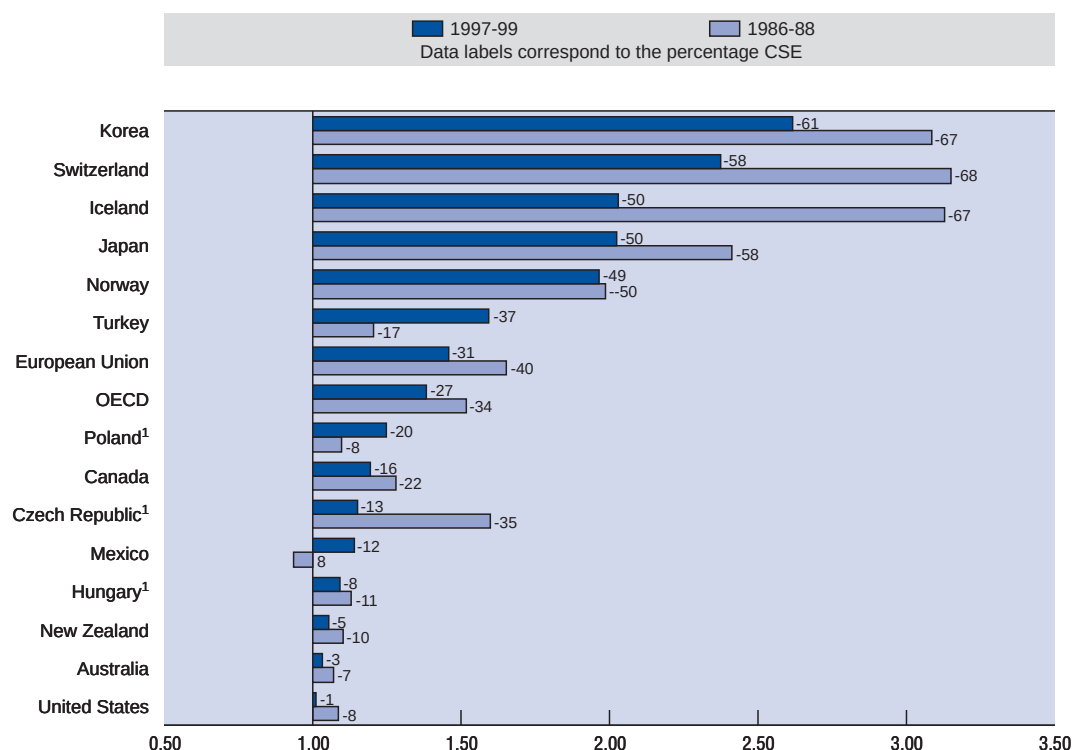
Source: OECD, PSE/CSE database.

Support to agricultural producers in OECD countries, as measured by the PSE, amounted to US\$283 billion (€ 266 billion) in 1999, or 40 per cent of the total value of gross farm receipts (the %PSE). And, as indicated by a producer NAC of 1.66, gross farm receipts (including support), were 66 per cent higher than they would have been without any support (Graph I.4). As a result of increases over the last two years, support to producers in 1999 (in terms of the %PSE) returned to the level of 1986-88 (Graph I.2).

Over time, the composition of support has slowly shifted from measures that support higher farm prices financed by consumers (market price support) to payments financed by taxpayers. The share of market price support in the PSE fell from 78 per cent in 1986-88 to 68 per cent in 1997-99. In parallel, the share of support from payments based on area planted, animal numbers, historical entitlements, or conditional upon input restrictions, has increased. However, the share of support to producers provided through payments based on commodity output and payments based on unrestricted input use remained largely constant over the past decade, while payments based on overall farm or household income continued to play a minor role.

Given that most support to producers is provided via higher market prices, changes in the implicit tax placed on consumers by agricultural policies largely mirror the changes in producer support. The %CSE declined from 34 per cent in 1986-88 to 27 per cent in 1997-99. And, as indicated by the consumer NAC of 1.38, during 1997-99 consumers were implicitly taxed, and paid on average 38 per cent more than they would have had they paid prevailing world market prices and received no consumer subsidies (Graph I.5). The long-term decline in the consumer burden was mainly due to the slow shift from

Graph I.5. Consumer nominal assistance coefficient by country



Notes: Countries are ranked according to 1997-99 levels. For more detail, see Table III.12.

1. For the Czech Republic, Hungary and Poland, 1986-88 is replaced by 1991-93.

Source: OECD, PSE/CSE database.

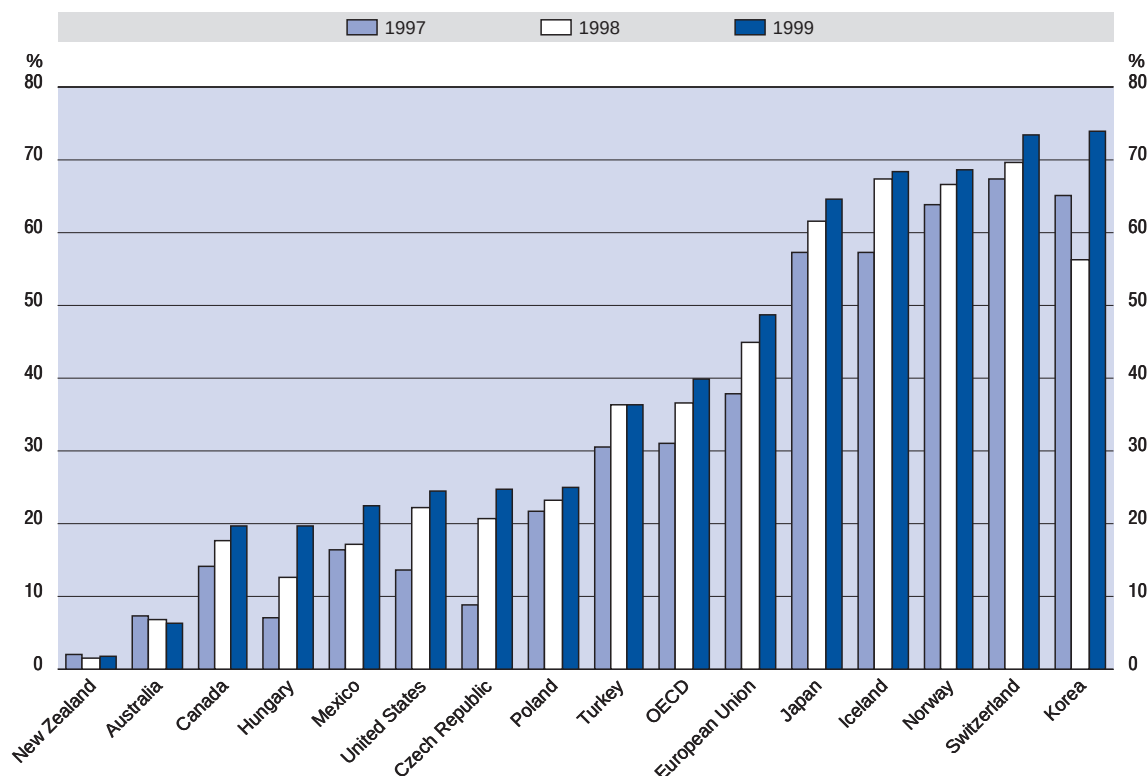
market price support to budgetary payments to farmers, which are financed by taxpayers. However, in the two most recent years, the %CSE rose sharply from 23 per cent in 1997 to 28 per cent in 1998 and 31 per cent in 1999 (Graph I.2), which meant that market price support measures prevented consumers of products for which there was high border protection from benefiting from lower world prices.

Budgetary outlays on general services provided collectively to the sector (the GSSE), amounted to US\$52 billion (€ 49 billion) in 1999, only a minor part of total support to agriculture. The composition of the GSSE changed markedly between 1986-88 and 1997-99, with expenditure on marketing and promotion increasing from about 30 per cent in the late 1980s to about 40 per cent in the late 1990s, while expenditure for public stockholding of commodities (to support domestic prices higher than those on world markets) declined from about 20 per cent to less than 10 per cent over the same time period. Budgetary outlays on infrastructure improvements and research and development continued to account, respectively, for about 30 per cent and 10 per cent of total GSSE.

Levels of support by country

Wide variations in support among OECD countries. There continued to be a considerable diversity in the level and composition of support among OECD countries (Graphs I.6 and I.7). This reflects in part the wide variations in farm structures, natural environments, socio-economic conditions and trade positions. In 1999, New Zealand, Australia, Canada, and Hungary had %PSEs of 20 per cent or below, while Iceland, Korea, Japan, Norway, and Switzerland had support levels that were 65 per cent or above. Market price support accounted for only 36 per cent of total support in Australia, but provided 96 per cent

Graph I.6. **Producer support estimate by country in 1997, 1998 and 1999**
% PSE



Notes: Countries are ranked according to 1999 levels. For more detail, see Table III.5.

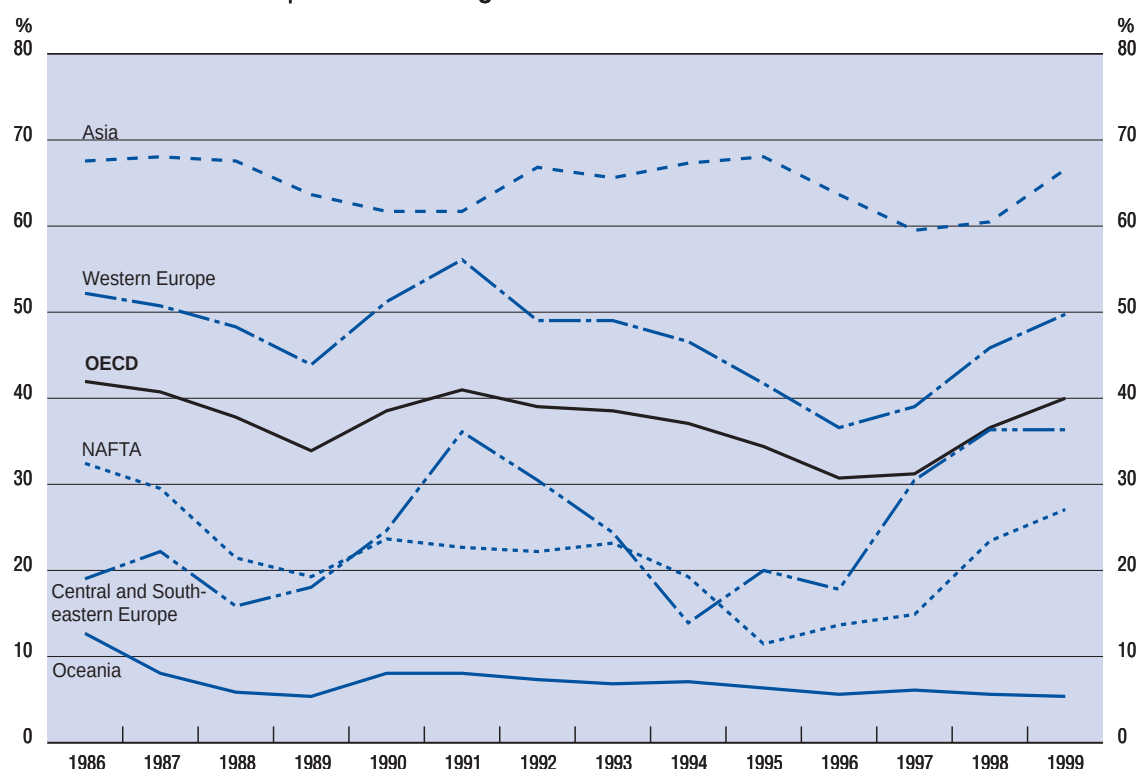
Source: OECD, PSE/CSE database.

of all transfers to producers in Korea. Output-based payments provided more than 15 per cent of support to producers in Iceland, Norway and the United States, but were non-existent in Korea and New Zealand. Payments based on overall farming income accounted for 21 per cent of the PSE in Canada, but were non-existent or of very minor importance in most other OECD countries. Reflecting both the level of support and the structure of agriculture, the PSE per full-time farmer ranged from less than US\$1 000 in New Zealand and Mexico to more than US\$30 000 in Iceland, Norway, and Switzerland (Graph I.8). On a per-hectare basis, the PSE amounted to less than US\$10 in Australia and New Zealand, while exceeding US\$9 000 in Korea and Japan (Graph I.9).

In 1999, support to producers, as measured by the %PSE, increased in all OECD countries except Australia and Turkey. This evolution confirms the general trend of increasing support, first observed in 1998, and indicates a reversal from the developments in previous years. In most OECD countries both the PSE in monetary terms and the %PSE increased. However, in the European Union, Poland, and Switzerland, the PSE declined in US dollar terms (and in the European Union and Poland also in Euro terms), while the %PSE increased, as the value of production fell.

Lowest support in Oceania. Since 1986-88, Australia and New Zealand have consistently had the lowest support levels of all OECD countries, and in 1999 their %PSEs amounted to only a fraction of the OECD average. Their TSEs, of which a relatively large share consists of expenditure for general services, accounted for less than 0.5 per cent of GDP.

Graph I.7. Percentage PSE evolution for five OECD areas



Notes: Percentage PSE expressed as a weighted average of the countries in the area.

Asia = Japan + Korea; Oceania = Australia + New Zealand; NAFTA = United States + Canada + Mexico; Western Europe = EU + Iceland + Norway + Switzerland (Austria, Finland and Sweden are added in the years previous to 1995); Central and South-eastern Europe = Czech Republic + Hungary + Poland + Turkey.

Source: OECD, PSE/CSE database.

In *New Zealand*, farmers received the lowest level of support within the OECD. At 2 per cent the PSE was only one-twentieth of the OECD average. It increased in both monetary and percentage terms in 1999 mainly due to market price support in the poultry and egg sectors. Over the longer term, support has fallen markedly from a %PSE of 11 per cent in 1986-88 to 2 per cent in 1997-99.

In *Australia*, support to agricultural producers was the second-lowest in the OECD in 1999 and at 6 per cent was less than one-sixth of the OECD average. The PSE decreased both in monetary terms and in percentage terms. A relatively high level of support (%PSE of 18 per cent) was granted to milk producers, mainly in the form of market price support. Over the longer term, support to producers has fallen slightly, with the %PSE dropping from 8 per cent in 1986-88 to 7 per cent in 1997-99.

Below-average support in North America. Support to producers in Canada, Mexico and the United States was lower than the OECD average in 1999. Market price support was the most significant form of transfers to farmers, representing over half of the total PSE for Canada and Mexico, and around one-third for the United States. However, market price support was less important in Canada and the United States than in most other OECD countries and tended to be concentrated on only a few commodities. Conversely, budgetary payments in these two countries played a more significant role in supporting farmers. The %TSE in 1999 amounted to 0.8 per cent in Canada, 1 per cent in the United States, and 1.4 per cent in Mexico.

In *Canada*, the %PSE increased to 20 per cent, up from 14 per cent in 1997 and 18 per cent in 1998. Support was highest for milk and eggs, and was provided mainly in the form of market price support.

Payments based on overall farm income, which include income safety-net programmes, are important and increased slightly in 1999, but since 1997 they have more than doubled, and now account for roughly one-fifth of total support to producers. Despite the increase in support during the late 1990s, the %PSE remained considerably lower than the annual average of 34 per cent recorded during 1986-88.

In the *United States*, support to producers went up by 2 percentage points, to 24 per cent in 1999, following a sharp rise of 8 percentage point in the previous year. Despite a slight decline, market price support, in particular for sugar and milk, remained the most important component of the PSE. At the same time, compared with most other OECD countries, budgetary payments have been large and of increasing significance. In particular, payments based on historical entitlements and overall farming income increased during 1999, and payments based on output more than doubled compared with 1998. This surge in budgetary outlays led to an increase in the PSE by 11 per cent (in US dollar-terms) during 1999. Moreover, after the two substantial increases in support during 1998 and 1999, the %PSE reached almost the same level as during 1986-88, when it amounted to 25 per cent.

In *Mexico*, the %PSE rose by 5 percentage points, to 22 per cent, after a 1 percentage point increase in 1998. Market price support accounted for 70 per cent of support to producers. The composition of budgetary payments, which accounted for the remaining 30 per cent of support to producers, has changed significantly since the beginning of the 1990s. Support based on input use decreased in relative terms, and payments based on historical entitlements (introduced in 1994 with PROCAMPO) became more important. The %PSE has increased continuously since 1995 and has almost tripled from the level during 1986-88 (8 per cent).

Below-average PSEs, but relatively high TSEs in central and south-eastern Europe. The Czech Republic, Hungary, Poland, and Turkey had %PSEs below the OECD average in 1999. Yet, even though support to producers has been relatively low, the total transfer to the sector, relative to GDP, has been above the OECD average in all four countries, reflecting in part the level of general economic development. In the central European countries, the %TSE was 1.9 to 2.4 per cent, while total support in Turkey equalled 8.3 per cent of the country's GDP. This means that agricultural policies have placed a considerable burden on these economies.

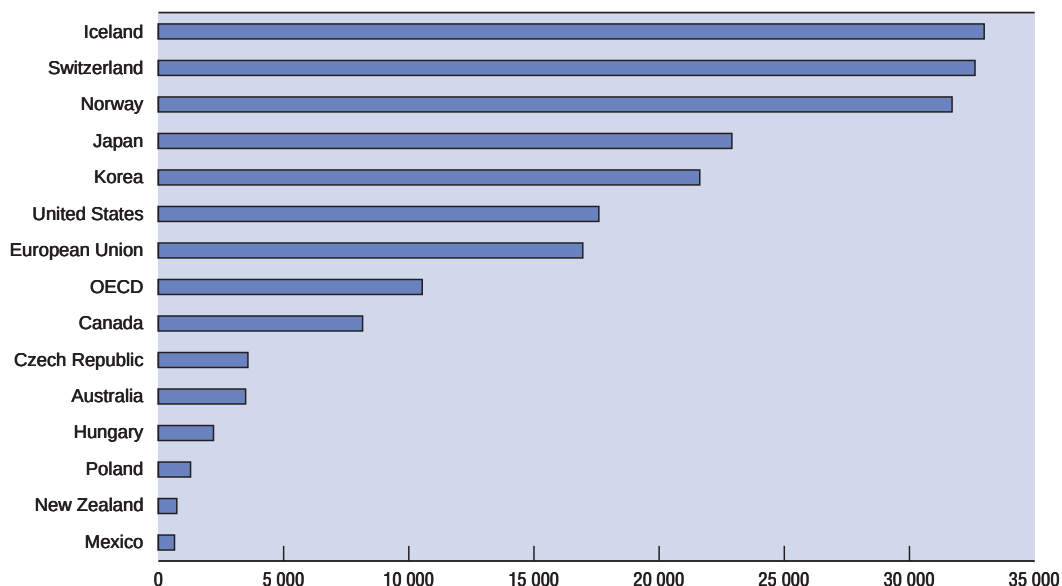
In *Hungary*, the %PSE increased markedly in 1999 by 7 percentage points to 20 per cent, after having already risen by 6 percentage points in 1998. The level of support thereby exceeded the average %PSE of 16 per cent during 1991-93, which is a more appropriate reference period for longer-term comparisons in transition countries than is 1986-88. About half of the support to producers in 1999 was provided through market price support, and the other half through payments based on input use, output and overall farming income. The trend since 1991-93 of switching from market price support to budgetary payments, in particular payments based on input use, has been reversed since 1997, when market price support accounted for only 20 per cent of support to producers.

In the *Czech Republic*, the %PSE rose by 4 percentage points to 25 per cent, following a sharp increase of 12 percentage points in 1998. The evolution in 1999 was due to an increase in market price support (mainly for pigmeat and sugar) and to a one-third increase in income-related payments. Around 70 per cent of support to producers was in the form of market price support, and the remaining 30 per cent was based mainly on income and input use-related payments. Despite the sharp rise in support during the late 1990s, the %PSE remained below the 37 per cent observed during 1991-93.

In *Poland*, the %PSE increased moderately (by 2 percentage points) to 25 per cent in 1999, having also risen slightly in the previous year. However, in monetary terms, the PSE (and market price support) declined. More than 80 per cent of support to producers was derived from market price support, with the remaining support occurring through payments based on input use and, since 1999, output-based payments. At the beginning of the 1990s, support to producers was low, with an average %PSE of 12 per cent during 1991-93. But it has subsequently more than doubled, mainly due to a significant rise in market price support.

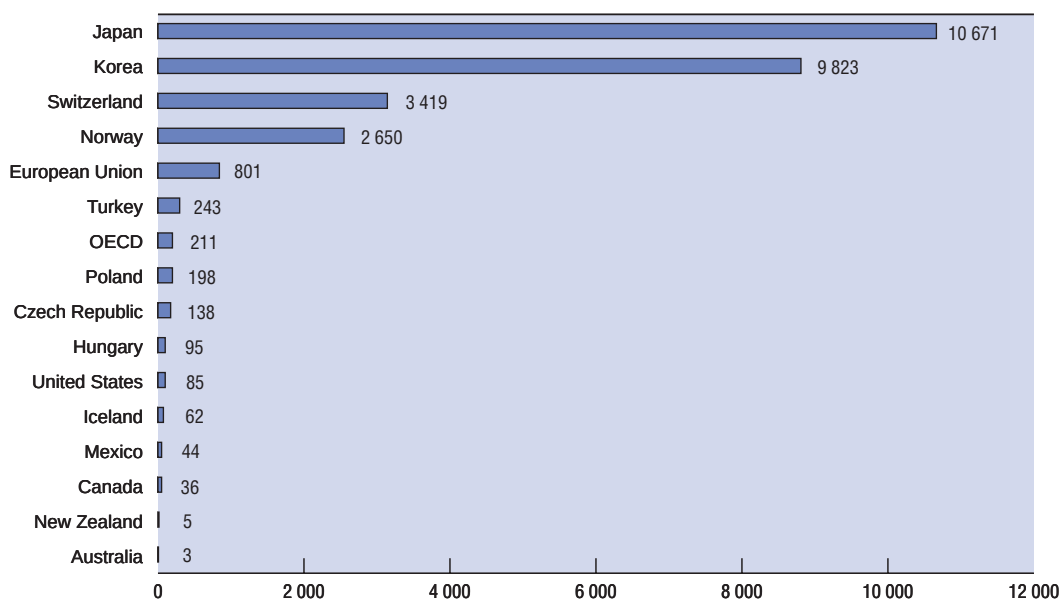
In *Turkey*, the %PSE remained unchanged in 1999 – at 36 per cent – following three years of increases. Support remains slightly lower than the OECD average. The share of market price support has been growing and reached 89 per cent in 1999. About 10 per cent of the PSE was due to payments based on input use. The increasing significance of market price support has essentially been the result

Graph I.8. **Producer Support Estimate per farmer, 1997-99**
US\$



Notes: PSE per Full-time Farmer Equivalent (FFE). All forms of labour – farmers, hired employees and unpaid family workers – are included in the calculation of FFEs. For the definition of FFE, see Part II.2. Not calculated for Turkey. For more detail, see Table III.7.
Source: OECD, PSE/CSE database.

Graph I.9. **Producer Support Estimate per hectare, 1997-99**
US\$



Notes: PSE per hectare of agricultural land (arable land, permanent crops and permanent meadows and pastures). For more detail, see Table III.8.
Source: OECD, PSE/CSE database.

of a rise in producer prices, as the fall in world market prices in US dollar terms was more than offset by the depreciation of the Turkish lira. Over the longer term, the %PSE has almost doubled, from an average of 19 per cent in 1986-88. With the TSE amounting to more than 8 per cent of GDP, the burden of agricultural policies on the Turkish economy was the heaviest among all OECD countries.

Above-average support in western Europe. Support to agricultural producers in the European Union, Iceland, Norway, and Switzerland has over the past decade been consistently higher than in most other OECD countries. With the exception of Norway, the majority of support to producers in western Europe was provided through market price support. In addition, output-based payments accounted for a relatively high share (15 per cent or more) of support to producers in Iceland, and Norway. Payments based on area and animal numbers are prominent in the European Union, where such measures accounted for 22 per cent of support to producers. The share of the TSE in GDP has declined over time, to below 2.5 per cent in all western European countries, reflecting in large measure the steady growth in GDP. In 1999, the %TSE amounted to 1.5 per cent in the European Union, 2 per cent in Iceland, 1.9 per cent in Norway, and 2.4 per cent in Switzerland.

In the *European Union*, the %PSE increased from 45 per cent in 1998 to 49 per cent in 1999, after a substantial rise by 7 percentage points the previous year. The renewed rise in percentage terms, which brings the support to producers to a level exceeding the average %PSE in 1986-88 (44 per cent), occurred despite a reduction of the PSE and market price support in monetary terms, as the value of production fell. Over the longer term, there has been a shift from market price support to budgetary payments, in particular payments based on area and animal numbers (22 per cent of support). The share of market price support in support to producers fell from 85 per cent in 1986-88 to 60 per cent in 1997-99.

In *Iceland*, support to agricultural producers rose 1 percentage point to a %PSE of 68 per cent in 1999, after having risen sharply by 10 percentage points in the previous year. Nevertheless, over the period 1986-88 to 1997-99, the %PSE has dropped by 10 percentage points. This long-term reduction of support was due to a decrease in market price support, which was only partially offset by increases in payments based on output and, more recently, payments based on historical entitlements. Measured against GDP, the reduction in support to agriculture has been even more substantial, with the share of TSE in GDP falling from more than 5 per cent during 1986-88 to 2 per cent in 1997-99.

In *Norway*, the %PSE increased by 2 percentage points in 1999 to 69 per cent, following a 3 percentage-point rise in the previous year. As a result, support to producers in the late 1990s exceeded the level during 1986-88, when the %PSE amounted to 66 per cent. Traditionally, market price support has accounted for less than half of support to producers, while payments based on output, area and animal numbers, and input use continue to be of considerable importance.

In *Switzerland*, support to agricultural producers, as measured by the %PSE, increased from 67 per cent in 1997 to 70 per cent in 1998 and 73 per cent in 1999, reaching the same level as during 1986-88. However, in US dollar-terms the PSE and market price support fell during 1999, so that the increase in %PSE was mainly due to a reduction in the value of domestic production, in combination with an increase in budgetary payments, most of which have been since 1999 subject to compliance with minimum environmental standards. Over the longer term, there has been a shift from market price support to budgetary payments, such that the share of market price support in support to producers fell from 82 per cent in 1986-88 to 61 per cent in 1997-99.

Above-average PSEs and high market price support in east-Asian OECD countries. In Japan and Korea, support to agricultural producers has been considerably above the OECD average since 1986-88. The vast bulk of the support has been provided through market price support, which accounted for more than 90 per cent of support to producers. Budgetary funds are used mainly to provide general services to the agro-food sector, such that the shares of the GSSE in the TSE have been above the OECD average for both countries. The %TSE in Japan has fallen from 2.6 per cent to 1.6 per cent between 1986-88 and 1997-99. In Korea, the share of TSE in GDP has also declined markedly over the past decade, but it still amounted to more than 5 per cent during 1997-99, placing a substantial burden on the economy.

In *Japan*, the %PSE increased from 62 per cent to 65 per cent during 1999, following a 5 percentage point rise in 1998. Support during the late 1990s remained slightly below the average %PSE of 67 per

cent during 1986-88. The vast majority of support has been provided through market price support (in particular for rice), while payments based on output, input use, and input constraints collectively accounted for 8 per cent of the PSE in 1999.

In *Korea*, support to agricultural producers in 1999 was higher than in any other OECD country. The %PSE increased sharply to 74 per cent, compared with 56 per cent in 1998 and 65 per cent in 1997. Exceptionally large exchange-rate movements during the late 1990s contributed heavily to these fluctuations in the %PSEs. More than 95 per cent of support to producers continued to be provided through market price support (mainly for rice). Over the longer term, the %PSE has declined from 71 per cent in 1986-88 to 65 per cent in 1997-99.

Level of support by commodity

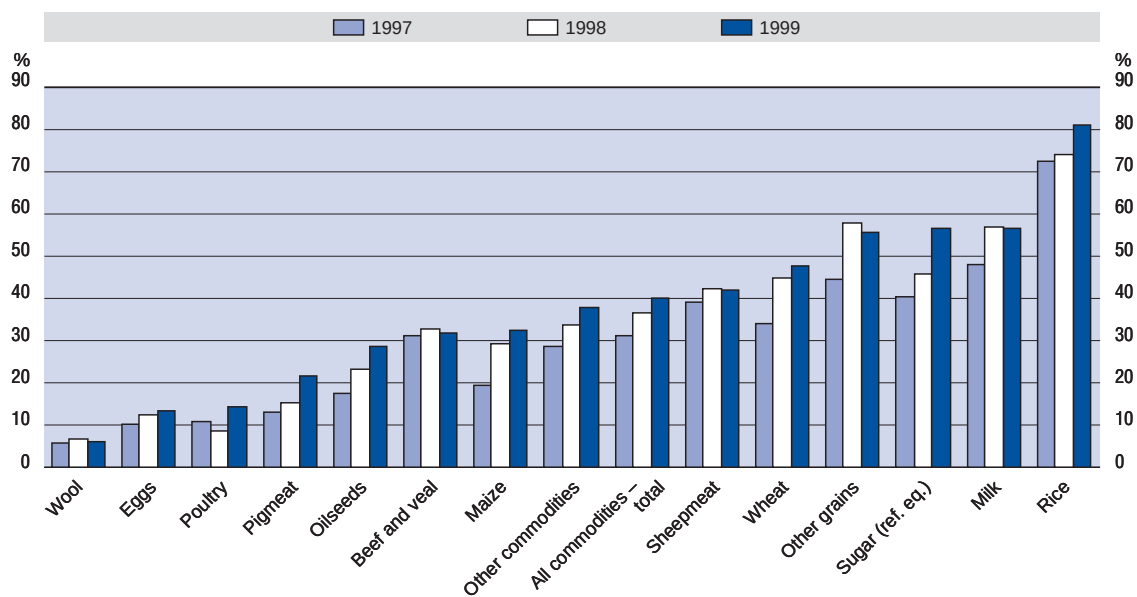
There is wide variation in levels of support across commodities. In 1999, the %PSE ranged from less than 15 per cent for eggs, poultry, and wool to more than 55 per cent for milk, rice, sugar, and barley, oats, and sorghum (other grains). The average %PSE for all products was 40 per cent. Levels of support increased during 1999 for most commodities, although the %PSE remained unchanged for milk and sheepmeat, and fell for beef and veal, and wool (Graph I.10). The most significant increases in %PSEs were observed for sugar (11 percentage points), rice (7 percentage points), and pigmeat (6 percentage points). Rice, particularly in Japan and Korea, and sugar were also the commodities with the highest policy-induced burdens on consumers, as measured by the %CSE.

Between 1986-88 and 1997-99, support decreased for most commodities, with sheepmeat (14 percentage points) and maize (13 percentage points) showing the largest reductions in %PSEs. Support for other grains remained unchanged, while the %PSE for pigmeat, beef and veal, and wool increased. The %CSE for all commodities fell between 1986-88 and 1997-99, with sheepmeat (45 percentage points) and wheat (18 percentage points) showing the most notable reductions (Graph I.11).

Medium-term outlook for support

As two-thirds of support to producers is due to market price support, the difference between domestic and world market prices has a considerable effect on the level of the PSEs. A decrease (increase) in international prices leads to a widening (narrowing) of the price gap between domestic and world prices and, if price transmission is impeded by border measures, an increase (decrease) in the PSE. The recovery from generally very low world price levels in 1999 is expected to be only gradual during 2000, with the international prices of some commodities, such as rice, oilseeds, and butter, remaining at their 1999-levels. Hence, without changes in policy that more closely align domestic and world market prices, the burden placed on consumers and taxpayers by agricultural support policies will remain substantial.

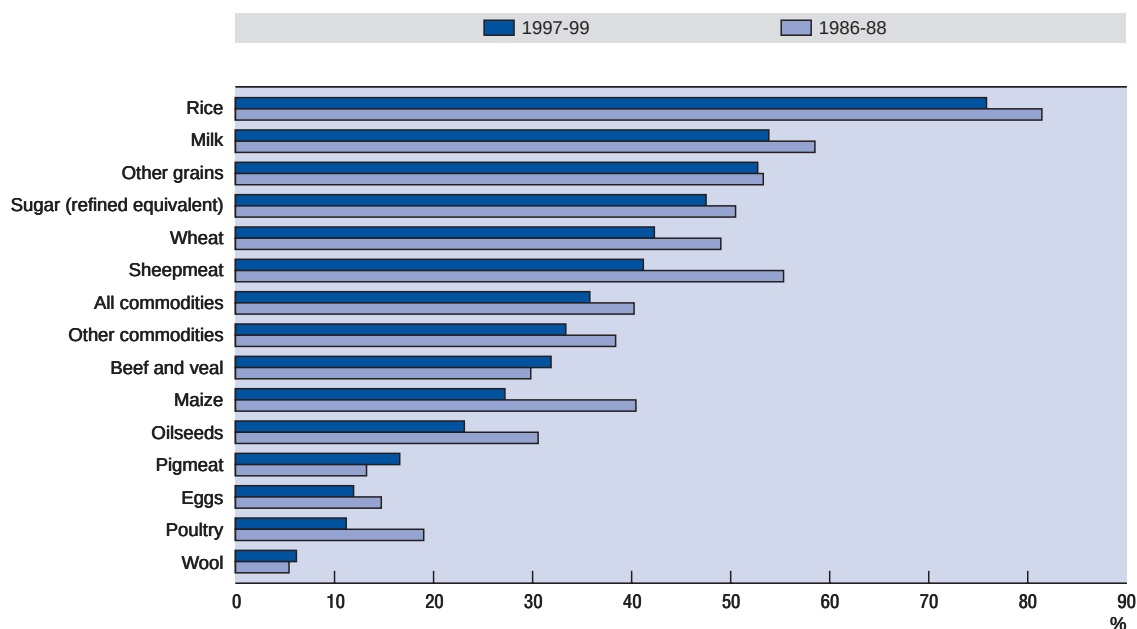
Graph I.10. **Producer Support Estimate by commodity in 1997, 1998 and 1999**
 OECD average as % of value of gross farm receipts



Notes: Commodities are ranked according to 1999 levels. For more detail, see Table III.6.

Source: OECD, PSE/CSE database.

Graph I.11. **Producer Support Estimate by commodity**
 OECD average as % of value of gross farm receipts



Notes: Products are ranked according to 1997-99 levels. For more detail, see Table III.6.

Source: OECD, PSE/CSE database.

3. EVALUATION OF AGRICULTURAL POLICY DEVELOPMENTS

This chapter evaluates developments in 1999 in the light of the principles for agricultural policy reform (Box I.2) and the operational criteria for policy measures (Box I.3) adopted by OECD Agriculture Ministers in 1998. As OECD countries first agreed to embark on the reform of agricultural policies in 1987, the developments in 1999 are also viewed within the longer-term context.

OECD countries are facing the challenge of how best to address a range of domestic policy objectives in a more integrated global economy in ways that are compatible with further trade liberalisation. The goals for the agri-food sector not only relate to economic efficiency, but also to its environmental performance and social responsibility. Addressing these multiple goals highlights the need to assess the respective roles of markets and policies against a background of constant structural change, rapid technological developments and competing pressures on scarce public budgetary resources.

Box I.2. Policy principles

OECD Agriculture Ministers in 1998 adopted a set of policy principles, building on the agricultural policy reform principles agreed by OECD Ministers in 1987. These principles stress the need to:*

- pursue agricultural policy reform in accordance with Article 20 of the Uruguay Round Agreement on agriculture and the commitment to undertake further negotiations as foreseen in that article and to the long-term goal of domestic and international policy reform to allow for a greater influence of market signals;
- address the problem of additional trade barriers, emerging trade issues and discipline on export restrictions and export credits;
- strengthen world food security;
- promote innovative policies that facilitate responsiveness to market conditions by agricultural producers;
- facilitate improvement in the structure of the agriculture and agro-food sectors;
- enhance the contribution of the agro-food sector to the viability of the rural economy;
- take actions to ensure the protection of the environment and sustainable management of natural resources in agriculture;
- take account of consumer concerns;
- encourage increased innovation, economic efficiency, and sustainability of agro-food systems;
- preserve and strengthen the multifunctional role of agriculture.

* The full text from the relevant Ministerial Communiqués is reprinted in Part II.3.

Developments in domestic policies

Reversal of the long-term trend of agricultural policy reform

Although the world economy in 1999 performed well, despite the financial turmoil from the Asian crisis and its spread to Russia and Brazil, agricultural markets have been characterised by low prices for the past two years. The prices of a number of agricultural commodities, especially grains, soybeans and pigmeat were, at the beginning of 2000, about 35 per cent below the highs registered in 1997. The fall in world market prices can mainly be attributed to rising production and stocks in response to higher

prices in previous periods, advances in technology, and favourable growing seasons. Abundant supplies confronted falling demand, associated with the financial crises in Asia, Russia and Brazil.

Policies pursued by some OECD exporting countries in response to these developments contributed to the further depression of prices in the last two years. While the relatively strong growth in trade and high commodity prices in the years to 1997 had eased the pressure to support farm prices and incomes, the relatively low prices and market returns of the last two years brought those pressures back.¹

The previous (1999) edition of this report concluded that, while some progress had been made in agricultural policy reform over the last decade, in particular with the implementation of the Uruguay Round Agreement on Agriculture from 1995, the long-term trend in reform came to a halt in 1998.² The main message emerging from events in 1999 is that, with low world commodity prices, pressure on farm incomes and food safety concerns high on the agricultural policy agenda, the reversal (first noted in 1998) of progress in agricultural policy reform has been confirmed. In fact, support levels once again reached the high levels seen in the mid-1980s, which further insulated farmers in many countries from world market signals, and illustrated the fragility of the process of reform. More specifically, policy developments in 1999 can be evaluated as follows:

- Support to producers, as measured by the %PSE, increased in most countries and for all commodities, mainly due to lower world commodity prices, not matched by lower support prices, and to increases in payments based on farm output; these developments imposed an increased financial burden on consumers and taxpayers.
- Increased price support and payments based on farm output, which are among the most production- and trade-distorting forms of support, contributed to lower world prices and imposed costs on producers in countries not protecting their domestic markets.
- While support increased, wide variations persisted across countries, commodities and farm sizes. Yet numerous farmers suffered falling incomes, reflecting not only differences in the markets for their products, as well as in their natural, social and economic situations, but also the inefficiencies and inequities inherent in many farm policies. Some countries implemented short-term emergency measures, but did so in ways that were not always targeted or tailored to income losses.
- Despite the increases in the rate of support to producers in 1998 and 1999 to the levels recorded in the mid-1980s, the gradual move away from market price support to budgetary payments to farmers has reduced the implicit tax on consumers over the long-term.
- Countries continued to implement their WTO commitments. But while some countries reduced trade barriers, others increased protection, and made greater use of export subsidies, export credits and food aid to dispose of unsaleable surpluses, which contributed to lower world prices.
- Some bilateral negotiations to liberalise trade were completed, but they covered only a limited number of agricultural commodities. Although these accords may facilitate trade between the signatory parties, they may also divert trade that would otherwise have taken place with other countries; the net outcome of these two effects can only be determined empirically.
- A start was made in dismantling some state-trading agencies, but monopoly-trading privileges were often retained, missing an opportunity to allow for greater market competition and the full transmission of market signals.
- Food safety and quality concerns rose on the policy agenda, and continued to be important sources of pressure for tougher regulation and stricter enforcement; policy responses and institutions are still evolving in many OECD countries.
- Policies continued to address environmental concerns in agriculture, but many measures are too recent to be able to judge if they are the most cost-effective and well-targeted ways to improve environmental performance.
- OECD policy-makers continued to address a range of domestic concerns, increasingly through the use of new, more comprehensive “policy packages”. But it is still premature to assess if they are sufficiently targeted and tailored to achieve multiple policy objectives in the most transparent, cost-effective and least trade-distorting ways.

Overall, the agricultural policy developments in 1999 confirm the view expressed in the previous edition of this report of the fragility of the process of agricultural policy reform. A few years ago, when markets and prices were strong and implementation of the URAA was providing an extra stimulus, reforming policies was relatively easy for governments. But, low prices through 1998 and 1999 – in addition to triggering a number of safety nets or minimum price schemes – have led some governments, sometimes under intense pressure from farming constituents, to instigate a number of *ad hoc* emergency programmes. The cumulative effect of these *ad hoc* measures and the automatic support mechanisms already in place has been significant – not only for their effects on transfers or income but also for their potential effects on production and trade. The latter effect arises because these measures and support mechanisms influence risk, wealth and expectations. Moreover, with few exceptions, the measures remained closely linked to parameters that reflect farm size, and little effort was made to target them to income needs. Consequently, they are unlikely to have improved the equity of agricultural support.

Box I.3. Operational criteria

OECD Agriculture Ministers in 1998 agreed that policy measures should seek to meet a number of operational criteria, to apply in both the domestic and the international contexts, which should be:*

- *transparent*: having easily identifiable policy objectives, costs, benefits and beneficiaries;
- *targeted*: to specific outcomes and as far as possible decoupled;
- *flexible*: reflecting the diversity of agricultural situations, be able to respond to changing objectives and priorities, and applicable to the time period needed for the specific outcome to be achieved;
- *equitable*: taking into account the effects of the distribution of support between sectors, farmers and regions.

* The relevant text from Ministerial Communiqués is reprinted in Part II.3.

Support to producers increased significantly mainly due to higher market price support and payments based on output...

Support to producers for the whole OECD, as measured by the %PSE, increased from 31 per cent in 1996 and 1997 to 36 per cent in 1998, and is estimated to have reached 40 per cent in 1999 – the average level of the 1986-88 period. In the past two years, market price support (MPS) and payments based on output, which jumped respectively by 16 and 145 per cent, were the two main components of the 20 per cent rise in the PSE for the OECD as whole. Support increased in all countries except Australia and Turkey.

Both market price support and output-based payments for current production continued to limit the ability of world prices to affect production decisions, indicating that there is no, or only weak, transmission of world price changes to prices received by producers. Such measures also tend to aggravate the inequity associated with these two types of support because they mainly benefit large farmers. Moreover, market price support impacts most strongly on low-income consumers for whom food constitutes a large share of their total household expenditure.

Most support prices and payments based on output were maintained in 1999, but with widely varying changes in levels. Administered (guaranteed) prices were changed for some commodities in some countries, and administered price schemes continued to operate in many countries alongside border measures that were protective enough to impede the transmission of market signals. Changes in administered prices (Table I.4) were, in some cases, associated with changes in output-linked payments and production quotas. For example, **Canada** raised all administered prices for milk and dairy products, but reduced the federal per-tonne payment for milk. Grain and oilseed producers in two provinces will

receive a one-time payment, and commercial quotas for turkey and chicken were raised. The **Czech Republic** raised the minimum price of milk and made it compulsory for all dairies. **Iceland** increased administered prices for milk (but reduced the milk quota) and increased per-tonne payments for milk and headage payments for sheepmeat. In **Hungary**, the administered price for milk was increased and a new premium for top-quality milk was introduced.

Korea extended its per-tonne payment for calves. **Norway** raised administered prices for milk and reduced the per-tonne payment and milk producer levy. **Poland** reduced the intervention prices for wheat and rye, but introduced a per-tonne payment for grain delivered to operators who signed contracts with the intervention agency. **Turkey** raised support prices for sugar, but reduced the sugar quota. A per-tonne payment was re-introduced for cotton and created for oilseeds, olive oil and silk cocoon. In the **United States**, the loan deficiency payments for crops increased dramatically over the last two years, which contributed to depressed prices and reduced the influence of world market price signals on farmers' production decisions. The minimum milk price declined, but the abolition of the dairy price support scheme (foreseen for the end of 1999) was postponed.

Although they were the exceptions, some important measures were taken that were designed to move away from price guarantees and other support linked to production. **Australia** is scheduled to terminate its domestic market support scheme for milk on 30 June 2000 and to replace it with a new scheme financed by a levy on milk at the retail level. In **Switzerland**, guaranteed prices were discontinued for all crops except for bread-wheat and rye, and the area limitation on oilseed production and the sugarbeet quota were abolished. The guaranteed milk price was converted into a non-binding target price, and milk quotas became tradable within mountain and lowland zones. Although a step in the right direction, these changes will not necessarily reduce domestic prices, which are much higher than world prices because of border protection.

Table I.6. **Changes in administered prices in 1999***

	Increase	Decrease	No change
Canada	Milk, dairy products	–	–
Czech Republic	Milk	Wheat	–
European Union	–	–	All commodities
Hungary	Milk, beef	Maize, pigmeat	Wheat
Iceland	Milk	–	–
Japan	–	Crops, milk, pigmeat	Calves, SMP
Korea	All crops	–	–
Norway	Milk, sheepmeat	Feed rye	Other cereals
Poland	Milk	Wheat, rye	Sugar
Switzerland	–	Wheat, rye, sugarbeet, milk	Rapeseed
Turkey	All crops	–	–
United States	Barley, oats	Milk	Other contract crops

* See Glossary for definitions of "administered price"; all prices in national currency terms.

Source: Part II.1.

... and to a lesser extent to support based on past entitlements and on overall income...

Although, for the OECD as whole, payments based on historical entitlements (for example, PFC payments in the United States, PROCAMPO in Mexico, complementary direct payments in Switzerland) and payments based on overall farming income (for example, NISA payments in Canada) have been rising in recent years, their share in support to producers remains very low. These payments are made without obligation to plant or produce any specific commodity, are not linked to current production, and therefore are potentially less production- and trade-distorting than other major forms of support to producers. Payments based on overall farming income that have the characteristics of income safety nets are potentially much more equitable and are better targeted and tailored to needs than payments based on past entitlements. However, all these payments have a direct impact on farmers' current

income and wealth, and can influence future expectations of support. By supplementing farm incomes, they allow resources to be retained in the sector, encouraging higher production in future years.

In the past two years, **Mexico** continued to raise PROCAMPO payments, but their share in support to producers declined. **Switzerland** replaced some payments based on area or animal numbers, and some based on input use, by a fixed payment per hectare for all farmers that is independent of what they produce. This change has the potential to reduce production and trade distortions. To compensate for income losses associated with low market prices, the **United States** granted a Market Loss Assistance (MLA) payment by substantially increasing PFC payments. This marks a deviation from the FAIR Act and is inconsistent with its long-term objective to progressively reduce such payments. **Canada** granted an Agricultural Income Disaster Assistance (AIDA) payment to any farmer whose farming gross income dropped below 70 per cent of the average of the previous three years. Providing AIDA and MLA during two successive years may affect future production decisions as it can lead producers to expect that they will receive extra public assistance whenever prices or income fall. However, AIDA payments are better targeted and tailored and are likely to be a more efficient and equitable way to provide income support than MLA payments.

... while acreage and headage payments stabilised and support for using inputs declined

To receive payments based on acreage, headage or input use farmers have to plant commodities, own animals, or use farm-specific inputs. Such payments affect current production decisions. Although ceilings may be applied to these payments, generally the larger the farm the larger the eligible area, number of animals or volume of inputs benefiting from these types of payments, which may accentuate income disparities. In the past two years, payments based on area planted or animal numbers have stabilised, and those based on input use and on input constraints have declined for the OECD as a whole. But the evolution has been uneven across countries.

Expenditure on payments based on area planted or animal numbers fell in the **European Union** in line with a reduction in area planted and animal numbers. Such payments declined markedly in **Switzerland** as a result of the new agricultural policy framework (described in the 1999 edition of this report), which replaced some of these payments by a fixed payment per hectare to all farmers. However, acreage and headage payments increased in **Canada**, the **Czech Republic**, **Mexico**, **Norway** and the **United States**. These increases were most significant in North American countries, as increased payments were granted for emergency assistance and crop insurance. Following two successive years of such payments, the effects on farmers' perceptions of risk and expectations about future bailouts may well influence future production decisions.

Payments based on input use fell in **Canada**, the **European Union**, **Iceland**, **Japan**, **Korea**, **Norway** and **Switzerland**, and stabilised in the **Czech Republic** and the **United States**. But they increased in **Australia**, **Hungary**, **Mexico**, **Poland** and **Turkey**, countries where these payments represent a relatively large share of support to producers. To the extent that these payments encourage the use of inputs, they create production and trade distortions that often result in more intensive production with heightened risks of degrading the environment.

Payments based on input constraints – *i.e.*, those that are dependent on farmers limiting the use of inputs, which increasingly include agri-environmental measures – fell in the **European Union**, **Hungary**, **Japan** and **Korea**, were stable in **New Zealand** and the **United States**, and increased in **Norway** and **Switzerland**. New measures were introduced in the **Czech Republic**. Constraints on input use are often designed to offset the negative effects of agricultural support on the environmental performance of agriculture. For example, while being supported through payments based on output or inputs (which encourage the use of land, water or chemicals), producers are sometimes also paid to limit the use of these inputs or to respect certain constraints (*e.g.*, keeping uncultivated strips of land near watercourses) in the interest of soil and water conservation. Such constraints may mitigate the harmful effects of agricultural support on the environment. But if they are implemented alongside other support measures that have the opposite effect their cost-effectiveness will be reduced. Payments used to obtain a specific environmental service for which no market exists and which is not otherwise remunerated

through being jointly produced with a marketed commodity, may be appropriate if they are well-targeted and tailored to satisfying demand.

While support for general services to agriculture declined, support to marketing agencies increased...

For the OECD as a whole, support for general services provided to agriculture, as measured by the percentage GSSE, reached a peak in 1995 and has since declined every year. While support to producers (PSE) represents over three-quarters of the total support to agriculture (TSE), the share of the GSSE in the TSE dropped to less than 15 per cent in the last two years. Over half of the GSSE goes to marketing agencies, which were the only general services benefiting from a rise in support during 1998 and 1999. The large share of such transfers in the GSSE is noteworthy, as many of these agencies play an important role in the implementation of price support policies (including public stockholding).³ On the other hand, general services for restructuring and facilitating rural development, structural adjustment, research, education, and training have the potential to strengthen efficiency in the sector and are more cost-effective and less distorting than output and input payments to farmers.

... though some state trading agencies started to be dismantled

The production and trade effects of state trading enterprises (STEs) depend very much on the way they operate. The effects of policies that STEs implement on behalf of governments would exist whether implemented by the STE or some other body. But a major characteristic of STEs has been the monopoly-trading privileges granted to them. Although it is still premature to draw definitive conclusions regarding the trade effects of these agencies, in some situations their monopoly privileges have prevented the transmission of world market signals to the domestic market and may have also caused trade distortions.

In 1999, **Switzerland** abolished the State-sanctioned foreign trade monopolies for butter imports (BUTYRA) and cheese exports (Swiss Cheese Union). Trade in dairy products is now carried out through private importers. The abolition of trade monopolies has the potential to enhance competition in domestic and world markets. However, where a high level of protection through tariffs and TRQs remains, the impact of deregulation of STEs will be considerably moderated.

Some other countries replaced STEs by new private corporations that retained some or all of the monopoly-trading privileges previously enjoyed by the state agency. Although less government involvement in commodity markets in these cases may be seen as a positive step, the persistence of monopoly privileges may mean that *de facto* little has changed in the competitive conditions in which trade takes place.

In **Australia**, the statutory Australian Wheat Board (AWB) ceased to operate and was replaced by AWB Ltd, a grower-owned and controlled company that has an automatic right to export wheat and a veto right over bulk export requests to the Wheat Export Authority. In **Mexico**, the State Company CONASUPO was abolished and some of its remaining activities transferred to two state agencies. DICONSA, alongside private companies, now purchases maize and dried beans directly from farmers (at official minimum prices in certain States). LICONSA imports skimmed milk powder while private companies import other products under quotas allocated by the Government. In **New Zealand**, the Government passed enabling legislation that would remove, from September 2000, the statutory sole export rights of the Dairy Board, and convert it into a new company. But the new company will have exclusive rights to export to designated markets during the first ten years of its operation.

Developments in trade policy

Countries continued to implement WTO commitments but trade barriers are still high...

Countries have, in general, met their WTO commitments (Box I.4). Nevertheless, most countries have some tariff-rate quotas (TRQs) that continue to be under-utilised, and the level of over-quota tariffs applied to a number of commodities remains very high. A few countries have reduced tariffs by more than is required under the URAA. Clearly, elimination of a tariff allows market signals to have a

greater influence on farmers' production decisions, and for consumers to pay lower prices. But a reduction is only significant if the resulting tariff level actually enables trade to take place – many of the highest tariffs resulting from the tariffication process of the URAA were and continue to be prohibitive, so that the programmed tariff reductions are not having any tangible effect.

The current levels of the consumer NAC by commodity, which can be used as a broad proxy⁴ for the level of trade barriers, indicate that levels of protection for many commodities in many countries remain high. In the last two years for the OECD as a whole, domestic prices were, on average, over double the border prices for milk and sugar, and over four times those for rice. The consumer NAC tended to increase in most countries and for most PSE commodities. For the OECD as a whole, domestic prices exceeded border prices on average by 30 per cent in 1997, by 39 per cent in 1998 and by 45 per cent in 1999 – though still less than the 52 per cent average for the 1986-88 period.

In 1999, **Australia** reduced import tariffs on several products, and eliminated others, as did **Turkey** for maize. The **Czech Republic** and **Hungary** reduced import tariffs on some products and opened TRQs to enable minimum market access for other products. The **European Union's** TRQ for malting barley imported from the United States, which was introduced following the last EU enlargement in 1995, was renewed. **Japan** replaced its quantitative restriction on rice imports by tariffs.

Some negotiations to liberalise bilateral trade were also completed. The **European Union** and **Switzerland** signed an agreement on trade in agricultural products providing for reciprocal tariff concessions on a number of agricultural products, including cheeses and milk products, meat and wine. The

Box I.4. The Uruguay Round Agricultural Commitments in Brief*

- *Market access*: market access concessions relate to bindings and reductions of tariffs from a 1986-88 base, and to other market access commitments, as set out in the country schedules. First, all identified non-tariff barriers (*e.g.*, quantitative import restrictions, variable import levies, minimum import prices, discretionary import licensing, non-tariff measures maintained through state-trading enterprises, etc.) were converted into ordinary customs duties and bound. (This conversion process is often referred to as "tariffication".) From this base, Members agreed to reduce tariffs over the course of the six years to 2000 (ten years for developing countries, or DCs) implementation period – by an average of 36% (DCs: 24%), with a minimum 15% (DCs: 10%) cut per tariff line. Least-developed countries (LDCs) were exempted from reduction commitments. Member countries also agreed to maintain access to their markets, to ensure that the tariffication process maintains or increases, but does not reduce, potential for trade.
- *Export subsidies*: member countries were required to cut both the quantity of subsidised exports and the budgetary outlays on such subsidies – by 21% and 36% respectively (24% for DCs and zero % for LDCs) over the six-year (DCs: 10 years) implementation period from a 1986-90 base.
- *Domestic support*: the domestic support reduction commitments apply to all domestic support measures in favour of agricultural producers, with the exception of domestic measures that are deemed to be non- or minimally trade distorting, and direct payments provided through certain production-limiting programmes. The level of support arising from domestic policies identified in the WTO country tables as trade-distorting – basically, market price support, production-linked direct payments, and input subsidies, expressed in terms of Total Aggregate Measurement of Support (AMS) – is subject to reduction commitments of 20% (compared with the 1986-88 base period), with credit granted for any reductions that had already occurred during the base period. Developing countries must reduce their Total AMS by 13% over ten years, and LDCs are exempted from reduction commitments.
- *Sanitary and Phytosanitary Measures*: Member countries agreed to give effect to the separate "Agreement on the Application of Sanitary and Phytosanitary Measures". Essentially, any trade restrictions relating to agricultural products intended to protect the health of humans, animals or plants must be based on sound scientific principles.

* The full text of the URAA can be obtained from the WTO's web site at <http://www.wto.org/wto/legal/finalact.htm>.

EU-South Africa Trade and Co-operation Agreement, which includes some agricultural products, came into force on 1 January 2000. The **EU** and **Mexico** reached an agreement on the liberalisation of trade, but while fruits and vegetables were included in the agreement, cereals, dairy and meat were excluded from it. Free-trade agreements that included some agricultural products entered into force between **EFTA countries** and **Morocco**, between **Poland** and **Estonia** and, at the beginning of 2000, between **Mexico** and **Israel**. Although these agreements may facilitate bilateral trade, they cover only a limited number of agricultural commodities, and may divert trade with other countries, so that the overall effect on trade is unclear.

... but other countries increased protection...

Although remaining within their WTO commitments, some countries increased protection by raising tariffs or imposing TRQs for some commodities. These actions reduced the transmission of world market prices to domestic prices. In 1999, to protect its sugar industry, the **Czech Republic** introduced a four-year import quota for sugar under the WTO's safeguard and emergency measures. **Poland** increased import tariffs within or up to the ceilings determined by WTO commitments for a number of products, including common wheat, sugar, rapeseed, butter and pigmeat, and introduced new tariff-rate quotas. **Japan, Poland** and **Switzerland**, invoking the WTO special agricultural safeguard clause, levied additional import tariffs on particular products. **Turkey** increased tariffs for live animals and meat within the sanitary ban on imports of these products. The **United States** introduced a tariff-rate quota for imports of lamb meat at the level of imports in the previous year but with a tariff-rate within quota that was substantially above the one previously applied.

... and the use of export measures increased

Measures encouraging the disposal of domestic supplies on foreign markets, including export subsidies, export credit and credit guarantees, as well as food aid, have increased in some countries. The use of export subsidies is limited by ceilings agreed upon in the URAA, whereas other export enhancement measures do not face similar limits. These measures contributed to the low commodity prices of the past two years, and reduced the influence of world price signals on farmers' production decisions.

In 1999, a WTO panel ruled that **Canada's** dairy industry pricing system amounts to an export subsidy (see Table I.7 and Part II.2). The value of food aid provided by **Canada** and **Australia** declined. The **Czech Republic** used export subsidies for dairy products, pigmeat and potato starch, together with interest-rate subsidies on credit provided for exports of dairy products and malt. Export licences were required for a wide range of products. **Hungary** spent 14 per cent more on export subsidies. The total amount spent by the **European Union** on food aid and export subsidies declined, but export subsidies for sugar, pigmeat and eggs increased. **Poland** continued to use export subsidies to export sugar and, for the first time, non-fat dried milk and starch. **Turkey** continued to use export subsidies for most of its exports at unchanged levels for most products, but more than doubled those for olive-oil to help dispose of record stockpiles. The **United States** increased expenditures on export subsidies for dairy products by 32 per cent and boosted its shipments (mainly of cereals) for food-aid dramatically.

Food safety and other issues

Food safety and quality concerns rose on the policy agenda...

There have been significant developments in the regulation of the agro-food sector during the last two years in response to a number of food-related health scares and the growing use of biotechnology, particularly genetic modification. Several countries approved regulations and created agencies to control food safety and quality as well as animal welfare and health. Moreover, a number of countries adopted legislation applying new labelling rules and standards for food products. Primarily responding to consumer perceptions of increasing risks to human health and the environment, these measures need to be carefully analysed, monitored and evaluated so that they address public concerns in ways that are scientifically sound, based on risk assessment, ensure an efficient and competitive agricultural sector, and are compatible with multilateral trade agreements.⁵

Table I.7. **Summary of WTO and NAFTA Dispute Settlement Procedures considered in 1999 and early 2000**

I. WTO Procedures		
Consultations (country and products or policies):		Requested by:
Argentina:	Countervailing duties on wheat gluten	EU
Argentina:	Test data protection	USA
EU:	Protection of trademarks	USA
EU:	Implementation of the banana dispute	Several countries
EU:	Soluble coffee	Brazil
EU:	Patent protection	Canada
EU:	Import duties on rice	India
EU:	Exportation of processed cheese	USA
Japan:	Imports of pork	EU
Korea:	Inspection procedures	USA
Slovak Republic:	Importation of dairy products	Switzerland
USA:	Certain sugar syrups	Canada
USA:	Countervailing investigation	Canada
USA:	Tariff-rate quota for groundnuts	Argentina
USA:	Imports of poultry products	EU
USA:	Safeguard on corn brooms	Colombia
Panels (country and products or policies):		Requested by:
Canada:	Milk and dairy products	USA, New Zealand
EU:	Imports of bananas	USA
EU:	Beef raised with growth hormones	USA, Canada
EU:	Poultry products	Brazil
EU:	Butter products	New Zealand
India:	Patent protection	USA
India:	Quantitative restrictions	USA
Japan:	Quarantine of agricultural products	USA
Korea:	Dairy products	EU
Korea:	Beef imports	Australia, USA
Mexico:	High-fructose corn syrup	US
USA:	Banana retaliation measures	EU
USA:	Safeguard on wheat gluten	EU
USA:	Safeguard on lamb imports	Australia, New Zealand
USA:	Tax treatment for Foreign Sales Corporations	EU
II. NAFTA Procedures		
None		

In 1999, the **Czech Republic** enacted a new Veterinary Act, setting out veterinary requirements on animal breeding and health, and on raw materials of animal origin. The **European Union** is proposing the establishment of an independent European Food Authority by 2002, with particular responsibilities for both risk assessment and information on food-safety risks. **France** created an agency for food safety, under the responsibility of the Ministers in charge of health, agriculture and consumption, to evaluate food sanitary risks; its activities also cover animal health and welfare, veterinary drugs and food hygiene. The **United Kingdom** created a Food Standards Agency, taking over functions previously held by the Ministries of Agriculture and Health relating to food safety and standards; its mandate covers the whole food chain. **New Zealand** reformed its law on animal welfare to ensure high animal-welfare standards, and also its law regulating the production and processing of animal material and products, with the aim of better managing the associated risks. **Poland** introduced new milk-quality standards.

Australia allocated additional funds to speed the introduction of comprehensive national legislation to regulate gene technology and to ensure a secure footing for its biotechnology industry. In **Canada**, the Canadian Council of Grocery Distributors and the Canadian General Standards Board are launching a project to develop standards for voluntary labelling of food derived from biotechnology. The **European Union** adopted clearer labelling provisions for feed ingredients, in response to the BSE and dioxin scares. Minimum welfare standards for protection of laying hens were also adopted. **Austria** introduced regulations requiring the labelling of genetically modified seeds and of food additives.

Japan promulgated new standards for “organic food” and adopted a new labelling rule that obliges food manufactures and distributors to attach labels on all food and drink products, providing information on such issues as GMO content. **New Zealand** established an Independent Biotechnology Advisory Council to improve public understanding of biotechnology. **Poland** introduced new regulations pertaining to the registration, packaging and labelling of GMOs, and brought its regulations on the labelling of organic products into line with EU legislation.

The **European Union** adopted an organic-food labelling system offering consumers a guarantee that the product concerned contains at least 95 per cent organic ingredients. **Korea** introduced a labelling system for organic “environmentally friendly” agro-food products, and is preparing a labelling scheme for genetically modified products. **Switzerland** published the first list of requests for registration under the new legislation on labels of origin, and introduced new import labelling regulations.

... and policies continued to address agri-environmental concerns

Concerns over the environmental performance of agriculture have grown in recent years in OECD countries, with increased competition for the use of scarce land and water resources for agriculture, industry, urban needs and social infrastructure. Relatively high levels of production and input-related agricultural support measures have often distorted the efficient allocation of resources and contributed to environmental damage caused by inappropriate agricultural practices. To improve that performance, OECD countries have in recent years introduced a wide range of agri-environmental measures.⁶

Given the relatively recent application of many measures, and that many environmental effects take a long time to appear, it is premature to draw firm conclusions regarding the existing agri-environmental policy measures. Work in the OECD suggests that there have been mixed results in environmental performance over the last decade. Some reductions in the levels of nutrient run-off and pesticide use have occurred. However, in certain areas these levels remain high, animal waste continues to pollute watercourses, and soil erosion remains a large risk. On the other hand, agriculture can provide public goods and services of an environmental nature, which some of the existing agri-environmental policies are intended to enhance.

The site-specificity of many environmental services and problems adds to the need for policies to be well-targeted, and tailored to well-defined outcomes, which is not always the case with the existing agri-environmental policies. Most of these policies involve payments based on limiting the use of inputs. They are not therefore always consistent with the Polluter Pays Principle. Moreover, they operate typically alongside price support and output- or input-related payments, which can have the effect of increasing environmental damage and reducing the provision of environmental services. Some of these policies also involve detailed regulation of farming practices, which can raise government or on-farm administrative costs. Such costs could be substantially reduced under community-led approaches or conservation easements (Box I.5).

In 1999, many countries increased their budgets for existing agri-environmental programmes, and several created new programmes, mainly to encourage resource conservation and organic farming. **Australia** introduced a new programme to rehabilitate the Great Artesian Basin and improve the management and conservation of natural resources. **Austria** amended its Water Law to give greater responsibility to water co-operatives and associations in the use of water, and revised an action programme to reduce water pollution caused by nitrates from agricultural sources. **Spain** also amended its 1985 Water Law to introduce a series of market mechanisms to enable the temporary sale of water rights and put into practice new water-saving policies. In most OECD countries, the outcomes of changes in water programmes depend very much on the extent to which the costs of extracting water and ensuring its quality are internalised in the price of water.

Canada established a fund to finance a livestock initiative to encourage environmentally sound livestock practices, through research and technology assessment and transfer, and the development of an environmental certification system for the pig industry. The **Netherlands** increased expenditures on reducing pollution from its intensive livestock industry, but as from 2003 farmers may keep animals intensively only if they have approved methods for disposing of manure. While paying for cleaning up

Box I.5. Conservation easements*

Easements have been traditionally recognised when the owner of a specific property grants a limited right to someone else to use all or part of his property for a specific purpose. For example, one landowner might grant to a neighbour a right-of-way to cross his property or draw water from his well.

However, while traditional easements grant a right to a specific action, conservation easements prohibit specific actions to both parties. For example, an easement contract for the conservation or preservation of a building, a forest, or a wetland prohibits both the owner and the easement holder from altering or demolishing the building, cutting down the forest or converting wetland into cropland. The easement holder thereby acquires the right to enforce the contract restrictions on the use of the property by its owner, while the owner retains all other rights to his property.

In the United States, the use of conservation easements by non-profit organisations and government agencies is relatively recent, but it has increased rapidly in the last decade. These easement contracts have been used to protect a variety of land resources and characteristics, including farmland and other open space, wildlife habitat, erodible soil, and wetlands. While the current contracts are variable in their coverage, in general they include a common set of characteristics:

- a description of the property with its ecological conditions and known environmental hazards, together with an agreement by the owner to submit the land to an environmental assessment, to identify and correct or remove any encroachments or damage, and to meet certain standards in the management of the property;
- a description of the land uses that are allowed, which may limit the owner's ability to develop the land or alter its existing use, with a right granted to the easement holder to check and ensure that the contract has been honoured, and provisions for adjudication or arbitration in the event of an alleged breach of contract;
- demonstration by the owner that the property has no restriction attached to it and application of the easement contract to all subsequent owners of the property, together with provisions setting out responsibilities, deadlines, and payments associated with the easement's sale.

Conservation easements may be an attractive policy instrument because purchasing a partial interest in a parcel of land is less costly than acquiring full ownership and they involve voluntary transactions. Moreover, compared with conservation incentives (taxes or annual payments) or tradable development rights, easements do not necessarily entail large administrative burdens. In addition, easements necessitate few, if any changes in environmental regulations and property rights.

* For more detail, see Wiebe *et al.*, *Partial Interest in Land: Policy Tools for Resource Use and Conservation*, USDA, ERS, Agricultural Economic Report, No. 744, November 1996; and Boyd *et al.*, "Carving Out Some Space: A Guide to Land Preservation Strategies", *Resources*, Issue 136, Summer 1999.

pollution from the intensive livestock industry may not be consistent with the Polluter Pays Principle, the Canadian certification system of its pig industry and the new Dutch manure disposal plan have the potential for facilitating a necessary reduction in pollution from animal waste.

Norway doubled the average pesticide tax levied per hectare. The excise taxes on nitrogen and phosphorus fertilisers were abolished but a new, more integrated agri-environmental programme is being established in their place. Although in a context of high support to producers input taxes may have only a limited impact on reducing input use, they can be consistent with the Polluter Pays Principle and they at least give a signal in favour of conserving on input use. There is a risk that the abolition of the tax may give the wrong signal to producers, although the intention is that the new programme which replaces it should offset any resulting degradation of the environment.

France adopted an agricultural framework law introducing contracts for territorial management under which farmers are paid to adopt farming systems and practices that contribute to the protection of natural resources, landscape, territorial balance, employment and product quality. **Japan** adopted a Law for the Promotion of the Introduction of Advanced Sustainable Farming Systems. **Korea** created 16 model areas for integrated pest and nutrient management to reduce the use of fertilisers and pesticides through a more effective combination of technologies. Although these programmes may contribute

to achieving their defined objectives, they should be monitored and assessed to ensure that they are implemented in a cost-effective way.

Payments to promote organic farming in the **Czech Republic** – first introduced in 1998 – were increased by 46 per cent. Area payments were introduced in **Korea** for farmers who carry out low-input farming, and in **Poland** for farmers using organic methods of cultivation. These countries also apply regulations on and certification of organic products, which may help to develop specific markets by providing price premiums for these products. For agricultural markets to function properly, support to organic producers needs to be limited to measures helping them to move from conventional farming practices to organic farming practices, for which a transitional adjustment period of 3-5 years is often necessary.

New policy packages have been introduced in some countries

The **European Union, Japan, Korea and Switzerland** introduced new policy packages that aim to deal with agricultural, environmental and rural development objectives in a more integrated way. It is too soon to assess the effects of these new policies, especially on international trade. The OECD is working on analysing and evaluating policy developments in Member countries with the aim of helping policy-makers to design and implement “good” policy practices. Such practices may be necessary to correct market failures, provide public goods and improve welfare. But they must be designed carefully so as to avoid leading to an even lower level of welfare than with no intervention. In particular this can be the case if policy actions “lock in” a structure and pattern of farming that impedes adjustment to meet changing demands, or because asymmetric information (farmers know more about their business than policy makers) leads to changes in farmers’ behaviour (moral hazard).⁷ And the administrative costs of implementing and monitoring policies well-targeted to specific outcomes can also be high.

4. UPDATE ON KEY POLICY ISSUES

A new round of agricultural trade negotiations

In 1987, Ministers meeting at the OECD agreed to a process of agricultural policy reform. The main principles underlying that reform were the need to allow a greater role for market signals in determining production and consumption decisions and the desirability of devising non-trade-distorting policy instruments to achieve objectives related to structural adjustment, low incomes, the environment or other predominantly domestic concerns. In the previous year the Uruguay Round of GATT multilateral trade negotiations had been launched, with its commitment to “a progressive reduction of assistance to and protection of agriculture”. The general background was one of considerable tension in agricultural trade, historically high levels of subsidies and protection and very low world prices.

The Uruguay Round was completed in 1994 with the signing of the Marrakech Agreement creating the World Trade Organisation (WTO) and incorporating agreements in a number of sectors and areas, among them agriculture. The Agreement on Agriculture (URAA) was widely hailed as one of the major achievements of the round. Through it, the sector was to be integrated for the first time into the multi-lateral trading system. All non-tariff trade barriers were to be converted to tariffs (tariffication), restrictions were imposed on the use of export subsidies, and the most production- and trade-distorting domestic support was subject to reduction.

Analysts of the agreement concurred at the time that it involved fundamental and systemic changes likely to be of enormous significance in the longer term. However, it was felt for many reasons that the agreement was not likely to generate significant market opening in the short- to medium-term. Moreover, to the extent that market access was likely to improve, it would be through the complex set of tariff-rate-quotas (TRQs) that had been set up within the framework of the Agreement.

As indicated in Chapters 2 and 3 of this report, and as reported in depth in earlier editions, the decade from 1987 has been one of gradual and sometimes significant reform, although with wide variations across countries. However, much of the reform occurred, or had been put in motion, prior to conclusion of the Uruguay Round. It was often unilateral, motivated by considerations that were not directly trade-related or that went beyond purely sectoral concerns, or both. Broad domestic deregulation was sometimes the catalyst. Budget pressures and a desire to improve the distributional consequences of domestic policies, within and between sectors, were important factors in some countries. In many cases, reform was facilitated by strong market conditions, which allowed governments to act to reduce support and deregulate markets.

In some cases reform led to significant reductions in support, in others it was characterised more by a change in the way support was delivered (generally away from price support to direct payments) with only marginal changes in the overall level of transfers. It is difficult to attribute a specific role to the terms of the URAA itself. Preliminary results from an in-depth study currently underway at the OECD indicate that TRQs are generally under-filled, and with few exceptions little, if any, over-quota trade is occurring in previously highly protected commodities. The URAA disciplines on domestic support, as expressed through the WTO's aggregate measurement of support (AMS), have not had a significant effect on most countries' support programmes: those AMSs notified so far have been well below what is permitted. This reflects the nature and extent of the disciplines agreed upon in Marrakech, as well as the policy reforms which took place before and since implementation of the Agreement. As far as the discipline on export subsidies is concerned, it did not constrain exports of several important commodities during the first years of the implementation period, mainly because world prices were high

in 1996-97. However, as world market prices have dropped significantly since then, the levels of export subsidies have started to approach their upper limits.

OECD Agriculture Ministers, meeting in March 1998, adopted a set of principles including a “reaffirmation of support for Article 20 of the URAA,⁸ and the commitment to undertake further negotiations as foreseen in that article and to the long-term goal of domestic and international policy reform to allow for a greater influence of market signals”.

The last two years have seen support levels return to the very high levels experienced in the mid-1980s when the UR negotiations began. The support increases derive from two factors: a series of special, *ad hoc* or emergency measures, and a significant increase in transfers delivered through automatic mechanisms. Among the latter, market price support has been important, as have mechanisms that trigger price-related payments when prices fall below certain predetermined levels. The rise in market price support in particular, mainly due to domestic prices remaining unchanged or even rising when world prices fell, is evidence that significant barriers still exist to the transmission of world price changes to domestic markets. Many of the measures that have contributed to the recent upsurge in support have direct production and trade effects. Others may alter farmers’ future production decisions more indirectly through their effects on risk perception, wealth, and through the expectations they create about future policy interventions by government. These measures are, for the most part, permitted within the framework of the URAA.

Following the failure to launch a comprehensive new round at the Seattle Ministerial meeting in late 1999, the WTO General Council, meeting in Geneva in February 2000, agreed on a procedure for the launch of the already mandated agriculture negotiations. It is envisaged that these will occur in special sessions of the WTO’s Agriculture Committee beginning in March. No deadline for completing the talks has been established, nor have many other aspects of the negotiating procedures.

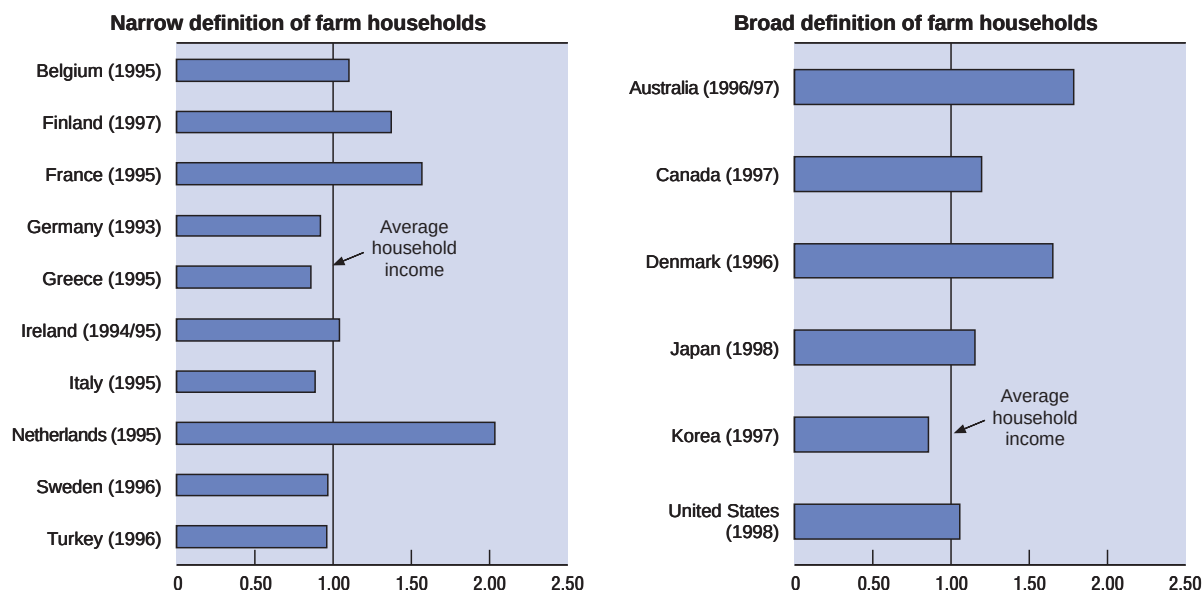
The developments of the last few years underline the importance of the new negotiations. There have been many examples of countries raising tariffs and increasing spending on export measures while still remaining within the terms of their existing commitments. Overall, support to producers as measured by the %PSE has returned to the same levels as when the negotiation process was begun, although there have been some shifts in the way support is delivered – namely, by the greater use of direct payments. New policy issues, in areas such as the environment, rural communities, food quality and safety, and food security are becoming increasingly prominent, with possible consequences for trade. It is, therefore, imperative that integration of the agricultural sector into the multilateral trading system be strengthened in ways that would not permit renewed recourse to trade-restricting actions and to potentially distorting domestic measures whenever markets weaken. Finding ways to reconcile the international disciplines essential to further trade liberalisation with the preoccupations of civil society and with legitimate domestic policy interests will be crucial to realising the global benefits of freer trade in agriculture.

The effects of agricultural support on income distribution

Concerns about the effects of government transfers on income distribution in the agricultural sector have risen as the shift from market price support to budgetary payments has made transfers more visible, and as tighter budget constraints require trade-offs to be made. These concerns relate to the distribution of support among farms of different sizes and types, and among regions; the equitability of agricultural support; and the cost-effectiveness of transferring income to targeted populations. A further issue, which was addressed in an earlier OECD study,⁹ concerns the distribution of incomes between sectors. This study found that, in many countries, agricultural households have incomes on average equal to, or higher than, in other sectors or in the population as a whole, when all sources of income are taken into account (Figure I.12), though pockets of low income households exist in specific sub-sectors or regions.¹⁰

A recently published OECD study examines the distributional effects of agricultural policies in the mid-1990s.¹¹ For a selection of OECD countries with a diversity of structures and policy measures, it analyses the distribution of support – direct payments and market price support – between farms

Graph I.12. **Total income of agricultural households as a proportion of the average income of other households**



Notes: For the purposes of this graph, the distinction between a narrow and a broad definition of farm household income has been made based on various criteria, particularly those used by national statistical authorities to define "household" (does it include grandparents and adult children, for example?) and to classify a household as agricultural (*e.g.*, does it require a minimum share of farm income or hours worked in farming to be considered a farm household?). In most countries, the total income of agricultural households is compared with the average income of all households, except in Japan (workers' households income) and in Korea (urban household income). The definition of farm households and the incomes taken into account vary by country (see source). In Australia, agricultural data cover only broadacre industries.

Source: OECD, *Distributional Effects of Agricultural Support in Selected OECD Countries*, [AGR/CA(99)8/FINAL], 1999, <<http://oecd.org/agr/publications/index1.htm>>.

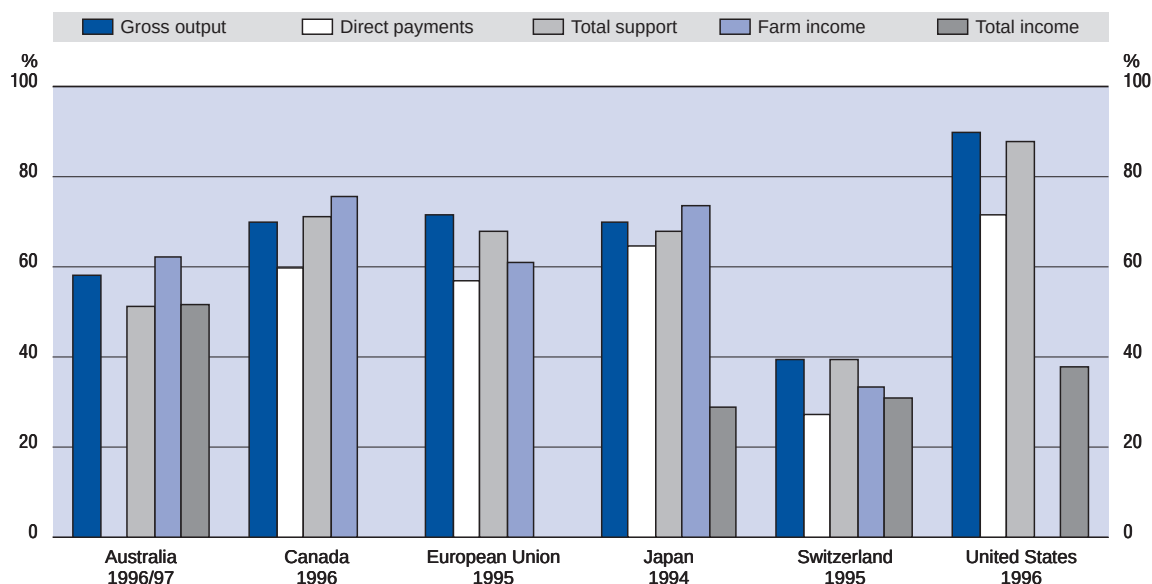
grouped according to economic size, type of production and region. Comparing the distribution of support with that of output and income, the study evaluates agricultural policies with regard to the operational criteria of equity and targeting, identified by OECD agricultural ministers at their meeting in March 1998.

Two OECD databases were used to carry out the study. The structural indicators database contains information on output, direct payments and incomes for particular types of farms grouped into quartiles based on gross sales. Estimations of Market Price Support for a number of commodities are drawn from the Producer Support Estimate database. Various indicators of concentration and dispersion are calculated.

The analysis shows that the distribution of support is close to the distribution of output, with the largest, and hence the most prosperous farms, being the main beneficiaries (see Figure I.13). In this sense, support is inequitable. Nonetheless, in most countries, support overall has a slight redistributive effect on income among farms of different sizes. On the other hand, support tends to increase income disparities between farm types. On average, direct payments are more equally distributed than market price support and output, but the difference is small. In all cases, taking non-agricultural incomes into account reduces the income difference across farms by size, type and region.

In some countries, the fact that support as a whole is concentrated on the largest farms could well reflect an implicit policy objective promoting increases in farm size. Small farms receive only a small proportion of the total although they are more dependent on support than large ones. Despite the existence in some countries of payments that are targeted to smaller farms, their share in total support is too small to influence the overall distribution.

Graph I.13. Contribution of the largest 25 per cent of farms to the total in selected OECD countries



Notes: Total support is equal to direct payments (contained in the structural indicators database) plus market price support derived from the PSE database. In the case of Australia, net operating income is used as an indicator of farm income. Total income is the sum of farm income and non-farm income of farm households.

Source: OECD structural database and PSE/CSE database.

Even if, broadly speaking, agricultural policy objectives with regard to incomes seem to be reached, it is not evident that it is due to government support. In any event, production-linked support is not cost-effective or equitable¹² as a means of maintaining or enhancing farm household income. In particular, the transfer efficiency¹³ of market price support with respect to income is relatively low, much of it being used to purchase inputs, or capitalised into asset values (thus raising production costs over time).¹⁴ Similar conclusions could be drawn for support that has a significant impact on production. In addition, providing support, the bulk of which goes to the largest farms, in order to limit the incidence of low incomes in the sector, is much more expensive than providing income supplements only to those households that do not attain a certain minimum income level. In fact, in some cases income will be transferred from lower-income consumers and taxpayers to higher-income farm households. In order to reduce income disparities in the sector, measures targeting farms with low incomes would be more cost-effective. Overall, this study implies that targeted social policies would be much more appropriate as a way of limiting the incidence of low incomes among farm households.

The above results relate to the policies in place for the years covered by the analysis. The distributional effects of subsequent reforms have not yet been analysed. However, recent measures contain few features or conditions that a priori would be expected to change the distribution of support significantly.

Agriculture and sustainable development

The matter of whether agriculture is contributing positively to sustainable development, and how to improve that contribution, continues to be a major focus of international discussions. In the year 2000, it will feature prominently at the 8th session of the United Nations' Commission on Sustainable Development (CSD), which will convene in New York from 24 April to 5 May 2000.¹⁵ OECD Member countries, most of whom participate in the CSD process, regard sustainability as a central aim of their agri-environmental programmes. The OECD has itself undertaken various studies related to sustainable

development, and agriculture's role in it, most recently in connection with the Organisation's three-year horizontal project on sustainable development. The final report¹⁶ of this project will be presented to the OECD Council, meeting at Ministerial level, in the second quarter of 2001.

The concept of sustainability derives from the scientific literature, where it referred originally to the management of a natural resource consistent with the preservation of its reproductive capacity. With the addition of the word "development" it has since acquired a broader meaning, and refers to the use of resources – *i.e.*, stocks of capital: human and manufactured, as well as natural – in ways that "meet the needs of the present without compromising the ability of future generations to meet their own needs."¹⁷ In short, it requires that the capacity to generate non-declining per-capita welfare be maintained over time.

The need for agricultural capacity to be maintained is incontrovertible. The three billion extra people expected to be added to the planet's population by mid-century will need land to live on, and clean water to drink, creating pressure on the very same resources on which agriculture depends. Feeding them will require continuing increases in yields, and reductions in distribution losses. At the same time, the food will have to be safe and nutritious, and its supply secure. Resources used for producing food will also be in competition for those used traditionally to supply a wide variety of non-food items, most notably fibres, skins, biomass for energy, and medicinal plants. Technological developments have both expanded the range of products that can be supplied by agriculture (*e.g.*, biodegradable plastics), and the quality of non-agricultural substitutes (*e.g.*, glues). Demand for these non-food items is almost sure to grow strongly, though the extent to which they will be more economically produced on, or of higher quality from, farms is more uncertain. Meanwhile, many people will, as now, look to agriculture to contribute to the provision of various non-commodity goods and services, such as an aesthetically pleasing landscape, flood control, carbon sequestration, and habitat for wildlife – and in addition respect animal welfare norms, avoid off-farm pollution, and leave space for wetlands and other non-agricultural ecosystems.¹⁸

A central question, therefore, is: can these demands be satisfied, without at the same time undermining the resource base on which agriculture depends? Certainly, there are technologies available that could increase yields substantially, and further advances can be expected. New information technologies in particular have enabled nutrients and pest control agents to be applied with greater precision, and new varieties of crops to be tailored to individual farms' specific requirements. These techniques also hold the potential to reduce soil degradation and off-farm pollution.

Still, the problems of soil degradation, loss of genetic resources and water pollution and depletion (through both agricultural and other activities) have by no means disappeared. What matters is whether such degradation is reversible, or can be overcome by improvements in technology at an acceptable cost. Some changes in soils, for example, are more reversible than others. Self-induced forms of degradation – especially erosion – if not checked may have serious implications for sustainability; others, such as moderate changes in soil structure or chemistry, may be reversible if caught in time. In many areas of the OECD, however, shifts in land use are causing dramatic changes in soil productivity, with urbanisation responsible for the most irreversible changes. Unfortunately, while data are reported on the amount of land lost to urbanisation, information on the quality of the converted land is scarce. Insufficiency of data is a general problem in assessing whether the sector is converging towards a sustainable path (Box I.6).

Despite lacking a single metric for measuring progress towards sustainability, Member governments are devising programmes and policies that they regard as having a high probability of increasing the environmental sustainability of their agricultural sectors. Many, for example, are encouraging the adoption of particular agricultural practices that are deemed to reduce pollution, use natural resources more efficiently, or protect or improve the ability of farmland to support non-farmed flora and fauna.¹⁹ Research, advice, training and other capacity-building activities often comprise important elements of these programmes. Direct incentives, in the form of taxes and payments, are also starting to be used to influence agri-environmental outcomes.²⁰

But despite these initiatives, other government policies, both agricultural and non-agricultural, continue to exert a profound influence on the size, location, output mix and environmental performance of the agricultural sector, especially in those OECD countries that provide high levels of output- and input-linked support. Putting agriculture on a more sustainable path will require policy makers to

Box 1.6. Improving information on sustainability – the role of indicators

While the production and demand functions for traditional agricultural commodities are well-understood, the same cannot be said for other goods and services produced by agricultural activities or from agricultural land, or the relationships between agricultural production and environmental impacts. Measuring both the positive and the negative environmental effects of agriculture is important for guiding policy, but often the effects that matter are local in nature; the challenge is to find those indicators of environmental change that convey the most information at least cost.

As a first step towards meeting this challenge, OECD Member countries have started to develop a set of agri-environmental indicators and to collect the data needed to construct them.* Some of those relating to the pressure agriculture is exerting on the environment were presented in the 1999 edition of this report. A longer-term goal of most countries is to be able to correlate such indicators with ones that measure changes in the state of the environment and to link both with indicators that describe changes in policy-influenced variables, such as farm-management practices.

To be useful for policy analysis and design, however, indicators must ultimately be able to be linked back to policies – those that affect prices received for outputs or paid for inputs, as well as environmental policies. A complete model of such interactions would need also to take into account other factors that influence farm management practices (*e.g.*, developments in technology), the resources used by agriculture (*e.g.*, droughts and other climatic events), and consequent environmental and social impacts (*e.g.*, adjacent land-use changes). For now, the OECD's current work aims more realistically at creating indicators that are robust enough to indicate general trends, or signal problem areas, and in some cases to serve as inputs into small-scale policy models.

* See the OECD publications: *Environmental Indicators for Agriculture* – Vol. 1: Concepts and Framework, 1997 (reprinted in 1999); and Vol. 2: Issues and Design – The York Workshop, 1999; and Methods and Results – The Stocktaking Report, 2000, forthcoming.

review and, in many cases modify, not only these traditional approaches to supporting agriculture, but also some of the policies, such as those in the sphere of land-use planning, that are not normally or exclusively identified with the sector.²¹ And because policy changes will, undoubtedly, have consequences of a social nature, they will need to plan for such changes so that longer-term – as opposed to costly emergency and *ad hoc* – measures can be used to smooth the adjustment path and minimise the chances of economic and social dislocations.

This need to take a wider view of the economic, social and environmental interactions between agriculture and other human activities underscores one of the basic messages that is emerging from the OECD's three-year project on sustainable development: namely, that sustainability issues in any single sector – agriculture not the least – cannot be addressed in isolation from those in other sectors, and that policies and market-based solutions for agriculture need to be consistent with those promoting overall sustainable development.

Food safety and biotechnology

As highlighted in the 1999 report, public demands for improved food safety have gained momentum across many OECD countries in recent years. That momentum, if anything, increased in 1999, and governments continue to respond with policy and regulatory initiatives. Increasingly, the focus is on the use of modern biotechnology – especially the genetic manipulation of crops and livestock – in the production of food and animal feed.

Modern biotechnology and scientific uncertainty

Traditionally, regulatory oversight in the food sector had focused on such matters as residues, contaminants, processing aids, packaging materials, labelling. Increased use of modern biotechnology (GMOs) and novel technologies (food irradiation; enzyme additives), have directed additional regulatory attention on the technological processes to which foods have been subjected.

To address the problem of assuring the safety of novel foods, including those derived through modern technology, the FAO, WHO and the OECD in the early to mid 1990s developed the concept of **substantial equivalence**. An important objective of the concept is to establish a standard of safety that is comparable to that for traditional foods. The interpretation of “substantial equivalence” with respect to genetic modification differs among stakeholders. In his report on the OECD’s recent Conference on the Scientific and Health Aspects of Genetically Modified Foods, hosted by the UK Government in Edinburgh from 28 February through 1 March 2000, the Chair of the Conference, Sir John Krebs, applauded the fact that international bodies, including the OECD, are working to achieve consistent standards and criteria for assessing food safety. Among his recommendations was that a review be undertaken of the concept of “substantial equivalence”. Such efforts are currently underway through the Codex Ad Hoc Intergovernmental Task Force on Foods Derived from Biotechnology and the OECD Task Force for the Safety of Novel Foods and Feeds, which is seeking to strengthen the existing common set of principles and information, including “substantial equivalence”.

Many consumer and environmental interest groups, promoting a “better safe than sorry” approach, argue that more precaution should be applied to food safety risk management. That is, additional measures should be taken to avoid injury in circumstances of scientific uncertainty. How to deal with scientific uncertainty is currently being debated in several OECD countries and at the international level but there is neither agreement on the definition of precautionary approaches or principles or on how it should be applied. The OECD *ad hoc* Group on food safety will prepare a compendium of current and planned national food safety systems and activities, based on reports from Member countries, in which countries have been invited to indicate how they deal with scientific uncertainty and other legitimate factors (Box I.7).

Box I.7. The G8 request on biotechnology and other aspects of food safety

The G8 Heads of State and Government meeting in Cologne, June 1999 invited the OECD “to undertake a study of the implications of biotechnology and other aspects of food safety”. In responding to this request and the broader programme of work on biotechnology endorsed by OECD Ministers in May, the OECD Council agreed on a programme of work that would include the following five elements:

- a report on the safety assessment of novel foods and feeds;
- a report on related environmental issues;
- a compendium describing national and international food safety systems and activities;
- a report on the results of an OECD consultation with non-governmental organisations (NGOs), which was held on 20 November 1999; and
- an OECD conference on GM Food Safety: Facts, Uncertainties and Assessment, which was hosted by the UK in Edinburgh on 28 February-1 March 2000.

A precautionary approach or principle is recognised in several international agreements, including the WTO Sanitary and Phytosanitary Agreement. Article 5.7 of the SPS Agreement indicates that “In cases where relevant scientific evidence is insufficient, a Member may provisionally adopt sanitary or phytosanitary measures on the basis of available pertinent information, including that from the relevant international organisations as well as from sanitary or phytosanitary measures applied by other Members. In such circumstances, Members shall seek to obtain the additional information necessary for a more objective assessment of risk and review the sanitary or phytosanitary measure accordingly within a reasonable period of time.”

However, some consumer groups argue for a much broader interpretation when they refer to precautionary approaches or principles, suggesting that there may be a fundamental ambiguity between the expectations of certain groups in society and practical measures.²² On the other hand, many experts believe it is essential that risk assessment remains separate from risk management in order to maintain

the credibility of a science-based risk analysis process and that application of a precautionary principle would be more easily resolved in the context of an established, comprehensive risk analysis process in which communication, transparency, and stakeholder participation form integral elements from the beginning of the process.²³

Evolving food safety systems in OECD countries

Nearly all OECD countries have recently made, or are in the process of making, changes in their food safety regulations.²⁴ Several have enacted new laws that mandate a single or dominant agency for food safety. In most of these cases these new laws represent efforts to streamline government functions, reduce the number of agencies, and make the system more responsive to consumer desires. At least two countries, Canada and Ireland, have formed a single agency responsible for food safety. Other countries, such as France and Denmark, have created a primary food safety agency, though other agencies will also contribute their expertise to the food-safety arena.

Still others, such as the United States, are making a substantial effort to develop co-ordinating structures that will link together the several food safety agencies and create a more functional network to ensure a safer food supply to the consumer. On 7 January 2000, the US President's Council on Food Safety issued a preliminary Food Safety Strategic Plan for public review, covering all three areas of risk analysis: risk assessment, risk management and risk communication.²⁵ For some countries, especially the geographically larger ones such as the United States and Canada, there is also a significant effort to improve the linkage between the federal and state- or provincial-level agencies responsible for food safety.

EU member States have based their food safety laws or regulations on existing EU directives. An EC White Paper on Food Safety, released 12 January 2000, proposes the establishment of an independent European Food Agency that would provide scientific advice, rapid alert systems, dialogue with stakeholders, and networking with national agencies.²⁶ Most countries have utilised the international standards, such as those promulgated by the *Codex Alimentarius*, for guidance in developing their regulations. In the European setting, this approach facilitates intra-EU trade in food products, as all countries have adopted similar standards. But there are some exceptions. Finland, Norway (under the EEA-Agreement) and Sweden, for example, negotiated to maintain standards for *Salmonella* control that are higher than the general EU standard.

Recent reforms often represent an attempt by governments to look at the entire food system as a unit, rather than as fragmented parts. Each stage between production and consumption²⁷ is being given more attention, while still being viewed as integral parts of a larger system. In several countries, there is an increased emphasis on the production sector, with both research and educational programs focused on methods to reduce the prevalence of food-borne pathogens in the animal or plant production setting. While most countries encourage or educate producers in proper management practices, some countries exercise regulatory authority over management practices and methods in the initial production phase if they relate to the occurrence of food-borne agents. However, pesticide usage is a different situation with nearly all countries having specific rules on use of such chemicals.

To improve the control of food-borne pathogens at the production level, a common approach is to use voluntary guidelines, commodity group-enforced quality assurance (QA) programs, and educational programs targeted on Good Agricultural Practices (GAPS). An example of this approach is the publication of "A Guide to Minimise Microbial Contamination of Fresh Fruits and Vegetables" by the US Food and Drug Administration. This guide is now being coupled with an organised educational program utilising the Co-operative Extension Service and other avenues for delivery of educational materials to the growers. It has involved a collaborative effort among government agencies, industry, and grower organisations.

An outcome of looking at the entire food system is to foster implementation of QA programs throughout the food chain, rather than just monitoring the end product. The use of HACCP programs in processing plants and in other parts of the system where food could be exposed to pathogens has increased rapidly within the past few years, with much of the responsibility for ensuring food safety shifted to the manufacturer and processor. A similar increase in surveillance or monitoring programs for detection of human illness has also occurred. The increased surveillance has allowed public health authorities to be more aware

of the true level of food safety problems. At the same time, it has sometimes generated unease among the general public, as they learn more about the nature and numbers of food-borne illness outbreaks; an apparent increase that may in some cases only reflect improved surveillance methods.

With the rising level of public concern over food safety, it has become more important for government and industry participants to be more open in their communications with the public. Lack of clear and consistent information in general, and at the time of an outbreak of food-borne illness in particular, only further reduces public confidence in the food safety system of a country.

NOTES

1. See OECD *Agricultural Outlook* 2000-2005.
2. An in-depth evaluation of long-term trends in agricultural policy reform is available in the background document for the March 1998 meeting of the Committee of Agriculture at Ministerial level, *Agricultural Policy Reform: Stocktaking of Achievements*, Paris 1998, and in the previous edition of this report, *Agricultural Policies in OECD Countries: Monitoring and Evaluation* 1999, Paris 1999.
3. To achieve their policy objectives, many countries have public agencies (for example certain marketing agencies in Europe, the CCC in the United States and commodity boards in Australia, Canada and New Zealand) involved in the marketing of domestic production, often implementing administered or protected domestic prices with specific monopoly control over imports or exports of agricultural commodities.
4. The consumer NAC for a specific commodity includes the gap between the domestic and border prices and consumer subsidies. When these subsidies exist, the consumer NAC under-estimates the gap between (higher) domestic and (lower) border prices. Moreover, when the price gap for the quantities imported is lower than the one for quantities produced, the consumer NAC does not measure the gap between the producer and the border price (at farm gate), which is the gap that influences farmers' decisions of production.
5. An *ad hoc* Group on food safety was established in the OECD, with an initial mandate to the end of July 2000, for the purpose of identifying what is being done at the national and international levels to address current and emerging food safety issues.
6. A major focus of current and future work in the OECD is the measurement of environmental performance and the evaluation of such policies with a view to defining the characteristics of "good policy practices", in ways to ensure efficient, sustainable agricultural production compatible with multilateral trade and trans-boundary agreements.
7. The phenomenon of moral hazard refers to the risk that the expectation of a change in policy will cause an agent (*e.g.*, a farmer) to alter his or her behaviour so as to benefit from the change in policy.
8. Article 20 reads as follows:
Recognising that the long-term objective of substantial, progressive reductions in support and protection resulting in fundamental reform is an on-going process, members (of the WTO) agree that negotiations for continuing the process will be initiated one year before the end of the implementation period, taking into account:
 - the experience to that date from implementing the reduction commitments;
 - the effects of the reduction commitments on world trade in agriculture;
 - non-trade concerns, special and differential treatment to developing country members, and the objective to establish a fair and market oriented agricultural trading system, and the other objectives and concerns mentioned in the preamble to the Agreement; and
 - what further commitments are necessary to achieve the above mentioned long term objectives."
9. OECD, "A review of farm household incomes in OECD countries", in *Adjustment in OECD Agriculture: Issues and Policy Responses*, OECD Publications, Paris, 1995.
10. These effects can be captured by using a Social Accounting Matrix (SAM). A recent SAM-based study of Turkey, for example, found evidence to suggest that rural incomes are generally lower than urban incomes in that country, but found no evidence that farm households are typically poorer than non-farm households in either rural or urban areas. Even though the measures of farm income used included the effects of government support, the results suggest that agriculture-specific policies miss a large number of households who would qualify for support under a minimum income criterion. See Brooks, J.C. and A. Tanyeri-Abur, *Agricultural Policy Reform in Turkey: A Social Accounting Matrix Perspective*, Agricultural Economics Research Institute, December, Ankara, 1999.
11. OECD, *Distributional Effects of Agricultural Support in Selected OECD Countries* [AGR/CA(99)8/FINAL], 1999.
12. It should be noted that agricultural policies have multiple objectives and that distributional equity is not always one of them.

13. That is to say, the ratio of the net benefit to the intended recipient, as a proportion of the total cost to government.
14. OECD, "Assessing the relative transfer efficiency of agricultural support policies", in *Adjustment in OECD Agriculture: Issues and Policy Responses*, OECD Publications, Paris, 1995.
15. In advance of this meeting, most Member countries have updated the sections on agriculture in their national reports – go to <http://www.un.org/esa/agenda21/natlinfo/agenda21/issue/natur.htm-agri>.
16. A first Progress Report on the three-year project was prepared for the Ministerial Council Meeting of May 1999, and is available on-line at <http://www.oecd.org/subject/mcm/1999/pdf/totrev4.pdf>.
17. World Commission on Environment and Development, *Our Common Future* (the Brundtland Report), Oxford University Press, Oxford, UK, 1987.
18. Policy makers will have to be prepared to make trade-offs: one can seldom maximise both agricultural output and wildlife habitat on the same land, for example.
19. Several of these practices were described in Box I.3 in the 1999 edition of this report.
20. Environmental effects of agriculture that arise because of market failures and that involve public goods (or club goods) require special considerations when designing agri-environmental policies. The OECD is currently working on developing principles and criteria for policy-making in this area.
21. Not all market failures in agriculture may necessarily be improved by government intervention. Some problems may be dealt with more effectively through community-led collective action. See OECD, *Co-operative Approaches to Sustainable Agriculture*, Paris, OECD Publications, 1998.
22. In November 1999, the OECD held a one-day consultation with a wide range of non-governmental organisations to seek their views on biotechnology and other aspects of food safety. A summary of these discussions is available at: <http://www.oecd.org/subject/biotech/ngoconsultation.htm>.
23. This view was expressed, for example, by the EU Committee of the American Chamber of Commerce, *EU Committee Position Paper on a Comparative Risk Analysis Process*, Brussels, 9 September 1999.
24. This section is abridged from the report, *Comparative Analysis of AKS Approaches in Addressing Problems Related to Food Safety in OECD Member Countries*, prepared by Dr. William Wagner, Executive Director, Joint Institute for Food Safety Research, US Department of Agriculture, OECD (forthcoming), [Proceedings of the OECD Agricultural Knowledge System Conference, Paris, January 2000], OECD Publications, Paris, 2000. That report itself summarises individual reports from 20 countries: Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Hungary, Iceland, Ireland, Italy, Japan, Korea, Mexico, the Netherlands, Norway, Poland, Portugal, Spain and the United States.
25. President's Council on Food safety, *Preliminary Food Safety Strategic Plan for Public Review*, Washington DC, 7 January 2000.
26. Commission of the European Communities, *White Paper on Food Safety*, IP/00/20, Brussels, 12 January 2000.
27. That is to say, processing, storage, handling and transport.

Part II

BACKGROUND INFORMATION

BACKGROUND INFORMATION

1. AGRICULTURAL POLICY DEVELOPMENTS

This part of the report, which follows a standard format, provides detailed background information on the agricultural policies of each OECD country. The main policy instruments in operation in each country during 1999 (even if they were not actually used in that year) are described, followed by a summary of the changes in the level and composition of support to agriculture. Developments in domestic agricultural policies during 1999 – especially those relating to changes in administered prices, direct payments, and programmes relating to food safety, the environment and rural development – are then reported. For the EU, additional information is provided on policy developments in each member State, concentrating on those implemented by the national authorities of those States. Developments in trade policy are described under a separate heading. A short, overall evaluation of these developments concludes each country chapter.

Note to readers: the term *producers* refers to producers of primary agricultural products (generally farmers, growers and ranchers) and the term *consumers* refers to first consumers of these primary products – *e.g.* mills, dairies and slaughterhouses – and *not* to final consumers. Numbers relating to 1999 should be treated as provisional. All changes in prices and expenditure data are expressed in nominal terms unless stated otherwise. This is important when interpreting monetary changes in countries which experienced general price inflation at an annual rate exceeding 5 per cent in 1999 – namely, Hungary (10.6 per cent), Iceland (5.6 per cent), Mexico (12.3 per cent) and Turkey (65 per cent).

Australia

Main policy instruments

Australian agriculture is supported through budgetary-financed general programmes and regulatory arrangements. Budgetary-financed assistance includes general programmes, such as Agriculture-Advancing Australia (AAA) and the Natural Heritage Trust (NHT) for structural adjustment and environmental purposes. Farmers, and some other consumers of diesel fuel, receive rebates on excise taxes for fuel used in off-road vehicles and machinery. Commonwealth¹ tax concessions smooth taxable income from one year to another and encourage investment in land and water conservation. Expenditure on research and development is financed from Commonwealth and State budgets, supplementing funds collected through special industry levies. Market milk is supported through state level statutory marketing arrangements, which allow producers to charge higher prices by joining together to limit competition. State level statutory marketing and regulatory arrangements also apply to some other commodities that enable pooling of returns. The scope to increase returns through these arrangements is limited by competition from imports, substitutes and the prospect of inter-State trade.

Market price support for milk accounts for a large share of total support. State governments set farm-gate prices for fresh milk and operate a mix of pooling and quota arrangements. Commonwealth marketing arrangements assist the producers of manufacturing milk used to make dairy products. The Domestic Market Support Scheme includes a levy paid by manufacturers on manufacturing milk. Manufacturers receive a rebate on milk used to produce dairy products for the export market and pass the levy on to consumers for products sold on the domestic market. The funds raised by the levy are used to assist producers of manufacturing milk. Monopoly export arrangements remain for wheat, barley (in

Queensland, South Australia, and Victoria), rice (in New South Wales), and sugar (in Queensland). All sugar produced in Queensland is vested in the Queensland Sugar Corporation which also controls domestic distribution of sugar.

Support to agriculture

Support to agriculture, as measured by the percentage producer support estimate (%PSE), declined from 8.1 per cent in 1986-88 to 6.8 per cent in 1997-99, with Australia continuing to have the second-lowest %PSE among OECD countries (Tables III.20-22, Figure III.2). In 1999, the %PSE is estimated to have been 6.4 per cent (down from 6.8 per cent in 1998), which is less than one-sixth of the OECD average. Although market price support (MPS) for milk fell, the fall was not enough to substantially affect the %PSE. The MPS for milk still accounted for about 40 per cent of total support to agricultural producers. The producer nominal assistance co-efficient (NAC) of 1.07 indicates that 1999 gross farm receipts (including support) were 7 per cent greater than they would have been without support.

The implicit tax on consumers associated with agricultural policies, as measured by the percentage consumer support estimate (%CSE), fell from 6.7 per cent in 1986-88 to 3.5 per cent in 1997-99. The %CSE thus shows that Australian domestic prices are closely aligned with world prices. Despite the reduction in MPS for milk, the %CSE remained roughly at the same level in 1999 – 3 per cent – as in 1998. This figure is about one-tenth of the OECD average. As indicated by the consumer NAC, consumers were implicitly taxed and paid on average 3 per cent more than they would have in the absence of market price support to producers. The general services support estimate for agriculture (GSSE) has increased by about 50 per cent since 1986-88, but its share in the total support estimate (TSE) has increased only slightly, reaching 30 per cent in 1999. Overall, transfers from taxpayers and consumers associated with agricultural policies, as measured by the TSE, were A\$ 2.7 billion (US\$1.7 billion) – less than ½ per cent of GDP and about the same level as in 1998.

Developments in domestic policies

The statutory Australian **Wheat** Board ceased to operate in July 1999 and its subsidiary company, AWB Ltd, became grower-owned and controlled. Government underwriting of the former Australian Wheat Board's borrowings, and the Wheat Industry Fund (WIF) and its levy, also ceased at that time. WIF equity was converted into shares to form the capital base of AWB Ltd., which now markets and finances the advance purchases of wheat and other grains independently of Government.

The former Australian Wheat Board's export control powers were transferred under legislation to the statutory Wheat Export Authority (WEA) on 1 July 1999. That legislation also grants AWB (International) Ltd. (a wholly owned subsidiary of AWB Ltd.) an automatic right to export wheat. The WEA may issue export permits to other persons wishing to export wheat, but AWB (International) Ltd. has a veto right over bulk export requests. The WEA is also responsible for monitoring and reporting on the benefits to growers of the export performance of AWB (International) Ltd. A review of wheat legislation is to be held under National Competition Policy principles before the end of 2000.

The Government estimates that the tariff-rate quota (TRQ) regime introduced by the United States to restrict **lamb** imports from Australia in the three years from July 1999 will cost the Australian lamb industry A\$ 35-40 million (US\$23-26 million) in total. To assist the lamb industry to cope with the impact of the US decision, the Commonwealth Government allocated A\$ 18-20 million (US\$12-13 million). This assistance package comprises levy relief, worth around A\$ 12-14 million (US\$8-9 million), with the Government paying half of the transaction levy applying to all lamb sales, and a Lamb Industry Development Program (LIDP) costing A\$ 6 million (US\$3.9 million). The LIDP will assist the Australian lamb industry in enhancing its performance, improving lamb quality, developing new markets and infrastructure, and encouraging on-farm productivity and innovation.

The A\$ 24 million (US\$15.5 million) **Pork** Industry Assistance Package, announced in 1999, comprises the A\$ 9 million (US\$5.8 million) National Pork Industry Development Program (NPIDP), an A\$ 8 million (US\$5.2 million) Pigmeat Processing Grants Program (PPGP), a A\$ 6 million (US\$3.9 million) Pork Producer Exit Program (PPEP) and a A\$ 1 million (US\$0.6 million) producer training programme

known as PorkBiz. Although the assistance package encompasses a three-year period, several programme elements have a shorter duration. The NPIDP is designed to improve the industry's competitiveness and boost market development. It funds projects in all segments of the supply chain, including domestic and export promotion and quality assurance. The A\$ 1.5 million (US\$1 million) National Networks Alliance Program (funded from the NPIDP) aims to facilitate the development of vertical and horizontal co-ordination in Australian pork production. The PGP provides grants to processors to stimulate investment in the sector and help address efficiency and productivity problems. The PPEP provides financial assistance for non-viable pork producers to exit the industry. The PorkBiz initiative is designed to improve business planning and the management of financial, human, and natural resources.

All states and territories have reviewed their systems for the supply of fresh *milk* and, with the exception of the Australian Capital Territory, have deregulated their post-farm-gate arrangements. All the States are currently considering deregulating their farm-gate supply arrangements as well. The Domestic Market Support Scheme is scheduled to terminate on 30 June 2000. The Commonwealth Government has announced a A\$ 1.8 billion (US\$1.2 billion) structural adjustment package to compensate milk producers for the industry deregulation *on the condition* that it is supported by all State governments and the industry. Under the proposal, farmers would be required to provide business viability statements before receiving aid through the package. Individual farmer entitlements would be based on 1998-99 milk deliveries, with payments disbursed over eight years. Exit payments would also be available for farmers who choose to leave the sector. The initiative is to be funded through a levy on all *retail* milk sales over the next eight years; the effect of this levy on retail milk prices may be offset by lower farm-gate prices following deregulation.

In July 1999, **Wool** International was converted from a statutory authority to a private company, WoolStock Australia Ltd., which is responsible for managing the wool stockpile on a purely commercial basis. WoolStock Australia Ltd. is owned by woolgrowers, who have been issued with shares in the company based on individual equity in the stockpile.

At the end of 1998, the Commonwealth Government established a Future Directions Taskforce to report on initiatives with the potential to deliver a viable and sustainable future for Australian woolgrowers. The Taskforce's recommendations, released to Government and industry in July 1999, challenged industry participants to assess their prospective viability as wool producers against objective business criteria and to reconsider their future involvement in the industry. The Taskforce also found that the industry would be better served by collective R&D and marketing arrangements that were more commercially focussed, and that ownership of any related structures should be vested with levy payers. The Government is planning to revise industry arrangements pending the results of a voluntary ballot of Australian woolgrowers in March 2000, which canvassed industry views on prospective options for R&D and marketing services and associated rates of levy.

Farmers will continue to receive a full *diesel fuel rebate* for off-road use under the amended Diesel Fuel Rebate Scheme,² effective 1 July 2000. They may also benefit from extension of the rebate scheme to some other diesel-like fuels, such as light fuel oil and bunker fuel. Under the new rules, farmers can obtain grants under the Diesel and Alternate Fuel Grants Scheme (DAFGS) for fuel used to transport goods on public roads. The DAFGS will operate from July 2000 to June 2002. In addition to fuel rebates and grants, farmers, like all businesses, will be eligible for refunds of the Goods and Services Tax (GST) on inputs and services, such as fuel, stock feed and veterinary expenses.

Water reforms continue under the 1994 framework. They were originally scheduled to be completed by 2001 but are now expected to be substantially completed by 2005. These reforms include: full-cost-recovery water pricing; establishing secure access to water separate from access to land; provision for permanent trading in water entitlements; specific provision of water for the environment; water service providers operating on the basis of commercial prices; improved institutional arrangements; and public consultation and education.

Implementation of various programmes under the Natural Heritage Trust (NHT) continued in 1999 (Table II.1). With a total funding of A\$ 1.5 billion (US\$1 billion) over six years, the NHT is the largest **environmental** scheme ever undertaken in Australia. Its main agriculture-related objectives are sustainable agriculture, natural resource management and conservation. In 1999, a new programme to rehabilitate the

Great Artesian Basin was announced.³ Some A\$ 32 million (US\$20.5 million) will be spent over five years on restoring ground-water pressure in the Basin. Funds will be used to extend existing programmes and encourage additional investments in bore maintenance and bore-drain replacement. It will also affect the water entitlement and allocation systems and regulatory and institutional frameworks in the Basin.

Table II.1. **Australia: expenditure on selected Agriculture
Advancing Australia and Natural Heritage Trust programmes relevant to agriculture and the rural sector**

Programme	Annual expenditure					
	1997/98		1998/99		1999/2000	
	mn A\$	mn US\$	mn A\$	mn US\$	mn A\$	mn US\$
Agriculture – Advancing Australia (AAA)						
Farm Business Improvement Programme (FarmBis)	0.0	0.0	3.6	2.3	17.9	11.6
Farm Family Restart Scheme	20.7	15.4	34.0	21.4	34.6	22.3
Rural Communities Programme and Rural Plan	0.0	0.0	5.5	3.5	12.3	8.0
Farm Household Support Scheme (transitional arrangement)	0.6	0.4	5.2	3.2	0.0	0.0
Farm Management Deposits Scheme	0.0	0.0	0.0	0.0	23.0	14.8
Rural Adjustment Scheme (transitional arrangement)	98.8	73.3	52.2	32.8	20.8	13.4
Exceptional Circumstances Relief Payment Scheme ¹	90.0	66.8	39.7	24.9	26.2	16.9
Natural Heritage Trust (NHT)						
National Landcare Programme	83.5	61.9	103.4	64.9	104.3	67.3
Murray Darling Basin	27.5	20.4	35.0	22.0	51.6	33.3
National Rivercare Initiative	5.7	4.2	14.3	9.0	24.6	15.9
Farm Forestry Programme	2.8	2.1	6.5	4.1	14.1	9.1
National Land and Water Resources Audit	2.4	1.8	11.3	7.1	12.0	7.7
National Weeds Strategy	1.3	1.0	1.6	1.0	12.8	8.3
National Feral Animal Control Programme	3.1	2.3	1.6	1.0	4.9	3.2
Advanced Property Management Planning	0.3	0.2	2.6	1.6	6.7	4.3
Total AAA and NHT expenditure related to agriculture	336.6	249.7	316.5	198.8	365.9	236.1

1. The figures for 1997-98 refer to expenditure under the former Exceptional Circumstances Scheme.

Source: Department of Agriculture, Fisheries and Forestry, Canberra, 1999.

Programmes under Agriculture – Advancing Australia (AAA) continued in 1999 (Table II.1). The AAA package aims to improve farm business risk management, the development of skills, and farm family welfare, as well as to facilitate *rural development and adjustment*. The AAA package was introduced in 1997 at a total cost of A\$ 525 million (US\$339 million) over four years.

A total of A\$ 17.5 million (US\$11.3 million) will be spent over two years to speed the introduction of comprehensive national legislation to regulate *gene technology* and to ensure a secure footing for the Australian *biotechnology* industry. To this end, a Ministerial Council for biotechnology was established.

Developments in trade policy

In November 1999, tariffs on a range of goods, including some agricultural and food products, were reduced to zero – going beyond Australia's commitments under the Uruguay Round. In calendar year 1999 tariff-rate quotas applied only to processed cheese, which was under-filled. No export subsidies were provided. The Productivity Commission commenced a review of Australia's General Tariff Arrangements, which includes all remaining agricultural tariffs. In the area of quarantine, Australia continues to maintain sanitary and phytosanitary standards, which reflect its relatively disease-free status. Import arrangements were changed, permitting imports for the first time of *fuji* apples from Japan, *ya* pears from Korea, and mangoes from the Philippines. Australia's food aid is expected to be reduced by 8 per cent in 1999-2000, to an f.o.b. value of A\$ 58 million (US\$ 37 million). The country was a party to two WTO *dispute settlement procedures* involving livestock products (see Part II.2).

Overall evaluation

Since 1986-88, Australia has increased the market orientation of its agricultural sector by narrowing the gap between domestic and world prices. The fall in support thus reflects the removal of import tariffs and of domestic monopoly pricing for sugar, the phasing down of assistance for manufacturing milk and tobacco, and the removal of government loan guarantees. Although support has not fallen at the same rate across all commodities and support for *milk* remains relatively high, overall support remains the second-lowest among OECD countries. Funding of the structural adjustment package to dairy farmers through a levy – one of the few significant policy announcements in 1999 – effectively means that consumer prices will remain above world market prices during the eight-year adjustment period. Payments based on input use have increased significantly since 1986-88, mainly mirroring increases in production. Recent changes in the Diesel Fuel Rebate Scheme – the main support element related to farm inputs – are likely to further increase this support to farmers. Programmes under Agriculture – Advancing Australia are designed to facilitate rural development and adjustment, and various programmes under the Natural Heritage Trust have encouraged farmers to play a more active role in natural resource management, to adopt environmentally sound farm management practices and to increase their ability to manage risks. Overall, the on-going policy reforms at the Commonwealth and State levels will continue to increase market orientation and improve efficiency but perhaps at a slower pace than what had been envisaged earlier.

Canada

Main policy instruments

Federal and provincial governments are jointly responsible for the implementation of agricultural policies. Provincial governments provide roughly half of total budgetary expenditure on agricultural measures. Supply management, price support and trade measures are the main support instruments in the milk, poultry and egg sectors. Income risk management programmes, involving funding from both federal and provincial governments and producers, apply to all agricultural commodities except those covered by the supply management system. The 1998-99 Agricultural Income Disaster Assistance Programme (AIDA) is a whole-farm income stabilisation programme that covers income from all agricultural commodities. National and regional adaptation programmes are being developed, with increasing attention being given to innovation, marketing, environmental protection, food safety, human resource capacity building and rural development.

Support to agriculture

As measured by the %PSE, support has declined over the past decade due to a marked reduction in both market price support and payments based on output, on area planted and on input use (Tables III.23-25, Figure III.3). However, in 1999 the PSE rose, mainly due to increased crop insurance and AIDA payments. The %PSE was 20 per cent – less than half the OECD average – compared with 18 per cent in 1998 (and 14 per cent in 1997). The producer NAC of 1.24 suggests that 1999 gross farm receipts (including support) were 24 per cent greater than they would have been without any support.

Since 1986-88, declining market price support is the main reason for the reduction in the implicit tax on consumers due to agricultural policies. At 17 per cent in 1999, the %CSE was 55 per cent of the OECD average. The CSE increased by 4 per cent in 1999 due mainly to a rise in market price support resulting from higher domestic prices and lower world prices. As indicated by the consumer NAC, consumers were implicitly taxed and paid on average 21 per cent more than they would have in the absence of market price support to producers. Government expenditures on general services to agriculture (GSSE) have been falling since the beginning of the 1990s and accounted for about 21 per cent of the Total Support Estimate (TSE) in 1999. Overall, transfers from taxpayers and consumers associated with agricultural policies, as measured by the TSE, are estimated at C\$ 7.36 billion (US\$5.0 billion), or 0.8 per cent of GDP.

Developments in domestic policies

No major policy changes were introduced in the *dairy sector*. The sector continues to be the least reformed and most heavily supported agricultural sector in Canada, accounting for over 40 per cent of Canada's total producer support and around 90 per cent of market price support. Industrial milk production continues to be restricted through the use of production quotas determined by the Canadian Milk Supply Management Committee. The Market Sharing Quota for the 1999/2000 dairy year was unchanged compared with the previous year. The federal dairy subsidy was cut by 25 per cent to C\$ 2.28 per hectolitre (C\$ 22.10 per tonne) and will be phased out over a five-year period from February 1998. The target prices for industrial milk were increased by 0.5 per cent to C\$ 55.82 per hectolitre (C\$ 541.50 per tonne) in February 1999; support prices for butter and skimmed milk powder were raised, respectively, to C\$ 5 467 and C\$ 4 525 per tonne. The resulting increase in the domestic price for milk exceeded the increase in the world price and, market price support for milk rose by 2 per cent.

No policy changes were implemented in the *poultry sector*. As a result of the formula used, the commercial quota for turkey in 2000-01 will be 0.7 per cent greater than that for the previous year. The quota for chicken was increased by 6.3 per cent in 1999 on an annualised basis.

Those producers of breeding *livestock* in designated areas of Alberta, British Columbia, Nova Scotia and Saskatchewan who had to sell all or part of their herds in 1999 due to drought, were made eligible for a one-year tax deferral on 1999 income from these sales.

To address farm financial problems resulting from low prices, an **Agricultural Income Disaster Assistance Programme (AIDA)** was announced in December 1998. AIDA is a two-year national programme (original funding of C\$ 900 million – US\$606 million) open to anyone who files income tax returns as a farmer and whose farm gross margin in 1998 dropped below 70 per cent of the average gross margin over the previous three years. A cap of C\$ 175 000 (US\$117 000) per participant is placed on federal payments. The federal share of the programme is delivered according to the same rules across the entire country. Similar existing provincial programmes guide delivery of the provincial share of AIDA. The provincial contribution could amount to C\$ 600 million (US\$404 million) as provinces are expected to share costs on the same basis as in the core stabilisation programmes (*i.e.* to provide 40 per cent of total expenditures). All provinces have agreed to participate in the programme. The AIDA programme was also modified late in the year to allow for advances on payments for 1999. These advances were based on 60 per cent of the estimated 1999 payment.

In November 1999, the Government of Canada announced a further C\$ 170 million (US\$114 million) to be made available to farmers under AIDA, mainly to allow farmers who had negative gross margins during the base period (and therefore do not qualify for normal AIDA payments) to receive payments for both 1998 and 1999. In January 2000, the Government, as part of a new disaster package, announced up to an additional C\$ 1 billion (US\$670 million) over two years to help Canadian farmers manage their market and production risks. As discussions with provinces are still on-going, it is not certain how these new funds will be provided. In addition, grain and oilseed producers in Saskatchewan and Manitoba will receive a one-time payment worth C\$ 400 million (US\$269 million) from the federal and provincial governments. Individual payments will be equal to a percentage of the first C\$ 125 000 (US\$84 000) of farmers' average eligible net sales.

Federal/provincial agreements govern the development, implementation and administration of risk management programmes (Net Income Stabilization Account (NISA), crop insurance and province-based companion programmes). In 1999, the federal and provincial governments made a number of changes to these programmes, mainly in response to the inability of many farmers in Manitoba and Saskatchewan to seed their crops because of heavy spring rain and floods, and to low farm income levels. Many of the programme changes apply to all Canadian farmers, while some are province-specific. They are financed through a reallocation of the existing farm safety-net funds. In Saskatchewan, C\$ 85 million (US\$57 million) of companion programme funds were used to increase NISA participant's accounts. In addition, the minimum income trigger was raised from C\$ 10 000 to C\$ 20 000 (US\$6 730 to US\$13 460) for an individual and from C\$ 20 000 to C\$ 35 000 (US\$13 460 to US\$23 560) for farm families.

Within the farm safety-net envelope, changes were also made to **crop insurance**. Seeding deadlines were extended in Saskatchewan and in Manitoba. An extra C\$ 25 per unseeded acre (US\$42 per hectare) was made available to all Saskatchewan producers enrolled in crop insurance who seeded less than 95 per cent of their normal acreage in 1999, increasing crop insurance payments up to C\$ 50 per acre (US\$83 per hectare). In addition, the deductible on coverage (i.e. the amount of loss that must be paid by the farmer) was reduced from 10 per cent to 5 per cent.

Future directions for farm income **safety nets** are still being discussed. Federal, provincial and territorial Ministers of Agriculture are expected to decide by mid-2000 on the next five-year framework agreement as well as the phasing in of its implementation.

The Government of Canada announced funding of C\$ 1.3 million (US\$0.87 million) for an initiative to encourage **environmentally sound practices in the livestock sector**. The first component (C\$ 1 million) will be matched by C\$ 2 million from the industry and will be spent on research and technology assessment and transfer. The second component involves developing an environmental certification system for the hog industry at the national level.

The Canadian Council of Grocery Distributors and the Canadian General Standards Board are launching a project to develop a Canadian standard for the **voluntary labelling** of foods derived from biotechnology.

The **Canadian Adaptation and Rural Development** (CARD) programme, launched in 1995 for a four-year period, will be continued into the next decade. The new adaptation priority areas will be innovation, marketing, environmental protection, food safety, human-resource capacity building and rural development. Under CARD, the Government has established industry-led Adaptation Councils in each of the provinces and territories of Canada to set priorities, to review, allocate funding and manage projects. Various national initiatives are being developed to address the six priority adaptation areas.

Developments in trade policy

In respect of URAA commitments, tariff-rate-quotas (TRQs) were filled for 16 out of 21 agricultural commodities during the calendar year 1998 and the marketing year 1998-99. Of the remainder, quota fill rates were 6 per cent for margarine, 83 per cent for cream, 33 per cent for wheat, 18 per cent for barley and 60 per cent for barley products. Canada was a party to several WTO **dispute settlement procedures** involving agricultural commodities (see Part II.2). In October 1999, the WTO Appellate Body ruled that Canada could continue limiting imports of fluid milk under its TRQ to cross-border purchases by Canadian consumers. This ruling followed a complaint by the United States. Another WTO panel upheld an earlier ruling that Canada's dairy industry pricing system, as it applies to milk used in some export products, amounts to an export subsidy and does not conform with Canada's export subsidy reduction commitments under the URAA. As a result of the Appellate Body ruling, it is expected that some adjustments will be required to certain aspects of Canada's dairy export practices. Following the WTO decision concerning the European Union's (EU) ban on beef produced with growth hormones, Canada received authority to retaliate against the EU and announced that, from August 1999, tariffs of 100 per cent would be imposed on certain imports. In November 1999, Canada and China signed a bilateral agreement on a wide range of market access issues related to China's entry into the World Trade Organisation (WTO). Canada's expenditure on food aid was reduced by 19 per cent in 1999, to C\$ 181 million (US\$122 million).

Overall evaluation

Over the last decade, Canada has increased the market orientation of its agricultural production. There has been a significant reduction in support and, for grains, there has been a shift away from commodity-linked market price support to budgetary financed measures that are based on income. Nonetheless, the dairy sector stands out as the highest supported sector in Canada in terms of market price support measures, resulting in significant distortions in resource allocation. No major changes have been made to supply-managed sectors in 1999, but administered prices for butter and skimmed milk powder were raised and the federal dairy subsidy was further cut. In 1999, support to farmers increased

for the second consecutive year, mainly because of higher budgetary expenditures to address farm financial problems due to low world prices. Although these payments are not linked to current input or output levels, they may affect production decisions in that they lead producers to expect that they will receive extra assistance whenever income falls. To this extent, they distort market signals. In fact, in 1999, NISA withdrawals declined while AIDA payments were increased and seemed to substitute to some extent for NISA withdrawals. This raises questions regarding the efficiency of NISA as a safety net.

Czech Republic

Main policy instruments

Support to agriculture is provided mainly through market price support. Price regulation focuses on bread-wheat and milk. In the case of bread-wheat, the State Fund for Market Regulation (SFMR) operates through forward-purchase contracts to provide advance payments to farmers before the sowing period, and intervention purchases at guarantee prices after harvest. In the dairy sector, processors are required to pay farmers a minimum price for milk in order to be eligible for export subsidies. However, the scheme for price regulation was changed during 1999 and, from April, the minimum-price scheme was applied to all marketed production. Milk production is also supported by headage payments to dairy cows with higher-than-average yields. The prices of other products – notably beef, pigmeat, poultry, sugar and oilseeds – are supported mainly through border measures. In addition to export subsidies for milk, potato-starch and pigmeat, the export of some other commodities is assisted by export credit subsidies. Credit subsidies and guarantees on loans from commercial banks, which are administered by the Support and Guarantee Fund for Farmers and Forestry (SGFFF), provide support to investment in agriculture. Tax concessions are accorded to farmers and the processing industry, the most important being for the production and sale of biofuel.

Under the *Krajina* programme, a generalised agricultural area payment (introduced in 1998), is available to all farmers and is pegged to the administrative (official) land price of their land. This payment is intended to support the “non-productive” functions of agriculture, such as the maintenance of agricultural landscape. Other area-based payments support organic agriculture. In less favoured areas (LFAs), headage payments are available for meat calves and sheep; this support is conditional on maintaining an animal density between 0.25 and 1 livestock units per hectare. Payments for bee-keeping and flax production are maintained as separate programmes. Charges are levied on ruminant animals to reduce ammonia emissions. Legal limitations are imposed on farmers operating in protected areas (land surrounding drinking water reservoirs, ground water protection areas, National parks and reserves, etc.). Since 1998, owners of water supply basins have compensated farmers located within their basins for losses incurred by restrictions placed on their activities, using area-based payments. The Government supports agricultural training and education, research and extension, and plant and animal breeding. Rural development measures focus mainly on village infrastructure and communal services.

Support to agriculture

As measured by the %PSE, support declined from the early 1990s (when market-oriented reforms were introduced throughout the whole economy) up until 1997 (Tables III.26-28 and Figure III.4). In 1998 and 1999, the trend was reversed. However, support during the 1997-99 period, at 18 per cent on average, was still much lower than in the period 1991-93, when it was 37 per cent. In 1999, the %PSE is estimated to have increased to 25 per cent (from 21 per cent in 1998), which is roughly two-thirds of the OECD average. The total PSE increased by 12 per cent as a result of increases in market price support (mainly for pigmeat and sugar) and in direct payments (area and headage payments). The share of market price support in total support remained about 70 per cent. After the long-run decline in the period 1986-97, the increase of the producer NAC in 1999 to 1.33 indicates that gross farm receipts (including support) were one-third higher than what they would have been without any support.

Until 1990, budgetary support to consumers partly compensated for market transfers from consumers to producers. Since 1991, the CSE has reflected only transfers from consumers to producers. The

%CSE was estimated to be 19 per cent in 1999 and is around two-thirds of the OECD average. In 1999, the total CSE increased by 19 per cent, mainly due to a rise in market price support for pigmeat and sugar. As indicated by the consumer NAC, consumers were implicitly taxed, and paid prices on average 24 per cent more than they would have in the absence of market price support to producers. The general services support estimate remained at the previous year's level. The total support estimate (TSE) increased by 11 per cent and reached 1.9 per cent of GDP.

Developments in domestic policies

For *bread-wheat*, the system of forward contracts with advance payments, re-introduced in 1998, was not applied for the marketing year 1999-2000, and the intervention regime was limited to state intervention purchases after harvest. The guaranteed price for these purchases was fixed at CKr 3 300 (US\$95) – i.e. much lower than in the 1998-99 crop year (Table II.2). The SFMR spent around CKr 1.8 billion (US\$52 million) – half of that spent on the 1998 harvest – to purchase 496 000 tonnes of wheat, one-third lower than in the previous year. Because both domestic and world prices dropped between 1998 and 1999, the SFMR incurred losses on sales of 1998 wheat from its intervention stocks. The total cost of SFMR intervention, after taking into account revenues from grain sales (CKr 2.1 billion, or US\$60 million) and repayment of loans to finance the 1998 intervention (CKr 3 billion, or US\$87 million) was 10 per cent less than in 1998.

Table II.2. Czech Republic: Government procurement prices and quantities for bread-wheat

	1998		1999		Change in CKr price 1998 to 1999 %
	CKr/tonne	US\$/tonne ⁵	CKr/tonne	US\$/tonne ⁵	
Procurement price ¹	4 000	124	3 300	95	–17.5
Advance payment ^{2, 6}	1 500	46	n.a.	n.a.	n.c.
	'000 tonnes		'000 tonnes		%
Maximum forward purchase quantity ^{3, 6}	300		n.a.		n.c.
Actual forward purchase quantity ⁶	262		n.a.		n.c.
Actual intervention quantity	527		496		–5.9
	mn CKr	mn US\$	mn CKr	mn US\$	%
Total intervention cost ⁴	3 174	98	2 853	82	–10.1

n.a. Not applicable;

n.c. Not calculated.

1. Price valid for all the crop year (July to June).

2. Advance payment to farmers made by the SFMR under the forward purchase contracts in 1998; these contracts were not available in 1999.

3. Quantity approved by the SFMR before the 1998 harvest. There were no forward purchases for crops from the 1999 harvest.

4. SFMR net expenditures of wheat market regulation in a given year (in 1999 these expenditures include CKr 3 billion of loan and interest repayments).

5. Conversion uses OECD annual exchange rates (January to December).

6. This measure was discontinued in 1999.

Source: State Fund for Market Regulation, Prague, 1999.

The minimum price for *milk* was raised by 4 per cent (Table II.3). Important changes were also introduced to the system for regulating the milk market. Under the previous market regime an official minimum price for milk had to be paid by dairies to obtain export subsidies. From April 1999, all dairies were obliged to pay the minimum price, but no mechanisms were put in place to enforce the new rule. Because the costs of financing the regulated milk market rose as world prices fell, the SFMR changed the rules for market regulation several times during 1999.

Headage payments supporting milk production (payment to dairy cows with high milk yields) were increased to CKr 2 800 (US\$81) per year for dairy cows with annual milk yields between 4 500 and 5 500 litres and to CKr 3 000 (US\$87) for cows producing more than 5 500 litres, conditional on maintaining a minimum of 5 dairy cows per farm. In the LFAs, these payments are conditional on a maximum

Table II.3. Czech Republic: Minimum prices and export subsidies for milk

	1998		1999		Change in CKr price 1998 to 1999 %
	CKr	US\$ ³	CKr	US\$ ³	
Minimum price/litre	7.5 ¹	0.23	7.8 ²	0.23	4.0
Export subsidy (mn)	1 262	39	1 838	53	45.6

1. The price paid by dairies to farmers for first-quality milk in order to be eligible for export subsidies.

2. For the first quarter the price was set at CKr 7.80 under the same conditions as in previous years (see note 1); from the 2nd quarter of 1999 the minimum price was lowered to CKr 7.20 and made compulsory for all milk deliveries and all dairies, from July 15 the minimum price went back to CKr 7.80.

3. Conversion uses OECD annual exchange rates (January to December).

Source: State Fund for Market Regulation, Prague, 1999.

stocking density of 1 livestock unit per hectare. Total expenditures on area and headage payments increased by 25 per cent (Table II.4). Direct payments to promote *organic farming*, introduced in 1998, were increased by 46 per cent to reach CKr 70 million (US\$2 million) in 1999.

Table II.4. Czech Republic: Area and headage payments

	1998		1999		Change in CKr price 1998 to 1999 %
	CKr	US\$ ⁷	CKr	US\$ ⁷	
Acreage payments¹ (mn)	2 882	89	3 830	111	32.9
Payment/hectare	200-3 600 ⁵	6-112	..	..	n.c.
Headage payments meat type calves ² (mn)	452	14	369	11	-18.4
Payment/suckler calf	2 400-6 400	74-198	1 095-6 570	32-190	n.c.
Headage payments dairy cows ³ (mn)	656	20	782	23	19.2
Payment/dairy cow	2 500	77	2 800-3 500 ⁶	81-101	n.c.
Headage payments sheep ⁴ (mn)	31	1	54	2	74.2
Payment/sheep	880	27	986-1 076	29-31	n.c.
Total headage payments (mn)	1 139	35	1 205	35	5.8
Total acreage and headage payments	4 021	125	5 025	145	25.0

.. Not available.

n.c. Not calculated.

1. Payments per hectare of agricultural land for the whole territory, differentiated according to the official price of land.

2. Payments rates are differentiated according to the official land price.

3. Payments per head of dairy cow with milk yield over 4 500 l/year. In areas with official land prices lower than CKr 4/m², the payment is subject to a limitation of one livestock unit per hectare of feed crops.

4. Payment per sheep in areas where the official land price is lower than CKr 3.1/m².

5. A flat rate of CKr 200/ha is paid for all agricultural area with official land prices higher than CKr 4/m². In the areas with prices within CKr 2-4/m² the rate per hectare increases gradually to CKr 3 600/ha.

6. Payment of CKr 2 800 per head of a dairy cow with milk yields from 4500 to 5500 litre/head/year, and of CKr 3 500 per head of dairy cow with yields higher than 5 500 litre/head/year.

7. Conversion uses OECD annual exchange rates (January to December).

Source: Research Institute of Agricultural Economics, Prague, 1999.

Payments based on input use concern mainly the credit subsidies and loan guarantees administered by the Support and Guarantee Fund for Farmers and Forestry (SGFFF). The credit facilities are available for investment as well as working capital. The SGFFF reduced interest subsidies and the level of loan guarantees and also stopped accepting investment projects in milk production. In August 1999, the SGFFF set new principles and guidelines for support and also introduced additional programmes supporting investment in food processing and the creation of sales organisations. The value of credit subsidies extended to farmers by the SGFFF declined by 12 per cent compared with 1998. The amount of new subsidised credits granted also continued to decline; in 1999 they were CKr 9 billion (US\$237 million). As in previous years, the Government partly wrote-off or extended the repayment period for the reimbursable financial assistance extended from the budget during 1991-93; this support fell by around 10 per cent in 1999, to CKr 490 million (US\$14 million). One-off area-based payments for the restoration of vineyards, hop-gardens and orchards declined by 16 per cent. In 1999, the Government

introduced payments to compensate partly for the costs of irrigation water, and of lime for acid soils. A partly refunded fuel tax returned CKr 500 million (US\$14.5 million) to farmers.

The new **Veterinary Act** (166/1999) came into force in September 1999. The Act sets out veterinary requirements on animal breeding and health, on raw materials of animal origin, and defines the rights and obligations of physical and legal persons and the authority of the state administration in the field of veterinary care.

After several years of discussion the **Act on State Land Sales** (95/1999) was adopted, thereby enabling 500 000 hectares of State-owned farmland to be sold to physical persons of Czech nationality (*i.e.* not to foreigners, and not to legal entities such as corporate farms, co-operatives) or transferred free of charge to some legal entities (*e.g.* school farms, local communities). Buyers may take up to 30 years to pay for land.

Developments in trade policy

The Czech Republic lowered import tariffs in accordance with the URAA. To enable minimum and current **market access**, it opened a total of 28 tariff-rate quotas (TRQ). Compared with the previous years there was no TRQ for potato starch⁴ and a common quota was opened for glucose and isoglucose adding together the quotas of these two products from 1998. In September 1999, a TRQ was reintroduced for cane-sugar molasses (1 000 tonnes at a 6 per cent tariff rate) and the 25 per cent TRQ for red wine was increased by 200 000 hectolitres. The Government continued to apply automatic **import licences**, covering the same commodities as in 1998. In February 1999, safeguard and emergency measures were announced to protect the domestic sugar market. For four years, starting 11 March 1999, an import quota of 18 000 tonnes per year (to be increased by 10 per cent annually) will apply to imports at agreed tariffs. Applied tariffs were increased by 80 per cent – to a minimum of CKr 14 000 (US\$405) – for imports above the quota.

Export subsidies were used for milk products, potato starch and pigmeat. An estimated surplus of dairy products equivalent to 650 000 tonnes of **milk** (24 per cent of total production) was exported with the aid of subsidies amounting to CKr 1.8 billion (US\$52 million), up 46 per cent from 1998 (Table II.3). Export subsidies for **potato starch** were increased to CKr 7 000 (US\$202) per tonne (CKr 5 500 in 1998) for a maximum quantity of 6 000 tonnes, costing the Government CKr 42 million (US\$1.2 million) in total. Subsidies worth CKr 56.2 million (US\$1.6 million) supported the export of 3 400 tonnes (live-weight equivalent) of pigmeat. Exports of dairy products and malt were supported by interest subsidies on **export credits** provided by the SGFFF within the framework of the Export Programme. In order to control the exports of some agro-food products, the Government continued to maintain its system of non-automatic **export licences** for a wide range of important agro-food products, including live cattle and pigs, beef, pigmeat, milk powder, grains and grain products, oilseeds, and sugar.

Within the **European Agreement**, preferential TRQs were set for the import of specific agro-food products from the EU. Trade in agro-food products under the **Customs Union with the Slovak Republic** was subject to quota limitations for the same range of products as in 1998. In addition, Slovakia applied quotas on imports of pigs between May and November 1999, and the Czech Republic introduced an annual quota on imports of Slovak sugar and isoglucose. Slovakia responded with a reciprocal annual quota on imported sugar from the Czech Republic.

Overall evaluation

After a period of continued reduction of support to agriculture, support to Czech agriculture increased substantially in 1998 and 1999. While, in 1998, the rise in support was entirely due to a sharp increase in market price support, in 1999, the increase was due to both higher budgetary payments (up 19 per cent) and an increase in market price support (up 9 per cent). The policy measures governing market regulation and payments to agriculture were changed significantly during 1998 and 1999, but in an *ad hoc* and short-term way. In a transition economy such as the Czech Republic, the large and increasing expenditures on market regulation divert scarce resources from other more efficient uses and slow down economic growth. The state intervention mechanisms for wheat and milk, together with border

measures (limiting both imports and exports) applied to all PSE commodities, isolate domestic prices from world market developments and prevent efficient price transmission in the domestic agro-food chain. In the milk and dairy sector, the frequent changes in market intervention rules send confusing signals to market agents and fail to provide the expected price support to milk producers. The continuation of headage payments supporting milk production, together with increasing spending to eliminate the milk surplus illustrates a continuing lack of policy coherence and market orientation. The introduction of general area-based payments under the *Krajina* programme implies weaker linkages with production decisions. However, the potential of these payments to improve environmental performance – which is the main declared objective – remains limited, as most of these payments are provided under very general conditions. Overall, there was a less-pronounced move towards more market orientation in the mix of policies applied in 1999, and for some commodities (milk and sugar) the tendency seems to have been reversed.

European Union

Main policy instruments

European agricultural support continues to be based primarily on market price support, notwithstanding reforms which resulted in a significant shift from market price support to area and headage payments. Market price support is provided through administered prices, export subsidies and tariffs. Price support policies are often combined with production quotas and/or land set-aside. In accordance with the 1992 Common Agricultural Policy (CAP) reforms, area payments for cereals and oilseeds are based on historic, regional yields and paid on condition that producers set aside a defined percentage of their arable land; small-scale producers are exempted from the set-aside requirement. Payments are also made in respect of the land that is set-aside. There are no administered prices for oilseeds. Administered prices and production quotas are used for milk and sugar in conjunction with import protection and export subsidies. The support system for beef involves administered prices, intervention purchases, headage payments based on fixed, reference livestock numbers subject to limits on stock density, import protection and export subsidies. For sheepmeat, the support system comprises a pricing system based on a ewe premium and import tariffs. In accordance with the URAA agreement, trade measures consist of tariff-rate quotas (TRQs) and export subsidies. A number of measures aimed at promoting structural adjustment, rural development, marketing and promotion, research and extension, input subsidies (including for irrigation) and agri-environmental benefits, are either co-financed or are entirely financed by EU member States (Table II.5).

A package of measures, *Agenda 2000*, involving changes to common policies, including the CAP, into the next century was agreed by EU Heads of State at the March 1999 European Summit in Berlin. The BSE and dioxin crises, together with the continuing controversy over the use of genetically modified organisms (GMO), have heightened public concerns on food safety and food quality and led to the proposal to create an independent European Food Authority. According to provisional estimates for 1999, agricultural incomes fell in 12 of the 15 EU member States and, for the EU as a whole, they were on average 4 per cent lower in real terms than in 1998.

Support to agriculture

Overall, support to producers, as measured by the %PSE, was at about the same level in the 1997-99 period as in 1986-88 (Tables III.29-31, Figure III.5). The %PSE fell sharply in 1996 and 1997 because of the drop in market price support for wheat due to high world prices.⁵

In 1999, according to provisional estimates, the total PSE decreased by 2 per cent, while the %PSE increased by 4 percentage points to 49 per cent. The %PSE is now 20 per cent higher than the OECD average. The decline in total PSE is attributed to the decrease in the volume of production, which more than offset an increase in unit market price support. A key feature in 1999 was the sharp fall in both domestic producer prices and world prices. Market price support accounted for about 63 per cent of

Table II.5. **European Union: National expenditures**
Millions of euro

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Austria	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1 299	1 260	1 074	1 043	..
Belgium	288	515	476	261	339	276	450	258	249	242	246	259	..	..
Denmark	201	192	198	238	214	199	160	204	234	235	184	184	..	..
Finland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2 197	1 557	1 508	1 549	..
France	2 629	2 471	2 479	2 473	2 288	2 275	2 436	2 326	2 340	2 286	3 426	3 146	2 614	2 692
Germany	1 349	1 212	1 148	1 468	3 104	4 495	3 990	3 639	3 824	2 065	2 125	2 187	2 139	..
Greece	488	485	460	412	511	522	252	155	143	128	117	125	127	141
Ireland	175	116	124	114	114	131	152	120	204	129	136	112	117	117
Italy ¹	704	923	979	1 462	2 162	1 786	1 263	1 137	1 847	1 633	1 745	1 543	1 852	..
Luxembourg	17	15	22	26	27	48	30	31	32	27	32	35	33	34
Netherlands	539	555	492	536	546	562	524	601	597	626	589	582	190	205
Portugal	131	236	241	273	299	279	266	267	278	175	290	291	280	..
Spain ¹	1 102	892	949	1 327	1 427	1 259	1 119	1 049	893	1 122	1 264	1 016	967	..
Sweden	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	252	242	318	345	372
United Kingdom	844	786	830	921	974	1 031	976	948	837	663	1 998	1 421	1 279	n.a

.. Not available.

n.a. Not applicable.

1. Data do not include all regional expenditures.

Source: EC and OECD Secretariat estimates based on data provided by national authorities and other sources.

total support. The producer NAC of 1.95 indicates that gross farm receipts (including support) were 95 per cent greater than what they would have been without any support

The move towards area and headage payments, and away from market price support as a result of the 1992 CAP reform, led to a significant decline over time in the effective tax on consumers, as measured by the CSE. In 1999, reflecting the fall in world prices which more than offset the fall in domestic farmgate prices, the total CSE increased by 2 per cent, while the %CSE increased by 3 percentage points to 36 per cent, or 5 percentage points higher than the OECD average. As indicated by the consumer NAC, consumers paid on average 57 per cent more than they would have in the absence of market price support to producers. Support for general services to agriculture went down by 5 per cent, representing 6 per cent of the TSE in 1999. Overall, transfers from taxpayers and consumers associated with agricultural policies, as measured by the TSE, decreased by almost 3 per cent, to an estimated € 118 billion (US\$126 billion), representing about 1.5 per cent of GDP.

Developments in domestic policies

In 1998-99, *intervention prices* in the main commodity sectors of cereals, sugar, milk and dairy products, beef, pigmeat and sheepmeat were unchanged from 1997-98 levels, as were the levels of monthly increments (€ 1 per tonne over seven months) in cereal intervention prices (Table II.6).

Cereals, oilseeds, beef and sheepmeat account for the main budgetary expenditure. In 1999, actual CAP spending was under-budget, amounting to € 39.4 billion, or 97.5 per cent of budget appropriations, and 2.5 per cent lower than actual 1998 CAP spending. Because of low world prices, export refunds for sugar were greater than expected, but they were more than offset by under-spending on refunds for beef, fruits and vegetables, and olive oil.

Headage payments for *beef* and *sheepmeat* were unchanged, as were the regional ceilings for the special premium and the individual ceilings for the suckler cow premium (Table II.7). Measures taken in connection with the BSE crisis continued and new criteria for BSE risk-assessment are being discussed. In response to indications of an upturn in *pigmeat* prices, private, per-tonne storage aid, which had been introduced in 1998, was suspended. Following the dioxin contamination scare in Belgium (see the section on Belgium below), exceptional measures were implemented.

The European Commission unveiled a proposal to reform the *cotton* support regime, aimed at tightening the penalties for over-production, curbing budget expenditures and protecting the environment. The *flax* and *hemp* support regime is to be revised as from the 2000-01 marketing year. Flax and hemp

Table II.6. European Union: Selected institutional prices

Product	1998/99		1999/2000		Change in euro price 1998/99 to 1999/2000 %
	€/t ¹	US\$/t	€/t ¹	US\$/t	
Cereals ²	119	133	119	127	0.0
Rice	316	353	316	337	0.0
Sugarbeet ⁴	48	53	48	51	0.0
Milk ²					
Skimmed milk powder	2 055	2 299	2 055	2 190	0.0
Butter	3 282	3 671	3 282	3 497	0.0
Beef and veal ³	3 475	3 886	3 475	3 703	0.0
Pigmeat ⁴	1 509	1 688	1 509	1 608	0.0
Sheepmeat ⁴	5 041	5 638	5 041	5 371	0.0

Note: Marketing year July to June for cereals, rice, sugarbeet and milk, April to May for beef and veal and sheepmeat, and November to October for pigmeat.

1. Prices in market euro.

2. Intervention prices.

3. Intervention price for beef carcass R3 grade.

4. Base price.

Source: Agra-Europe, CAP Monitor, London, 2000.

Table II.7. European Union: Area and headage payment rates

	1998/99		1999/2000		Change in euro price 1998/99 to 1999/2000 %
	€/t	US\$/t	€/t	US\$/t	
Cereals and oilseeds					
Area payment ¹					
Cereals	54.3	60.8	54.3	57.9	0.0
Oilseeds (euro/ha) ²	433.5	484.8	433.5	461.9	0.0
Set aside payment ^{1,3}	68.8	77.0	68.8	73.3	0.0
	€/head	US\$/head	€/head	US\$/head	
Beef					
Suckler cow premium ⁴	144.9	162.1	144.9	154.4	0.0
Special beef premium ⁵	108.68-135	121.5-151	108.68-135	115.8-143.8	0.0
Deseasonalisation premium ⁶	72.45-18.11	81.09-20.25	72.45-18.11	77.25-19.30	0.0
Extensification premium ⁷	36.2	40.5	36.2	38.6	0.0
Calf processing premium ⁸	115.0	128.6	115.0	122.5	0.0
Sheepmeat					
Ewe premium	Basic price minus market price		Basic price minus market price		
Additional ewe premium/LFAs	5.9-6.6	6.2-7.4	5.9-6.6	6.3-7.0	0.0

Note: Marketing year July/June for cereals and oilseeds; calendar year for beef and sheepmeat.

1. Converted to a per hectare basis by multiplying by historic regional yields.

2. This amount is reviewed in the course of the marketing year (January) to take into account a possible gap between the reference price (euro 196.8 per tonne) and the observed price, with a franchise of 8 per cent.

3. Only those producing more than 92 tonnes of arable crops are required to set-aside land.

4. Member states have the option of paying up to euro 30.2 to supplement the premium. For objective 1 regions, the EU funds the first euro 24.2 of the national supplement. The suckler cow premium is subject to individual limits on the number of eligible animals, determined with respect to an historic reference year. Subject to maximum stocking density.

5. Male animals only, paid twice in the life of an animal, subject to limit of 90 head in each age bracket, and to regional or individual quota limits. Subject to maximum stocking density.

6. Payable on a degressive basis from January 1 to April 20.

7. Available in addition to the suckler cow and special beef premium, if stocking density is less than 1.4 livestock units per hectare. If stocking density is less than 1 livestock unit per hectare, the premium could increase to euro 52.

8. Paid for every male calf disposed of before it reaches the age of 20 days.

Source: Agra-Europe, Cap Monitor, London, 2000; European Commission.

producers also became eligible for compensation for loss of income resulting from the introduction of the euro. If support in national currency during 1999 was less than in 1998, producers in the country concerned (Belgium, France, Finland, Spain, Sweden and the United Kingdom) were eligible for compensation payable in three annual instalments, the first of which was fully financed by the EU.

Considerable attention was given to **GMO** issues in the EU, notably the desire to improve labelling and segregation of the various food and feed ingredients which may contain GMOs. In 1999, various proposals to amend existing legislation on controls, traceability and undesirable substances were examined in order to better inform consumers and to ensure safety in the food chain. The European Commission issued a White Paper on 12 January 2000 proposing the establishment of an independent European Food Authority (EFO) by 2002, with responsibilities for both risk assessment (but not risk management) and communication on food safety issues. The White Paper establishes a timetable for more than eighty legislative measures for new or reformed food- and feed-safety rules that are envisaged over the next few years. For example, a new legal framework for food and feed safety will be proposed that will embrace the whole of the food chain, including animal feed production. In response to the dioxin contamination crisis in Belgium (see country note, below), among other measures, clearer labelling provisions for ingredients in animal feed were suggested. Furthermore, the rapid-alert system for feed, which is obligatory for all EU member States, was improved.

A proposal to define organic livestock farming was adopted by the EU Council of Agriculture Ministers. An **organic-food labelling** system, offering consumers the guarantee that the product concerned contains at least 95 per cent organic ingredients, was adopted. Introduction of compulsory labelling of beef and beef products was postponed for eight months. New regulations on the removal of high BSE-risk materials from beef, due to come into force in January 2000, were delayed in order to take into account further scientific evidence, especially revision of the relevant OIE (World Organisation for Animal Health) code. The provisions call for imposition of a compulsory complete listing of all ingredients, including their quantities, in all compound feedstuffs. The European Council approved the ban on the marketing and the administration to dairy cows of bovine somatotrophin (BST) in the European Union as from 1 January 2000. The prohibition will not affect the production or import of BST by EU member States for export to third countries.

A proposal defining minimum **welfare standards** for the protection of laying hens was adopted by the EU Council of Agriculture Ministers. **Sanitary rules** for animal health governing intra-Community trade in, and imports from, third countries of poultry, hatching eggs and fresh poultrymeat were amended in order to simplify and improve the applicable health guarantees.

In response to the invitation of the European Council meeting in June 1998 and the conclusions of the European Council meeting of December 1998, the Agriculture Council approved a strategy for **environmental integration and sustainable development** in the CAP.

Developments in trade policy

In 1999, the total amount spent on export subsidies is estimated to have declined by around 6 per cent compared with 1998; however, export subsidies for sugar, pigmeat and eggs were increased. The EU was a party to several WTO **dispute settlement procedures** involving agricultural products (see Part II.2). After an increase of 30 per cent in 1998, EU expenditure on food aid was reduced by 14 per cent in 1999, to € 316 million (US\$337 million). In an effort to comply with WTO rules in November 1999, the European Commission issued a proposal to amend its **banana** import regime to a tariff-only system from 2006. The level of the tariff would have to be negotiated under Article XXVIII of the GATT. In the intervening six years, a tariff quota system would remain in place, although a new licence allocation system might be implemented. In particular, in the transitional period to 2006, the two existing tariff quotas would be maintained at the current total level of 2.553 million tonnes and at the same € 75 (US\$79.90) per tonne import tariff. A third quota of 850 000 tonnes would be opened to all suppliers, although imports from African, Caribbean and Pacific (ACP) countries will enjoy a € 275 (US\$293) per tonne preference, as with the first two quotas. The third quota would be distributed by auctioning.

The ban imposed by the EU on exports of **beef** and certain derived products from the United Kingdom because of BSE was lifted, although France and (until mid-March 2000) Germany maintained a unilateral national bans.

Box II.1. CAP Reform – Agenda 2000 Agreement

The **Agenda 2000 CAP reform** was prompted by a combination of factors, including the impact of the new disciplines agreed in the Uruguay Round, the preparation for the eastward enlargement of the EU, the anticipation of the new multilateral agricultural trade negotiations due to start by the end of 1999, domestic concerns about the preservation of the “European model” of agriculture and budgetary constraints. Its main elements concerning agriculture were described in last year’s *Monitoring* report and they are only briefly summarised below.

The **cereals intervention** price will be reduced by 15 per cent in two equal steps in the years 2000-01 and 2001-02. The decrease in the intervention price will be partially compensated by area payments. For oilseeds, including linseeds, the area payment will be reduced in three annual steps to align it with the cereals payment. The area payment for set-aside land will be aligned with the area payment for cereals. Protein crops will receive a supplementary premium. Durum wheat will continue to receive an area payment, in addition to the cereals direct payment. Compulsory set-aside is retained, with the rate set at 10 per cent for the whole 2000-06 period. Grass silage is eligible for the arable crops area payment.

The intervention price for **beef and veal** will be reduced by 20 per cent in three steps over the period 2000-02. Private storage aid may be granted when the average Community market price is less than 3 per cent higher than the basic beef price. The basic special premium for male animals will be increased in three steps up to 2002. The annual suckler cow premium will be increased and will continue to be based on individual ceilings. The premium for bulls takes into account the benefit of retaining the arable crop payment for silage maize. A slaughter premium will be introduced. The total number of animals qualifying for the special premium and the suckler cow premium will continue to be limited to two livestock units per hectare of forage area. EU member States may choose between two formulae for granting additional extensification premiums on suckler cow and special beef payments.

Intervention prices for **butter and skimmed milk powder** will be reduced by 15 per cent in three steps starting in 2005. The Council agreed to extend the milk quota regime for a further period and to hold a mid-term review with the aim of allowing the present quota arrangements to run out. A system of payments per tonne of quota in a given reference year will be introduced to compensate for the price cuts.

A new Common Market Organisation for Wine was established and the 23 regulations currently dealing with **wine** will be replaced with a single regulation.

The agreement foresees that EU member States must define appropriate environmental measures as well as impose penalties for environmental infringement. In addition, it allows EU member States to modulate direct payments at the level of the individual farm, within certain limits, in relation to employment on the farm to the standard gross margin or to the overall income of the holding. Savings from cross-compliance and modulation measures can be re-channelled into agri-environmental measures, early retirement schemes, afforestation and aid for less-favoured areas. Outside the Objective 1 regions, rural development measures will be financed only from the EAGGF-Guarantee Section.

In June 1999, the **EU** and **Switzerland** signed seven sectoral Agreements – negotiated within an overall package – which will enter into force in January 2001. The Agreement on trade in agricultural products provides for tariff concessions on a number of products (*e.g.* cheeses and milk products, meat and wine products) according to the principle of reciprocity. Negotiations commenced on the future inter-regional association agreement between the EU and Mercosur, and on 24 November 1999 the EU-Mercosur Co-operation Council held its first meeting. The EU-South Africa Trade and Co-operation Agreement, which includes some agricultural products, came into force on 1 January 2000. A separate wine and spirit agreement is still under discussion. In the context of EU enlargement, negotiations with the applicant countries continued.

According to the most recent **EU notifications to the WTO** on the implementation of the URAA, the fill rate of TRQs in the marketing year 1998 was low for live sheep, sheepmeat, pigmeat and wheat. In the marketing year 1998, the EU remained within its URAA limits for subsidised exports for most products, but exhausted the permitted volume for rice and poultrymeat. Export subsidy entitlements for coarse grains, sugar, pigmeat, eggs, alcohol and incorporated products were rolled-over from previous years.

Overall evaluation

Support to agricultural producers, as measured by the %PSE, has varied over the last decade, but in 1997-99 was at the same average level as in the 1986-88 base period. Compared with this base period, there has been a shift in the composition of support towards area and headage payments, though market price support still accounts for more than three-fifths of the total PSE. In 1999, agricultural policies remained virtually unchanged. Although producer support declined in monetary terms, in percentage terms it is estimated to have increased to a level that is one-quarter above the OECD average.

Policy developments in 1999 took place against the background of falling domestic and world prices, and increasing public concerns on food-safety and food-quality issues. Although the Agenda 2000 agreement was concluded in 1999, most measures will not apply until 2000-01. The Agenda 2000 reforms deepen and extend the 1992 CAP reforms, through further shifts from traditional price-support measures to area and headage payments, and aim to develop a more comprehensive rural policy. It is uncertain, however, whether the Agenda 2000 reforms are sufficient to resolve the problem of exportable surpluses in future years in respect of some of the commodities it covers, and it does not tackle the issue of reliance on export subsidies for other products, notably sugar. Policy initiatives announced at the EU and member State level in the area of food safety signal the intent to take positive steps towards restoring consumer confidence. Modulation of EU direct payments in France and the United Kingdom in order to help finance rural development and environmental measures offers the chance for increased flexibility and targeting of programmes in these areas.

Developments in EU member State policies

Austria

Total budgetary support for agriculture (including EU payments) in 1999 was reduced by 8 per cent, to Sch 26.3 billion (€ 1.9 billion). The Government increased area payments under the Austrian agri-environmental programme (ÖPUL) by 5 per cent to Sch 7.8 billion (€ 569 million) annually, while area payments to farmers in less-favoured areas were reduced by 4 per cent to Sch 2.8 billion (€ 204 million) annually. The flat-rate value-added tax applied to small farmers, who are not required to keep financial records, was increased from 10 to 12 per cent effective 1 January 2000. New measures in the federal states included, in Vorarlberg, an extra area-based “landscape” payment for farms of less than 2 hectares; in Tyrol, support for the abandonment of poultry cages (as of 2001 cages will be banned there); and in Upper Austria support for the installation of facilities that use energy from renewable sources.

Various measures were introduced to help stabilise the price of wine, which fell by more than 50 per cent in 1999. These included subsidies for the production and marketing of grape juice and concentrated juice, and for the stockholding of wine and juice. A new wine law was passed which allows for additional federal state denominations of origin, or ones that comprise several federal states, such as “Weinland” and “Bergland”. The new regulation is meant to facilitate the marketing of greater quantities of wine of similar quality originating from different locations. Austria exceeded its milk quota by 6 per cent in 1999.

Regulations requiring the labelling of genetically modified seeds, and of food additives that contain genetically modified organisms, came into force. New feed compound and plant protection laws, aimed at improved control mechanisms in these sectors, were introduced.

The Water Law was amended to give greater authority to water co-operatives and associations and to encourage a better use of planning instruments. A revised action programme to reduce water pollution, caused or induced by nitrates from agricultural sources, was introduced (in line with the provisions of the EU Nitrate Directive).

Belgium

In 1999, total budgetary expenditure on agriculture amounted to BF 90 billion (€ 2.2 billion), of which 45 per cent was financed by the EU. According to provisional estimates, total agricultural and horticultural income fell by almost 21 per cent.

Following the discovery of dioxin in Belgian chickens, due to contaminated feed, in June 1999 the EU Standing Veterinary Committee directed the Belgian authorities to test all pork, poultry, eggs and bovine products for dioxin before export. This requirement was lifted in September for bovine products, and in December for pork, poultry and eggs produced after 20 September 1999. National aid measures were introduced to compensate producers for the loss of income from the withdrawal and destruction of potentially dioxin-contaminated meat. The compensation was granted through interest-free loans and grants covering 80 per cent of the value of the animals. Aid schemes totalling BF 25 billion (€ 620 million) were approved by the EU Commission, of which BF 9.2 billion (€ 230 million) was allocated to farms. In addition to the current vaccination system for pigs, a long-term plan was launched to tackle Aujeszky's disease (pseudorabies).

Denmark

In 1999, the agricultural budget of the central Government, excluding the contribution from the EU, was increased by 4.1 per cent to DKr 2.9 billion (€ 390 million). The Government aims to spend DKr 2.2 billion (€ 300 million) for the development of organic agriculture in the period 1998-2002 following the launch of the *Action Plan II – Ecology in Development*. An *Action Plan for the Aquatic Environment II*, adopted by the Parliament in 1998, aims to increase substantially the organically cultivated area, and sets a target of 230 000 hectares by the year 2003 (compared with 60 000 hectares in 1997).

The consolidated Danish Food Act went into force in January 2000. The Act, which defines a new basic framework law for Danish food production and food processing, provides the legal basis for establishing a control system for food products from primary production to final consumption. This control system will consist of 11 regional units of the national food and veterinary inspection authority (established at the end of 1999) which will supervise, control and inspect food products, and provide information and consultation services.

Finland

The total agricultural budget, including EU payments, was cut by 3 per cent in 1999 to about Mk 11 billion (€ 1.85 billion), of which the national contribution was Mk 7.4 billion (€ 1.2 billion) – down 1.3 per cent from 1998. Total expenditure on EU co-financed environmental programmes remained at Mk 1.69 billion (€ 0.28 billion) in 1999, whereas co-financed support to less-favoured areas was reduced by 1.6 per cent, to Mk 1.68 billion (€ 0.28 billion). Farm income grew by 3 per cent.

Both the purely national and the co-financed transitional support schemes expired at the end of 1999 and were re-negotiated. Some measures, such as additional investment support, aid for Northern Finland and additional national environmental area-based payments, were left unchanged. Aid for farmers in southern Finland who are in serious financial difficulty was replaced by national structural support, per-head payments for animal husbandry and dairy farms, and support for horticulture. Finnish farmers will be fully compensated by the national Government for the cuts in intervention prices (for grain, beef and milk) envisaged under Agenda 2000. The Government estimates that some farmers would have lost up to 60 per cent of their income without such support. This nationally financed payment will continue until the end of 2003, but is expected to be reduced progressively by up to 4.5 per cent a year. The average rate of reduction, however, will be less than half of what it was during 1996-99.

France

Excluding transfers to the social security system, the budget of the Ministry of Agriculture and Fisheries rose 3 per cent in 1999, to FF 28.2 billion (€ 4.3 billion). The agricultural framework law was adopted in July 1999 and the first contracts for territorial management, generally for a 5-year period,

were signed in November. The (cross-compliance) contract is between the State and a farmer who commits himself, in exchange for subsidies, to the development of farming systems and practices that contribute not only to primary production and adding value to products, but also to the protection and management of natural resources, landscape, territorial balance, employment and product quality.

The Government's objective is that 50 000 contracts be signed by the end of 2000, and 100 000 by 2002. Of the FF 2 billion (€ 305 million) a year attributed to the contracts, half the funding will come from national sources – of which 65 per cent will come from reallocation of existing funds and 35 per cent from new funds. The remainder will be generated by the modulation of EU direct payments. Modulation allows EU member States to opt to levy up to 20 per cent from direct payments to farmers and to reallocate the resulting amount to finance rural development measures. In France, it will raise FF 1 billion per year (or an amount equivalent to 2 per cent of total direct production aids) from a levy on farms that receive direct payments in excess of € 30 000 (US\$32 000) per year and that have a standard gross margin greater than 50 000 units – *i.e.* approximately 60 000 farms, or 9 per cent of all farms. On average, this levy will be equal to around 5 per cent of their total direct payments.

The long-term objective is for most assistance to agriculture, other than direct production aids, to be channelled through the contracts, though for the time being some measures can still be provided outside the framework. While the payments are more equally distributed than production-related assistance, they account for a very small share of total support to the sector. Moreover, the payments could impose a significant administrative burden, although in many cases the administrative structures already exist.

Some FF 100 million (€ 15.2 million) was made available in April to reduce production costs on hog farms in financial difficulty. Another FF 40 million (€ 6.1 million) will be targeted to producers in mountainous areas and to hog farmers leaving the sector. In December, FF 50 million (€ 7.6 million) were made available for the restructuring of the poultry sector – in addition to emergency measures, worth FF 165 million (€ 25 million), to assist heavily indebted hog and poultry farmers.

Producers of fruit, vegetables and wine, who were affected by frost in 1998, received additional indemnities to supplement 1998 disaster payments. A FF 441 million (€ 67 million) action plan for fruit and vegetable producers was announced in September. It included various measures to improve the functioning of the market and to improve the organisational structure of enterprises and capital grants at a rate of FF 30 000 (€ 4 570) per unit of labour employed, up to four units per enterprise.

The Ministry of Agriculture and Fisheries decided to allow livestock premiums and milk quotas to be traded in all *départements* from the beginning of 2000 and for the 2000-01 dairy year, in order to increase specialisation.

A new agency for food safety, *Agence Française de Sécurité Sanitaire des Aliments* (AFSSA), was created under the responsibility of the ministers in charge of health, agriculture and consumption. Its role is to evaluate food sanitary risks; decision-making authority will remain with the relevant ministries. AFSSA's activities will also cover animal health and welfare, veterinary drugs and food hygiene. Its annual budget will be FF 336 million (€ 51 million), with FF 246 million (€ 37 million) coming from state funds, and the remainder coming from local authorities, EU funds, and private funds raised through taxes for the licensing of new veterinary drugs.

Germany

The agricultural budget of the Federal Government, excluding the EU contribution and expenditure by *Länder*, was DM 11.55 billion (€ 5.9 billion) in 1999 – essentially unchanged from the previous year. The biggest budgetary items were expenditures on social security and structural policy, accounting respectively for 68 per cent and 15 per cent of total outlays.

The Federal Government and the *Länder* spent DM 921 million (€ 470 million) on agri-environmental schemes, in 1998, when about 29 per cent of farmland was covered under one or more of the schemes; data for 1999 are not yet available. The area devoted to the cultivation of renewable resources for non-food purposes (*e.g.* biofuels), which is supported by government programmes, expanded by 48 per cent to 740 000 hectares. New provisions governing the transport of animals came into force. The

German Parliament discussed how to integrate animal welfare as a national policy objective into the Basic Law (Germany's constitution).

For the coming years, the Federal Government envisages a change in the organisational structure of social security in agriculture. Structural policy measures, which are co-financed by the Federal Government and the *Länder* under the "joint task for the improvement of agricultural structures and coastal protection", will focus increasingly on concessional credits for investments that foster agricultural competitiveness. Measures that promote farming in less favoured areas are to be concentrated on especially disadvantaged locations and on grassland. As part of an overall budgetary consolidation programme, expenditure on agriculture in 2000 is scheduled to be reduced by 5 per cent, or DM 530 million (€ 270 million). Several budgetary items will be affected by the cut-backs, but not structural policy programmes. Additional budgetary savings are envisaged for subsequent years. These will be realised partly through the phasing out of some of the funds used for the agricultural diesel fuel subsidy, which in 1999 was worth around DM 835 million (€ 427 million) to farmers.

Greece

Total budgetary support to agriculture (including EU payments) in 1999 is estimated to have increased by more than 14 per cent, to Dr 1 772 billion (€ 5.45 billion). Of this amount, 47.5 per cent was financed out of the national budget. As in previous years, about 60 per cent of national expenditure went to agricultural pensions and payments for natural disasters. Expenditures on infrastructure (including irrigation) constituted the second-most-important item. Payments to write-off the debts of agricultural co-operatives and other undertakings of the Agricultural Bank increased by around 12 per cent compared with 1998. A Dr 10 000 (€ 31) per month increase in farmers' pensions, to take place in 2000, was announced. The programme to protect wildlife habitat sites, which focuses on the draft EU NATURA 2000 zones, was implemented in 1999.

A package of measures targeted at both young farmers and those approaching retirement age was announced, to be implemented over the 2000-06 period. The package includes a variety of financial incentives and agricultural restructuring, ranging from lower interest rates on loans to measures to improve agricultural productivity. The package will be financed primarily by the EU's third community support framework.

Ireland

Total public expenditure on agricultural and rural development programmes declined by 25 per cent, to Ir£ 196 million (€ 250 million);⁶ of this amount, Ir£ 75 million (almost 40 per cent) was financed out of the national budget. Compensatory headage payments accounted for more than two-thirds of the expenditure. The second-largest item was expenditure on programmes for the control of farm pollution, which was reduced by 27 per cent to Ir£ 13.7 million (€ 17.4 million).

Regarding other policy changes, the accelerated capital allowance for investment in pollution control equipment was continued. All farmers who were not registered for VAT were entitled to a flat VAT refund on their inputs, the rate of which was increased from 3.6 per cent to 4 per cent in 1999. The 25 per cent general rate of tax relief on livestock was extended by 2 years to 6 April 2001. Thus when farmers sell livestock at a profit they are only taxable on three-quarters of the increased value. The rate of relief is 100 per cent for young, trained farmers. The Smallholders Unemployment Assistance scheme was subsumed into a new Farm Assist Scheme, designed to support low-earning farm families. The new scheme has more generous allowances (the average payment for new claimants was Ir£ 54 (€ 68) per week; for those who had previously received a smallholder allowance the average payment was Ir£ 80 (€ 102) per week and is more flexible in that the farmer or spouse can still qualify if they earn off-farm income. The numbers of participants in 1999 was approximately 8 000, compared with 5 000 in 1998.

An Ir£ 20 million (€ 25 million) aid package was allocated to farmers affected by fodder shortages. Under Agenda 2000, the country received an extra 96 000 tonnes of milk quota in 2000-01 and a further 54 000 tonnes in 2001-02. These additional quotas will go to young farmers (those under 35 years of age) and producers whose milk output is less than 55 000 gallons (250 000 litres) a year.

As part of its on-going efforts to guarantee full traceability for Irish meat, the Government implemented a new computerised cattle movement monitoring system. The Food Safety Protection Board was set up to address food safety throughout the island of Ireland, with board members coming from both the North and the South of the island.

As a part of the National Development Plan for the Irish economy, the Government has proposed spending Ir£ 3.75 billion (€ 4.76 billion) on agriculture, food and rural development over the period 2000-06 – a 50 per cent increase compared with the previous seven-year plan. Among the areas that are expected to see a big spending increase are the Early Retirement Scheme (ERS) and the Rural Environment Protection Scheme (REPS). Over 42 000 farmers currently participate in the REPS – mostly those working less-intensive, small and medium-sized farms. An evaluation of this scheme, under which farmers contract with the government to provide a set of environmental benefits in return for grants, was carried out during the year. A new targeted national scheme of Installation Aid for Young Farmers was created at a cost of Ir£ 10 million (€ 12.7 million) over three years. Funding has also been allocated for training, research and development, dairy hygiene and the agricultural advisory service.

Italy

The total agricultural budget for 1999, excluding the EU contribution, is estimated at L 5 339 billion (€ 2.75 billion), of which L 3 590 (€ 1.85 billion) was allocated by the 1999 Finance Act to programmes in the agriculture, forestry and fishing sectors, and the rest to cover routine expenses such as the operational costs of the Ministry of Agricultural Policies and other linked institutions. Compared with 1998, the total budget for agriculture, forestry and fishery was increased by nearly 18 per cent.

Following the enactment of the 1998 framework law, *“Provisions for limiting production costs and for improving the structure of farms”*, an aid regime was set up to help farms and agro-food processing enterprises to limit their energy needs and to promote energy conservation through the use of renewable resources. Local development policy instruments, such as territorial agreements and area contracts, were extended to agro-business and fishing industries. Cross-regional programs were defined to help businesses in the agro-food sector. A special fund for agricultural development was set up for the co-ordination and application of funds guaranteed by this law.

A special plan to deal with crises in the citrus sector was introduced. The plan aims to limit production costs, re-organise marketing methods and improve product quality. In addition to the L 70 billion (€ 36 million) already budgeted for 1998, L 20 billion (€ 10 million) was made available annually to implement the plan in 1999 and 2000. A programme to adapt the structure of dairy farms to new EU regulations and to enable livestock associations to establish genealogical registers and carry out related control activities was developed. Italy exceeded its annual milk quota by 5.7 per cent. Under Agenda 2000 its annual quota will be increased by 600 000 tonnes for the period 2000-02, representing a 6 per cent increase over the current quota.

The Netherlands

National expenditure on agriculture grew by almost 8 per cent in 1999, to Gld 735 million (€ 334 million), of which most went to research and education. The biggest absolute increases were in payments related to flooding that occurred in 1998, and expenditures on environmental measures to reduce pollution from intensive livestock operations. The biggest decline was in expenditures related to the aftermath of the 1997 swine fever epidemic. Some Gld 12 million (€ 5.5 million) were earmarked to aid investments (*e.g.* for reducing energy use and CO₂ emissions) in the glasshouse horticulture sub-sector, and Gld 4 million (up from Gld 1 million in 1998) went to help cover the costs of relocating glass-houses. To stimulate conversion to organic farming, an extra Gld 4.5 million (€ 2 million) was added to the budget for 1999, bringing the total expenditure over the year for this purpose to Gld 15 million; in 2000, some Gld 20 million (€ 9 million) will be available to support such conversions.

Following an initially successful challenge in the courts, the Government abandoned its 1998 plan to require pig farmers to cut their herds by 20 per cent without any compensation. Under its new, revised plan to assure compliance by 2003 with the EU's Nitrate Directive, all livestock farmers with

surplus manure will be required to enter into manure disposal contracts with arable farmers to a maximum level of 170 kg N (in manure) per hectare of arable land and 250 kg N per hectare (in manure) of grassland. As of 2003, a farmer may keep animals only if he or she has enough land, enough contracts with arable farmers, or enough contracts with a manure processing unit that guarantees that the remaining product will be used outside of Dutch agriculture (*e.g.* exported). This manure disposal system is expected to be implemented over the year 2002. Initial calculations show that the introduction of the manure disposal system, once it is fully operational in 2003, will lead to a reduction of 15 per cent in pig numbers, 10 per cent in veal calves, 20 per cent in poultry, and 30 per cent of beef production. The Agricultural Economics Institute (LEI) estimates that approximately 6 000 of the nation's 25 000 farmers with intensive livestock farms (those raising pigs, poultry, veal calves and beef) could be forced to leave the industry within a few years as a result of this and other environmental regulations. Accordingly, the central and provincial governments have set aside Gld 1 800 million (€ 810 million) to compensate and support those who voluntarily elect to quit intensive livestock production. In March 2000, the Government announced the first round of its compensation programme. Farmers raising pigs, poultry or veal calves who wish to leave the industry, and who submitted their request before 20 April 2000, would be offered, for example, Gld 270 (€ 123) per pig, plus compensation for the demolition of their stables. In some cases (subject to approval by the planning authorities), this latter form of compensation will be translated into an option to build a new house on the area formerly occupied by the stables; other people besides retired farmers will be allowed to buy and live in any new houses built on these sites.

Farm incomes declined in all major sectors in 1999 and are estimated to have dropped by 10 per cent overall. Worst affected were intensive livestock producers, many of whom experienced negative incomes for the second year in a row.

Portugal

The national contribution to Portugal's budget for agriculture and rural development (*i.e.* excluding the contribution from the EU) was increased to ESC 65 billion (€ 324 million) in 1999 and is expected to grow by 3 per cent in 2000.

In the context of EU regulations, the maximum guaranteed quantity (MGQ) for olive oil was increased to 51 244 tonnes, and the area planted by 30 000 hectares. Permission was granted to increase the vineyard area by 3 760 hectares. A rural development programme, including an agro-forestry and irrigation plan, to be implemented during the 2000-06 period under the new Community Support Framework, was approved by the EU within Agenda 2000. With a total budget of about Esc 144 billion (€ 720 million), co-financed by the EU, the plan is expected to improve 400 000 hectares of forests and increase and modernise an irrigated area covering about 80 000 hectares, mainly in the southern, cereal-growing region of Alentejo.

The ban on exports of live animals and beef products imposed in 1998 due to the rising incidence of BSE in Portugal remained in force, but the eradication programme should allow the removal of the ban by April 2000. In November 1999, the EU advisory Standing Veterinary Committee (SVC) approved measures to destroy herds of pigs infected with swine fever and to restrict trade and transport of animals. Two months later, the SVC relaxed these measures by reducing the number of zones in Southern Portugal that have to continue applying the approved measures.

Spain

The total agricultural budget of the central government for 1999, excluding transfers from the EU and expenditures by regional governments, is estimated to have increased by 19 per cent compared with 1998, to Pta 213 billion (€ 1.28 billion). A severe drought in the south and east of the country contributed to an 8 per cent fall in estimated aggregate farm income. Spain exceeded its annual milk quota by 0.73 per cent.

The most important nationally financed agricultural programme, accounting for more than 10 per cent of the total agricultural budget, is the Combined Agricultural Insurance System, managed by the State Agricultural Insurance Agency (ENESA). The system was established in the 1980s in response to

Spain's irregular and unpredictable weather patterns (especially with respect to frost, flooding and hail), and it has evolved to cover all agricultural products and a multitude of risks. In 1999, for example, insurance coverage was extended to include flowers, strawberries and bananas grown under glass. Around 35 per cent of agricultural output (and 15 per cent of live-stock output) is insured, and ENESA covers an average of 36 per cent of farmers' insurance costs. In 1999 ENESA received a budget transfer of Pta 23.4 billion (€ 140 million) – 8 per cent more than in 1998. In December 1999 the Government announced a further 8 per cent increase in the budget transfer to ENESA for 2000, to Pta 25 billion (€ 150 million), which is expected to cover an estimated 45 per cent of farmers' insurance costs.

Many dry-land crop farmers affected by severe drought of 1998-99 were unable to satisfy the minimum eligibility requirements for insurance payments. In response, the Government approved an emergency relief package in June 1999 for crop farmers who had sustained reductions in harvests in excess of 50 per cent of normal production (measured as the average of the previous five years, excluding the minimum and maximum peak years). Assistance was provided in the form of grants covering 80 per cent of estimated losses (beyond the 30 per cent loss not covered by the grant), up to a maximum total outlay of Pta 3.0 billion (€ 18 million); subsidised credit for livestock holdings, up to a maximum amount per holding; and deferment of contributions to the agricultural social security system. Starting in 2000, on a trial basis, farmers will be able to obtain insurance from ENESA against losses caused by drought for certain crops (cereals, oilseeds, protein crops, sugarbeet, wine grapes and olives) grown on unirrigated land.

In November 1999 the 1985 Water Law (*Ley de Aguas*) was amended. While maintaining the principle that water is a public resource, the amendment introduced a series of market mechanisms to enable the temporary sale of water rights and to put into practice new water-saving policies. It also created a general obligation to measure water consumption through validated control systems, and established tougher regulations for discharge permits.

Sweden

The budget of the Ministry of Agriculture and Fisheries, including the EU's contribution, was cut by 15 per cent, to SKr 12.3 billion (€ 1.4 billion) in 1999. Of this amount, SKr 4.9 billion (almost 40 per cent) was financed out of the national budget. National expenditure on programmes co-financed with the EU – mainly environmental programmes, support to less-favoured areas and payments for structural adjustment – were the biggest item, and were unchanged in 1999 at around SKr 1.8 billion (€ 202 million).

The Government introduced a new trading system for milk quotas, which allows the prices for quota to be determined by the market rather than being set administratively. Trading commenced in the first quarter of 2000, subject to the following conditions: i) trades must involve a minimum volume of 5 tonnes; ii) buyers of 300 tonnes or more must demonstrate that they own or lease at least one hectare of land for every 12 tonnes of quota; and iii) buyers must be able to produce evidence that they will actually start producing milk, if they are not producing it already.

The Government substantially increased spending on marketing Swedish products abroad, to SKr 15 million (€ 1.7 million). Compensation for losses caused by wild predators went up 20 per cent, to SEK 56 million (€ 6.4 million), because of changes in the compensation schemes. The Government also continued its fight against contamination of food by enterohemorrhagic *Escherichia coli* (EHEC) bacteria; the number of people falling ill as a result of exposure to EHEC has risen in recent years, and is estimated to have been in the neighbourhood of 100 in 1999.

United Kingdom

UK budgetary expenditure on agriculture for 1999, excluding the EU contribution, was nearly £686 million (€ 1 040 million), of which expenditure on EU co-financed programmes is estimated to have been around £435 million (€ 660 million). Total income from farming is estimated to have fallen by 1.2 per cent in real terms.

A report published in December 1999 – *A New Direction for Agriculture* – sets out the plans for implementing the discretionary elements of Agenda 2000. A major element of this plan is the Rural Development

Regulation, which enables a shift away from production-related payments to measures aiding industry restructuring and benefiting rural economies and the environment. The Rural Development Plans for the UK were submitted to the European Commission for approval.

With the introduction of the euro in January 1999, the “green rate” system was abolished. As a result, UK farmers received a total of £264 million (€ 400 million) from the EU budget in transitional compensation, allocated as follows: area payments to the arable sector, £170 million (€ 258 million); headage payments to beef producers, £62 million (€ 94 million); and headage payments to sheep producers, £32 million (€ 49 million). Up to a further £132 million (€ 200 million) will be available during 2000 and 2001.

In September 1999, an aid package for agriculture was announced worth £150 million (€ 227 million). Hill Livestock Compensatory Allowances (HLCAs) were increased in 1999, at an additional cost of £60 million (€ 91 million), and higher allowances will apply in 2000. As part of the Agenda 2000 changes, the HLCAs will be replaced by a new area-based scheme in 2001. Charges on cattle passports and disposal of Specified Risk Material were deferred, saving farmers £90 million (€ 136 million). The Agricultural Development Scheme 1999 established a new marketing scheme for English farmers; the Government will contribute £2 million (€ 3 million) to the scheme if matched by equal funding from private sources. Regulatory reviews were launched to examine the Intervention Board, the Integrated Administration and Control Scheme (which was set up to combat fraud and irregularities in implementing CAP measures), and regulations relating to meat hygiene. The Calf Processing Aid Scheme was terminated on 31 July 1999. Animal welfare legislation banning the use of stall and tether systems was introduced at the beginning of 1999, along with additional measures to protect the welfare of live animals in transit.

Under EU Agri-Environment Regulation 2078/92, the UK now has more than 1.5 million hectares of land under its Environmentally Sensitive Areas Scheme. Payments covering management agreements and conservation plans, which promote environmentally beneficial farming practices, are expected to total over £60 million (€ 91 million) in 1999-2000. Payments under the Countryside Stewardship Scheme, which aims to sustain landscape, protect wildlife habitats, conserve archaeological sites and historic features, and improve opportunities for people to enjoy the countryside, are expected to have totalled around £22 million (€ 33 million) in 1998-99. The Organic Farming Scheme was provided with additional funding of £10 million (€ 15 million). Rural Development Plans were prepared to give effect to the change of emphasis in UK agricultural policy, with each UK region reflecting its own priorities under these Plans. To fund these environmental and rural development measures, the UK will re-allocate a small proportion of farmers' current CAP commodity direct payments (2.5 per cent in 2001, rising to 4.5 per cent in 2006). Every pound (£) Sterling recycled will be matched by a pound Sterling from the Government.

The Food Standards Act 1999, which created a non-Ministerial government agency, the Food Standards Agency, was approved and made operational from April 2000. The Agency will assume responsibility for most of the existing functions of the Ministry of Agriculture, Fisheries and Food and of the Department of Health relating to food safety and standards, across the whole food chain.

Hungary

Main policy instruments

Market price support forms the main element of support in Hungary, and is based on a system of guaranteed and guidance prices. The State purchases limited quantities of bread-wheat and maize at guaranteed prices. For livestock products (milk, beef and pigmeat), subsidies are paid to processors who pay prices above the guidance price to farmers, or to farmers when prices they receive are lower than guidance prices. In addition to market price support, price premiums for high-quality production are provided for milk, pigmeat and poultry. The prices of other products are supported through import tariffs and quantitative export licences. The market intervention regime is combined with export subsidies. Area payments are granted to farms with up to 300 hectares of agricultural land. Budgetary support based on the use of inputs is provided in the form of subsidised interest-rates for farm credit (for

investments as well as for working capital), capital grants and fuel-tax subsidies. Environmental improvement and rural development is supported mainly through capital grants, interest-rate subsidies, and tax concessions. Fuel tax concessions are granted to farms for a standard fuel consumption per hectare of agricultural land (arable land, plantations, grassland) and per cow. The agricultural support system was adjusted several times as a reaction to natural disasters and developments in world markets during 1999, deviating in many respects from the original budget allocations.

Support to agriculture

Support to agriculture declined significantly during the economic transition process (from 1989), to reach 7 per cent in 1997 (Tables III.32-34, Figure III.6). The %PSE increased in 1998, to 13 per cent, and again in 1999, to 20 per cent – half the OECD average. This increase was essentially the result of an increase in market price support (mainly for poultry and oilseeds) and, to a limited extent, of increased budgetary support (output and income-related payments). The share of market price support in total support increased from one-third in 1998 to one-half in 1999. The producer NAC of 1.24 suggests that gross farm receipts (including support) in 1999 were 24 per cent greater than they would have been without any support.

Until 1991, budgetary support to consumers partly offset market transfers from consumers to producers. Since 1992, the CSE has reflected only changes in market price support. The %CSE was estimated to be 13 per cent in 1999, around 40 per cent of the OECD average. In 1999, the total CSE increased by 70 per cent, mainly due to a rise in market price support for poultry and oilseeds. As indicated by the consumer NAC, consumers were implicitly taxed, and paid on average 15 per cent more than they would have in the absence of market price support to producers. The general services support estimate rose 31 per cent, mainly due to increased expenditures on inspection services, research, and marketing and promotion. The total support estimate (TSE) increased by 41 per cent and reached 2.2 per cent of GDP.

Developments in domestic policies

With the fall in world market prices, the stocks of grains, accumulated due to government intervention in the 1998 harvest, required increased export subsidies for disposal on world markets. To limit the accumulation of intervention stocks, the Government provided payments to farms that gave up their right to sell to the State, and in fact no wheat or maize were sold into intervention from the 1999 harvest. The guaranteed prices for wheat and maize announced for the 1999 harvest were much closer to market prices than in 1998. For **bread-wheat** (grade B1, B2), the guaranteed price for the 1999 harvest was maintained at the 1998 level of Ft 18 000/t (in US\$ terms it declined by 10 per cent to US\$76/t) and remained limited to a maximum of 2.4 tonnes/ha. Compared with 1998, the procurement period was halved to 4 months (from 1 August to 1 December) for wheat from the 1999 harvest. For **feed maize** the guaranteed price set for the 1999 crop was 15 per cent lower, at Ft 14 000 per tonne (23 per cent lower in US\$ terms at US\$59 per tonne), and was limited to a maximum of 3.2 tonnes per hectare of maize for farmers having applied for the programme before the harvest.

Prices for the main livestock products (milk, pigmeat, beef and poultry) are supported by a guidance price system, with the possibility of intervention. In 1999, the guidance price for **milk** rose by 12 per cent (or 1 per cent in US\$) to Ft 61 500 (US\$259) per tonne. In addition, a direct payment of Ft 3 883 (Ft 4 854 from 1 September) per tonne was paid to producers of premium quality milk. For **beef**, the guidance price remained at the 1998 level (declined by 10 per cent in US\$) and the guarantee price was increased by 13 per cent (2 per cent in US\$). In reaction to the depressed **pigmeat** market, the Government continued to reduce the guidance and guaranteed prices for live pigs (Table II.8). For 1999, the guidance price was reduced by 15 per cent (23 per cent in US\$) and the guaranteed price by 20 per cent (28 per cent in US\$). To compensate for price reductions, the Government increased price premiums for high-quality grades, and from June to December 1999 introduced a minimum price to be paid to farms for all pigs (independent of quality grades).

Table II.8. Hungary: Minimum guaranteed and guidance prices

Product	1998		1999		Change in Ft price 1998 to 1999 %
	Ft/t	US\$/t ⁸	Ft/t	US\$/t ⁸	
Bread wheat ^{1, 2}					
Guaranteed price	18 000	84	18 000	76	0.0
Maize ^{1, 3}					
Guaranteed price	16 500	77	14 000	59	-15.2
Beef ⁴					
Guidance price	275 000	1 283	275 000	1 160	0.0
Guaranteed price	230 000	1 073	260 000	1 097	13.0
Pigmeat ⁵					
Guidance price	334 000	1 559	284 000	1 198	-15.0
Guaranteed price	270 000	1 260	216 000	911	-20.0
Milk ⁶					
Guidance price	55 000 ⁷	257	61 500	259	11.8
Guaranteed price	47 000	219	53 000	224	12.8

1. Crop year July to June, i.e. in the table 1998 = crop year 1998/99; 1999 = 1999/2000.

2. Minimum guarantee price for grades B1, B2; procurement period from 01.07.1998 to 01.03.1999 and from 01.08.1999 to 01.12.1999.

3. Minimum guarantee price for feed maize; procurement period from 01.12 to 01.03.

4. Price for liveweight (VAT excluded); extra and 1st class quality; males type I (special meat types).

5. Price for carcass weight (VAT excluded); grade E.

6. Price for premium-quality milk (VAT included).

7. The guidance price was increased to Ft 58 000 from 01.09.1998.

8. Conversion uses OECD annual exchange rates (January to December).

Source: Office for Agricultural Market Regulation, Budapest, 1999.

Budgetary *payments based on output* were provided mainly to livestock products in the form of deficiency payments, in cases where farmers had not received the guidance price from processors, and in the form of direct payments for high-quality production. The Government also provided payments to farms to dissuade them from selling into intervention stocks. Overall, the output-related payments were increased by one-third over 1998.

The scheme of payments promoting employment in agriculture, established in 1998, was discontinued, and the scheme which grants *payments related to the income potential of farms* was re-designed. The latter scheme now provides differentiated area payments to *all* farms with less than 300 hectares of agricultural land, with payments inversely proportional to the land's production potential. Under the previous scheme, payments went only to farms in less-favoured areas. Overall, the amount spent on these payments was increased by 48 per cent compared with 1998.

During 1999 the government redirected some financial resources from programmes supporting inputs to agriculture to finance the increasing cost of intervention. Some programmes providing support to investments in agriculture (such as for new machinery) were stopped or limited, and most of the support related to input use went to investments begun in previous years. Overall, support based on input use declined by 9 per cent in 1999. It remained, however, the most important part of budgetary support.

Developments in trade policy

Imports are regulated by *ad valorem import tariffs* and *tariff rate quotas* (TRQs). In 1999, Hungary lowered import tariffs in accordance with the URAA and, to enable minimum as well as current domestic market access, opened TRQs. However, the TRQs for meat and grains remained largely unfilled in 1999. Preferential tariffs were also set for trade with the EU (under the Association Agreement) and for trade with CEFTA countries. Hungary's requests (each dating from 1998), in conformance with WTO *dispute settlement procedures* for separate consultations with the Czech Republic and with the Slovak Republic regarding increased duties by those countries on imports of Hungarian wheat, were resolved bilaterally at the end of 1998 (see Part II.2).

In 1999, *export subsidies* were used for a range of products in accordance with Hungary's waiver from its URAA export subsidy commitments. The total amount spent on export subsidies is estimated to have been Ft 24.4 billion (US\$90 million), which was 14 per cent higher (3 per cent in US\$) than in 1998. The Ministry of Agriculture estimates that Hungary made use of around two-thirds of its permitted export subsidy level. In 1999, a new system of tendering for export subsidies was applied, replacing the so-called "normative" support (providing exporters with funds on a regular basis). The Agricultural Intervention Centre (AIC), established in 1998 to monitor and control export subsidy spending, contributed to more transparency and helped to prevent fraud.

The programme of direct payments to support agricultural employment introduced in 1998 was discontinued in 1999. Tax concessions to farms liable for personal income tax remained unchanged – *i.e.* farmers may be granted a tax concession up to a maximum of Ft 100 000 (US\$422) per year. For 1999, the total amount of these concessions is estimated at Ft 800 million (US\$3 million). Important investment aids were also granted to the food industry in order to ensure compliance with EU regulations.

Overall evaluation

After a period of continued reduction of support to agriculture, support to Hungarian agriculture, as measured by the PSE, increased in 1998 and 1999 mainly due to sharp increases in market price support. Due to both market inefficiencies and policies influencing market prices, prices have been slow to adapt to changes in world market prices. The guidance and guarantee prices set by the Government for the main commodities declined in US\$ terms but by less than world-market prices. For a transition economy and a major exporter such as Hungary, the large and growing costs of market regulation policies (export subsidies and deficiency payments) could, through the resource allocation distortions that they induce, result in a brake on overall economic growth. Already, in order to finance its market support mechanisms and output related payments, the Government has had to reduce other spending, such as supporting investment in agriculture. This could, in the long-term, impede the restructuring of the sector, which is necessary to increase production efficiency. Also, marketing infrastructure and services need to improve in order to enable market agents in the agri-food chain to react to market developments. There was some rebalancing of support to individual farms as the payments per hectare of agricultural land were made available only to farms with less than 300 hectares of agricultural land.

Iceland

Main policy instruments

The Icelandic agricultural sector is highly regulated. The government sets milk prices both at the producer level and at the wholesale level. Supply controls include production quotas on milk. Direct payments are made for milk and sheepmeat. Those to milk producers, based on output, are partly de-linked from production. Since 1996, direct payments to sheepmeat producers have been de-linked from current production levels but based on former quota entitlements. A levy is imposed on the total agricultural income of each farm and refunded within and between agricultural bodies. Trade is strictly regulated and, except for vegetables, imports of commodities that are also domestically produced are limited to volumes required under WTO minimum and current-access provisions. Consumer subsidies for wool are provided at the wholesale level. Interest concessions on agricultural loans are the main support to inputs.

Support to agriculture

As measured by the %PSE, support tended to decline from 74 per cent in 1986-88 to 64 per cent in 1997-99, but rose in 1998 and 1999 (Tables III.35-37, Figure III.7). Overall, there has been a significant shift from market price support to direct payments (based on output for milk and based on historical entitlements for sheepmeat), despite an increase in the proportion of market price support since 1996. However, at 68 per cent the %PSE in 1999 was much higher than the OECD average of 40 per cent. The

producer NAC of over 3.2 indicates that gross farm receipts (including support) were almost three times as high as what they would have been without any support.

As measured by the %CSE, the implicit tax on consumers associated with agricultural policies also declined from 67 per cent in 1986-88 to 50 per cent in 1997-99, but has risen since 1997. At 56 per cent in 1999, the %CSE was much higher than the OECD average of 31 per cent. As indicated by the consumer NAC of 2.29, consumers were implicitly taxed, and paid on average more than twice what they would have paid in the absence of market price support to producers and consumer subsidies. Support for general services to agriculture (GSSE) was reduced, and accounted for around 9 per cent of the TSE in 1999. Overall, transfers from taxpayers and consumers associated with agricultural policies, as measured by the TSE, are estimated at IKr 13 billion (US\$180 million), representing 2 per cent of GDP.

Table II.9. **Iceland: Administered prices at the producer level**

Product	1998		1999		Change in Ikr price 1998 to 1999 %
	IKr/t	US\$/t	IKr/t	US\$/t	
Milk ¹	59 370	834	62 270	860	4.9
Beef and veal ²	273 760	3 846	n.a.	n.a.	n.c.

n.a. Not applicable.

n.c. Not calculated.

1. Including direct payments.

2. Abolished in September 1998.

Source: Ministry of Agriculture, Reykjavik, 2000.

Developments in domestic policies

The administered price for *milk* was increased by 4.9 per cent, and the milk quota for the production year 1999-2000 was lowered by 1.0 per cent to 102 million litres (Table II.9). The unit value of direct payments for milk, limited to the current quota level, rose by 4.8 per cent. The administered price for *beef* and *veal* was abolished in 1998. The unit value of payments based on historical entitlements for *sheepmeat* rose by 7.2 per cent. About 25 per cent of total sheepmeat production was exported, hence there was no surplus stock of sheepmeat at the end of the 1998-1999 marketing year.

The **Agricultural Production Board** was abolished in January 2000. The Board, consisting of representatives from producers and the Government, had been responsible for advising, implementing and monitoring agricultural policies in Iceland. The remaining tasks under its responsibility were transferred to The Farmers' Association of Iceland. In March 1999, the Government and the Farmers' Association reached an agreement on the principal objectives of the agricultural *extension services* for the period 1999 to 2003, which are to be the improvement of farm management and of quality-control in agricultural production. The *levy* imposed on the total agricultural income of each farm was reduced from 2.65 per cent to 2.55 per cent in 1999.

Developments in trade policy

Iceland has implemented its URAA commitments to date, although some tariff-rate quotas, notably under Iceland's minimum access commitments, continue to be under-filled. Use of tariff-rate is restricted to products falling under minimum access commitments (meat, processed meat, eggs and dairy products), and to live plants and flowers. Imports of other products subject to current access commitments take place at applied tariff rates equal to or lower than the corresponding bound, in-quota tariff rates. Iceland eliminated export subsidies in 1998.

Overall evaluation

A series of reforms has been implemented in the agricultural sector since 1992. Most of the administered prices have been abolished. The weight of market price in the total PSE has fallen from 88 per cent

in 1986 to 55 per cent in 1999. Administrative institutions have been restructured and the Agricultural Production Board has been abolished. However, since 1996, most of the support indicators (including the %PSE and %CSE and the producer and consumer NACs) have reversed their long-term downward trends. Considering its high level in Iceland, a further reduction in support to the agricultural sector would help improve overall economic efficiency and reduce the burden on consumers and taxpayers.

Japan

Main policy instruments

Support is provided largely through administered prices, trade measures and supply management regimes. For rice, the administered prices (government purchase and selling prices) apply to some 10 per cent of consumption and production. The Government purchases this quantity as a national reserve from producers who participate in the Production Adjustment Promotion Programme (PAPP). This is a land-diversion scheme which also plays an environmental role. Japan replaced quantitative restrictions on the import of rice by tariffs as from 1 April 1999. A state trading body, the Food Agency, continues to import rice under Japan's minimum-access commitment. The Rice Farming Income Stabilisation Programme (JRIS) provides direct payments based on output to farmers to compensate for part of the loss of income caused by a fall in the market price compared with the average price of the three preceding years. Deficiency payments are made for soybeans, calves and manufacturing milk. Supply controls include quotas on milk deliveries, and the diversion of land from rice to other crops under the PAPP. Payments based on input constraints are provided under the PAPP for the maintenance of paddy fields put to uses other than rice production. A state-trading body, the Agriculture and Livestock Industries Corporation (ALIC), operates the import and price support programmes for certain dairy products (mainly butter and skimmed milk powder) as well as the price stabilisation systems for sugar, beef and pigmeat. Budgetary support is provided for irrigation and drainage and readjustment of agricultural land. Prefectural and local governments provide infrastructure and extension services under the guidance of, and with some budgetary aid from, central government.

Support to agriculture

As measured by the %PSE, support has declined from 67 per cent in 1986-88 to 61 per cent in 1997-99, in particular due to a decrease in market price support (Tables III.38-40, Figure III.8). However, at 65 per cent, the %PSE in 1999 (up from 62 per cent in 1998) was much higher than the OECD average of 40 per cent. In 1999, the total PSE increased by 2.5 per cent. Although domestic producer prices were lowered, the appreciation of the yen (by 13 per cent against dollar) made import prices even cheaper. The producer NAC of 2.8 indicates that gross farm receipts (including support) were almost three times as high as they would have been without any support.

As measured by the %CSE, the implicit tax on consumers associated with agricultural policies declined from 58 per cent in 1986-88 to 50 per cent in 1997-99, but at 53 per cent in 1999, it is significantly higher than the OECD average of 31 per cent. The total CSE declined slightly in 1999, due to a decrease in consumption prices and level of consumption. As indicated by the consumer NAC, consumers were implicitly taxed, and paid on average more than twice as much as they would have paid in the absence of market price support to producers and consumer subsidies. Support provided to general services to agriculture (GSSE) rose again, reflecting the Government's use of fiscal policy to stimulate the economy. The GSSE represents around 20 per cent of the TSE. Overall, transfers from taxpayers and consumers associated with agricultural policies, as measured by the TSE, were estimated at ¥ 8136 billion (US\$71 billion) in 1999, excluding expenditures funded by local governments, and represented about 1.6 per cent of GDP.

Developments in domestic policies

The Basic Law on Food, Agriculture and Rural Areas, a new constitutional law, which replaced the Agricultural Basic Law, came into force on 16 July 1999. The law declares the following principles as

objectives of food, agricultural and rural policies: securing a stable food supply, fulfilment of multifunctional roles, sustainable agricultural development and the development of rural areas. Based on this new Basic Law, the Government announced more detailed action plans for reform by commodity.

The government purchase price for the 1999 *rice* crop was reduced by 1.8 per cent, while the government selling price for domestic rice (to be applied from December 1998) was reduced by 1 per cent (Table II.10). The government selling price for imported rice under the minimum-access commitment (as applied from January 1999) was reduced by 2.1 per cent.

Table II.10. **Japan: Administered prices for rice**

	1997/98 (November to October)		1998/99 (November to October)		Change in yen price 1997/98 to 1998/99 %
	Yen/t	US\$/t	Yen/t	US\$/t	
Government purchase price					
Domestic rice	263 416	2 012	258 800	2 272	-1.8
Imported rice ¹	48 400	370	35 600	313	-26.4
Government sale price					
Domestic rice	283 033	2 162	280 100	2 459	-1.0
Imported rice ¹	210 867	1 611	206 483	1 813	-2.1

1. Average government purchase or selling price for imported rice under the minimum access arrangement.

Source: Ministry of Agriculture, Forestry and Fisheries, Tokyo, 2000.

The total government contribution to JRIS payment in 1999, including some direct payments under the old system, was ¥ 118 billion (US\$1.0 billion). The target area diverted from rice production under the PAPP scheme was 963 000 hectares in 1999, the same as in 1998. The payment for farmers who participated in PAPP was ¥ 117 billion (US\$1.0 billion) in 1999.

All the administered prices for other crops were reduced in 1999 (Table II.11). The Government purchase prices for *wheat* and *barley*, and minimum producer prices for *sugar beet*, were reduced by 0.7 per cent. The minimum producer price for *sugar cane* was reduced by 0.1 per cent. Standard producer prices (guaranteed prices for deficiency payments) for *soybeans* and *rapeseed* were reduced by 0.5 per cent and 0.7 per cent respectively. The government selling prices for wheat and barley were reduced by 3.2 per cent.

Table II.11. **Japan: Administered prices for crops**

Product	1998/99 ¹		1999/2000 ¹		Change in yen price 1998/99 to 1999/2000 %
	Yen/t	US\$/t	Yen/t	US\$/t	
Wheat ²	149 300	1 141	148 217	1 301	-0.7
Wheat ³	39 850	304	38 567	339	-3.2
Barley ²	128 620	983	127 680	1 121	-0.7
Barley ³	34 800	266	33 680	296	-3.2
Sugar beet ⁴	16 880	129	16 770	147	-0.7
Sugar cane ⁴	20 160	154	20 140	177	-0.1
Soybeans ⁵	234 700	1 793	233 517	2 050	-0.5
Rapeseed ⁵	190 750	1 457	189 350	1 663	-0.7

1. Crop years are July to June for wheat and barley, June to May for rapeseed, and October to September for all other crops.

2. Government purchase price for domestic production.

3. Government selling price for domestic production, applicable as of 1 February in each year.

4. Minimum producer price.

5. Standard producer price.

Source: Ministry of Agriculture, Forestry and Fisheries, Tokyo, 2000.

The Government announced plans to change the mechanisms of support for soybeans and sugar. The deficiency payment for soybeans will be replaced in 2000 by a new set of payments, one of which will have

the same structure as the current, output-based JRIS payment for rice. For sugar, the price stabilisation system will be maintained, but some modification will be made in method for calculating the minimum producer prices. A reduction of about 20 per cent in the wholesale price of domestic sugar is also proposed.

The guaranteed producer price for manufacturing *milk* was reduced by 0.7 per cent; however, the quota (in conjunction with the deficiency payment limit) was maintained at its 1998 level (Table II.12). The stabilisation indicative price for butter was reduced by 2.5 per cent, and that for skimmed milk powder was maintained at its 1998 level. The mark-ups on import prices were ¥ 313 000 (US\$2 748) per tonne for skimmed milk powder and ¥ 830 000 (US\$7 288) per tonne for butter.

Table II.12. **Japan: Administered prices for livestock products**

Product	1998/99 (April to March)		1999/2000 (April to March)		Change in Yen price 1998/99 to 1999/2000 %
	Yen/t	US\$/t	Yen/t	US\$/t	
Manufacturing milk ¹	73 860	564	73 360	644	-0.7
Butter ²	955 000	7 296	931 000	8 175	-2.5
Skimmed milk powder ²	523 600	4 000	523 600	4 597	0.0
Pigmeat ³	380 000	2 903	370 000	3 249	-2.6

1. Guaranteed producer price.

2. Indicative stabilisation price.

3. Floor price in the price stabilisation band.

Source: Ministry of Agriculture, Forestry and Fisheries, Tokyo, 2000.

The Government also announced a reform plan for the dairy sector. Price support programmes for domestic dairy products are scheduled to be abolished in 2001. Deficiency payments for manufacturing milk are also expected to be abolished and replaced by a new direct payment. ALIC, a state trading enterprise, will continue to import certain dairy products.

Most administered prices for *calves* were frozen at their 1998 levels (Table II.13). The floor level of the *pigmeat* price stabilisation band, maintained principally by ALIC intervention, was reduced by 2.6 per cent. The Government contribution to payments based on output to *egg* producers was reduced by 1.6 per cent in 1999.

Table II.13. **Japan: Guaranteed prices for calves per head**

Breed	1998/99 (April to March)		1999/2000 (April to March)		Change in Yen price 1998/99 to 1999/2000 %
	Yen/head	US\$/head	Yen/head	US\$/head	
Black Wagyu	304 000	2 322	304 000	2 669	0.0
Brown Wagyu	280 000	2 139	280 000	2 459	0.0
Other beef breeds	202 000	1 543	200 000	1 756	-1.0
Dairy breeds	156 000	1 192	156 000	1 370	0.0

Source: Ministry of Agriculture, Forestry and Fisheries, Tokyo, 2000.

Budget outlays on government programmes that aim primarily at promoting *environmental conservation* and reducing the adverse environmental effects of agriculture were increased from ¥ 15.7 billion (US\$120 million) in 1998 to ¥ 18.2 billion (US\$160 million) in 1999. These programmes include financial support for local governments to promote environmentally friendly farm management through, for example, reducing excessive use of fertiliser and pesticide. A new Law for the Promotion of the Introduction of Advanced Sustainable Farming Systems went into force in October 1999. A budget plan containing area-based payment based for farmers in hilly and mountainous areas was submitted to the Diet in January 2000.

Government investments to improve *rural infrastructure*, such as roads and sewerage, and to encourage the establishment of industries in these areas, was reduced compared with what was envisaged in the initial budget, from ¥ 394 billion (US\$3.5 billion) in 1998 to ¥ 391 billion (US\$3.4 billion) in 1999.

A new *labelling rule for all foods* was expected to go into effect in April 2000 with a certain grace period. According to the new rules, food manufactures and distributors will be obliged to attach labels that provide information on the quality of all food and drink products. Labels on all basic products (except for those for processed foods) will indicate their place of origin. The Government standardises organic foods in accordance with the *Codex Alimentarius*, and only those certified as fulfilling these standards can be labelled "organic food". New labelling rules for products containing genetically modified crops were also adopted after two years of discussion between the Government, consumer representatives, food processors and scientists. The labelling rule will be applied to five genetically modified products (soybeans, maize, potato, rapeseed and cotton seed) and to processed foods that contain one or more of those five products. Although the new rules were not applied in 1999, some food manufacturers have already begun to respond to consumers' strong preferences for GM-free foods by eliminating genetically modified ingredients from processed food.

Developments in trade policy

In April, the quantitative restriction on rice imports was abolished and replaced by tariffs. The applied tariff rate was ¥ 351 170 (US\$3 083) per tonne for 1999. The import quota for rice was raised to 644 300 tonnes (milled basis) in 1999, in line with Japan's URAA commitments, and the maximum mark-up for rice imports was set at ¥ 292 000 (US\$2 564) per tonne. The quantity of rice exported as food aid to developing countries was around 0.2 million tonnes in 1997. The share of imported rice in the total shipment of the aid was about 70 per cent. While no reduction was made to the in-quota tariff-rate for dairy products, the over-quota tariff-rate and mark-ups were reduced by 2.5 per cent. Regarding the implementation of Japan's URAA commitments, tariff-rate quotas were under-filled during 1998 for some products, including skimmed milk powder for school lunches and for feed, whey, butter and butter oil for specific uses, starches and ground nuts. Invoking the WTO special agricultural safeguard clause, Japan applied additional tariffs on condensed milk (from 1 June 1999), other starches (from 19 July 1999), milk powder (from 13 August 1999), inulin (from 1 November 1999), and peas (from 6 January and 25 February 2000). Japan was party to two WTO *dispute settlement procedures* involving agricultural products (see Part II.2).

Overall evaluation

The Basic Law came into force in July 1999, followed by the announcement of reform plans in several sectors, including abolition of price support programs for domestic dairy products in 2001. Although most of the reforms have not yet been implemented, some steps in the direction of increased market orientation and reduced support had already occurred in 1999, with almost all administered prices being reduced or frozen. However, since 1986-88, the level of support, as measured by the %PSE and the producer NAC, has remained among the highest in the OECD. The composition of the PSE has changed little: market price support has consistently accounted for more than 90 per cent of the total PSE. Further efforts are needed to improve the exposure of the sector to market forces. As was pointed out in the 1999 *Monitoring and Evaluation* report, a simplification and integration of policy measures would make policies more cost-effective, transparent, tailored and flexible.

Korea

Main policy instruments

Korea's agriculture is supported mainly through trade measures and domestic price stabilisation mechanisms, including government purchase and public stockholding. Downstream industries are compensated for losses incurred in carrying out price stabilisation purchases on behalf of the Government. In addition, they are supported through structural investments, and their operating costs are sometimes subsidised. In the case of rice, the Government purchases a portion of the harvest at predetermined

prices. Several types of direct payments are in place, and more are being considered, but they still account for a small proportion of overall support. Low-interest loans are granted to farmers, who also benefit from subsidised fertilisers, farm machinery, and public investment in irrigation. Various programmes promote land-improvement and farm consolidation. A Scheme for Environment Friendly Farming Areas targets mainly organic farmers in “water preservation areas”, where the use of chemicals and animal waste is restricted to preserve the quality of drinking water. A new framework law for Korean agricultural and rural policies, the Agricultural and Rural Basic Law, came into effect in January 2000.

Support to agriculture

As measured by the %PSE, support had been declining since 1995. However, this trend was reversed in 1999 due to a significant increase in market price support which accounts for over 95 per cent of total support to producers (Tables III.41-43, Figure III.9). The %PSE remained high, at 74 per cent, which was almost twice as high as the OECD average. The total PSE increased by over 30 per cent as a result of higher market price support, from exceptionally low levels in 1998 due to a steep depreciation of the won following the 1997 economic crisis. The increase in the market price support in 1999 was due to an increase in producer prices and a decrease in US dollar prices in world markets, aggravated by the appreciation of the won from the depreciation of the previous year. The producer nominal assistance coefficient (NAC) of 3.85 in 1999 indicates that gross farm receipts (including support) were almost four times what they would have been without any support.

The trend in the %CSE is similar to that in the %PSE. At 67 per cent, it was about 1.5 times the OECD average. As indicated by the consumer NAC of 3.06, consumers of domestically produced farm commodities were implicitly taxed, and paid on average three times what they would have paid in the absence of market price support to producers and consumer subsidies. Total budget outlays for agriculture were more or less unchanged in 1999, at 7.77 trillion won (US\$6.5 billion), accounting for 8.5 per cent of the national budget. Support provided to agencies providing general services to agriculture (GSSE), which represents about 15 per cent of the TSE, increased steadily up to 1997, but has since decreased. Overall, about 26.5 trillion won (US\$22 billion) was transferred from taxpayers and consumers because of agricultural policies in 1999, representing around 5.4 per cent of GDP.

Developments in domestic policies

In response to continuing sharp increases in the prices of agricultural inputs, the Government in 1999 raised its purchase price for *rice* by 5.0 per cent; this followed a 5.5 per cent price rise in 1998. However, in order to meet its Aggregate Measure of Support (AMS) reduction commitment under the URAA, it purchased 9.4 per cent fewer tonnes (around 1 million; see Table II.14). In recent years farmers have sold an increasing portion of their rice in private markets, in particular to Rice Processing Complexes (RPCs) operated by the National Agricultural Co-operative Federation (NACF) and private enterprises. These multipurpose facilities encompass all activities along the food chain, ranging from harvesting to packing, and currently command a 30 per cent share of national rice marketing. As of 1999, 316 RPCs had been created.

In 1999, the NACF increased the prices it paid for *barley* (of which 246 000 tonnes was purchased) and *maize* (14 000 tonnes) by 5 per cent, and for *soybeans* (19 300 tonnes) by 15 per cent (Table II.14).

Because *beef* consumption jumped 13.6 per cent in 1999 (as a result of economic recovery), the National Livestock Co-operative Federation (NLCF) did not intervene in the market to support the price of beef cattle (Table II.15). Three livestock packing centres (LPCs), which deal with the whole processing chain from slaughtering to marketing, were established in 1999. The first four LPCs had been established in 1998, with the aim of ensuring a safe, high-quality beef supply. It is expected that by the year 2001 a total of nine LPCs will have been established.

A pilot study on the use of deficiency payments to support calf-breeding was carried out in 32 localities around the country in 1999. A stabilisation price was set, taking into account breeders' production costs, breeding trends and other factors, and the payment was based on the difference between this stabilisation price and the market price for four-month-old calves. The programme will be

Table II.14. Korea: Purchase prices and quantities of major cereals

	Units	1996 ¹	1997 ¹	1998 ¹	1999 ¹	2000 ¹ (e)	Percentage change		
							1997 to 1998	1998 to 1999	1999 to 2000
Rice²									
Purchase price	'000 won/t	1 584	1 647	1 647	1738	1 825	0.0	5.5	5.0
Purchase quantity	'000 t	1 376	1 241	1 224	1109	1 005	-1.4	-9.4	-9.4
Barley³									
Purchase price	'000 won/t	926	926	977	1026	..	5.5	5.0	n.c.
Purchase quantity	'000 t	318	163	188	246	..	15.3	30.9	n.c.
Maize²									
Purchase price	'000 won/t	455	478	478	504	529	0.0	5.4	5.0
Purchase quantity	'000 t	15	13	13	14	14	0.0	7.7	0.0
Soybeans²									
Purchase price	'000 won/t	1 365	1 433	1 433	1512	1 739	0.0	5.5	15.0
Purchase quantity	'000 t	3.25	1.27	5.49	6.15	19.30	332.5	12.1	213.8

.. Not available.

n.c. Not calculated.

1. Marketing year for rice, maize and soybeans, and calendar year for barley. For example, in the case of rice, maize and soybeans, the year 1999 denotes the price and quantity of 1998 products. In the case of barley, the year 1998 denotes the price and quantity of 1998 products.

2. Polished-grain equivalent.

3. Polished-grain equivalent in the case of price, and unhulled-grain equivalent in the case of quantity.

Source: Ministry of Agriculture and Forestry, Seoul, Korea.

Table II.15. Korea: Consumption and price of beef and milk

	Units	1997 ¹	1998 ¹	1999 ¹	Percentage change	
					1997 to 1998	1998 to 1999
Beef						
Consumption ²	'000 t	517	494	561	-4.4	13.6
Producer price	'000 won/t	5 580	5 400	6 679	-3.2	23.7
Purchased cattle	Head	99 541	112 774	..	13.3	n.c.
Milk						
Consumption	'000 t	2 440	2 286	2 427	-6.3	6.2
Producer price	'000 won/t	454	538	538	18.5	0.0

.. Not available.

n.c. Not calculated.

1. Calendar year basis.

2. Carcass weight equivalent.

Source: Ministry of Agriculture and Forestry, Seoul, Korea.

extended to all areas in 2000, with an upper limit on the deficiency payment of 200 000 won (US\$169) per calf. Farmers wishing to participate in the scheme must pay a levy of 10 000 won per calf. The scheme is being introduced with a view to maintaining a viable calf-breeding sector in preparation for 2001, when beef imports will be subject only to a tariff. Over the period 2000-06, it is expected that 4.3 million calves will be included in the scheme.

Milk consumption grew by 6.2 per cent in 1999 (Table II.15). The Dairy Promotion Act, revised in 1997 with the objective of reinforcing the involvement of the private sector in the marketing system of dairy products, came into effect from January 1999. The Act also created a new Dairy Promotion Board, which grouped the NACF with private dairy organisations to implement programmes for the price stabilisation of milk and dairy products.

Participation in the Government's *early-retirement programme*, which was established in 1997, continued to fall in 1999. The number of retired farmers enrolled in the programme declined to around 10 000 (compared with around 12 000 in 1998), and less of their land was sold or rented (6 500 hectares, compared with 8 100 hectares in 1998). Total payments fell to 17.9 billion won (US\$15.1 million). In an

effort to boost enrolment, the Government plans to increase the annual rental payment from 2.68 million won *per hectare* in 1999 to 2.81 million won (US\$2 370) *per hectare* in 2000.

Since the Sustainable Agriculture Promotion Act, established in 1997, came into effect on 14 December 1998 some measures have been introduced to preserve the environment and particularly to promote sustainable agriculture. A programme intended to encourage *environmentally friendly farming*, involving 18 000 farms (and more than 10 000 hectares), was implemented on a trial basis in 1999. Under this programme, farmers were paid 524 000 won (US\$441) *per hectare* to carry out low-input farming in areas that are specially designated for environment preservation purposes. Target levels for fertilisers and pesticides were set in advance. Payments under the programme totalled about 5.5 billion won (US\$4.6 million). The programme was continued in 2000 under similar conditions.

The Government, along with the private sector, is trying to reduce the use of pesticides and fertilisers – *e.g.* through Integrated Pest Management (IPM) and Integrated Nutrient Management (INM). A total of 16 model areas for **Integrated-Pest-Nutrient-Management** (IPNM) were created in 1999 to implement these programmes over a three-year period beginning in 1999; the programme has been allocated 581 million won (US\$0.5 million) for the year 2000. Some 4 billion won (US\$3.4 million) was provided to local governments to finance facilities and equipment in six *environmentally friendly farming areas*, bringing the total number of designated areas to eleven. Over the period 1998-2004, the Government intends to designate 189 areas, backed up with a total investment of 378 billion won (US\$270 million). A **labelling system** was introduced in 1999 to enhance consumer recognition of organically grown produce and other “environmentally friendly” agro-food products. About 14 000 farmers produce such products in Korea.

In view of increasing consumer concerns relating to *food safety and quality*, food safety measures were intensified. The volume of agricultural products subject to safety inspections was doubled, and 25 products, including lettuce, grapes and spinach, were selected as items to be strictly inspected at the farm-gate. In addition, a Hazard Analysis Critical Control Points (HACCP) system, which lists and closely monitors hazardous elements in the production, processing, marketing and sales stages, was introduced for livestock products. This system had already been implemented voluntarily by some processors, and was extended to slaughterhouses, marketing channels and sales outlets in 1999. The Government is making preparations to establish a **labelling scheme for genetically modified products** such as soybeans, soy sprouts and maize, in accordance with Article 16 of the Agricultural and Fisheries Quality Control Act.

The **agricultural marketing reform programme** contained in the 1998 amendments to the Act for Supply and Demand, and Price Stabilisation of Agricultural and Fisheries Products (described in the 1999 *Monitoring* report) was passed by the National Assembly in December 1999. At the end of 1998, in response to recommendations by the Regulatory Reform Commission, a total of 209 regulations in the agro-food sector were abolished or improved through the amendment of nine relevant regulatory laws in the National Assembly. Abolition or improvement of an additional 38 regulations, including the abolition of registration requirements for food-grain processors under a specific size, followed in 1999. The share of direct contracts in the marketing of agricultural products increased to 15 per cent in 1999, from 12 per cent in 1998. The Government plans to increase the share of budgetary appropriations related to agricultural marketing to 30 per cent of the total Ministry of Agriculture and Forestry budget by the year 2002, from about 15 per cent in 1999.

A **reform of co-operatives** was also undertaken in the form of a new Agriculture Co-operative Federation Act, which was approved by the National Assembly in August 1999. This new Act provides a foundation for low-cost and high-efficiency co-operatives by integrating the NACF, the NLCF, and the Korea Ginseng Co-operatives Federation (KGCF) into the new NACF, which will be established in July 2000. Three other agencies responsible for the maintenance and improvement of agricultural infrastructures – the Rural Development Corporation (RDC), the Federation of Farmland Improvement Associations (FFIA) and the Farmland Improvement Association (FIA) – were amalgamated into the Korean Agricultural and Rural Infrastructure Corporation (KARICO), officially launched in January 2000.

A new legal framework for Korean agricultural and rural policies, the Agricultural and Rural Basic Law, came into effect in January 2000. The Law provides for a move away from market price support, the introduction of direct income payments, support for environment-friendly farming practices, protection of intellectual property rights, and support to venture enterprises. In preparation for this shift in the

structure of support, various agricultural research institutes, including the Korean Rural Economics Institute (KREI), are studying how direct payment schemes might be used, for example, to assist *less-favoured areas* and *protect the environment*. And the Government itself initiated a study of different mechanisms for paying rice farmers directly for specific services, such as preserving paddy fields.

Developments in trade policy

Beef imports under the price stabilisation programme will be managed under an import quota auction system in 2000, as opposed to the current state trading system managed by the Livestock Products Marketing Organisation (LPMO). Import quota auctions will be open to all qualified private traders. The limits applied to the simultaneous buy/sell quota system are expected to be eliminated in 2000. In respect of URAA commitments, tariff-rate quotas (TRQs) were filled for 29 out of 64 agricultural products during 1998. Of the remainder TRQ lines, 25 were partially filled and no imports occurred for 10 products. Korea was a party to several WTO *dispute settlement procedures* involving agricultural products (see Part II.2).

Overall evaluation

Since the conclusion of the Uruguay Round, the Government has implemented programmes to enhance agriculture's competitiveness in the belief that significant structural adjustment would be necessary to prepare for the changing agricultural policy environment. Accordingly, increased emphasis has been placed on technological development, the safety and quality of food, infrastructure improvement, rural development and agro-environment conservation. The establishment of the Agricultural and Rural Basic Law is a significant attempt to develop a new approach to policies for agricultural and rural communities. A framework has been created whereby Korean agricultural policies have the potential to move towards less-distorting direct payments and environment-friendly farming and away from market price support. Nonetheless, support as measured by the %PSE remains high at 74 per cent – almost double the OECD average – and is still dominated by market price support, mainly for rice. Consequently, consumers are implicitly taxed and resource allocation is distorted.

Mexico

Main policy instruments

Agricultural policies consist mainly of market price support, provided through border measures, and direct payments to producers based on historical entitlements and input use. Mexico's border protection is being reduced with Canada and the United States within the framework of the North American Free Trade Agreement (NAFTA) and with other countries according to the URAA. For some products, such as maize, milk and other livestock products, Mexico allocates its import tariff-rate quotas (TRQ) through auction, and very often the annual quota is increased in response to changing market conditions. The set of programmes under the ALIANZA PARA EL CAMPO (Alliance for Agriculture) dates from 1996 and, with the participation of State Governments, aims at enhancing investment in farms, especially in poor, rural areas. The PROCAMPO programme disburses payments to eligible farmers, according to the area planted during a historical base period, if they maintain their land under agricultural or livestock use, or in an environmental project. The Support Services for Agricultural Marketing Agency (ASERCA) provides payments per tonne to the first-hand buyers of wheat, maize and sorghum in certain states, and to growers of rice. Additionally, the National Water Commission – a Government agency in charge of the administration of water, and of the building and maintenance of water infrastructure – receives budget transfers that reduce farmers' irrigation costs. The Secretariat for Social Development (SEDESOL) distributes free tortillas to poor families.

Support to agriculture

The average %PSE doubled from 8 per cent in 1986-88 to 18 per cent on average during the 1997-99 period (Tables III.44-46, Figure III.10). In 1999, the total PSE increased by 39 per cent,

compared with an inflation rate of 12.3 per cent. The %PSE also increased significantly in 1999 – from 17 per cent to 22 per cent – continuing a trend that began in 1996 following the devaluation of the peso. The trend in the PSE has been governed mainly by the evolution of market price support, which was negative in 1996, but both positive and increasing since 1997. The higher level of market price support in 1999 was due both to higher nominal producer prices in Mexico and lower world prices. The other two main elements contributing to the higher value of the PSE were payments based on historical entitlements (PROCAMPO payments), which increased by more than 13 per cent, and payments based on input use (mainly programmes run by ALIANZA, whose budget grew 37 per cent). The producer NAC increased to 1.29 in 1999, indicating that gross farm receipts (including support) were 29 per cent greater than they would have been without any support.

Mirroring the developments in market price support, the Consumer Support Estimate (CSE) has been steadily declining since 1995, and since 1997 has been negative, indicating that consumers have gone from being subsidised to being taxed. The substantial rise in the absolute value of the CSE in 1999 resulted from two main developments: the increase in price support financed by consumers, and the closure of the National Basic Foods Company, CONASUPO, which provided the general tortilla subsidy (see box). The percentage CSE and the consumer's NAC moved, respectively, from –10 per cent and 1.11 in 1998, to –18 per cent and 1.21 in 1999. As indicated by the consumer NAC, consumers were implicitly taxed, and paid on average 21 per cent more than they would have in the absence of market price support to producers and consumer subsidies.

The General Services Support Estimate (GSSE) increased slightly in 1999, and represented 6.1 per cent of the Total Support Estimate (TSE). The TSE increased by 22 per cent to M\$ 63.9 billion (US\$6.1 billion) – *i.e.* about 1.5 per cent of Mexico's GDP.

Box II.2. The closure of CONASUPO

A presidential decree published in May 1999 ordered the closure of CONASUPO. This state enterprise had played a major role in Mexican agricultural markets from its creation in the 1960s. Until the 1990s, CONASUPO was in charge of implementing price support schemes for barley, dried beans, maize, wheat, rice, cottonseed, sesame seed, sorghum, soybeans, safflower, and sunflower seed. It also paid consumption subsidies for milk and maize tortillas, and intervened in the import and distribution schemes for skimmed milk powder for use in social programmes.

From 1993, CONASUPO operated as a last-resort buyer of maize and dried beans; it distributed these products to the network of rural retail stores operated by DICONSA and to mills; it administered the general consumption subsidy for tortillas in the main urban areas; and it participated in the import and sales of skimmed milk powder for the social programmes led by LICONSA and for private industry. In the latter years the quantities of maize and dried beans sold by CONASUPO were reduced. At the same time, the Government began to provide ASERCA payments to encourage the private purchase of domestically produced maize, sorghum and wheat in some of the States.

With the closure of CONASUPO, both DICONSA and the private sector now purchase maize and dried beans directly from farmers. The private sector and LICONSA are directly importing skimmed milk powder. ASERCA will take over CONASUPO's role in trying to improve the marketing of Mexican agricultural production. The private sector is now free to import, but the Federal Government administers the allocation of import quotas. CONASUPO sold its remaining stock of 282 000 tonnes of maize to DICONSA and the sacks it had used for trading maize and dried beans were donated to farmers' associations. Privatisation of the chain of warehouses operated by BORUCONSA began in 1998. Most of its 1 374 centres have already been transferred freely to private producers by the State Governments.

The liberalisation of the tortilla price created a price premium for the local white maize tortilla in relation to the imported yellow maize tortilla. This price liberalisation generated a 41 per cent increase in tortilla prices and an increase of 11 per cent in flour prices (see Table II.17). Significant changes in the structure of the tortilla market are expected in the near future. Consumer preference for traditional tortillas that are made with dough (*masa*) instead of flour and that follow a special manufacturing process called *nixtamal*, could create incentives for vertical integration in the industry.

Developments in domestic policies

The main agricultural policy development in Mexico during 1999 was the decision to close the state company, CONASUPO, after a substantial reduction in its market interventions over the previous five years. The price for **maize** is no longer determined by CONASUPO's purchasing and selling activities, which were nation-wide. Rather, ASERCA payments to first buyers of maize are conditional on the buyers having paid producers an official minimum price (shown in Table II.17) and are available only in a limited number of states. In 1999 these payments were auctioned through a closed-tender system open to any maize buyer. The elimination of the general subsidy for tortillas at the end of 1998 resulted in a negative CSE for maize, implying that, on average, consumers of maize went from being subsidised to being implicitly taxed.

Table II.16. **Mexico: Administered prices**

Product	Producer level								Change in M\$ price	
	1997/98 (autumn/winter)		1998 (spring/summer)		1998/99 (autumn/winter)		1999 (spring/summer)		1997/98-1998/99 (autumn/winter)	1998/99 (spring/summer)
	M\$/t	US\$/t	M\$/t	US\$/t	M\$/t	US\$/t	M\$/t	US\$/t		
									%	
Maize blanco ¹	1 315	144	1 355	148	1 355	142	..	..	3.0	n.c.
Sorghum from: Tamaulipas ²	960	105	n.a.	n.a.	960	100	n.a.	n.a.	0.0	n.c.
Wheat from: The North-East ²	1 400	153	n.a.	n.a.	1 375	144	n.a.	n.a.	-1.8	n.c.
Wheat from: El Bajío ²	1 368	149	n.a.	n.a.	1 368	143	n.a.	n.a.	0.0	n.c.
Sugar ³	1998				1999				Change in M\$ price 1998 to 1999 %	
	M\$/t		US\$/t		M\$/t		US\$/t			
	3 513		384		4 295		450		22.3	

n.a.: Not applicable; ..: Not available, n.c.: Not calculated.

1. Minimum price to be paid to the producer under the ASERCA programme in Sinaloa for AW prices and Chiapas for SS.

2. Minimum price to be paid to the producer under the ASERCA programme. This minimum price is only fixed for the autumn/winter production.

3. Ex-factory prices for raw sugar (*azúcar estándar*) on the basis of which sugar cane producer prices are determined.

Source: Minimum prices: *Official Journal*; Ex-factory prices for raw sugar: Sugar Industry Committee (COAZUCAR).

Table II.17. **Mexico: Retail price ceilings for maize**

	1998		1999p		Change in M\$ price 1998 to 1999p %
	M\$/t	US\$/t	M\$/t	US\$/t	
Tortilla ¹	2 688	294	3 795	397	41.2
Flour ²	4 269	466	4 744	497	11.1

p Provisional.

1. Retail prices of both Tortilla and flour in Mexico DF, Monterrey, Guadalajara and Puebla.

2. Flour sold in the form of 1 kg bags for which retail prices were liberalised in 1995.

Source: Banco de Mexico, Mexico D.F., 1999.

ASERCA per tonne payments for **wheat** were allocated in three auctions, covering up to 2.4 million tonnes from the regions of the North-East and El Bajío, which together account for 77 per cent of national production. Compared with 1998, the minimum price was reduced by 1.8 per cent in the North-East and remained unchanged in El Bajío (see Table II.16). Production of **sorghum** from the leading producer State (Tamaulipas) was entitled to an ASERCA payment, with no nominal change in the minimum price. Rice growers received a deficiency payment of M\$ 150 (US\$15.70) from ASERCA for every

tonne marketed, up to a global limit of 350 000 tonnes. LICONSA ceased to be the main buyer of the *milk* sold by CONASUPO; beginning in 1999 it bought all its milk directly in the market.

Payments per hectare under PROCAMPO increased by 13 per cent in 1999 to M\$ 626 (US\$66) for the autumn/winter crop season and to M\$ 708 (US\$74) for the spring/summer season (Table II.18).

Table II.18. **Mexico: PROCAMPO direct payments**

	Unit	1997		1998		1999p		Change in M\$ price %	
		M\$	US\$	M\$	US\$	M\$	US\$	1997 to 1998	1998 to 1999
Rate of payments (crop season)									
Autumn/winter	Per hectare	484	61	556	61	626	66	14.9	12.6
Spring/summer	Per hectare	556	70	626	68	708	74	12.6	13.1
Total payments	Million	7 533	951	8 491	928	9 624	1 007	12.7	13.3
		1997		1998		1999p		Change %	
Area benefiting	Million hectares	13 984		13 869		13 901		-0.8 0.2	

p Provisional.

Source: Secretariat of Agriculture and Rural Development (SAGAR), Mexico D.F., 1999.

The budget for ALIANZA agricultural programmes was increased by 37 per cent (see Table II.19). Out of a total expenditure of M\$ 4.68 billion (US\$490 million), 66 per cent went to support investment, extension and technology transfer. There was a significant 52 per cent increase in the budget for the programme of temporary employment in extremely poor areas. This programme provides subsistence-level daily salaries to low-income rural labourers in exchange for work on environmental and small infrastructure improvement projects. Over three-quarters of its M\$ 611 million (US\$64 million) budget was spent in twelve states with high levels of poverty.

Developments in trade policy

At the end of 1998, Mexico commenced wide-ranging trade negotiations with the European Union. An agreement was reached in November 1999 that partially covered agricultural products. The details of the agreement are not publicly available, but it has been announced that trade in fruits and vegetables, which are important Mexican exports, would obtain freer entry into the European market. However, an agreement covering milk, cereals and meat was deferred. A new trade agreement with Israel, which covers some agricultural products, was reached at the beginning of 2000. Mexico was party to two WTO *dispute settlement procedures* involving agricultural products (see Part II.2).

Overall evaluation

The share of market price support in the total PSE has increased from 29 per cent in 1986-88 to 70 per cent in 1997-99. However, the recent evolution of Mexican agricultural policies was strongly affected by the devaluation of the peso in late 1994. Nominal producer prices did not immediately adjust for the new exchange rate and have been steadily increasing since then. The strong increase in the PSE in 1999 – mainly explained by a higher level of market price support – shows that producer prices are still not fully adjusting to changes in world market prices. From being totally based on input use in 1986-88, 60 per cent of budgetary payments are now based on historical entitlements (PROCAMPO), a change that will have reduced the associated distortions. The closure of CONASUPO bought about the elimination of a general subsidy for the consumption of maize – the main staple in the Mexican diet. At the same time, programmes more targeted to poor families – such as the DICONSA and LICONSA free tortilla and milk programmes, the temporary employment in poor areas programme, and

Table II.19. Mexico: Alliance for Agriculture

Type of programme	1996		1997		1998		1999		Change in M\$ price %			Main objective of the programme
	mn M\$	mn US\$	mn M\$	mn US\$	mn M\$	mn US\$	mn M\$	mn US\$	1996 to 97	1997 to 98	1998 to 99	
Payments based on limited area planted	159.8	21.0	165.4	20.9	335.5	36.7	292.1	30.6	3.5	102.8	-12.9	Improve coffee plants, productivity and renovation of plantations Technical assistance, pest control and genetic improvement
Coffee programme	135.2	17.8	128.6	16.2	199.3	21.8	204.7	21.4	-4.9	55.0	2.7	
Cotton	0.0	0.0	0.0	0.0	41.0	4.5	30.1	3.2	n.c.	n.c.	-26.6	
Other programmes	24.6	3.2	36.8	4.6	95.2	10.4	57.3	6.0	49.6	158.6	-39.8	Use of certified seeds in low productivity units.
Payments based on historical plantings	11.7	1.5	14.1	1.8	0.0	0.0	0.0	0.0	20.5	-100.0	n.c.	
Payments based on use of variable inputs	51.6	6.8	157.6	19.9	201.2	22.0	308.8	32.3	205.7	27.7	53.5	
Maize and beans seed improvement	50.2	6.6	155.0	19.6	187.0	20.4	235.8	24.7	208.8	20.6	26.1	Technical support for increasing productivity of basic crops Extension services to improve productivity of small producers. Pest and diseases prevention, control, surveillance and eradication Pest prevention, control and/or eradication Increasing the planted area of resistant oil-palm and soybeans in the tropic.
Other programmes	1.4	0.2	2.6	0.3	14.2	1.6	73.0	7.6	92.6	447.4	412.9	
Payments based on use of on-farm services	283.4	37.3	545.2	68.8	675.6	73.8	981.9	102.8	92.4	23.9	45.3	
Elementary Programme of Technical Assistance	0.0	0.0	122.4	15.4	125.7	13.7	167.2	17.5	n.c.	2.7	33.0	Irrigation systems to allow a more efficient use of water, energy and fertilizers. Facilitate the acquisition/repair of tractors and seeding machines Increase of production and efficient use of forage Installation of building materials and equipment for milk production
Training and Extension	91.5	12.0	113.0	14.3	142.9	15.6	190.0	19.9	23.5	26.5	32.9	
Animal health	72.2	9.5	111.6	14.1	145.1	15.8	173.5	18.2	54.6	30.0	19.6	
Plant health	83.5	11.0	122.7	15.5	125.9	13.8	163.7	17.1	46.9	2.6	30.0	
Oil-palm and soybeans	34.4	4.5	49.2	6.2	74.9	8.2	155.4	16.3	43.0	52.3	107.4	
Other programmes	1.8	0.2	26.3	3.3	61.1	6.7	132.2	13.8	1361.1	132.4	116.3	
Payments based on use of fixed inputs	1 241.4	163.3	1 883.6	237.7	1 619.5	176.9	2 111.3	221.0	51.7	-14.0	30.4	
Ferti-irrigation	324.9	42.7	333.3	42.1	348.8	38.1	319.2	33.4	2.6	4.7	8.5	
Mechanisation	209.1	27.5	245.9	31.0	203.3	22.2	215.8	22.6	17.6	-17.3	6.2	
Creation of Prairies	152.5	20.1	239.6	30.2	190.1	20.8	193.6	20.3	57.1	-20.6	1.8	
Milk Programme	112.4	14.8	113.5	14.3	109.4	12.0	139.4	14.6	1.0	-3.6	27.4	

Table II.19. **Mexico: Alliance for Agriculture** (continued)

Type of programme	1996		1997		1998		1999		Change in M\$ price %			Main objective of the programme
	mn M\$	mn US\$	mn M\$	mn US\$	mn M\$	mn US\$	mn M\$	mn US\$	1996 to 97	1997 to 98	1998 to 99	
Livestock Genetic Improvement	96.9	12.7	145.0	18.3	138.2	15.1	161.1	16.9	49.6	-4.7	16.5	Promote artificial insemination and improve breeding quality of cattle
Genetic Improvement	70.0	9.2	80.1	10.1	65.5	7.2	59.2	6.2	14.4	-18.3	9.6	Acquisition of genetic material and cattle samples for repopulating
Rural equipment	238.1	31.3	360.4	45.5	382.0	41.7	630.0	65.9	51.4	6.0	64.9	Acquisition of small equipment by young, female and indigenous farmers
Development of indigenous Areas	0.0	0.0	41.5	5.2	56.2	6.1	150.2	15.7	n.c.	35.3	167.5	Promote productive projects in extremely poor areas.
Other programmes	37.5	4.9	324.3	40.9	126.1	13.8	242.9	25.4	764.8	-61.1	92.7	
Payments based on established minimum farming income	0.0	0.0	300.0	37.9	403.0	44.0	610.8	63.9	n.c.	34.3	51.6	
Temporary employment programme in poor areas	0.0	0.0	300.0	37.9	403.0	44.0	610.8	63.9	n.c.	34.3	51.6	Rehabilitate basic infrastructures and provide temporary employment
Miscellaneous Sub-national payments	0.0	0.0	0.0	0.0	0.0	0.0	50.0	5.2	n.c.	n.c.	n.c.	
Research and Development	126.5	16.6	133.0	16.8	149.5	16.3	170.0	17.8	5.1	12.4	13.7	
Technology transfers	126.5	16.6	133.0	16.8	149.5	16.3	170.0	17.8	5.1	12.4	13.7	Research, validation and technology transfers by research foundations
Inspection services	0.0	0.0	1.0	0.1	1.1	0.1	2.7	0.3	n.c.	5.0	153.3	
Marketing and promotion	6.1	0.8	26.0	3.3	36.5	4.0	140.2	14.7	326.2	40.3	284.4	
Other Programmes	0.0	0.0	6.4	0.8	2.0	0.2	8.2	0.9	n.c.	-68.8	309.0	
TOTAL	1 880.5	247.4	3 232.3	407.9	3 423.8	374.0	4 675.9	489.5	71.9	5.9	36.6	
Share by State Governments	36%		36%		32%		34%		-0.4	-9.8	5.9	

Note: Alianza programs have been allocated according to the OECD's classification on the basis of implementation (see part II in this volume).

n.c. Not calculated.

Source: Secretariat of Agriculture and Rural Development (SAGAR, Mexico).

other Alianza programmes – were strengthened. These changes, in principle, offer a more cost-effective way of using scarce budgetary resources to achieve social objectives.

New Zealand

Main policy instruments

Support to agriculture in New Zealand is provided mainly through general budget outlays for basic research and for the control of pests and diseases. Direct payments are granted for adverse climatic events and natural disasters, but only in the event of large-scale emergencies of national significance that are beyond the response capacity of local farmer or grower organisations and territorial local authorities. Historically, marketing of most agricultural products in New Zealand was largely under the control of statutory producer and marketing boards. Producer boards for milk, kiwifruit, apples and pears, enjoy statutory powers controlling a range of activities. The non-trading boards for meat (Meat New Zealand), wool (Wools of New Zealand), deer and other game (Game Industry Board), and pork (the Pork Industry Board) have statutory powers to collect levies from producers. Revenues from these levies are spent on promotion, research and development and, less significantly, on quality assurance and trade policy. Currently the Boards themselves determine the level of their compulsory levies on producers.

The Food Assurance Authority in the Ministry of Agriculture and Forestry sets standards for meat and dairy products for the domestic market and for all other foods for export (and certifies that standards have been met), audits the performance of service providers, and takes enforcement action where appropriate. The Biosecurity Authority is responsible for protecting New Zealand's unique flora and fauna, and for facilitating exports by managing risks to plant and animal health, and animal welfare.

Support to agriculture

Support provided to New Zealand farmers, as measured by the PSE, remains the lowest in total and in percentage terms of any country in the OECD. The %PSE rose fractionally in 1999, from just over one percent to just less than two percent. The total PSE, which rose by 24 per cent to NZ\$173 million (US\$91 million), comprised only two categories of support provided to specific industries: *i*) small amounts of funding for disease control programs applying to beef and pigmeat; and *ii*) trade restrictions (on sanitary grounds) providing a (relatively) high degree of market price support to poultry producers. The low %CSE and consumer and producer NACs shows that, on average, New Zealand domestic prices were closely aligned with world prices. Support provided through general services constituted a little less than one-half of total support in 1999, and its level was unchanged from 1998. The rise in the PSE, combined with a stable level of the GSSE, led to a slight increase in the TSE.

Developments in domestic policy

In the early part of 1999, a drought affected parts of Otago, Southland and South Canterbury, costing farmers an estimated NZ\$ 540 million (US\$286 million) in lost revenues and increased costs. In response, the Government provided an assistance package worth NZ\$ 0.4 million (US\$0.21 million), disbursed through rural communities and Federated Farmers, to help rural groups assess the impacts of a drought and to put farming families in contact with those who could help them (*e.g.* by helping affected families in negotiations with bankers and other creditors).

The Government passed major legislation in 1999 to reform the statutory producer boards. The Government's aim in reforming the boards is to eliminate controls, where appropriate, and to remove unnecessary legislative impediments in order to give producers and other industry participants more freedom to make their own business decisions.

In May 1999 the **dairy industry** proposed the formation of a mega-cooperative, Mergeco, through the amalgamation of most of the existing co-operative dairy processing companies. Under the proposal, the Dairy Board would become a subsidiary of the new company. The proposal is designed to consolidate a deregulated New Zealand dairy industry and give it the ability to compete with multinational compa-

nies in export markets. Following negotiations with the industry in September 1999, the Government passed legislation, the Dairy Industry Restructuring Act, to facilitate the industry's plan.

The Act contains the following key provisions:

- The statutory powers providing for a single exporter of New Zealand dairy products are to be removed with effect from 1 September 2000.
- The Dairy Board is to be converted into a company. Shares in the board held by non-participating co-operatives are to be transferred to Mergeco by agreement.
- Exclusive export rights are to be put in place during a transition period for those markets in which foreign governments exercise a high degree of control over access (the so-called "designated markets"). (Sales to these markets account for approximately 16 per cent of the value of total exports of New Zealand dairy products.)
- Other aspects of dairy industry legislation are to be amended, with the aim of removing, or significantly lowering, regulatory barriers to entry.

The provisions of the Act are conditional on:

- Agreement between participating companies on terms for the merger.
- Commerce Commission authorisation of the merger.
- Farmer and shareholder approval of the plan (support is required from at least 75 per cent of farmers voting in each co-op, plus approval by companies representing at least 75 per cent of shares in the Dairy Board).
- The new entity being approved and functioning by 1 September 2000.

The initial designated markets represent approximately 16 per cent of current New Zealand dairy exports by value. Initially Mergeco will have exclusive rights to export to these markets. The exclusive arrangements will apply for between six and six-and-a-half years, depending on when the relevant quota year ends. Thereafter they will be phased out over four years. Thus, from 1 April 2010 the rights to all designated markets will be available to all exporters on an equal basis.

The co-ops that do not participate in Mergeco will have their share of quota rent for the initial period paid out at fair value by Mergeco, by agreement. They will also be able to enter into contractual arrangements with the new co-op to supply markets with tariff-rate quotas. The detailed arrangements that will apply once Mergeco's period of exclusive allocation has ended have not yet been determined. However, the Act specifies that the arrangements must ensure that the value of the arrangements flow back to New Zealand dairy farmers. Arrangements are to be put in place by 31 December 2004, to ensure that all potential participants receive adequate notice.

In August 1999, the Commerce Commission issued its draft determination on the merger proposal. It expressed concern, on the grounds that the possible benefits to the economy would be more than offset by the costs, in particular the potential costs imposed on New Zealand dairy producers and consumers by the establishment of one very large, dominant, dairy company. In response to the Commission's draft determination, the dairy industry withdrew its first application so as to seek approval for a new merger. As yet, the major parties have been unable to agree merger terms and, as a result, a new application has not been lodged.

Regulations to dissolve the **Raspberry Marketing Council** and its four district marketing committees – which together administered the single export desk for raspberries – went into effect in August 1999. Legislation was enacted to convert the New Zealand Apple and Pear Marketing Board into a company, ENZA Ltd., and the New Zealand Kiwifruit Marketing Board into a company, Zespri Group Ltd. (ZGL), on 1 April 2000. The Government enacted new regulations enabling ENZA Ltd. to export apples and pears, and for other persons to export these fruit where they have been granted an export permit by the Apple and Pear Export Permits Committee. The Apple and Pear Board (NZAPB) authorises ENZA Ltd. to export apples and pears, and monitors and enforces ENZA Ltd.'s compliance with the regulations. Similarly, the Government enacted regulations enabling ZGL to export kiwifruit and for other persons to export kiwifruit with the approval of the New Zealand Kiwifruit Board. The New Zealand Kiwifruit Board authorises ZGL to export kiwifruit, and monitors and enforces ZGL's compliance with the regulations.

An Independent Biotechnology Advisory Council, funded by the Ministry of Research, Science and Technology, was established by the Government in May 1999. The Council comprises ten people, drawn from a range of backgrounds, and aims to stimulate dialogue and enhance public understanding of **biotechnology**. It also provides independent advice to Government on the environmental, economic, ethical, social and health aspects of developments in biotechnology, and makes occasional recommendations to the Government on aspects of the technology.

The Animal Welfare Act, which came into force on 1 January 2000, substantially reforms the law relating to **the welfare of animals** and the prevention of their ill treatment. It is intended to ensure that New Zealand maintains high animal-welfare standards. The Act includes some major initiatives that have, until now, not received statutory recognition. The Animal Products Act of 1999 reformed the New Zealand law that regulates **the production and processing of animal material and products**, with the aim of managing associated risks and facilitating overseas market access. It applies to all animal material and products that are traded and used in, or exported from, New Zealand. The Act replaces the Meat Act 1981 and the Apiaries Act 1969. Most of the Act came into force on 1 November 1999. However, the provisions in the Act relating to risk management programs are expected to enter into force in 2000.

Developments in trade policy

There were no changes to New Zealand trade policy relating to agriculture in 1999. As in every year since 1996, New Zealand provided no export subsidies in 1999. The country was a party to several WTO **dispute settlement procedures** involving livestock products (see Part II.2).

Overall evaluation

The level of support to agriculture in New Zealand was the lowest among OECD countries in 1999. Of the support provided, most consists of payments for natural disasters and general services. Only a small fraction, confined to the poultry and egg industry, is provided via support measures that directly distort producer and consumer prices. Proposed reforms in the previous statutory arrangements for marketing and export go in the direction of deregulation and improving the already high degree of market orientation.

Norway

Main policy instruments

Agriculture in Norway is supported through direct payments, administered prices, supply control measures, market regulation and border measures. Market price support is supplemented by a comprehensive system of deficiency payments and other forms of direct payments, a significant share of which are differentiated by region, size of farm, amount of arable land and number of animals. Export subsidies are financed through levies at the producer and wholesale levels for livestock products, but for processed and horticultural products they are financed by the government budget. High tariffs to a large extent prevent imports of products competing with domestic production. To keep domestic prices at the levels specified in the annual Agricultural Agreement, a system of "open periods" for imports at reduced tariff rates is triggered when domestic prices rise above threshold levels. The current framework for Norwegian agricultural policy reform emphasises fewer, better-targeted support measures and increased market orientation of the sector.

Support to agriculture

The level of support, as measured by the %PSE, changed little between the 1986-88 and the 1997-99 periods (Tables III.50-52, Figure III.12). Moderate declines between 1991 and 1996 were followed by increases in subsequent years. The %PSE rose by 3 percentage points in 1998 and by a further 2 percentage points in 1999. At 69 per cent, it is 70 per cent above the OECD average. The total PSE increased in 1999 mainly because of lower world market prices, which resulted in higher market price support. Producer prices and direct payments also increased, but the effect on the overall level of support was relatively small. More than half of support was provided through direct payments. The trend away

from payments based on output, to payments based on area and animal numbers, continued. Around one-third of the payments were linked to output, with payments based on limited output being slightly more important than those based on unlimited output. Nearly one-fifth consisted of payments based on limited area and animal numbers. Payments based on input use (mainly payments per hectare of grass fodder used in livestock production) declined, but continued to be the most important form of direct payments, accounting for almost half of the total. The producer NAC of 3.2 indicates that gross farm receipts (including support) were more than three times what they would have been without any support.

Reflecting a gradual shift from price support to direct payments, the %CSE declined faster than the %PSE during the first half of the 1990s. In 1997, the %CSE began to rise again. In 1998, it increased by 7 percentage points and, in 1999, by another 6 percentage points, to 55 per cent, which is 80 per cent higher than the OECD average. Mirroring the development of market price support, the increase in the total CSE was largely due to changes in world market prices. As indicated by the consumer NAC of 2.2, consumers were implicitly taxed, and paid more than twice the amount they would have paid in the absence of market price support to producers. Budgetary expenditures for the provision of general services to agriculture (GSSE) were largely stable until 1996, but have declined by one-third since then, and now represent only about 3 per cent of the TSE. Overall, transfers from taxpayers and consumers associated with agricultural policies, as measured by the TSE, are estimated at NKr 21.9 billion (US\$2.8 billion), representing nearly 2 per cent of GDP.

Developments in domestic policies

The *administered price* of feed rye was reduced by 0.5 per cent, while the administered prices for other cereals remained unchanged (Table II.20). In the livestock sector, the price of milk was raised by 0.6 per cent and that of sheepmeat by 10.7 per cent. *Producer levies* ("marketing fees") also remained at previous levels, except for the levies on milk and pigmeat, which were reduced by one-third.

Table II.20. Norway: Administered prices

Product	1998/99 (July to June)		1999/2000 (July to June)		Change in NKr price 1998/99 to 1999/2000 %
	NKr/t	US\$/t	NKr/t	US\$/t	
Producer level (excluding value-added tax)					
Food grains					
Wheat	2 310	306	2 310	296	0.0
Rye	2 150	285	2 150	276	0.0
Barley ¹	1 920	254	1 920	246	0.0
Oats ¹	1 730	229	1 730	222	0.0
Feed grains					
Wheat	1 980	262	1 980	254	0.0
Rye	1 940	257	1 930	248	−0.5
Oilseeds	4 440	588	4 440	569	0.0
Wholesale level (excluding value-added tax)					
Beef, bull ²	36 450	4 831	36 450	4 675	0.0
Veal ³	33 590	4 452	33 590	4 308	0.0
Pigmeat ⁴	26 870	3 561	26 870	3 446	0.0
Sheepmeat, lamb ²	37 440	4 962	41 440	5 315	10.7
Eggs ⁵	15 680	2 078	15 680	2 011	0.0
Poultry	30 050	3 983	30 055	3 855	0.0
Milk ⁶	6 366	844	6 405	821	0.6

1. The feed-grain prices for barley and oats are the same as the food-grain price.

2. Class O- and better; carcasses.

3. Class I and better; carcasses.

4. Class E; carcasses.

5. Class A, weighing more than 53 grammes.

6. Converted from litres, assuming 1 litre equals 1 032 kilogrammes of milk.

Source: Ministry of Agriculture, Oslo, 1999.

Modifications to the **milk quota system** continued. Milk quotas became tradable in 1997, but they can only be bought and sold within each of the 9 regions. In 1998, the Government decided that, in order to counteract production increases, half of the quota purchased by the Agricultural Marketing Board from producers would be permanently withdrawn from the market. However, the surplus situation in the milk sector continued, partly due to reductions in domestic consumption and to WTO limits on subsidised exports. The Government therefore decided in 1999 that none of the quota purchased by the Agricultural Marketing Board would be offered for further sale. As a result, government purchases reduced the total amount of quota rights held by farmers.

The **base deficiency payment** per litre of cow's milk was reduced by another 45 per cent (after a 44 per cent reduction in 1998), while the deficiency payments for beef and veal and for wool were raised by 8 and 3 per cent, respectively. The **regional** deficiency payment for milk was increased, the size of the increase depending on the production zone. A new regional deficiency payment for poultry was introduced. All other base and regional deficiency payments remained the same.

Area and animal headage payments were raised for most farm acreage classes and animal species. Area payment rates decline with the number of hectares and are differentiated by region; some of the payments are only provided up to a limited area per farm. The payment rate for cereals was raised in all regions by a fixed amount, equivalent to between 3 and 6 per cent of the previous rate. The area payment for potatoes was increased by a fixed amount in two of the seven regions. For the first 6 hectares farmed, the increase amounted to 10 per cent; for the next 6 hectares the payment rate more than doubled. The payment for vegetables was raised by between 5 and 75 per cent depending on the size class and region. The payment for fruits and berries, which is granted up to a limit of 6 hectares, was raised by a fixed amount, corresponding to between 7 and 50 per cent of the previous rate. The payment rates for grassland remained unchanged. A general one-off payment of NKr 110 (US\$14) per hectare of agricultural land was also provided.

The **headage payment** rates decrease with the number of animals up to a certain size limit, beyond which no payment is made. For male cattle, suckler cows and milk goats, the payments were raised by fixed amounts irrespective of the size class, implying that, in relative terms, the increases were larger for the upper size classes. The percentage increases ranged from 8 to 14 per cent for male cattle, 33 to 71 per cent for suckler cows, and 29 to 109 per cent for milk goats. For dairy cows, sheep and suckler goats the payment rates for the intermediate size classes were raised by larger amounts than those for the largest and smallest size groups. This is also reflected in the percentage increases. For dairy cows, the increases were between 3 and 48 per cent, and for sheep and suckler goats they ranged from 2 to 9 per cent. The payments for animals that graze on extensive natural grassland were also raised. For cows, male cattle and horses the payment rate increased by 19 per cent. For sheep, lambs and goats up to 100 head the increase was 19 per cent. For animals in excess of this number it was 75 per cent.

Expenditures on **agri-environmental measures** were increased by 30 per cent. Excise *taxes* on nitrogen and phosphorus *fertilisers* were abolished on 1 January 2000. A new agri-environmental programme is being established, of which some elements are already in place and others are to be introduced later. The **pesticide tax** was modified by shifting from a percentage of the wholesale price to a system that is based on a "standard area dose". The tax is now determined by a combination of area treated and dose applied, as well as other health and environmental risk factors. This change, which resulted in a doubling of the average size of the pesticide levy charged per hectare, was part of an action plan, jointly elaborated by the Agriculture and Environment Ministries, to reduce the health and environmental risks of pesticide use in agriculture. This plan also includes a package of educational, training and research measures.

The **landscape monitoring** exercise, which began in 1998, continued. This exercise covers all regions of the country in a cycle. It makes an inventory of land cover, linear landscape elements, biodiversity, cultural and historical buildings and structures, accessibility, and other aesthetic attributes. The inventory is based on land samples of one square kilometre and uses aerial photos, field controls and farm statistics. Changes in landscape will be recorded in the second inventory cycle.

Other policy changes included a small change in the *interest rate* charged on loans from the State Bank for Agriculture, from 6.7 per cent to 6.6 per cent. Over the same period, the market interest rate declined from 9.5 per cent to around 7 per cent. The *farm investment tax* was abolished. Consumer subsi-

dies for fruit under the *school food programme* were increased. A subsidy of Nkr 1 million (US\$0.13) was granted to *potato producer co-operatives* in northern Norway. *Strawberries* were excluded from the market regulation system for fruits and berries.

Developments in trade policy

Norway has met all its WTO commitments to date, although some of the tariff-rate quotas continue to be under-utilised. Negotiations with the EU over a reduction in trade barriers for agricultural products within the European Economic Area agreement continued. A Protocol concerning trade in processed agricultural products was finalised, but it has yet to be ratified by EU member States.

Overall evaluation

The level of support, as measured by the total and percentage PSEs, was almost the same in the 1997-99 period as it had been in 1986-88, and remains among the highest of the OECD countries. The temporary decline and subsequent increase in support during the last decade was largely due to movements in world market prices that were not transmitted to the domestic market. With the exception of dairy products, none of the major agricultural products showed a significant downward trend in support. The dairy sub-sector experienced a slight but continued decrease in support (from a very high base), reflecting successive adjustments in dairy policy. The milk quota system became more flexible, thereby facilitating structural adjustment in the sector. Overall, direct payments increased in recent years, but market price support increased faster and the share of direct payments in total support declined. There was some shift to less-distorting forms of direct payments in 1999, but the majority of the payments was still linked to output or input use. The modification of the pesticide tax led to a better consideration of human health and environmental risk factors. In sum, the policy changes implemented in 1999 did little to make the sector more market-oriented. Norwegian agriculture remains a highly supported and protected industry, and production continues to be shielded to a considerable degree from developments in world markets.

Poland

Main policy instruments

Poland uses border tariffs, price support, supply control measures, subsidies for operational and investment credits and other production inputs, and direct payments to support farm incomes. For some commodities (sugar, potato starch, and milk powder), export subsidies are used to sell domestic production surpluses on the world market. The Agricultural Market Agency (AMA) offers support to producers of wheat, rye, potato starch, milk, pigmeat and honey. A production quota system has operated in the sugar sector since 1994-95. Budgetary support is mainly provided in the form of deficiency payments for grains, and input subsidies for concessionary credits, breeding-animals, seeds, and fertilisers. In general, there has been a tendency to align agricultural policy institutions and instruments with corresponding EU policies, as Poland is in the first in the group of accession countries likely to join the Union.

Support to agriculture

Between 1991-93 and 1997-99, support to agricultural producers in Poland, as measured by the %PSE, almost doubled (Tables III.53-55, Figure III.13). In 1999, the %PSE rose slightly from 23 to 25 per cent. The increase in the %PSE was partly due to a reduction in the value of production, so that support was provided over a smaller quantity of output. In monetary terms, the PSE, as well as market price support, fell. However, the yearly average of domestic producer prices does not necessarily reflect the large variation of agricultural prices over time. In the earlier half of the year, producer prices were low, while substantial price increases were experienced in the latter half of 1999, partly as a result of increased import tariffs. Overall, producer support remained below the OECD average. The producer NAC of 1.33 indicates that gross farm receipts (including support) were more than thirty per cent greater than what they would have been without any support.

Support for general services, as measured by the GSSE, fell by 20 per cent and accounted for 9 per cent of TSE. The %CSE increased slightly, from 20 to 21 per cent, as consumers did not fully benefit from reductions in world market prices. As indicated by the consumer NAC, consumers were implicitly taxed, and paid on average nearly 30 per cent more than they would have in the absence of market price support to producers and consumer subsidies. The TSE amounted to Zł 14.4 billion (US\$3.6 billion), or 2.5 per cent of Poland's GDP.

Developments in domestic policies

The intervention programme for **bread grains** was reformed during 1999, and a new deficiency payment system launched. Minimum prices were reduced to Zł 450 (US\$114) per tonne for wheat and Zł 320 (US\$81) per tonne for rye in order to leave more room for markets to determine price levels. However, in order to continue to support the incomes of cereal farmers, a new programme was introduced through which farmers received a deficiency payment for grain of a certain minimum quality delivered to operators who had signed contracts with the intervention agency, with the payment rate varying according to the date of delivery so as to encourage private storage after harvest. For wheat, the payments amounted to Zł 60 (US\$15) per tonne in August, Zł 70 (US\$18) in September and Zł 90 (US\$23) in October. The corresponding premiums for rye started out at Zł 40 (US\$10) and were increased by Zł 15 (US\$4) a month in September and October. The starting date for intervention purchases by the AMA was moved forward to the 1 November, so as to coincide with the intervention practices of the EU.

As in 1998, **sugar** producers were limited under the production quota programme to domestic sales of 1.63 million tonnes of white sugar during the 1999-2000 marketing year (A-quota) and to subsidised exports of 109 100 tonnes during the 1999 calendar year (B-quota). The minimum price for quota sugar remained unchanged at Zł 1 710 (US\$432) per tonne (Table II.21). In 2000-01, the A and B quotas will be reduced by 7 per cent and 4 per cent to 1.52 million and 104 400 tonnes.

Livestock **market interventions** by the AAM continued in 1999. The Agency bought 120 000 tonnes of pigmeat, 4 100 tonnes of butter, and 1 600 tonnes of honey to support prices on the domestic market. The quantity of pigmeat acquired by the AAM was more than double that initially planned, as the Government's intervention target was repeatedly adjusted upwards during the year. The economic crisis in the Russian export market and subsidised shipments from the European Union continued to depress domestic pigmeat prices, which provoked increased market stabilisation efforts by the Government.

Table II.21. **Poland: Administered prices**

Product	1998/99		1999/2000		Change in Zł price 1998/99 to 1999/2000 %
	Zł/t	US\$/t	Zł/t	US\$/t	
Wheat ¹	510	146	450	114	-11.8
Rye ¹	360	103	320	81	-11.1
Milk ²	610	175	660	166	8.2
Pigmeat ³	n.a.	n.a.	3 200	807	n.c.

n.a. Not applicable.

n.c. Not calculated.

1. Minimum prices for the period August to October; without supplementary deficiency payments.

2. Minimum purchasing prices per 1 000 litres for the period May to October.

3. Minimum procurement prices for live pigs of grade E and U.

There are minimum prices for sugar, but no market intervention by public agencies.

Source: Ministry of Agriculture and Rural Development, Warsaw, 1999.

As in previous years, input subsidies accounted for a considerable part of the support provided through the **agricultural budget** (not taking health and social security funds into account). Budgetary funds were used to subsidise operational and investment credit (Zł 423 million (US\$107 million)) and

ZL 771 million (US\$195 million), respectively), to reduce farmers' costs for breeding animals, hybrid and other high-quality seeds, and lime fertiliser (ZL 229 million (US\$58 million)), and to support rural infrastructure investments (ZL 184 million (US\$46 million)). The outlays of the AMA for grain intervention purchases amounted to ZL 232 million (US\$59 million).

The Government introduced a new programme to provide support to farmers who engage in **organic farming** by granting payments ranging from ZL 50 (US\$13) per hectare of organically cultivated meadows to ZL 250 (US\$63) per hectare of organically managed orchard. Another programme covered about 40 per cent of the costs of certifying organic farms. Even though only about 550 organic farms are registered with one of the three certification agencies, some observers foresee a large potential for Polish exports of organic produce to the EU. To facilitate the development of export markets in western Europe, regulations on the labelling of organic products were brought into line with corresponding EU legislation during 1999, and efforts are underway to get Polish certification of organic produce recognised as equivalent to that used in the EU.

In July 1999, the Government formally asked the European Union for an 18-year transition period for the application of EU legislation allowing foreigners to purchase **farmland** once the country has joined the Union. At the moment, foreigners wishing to purchase farmland are required to obtain approval from public authorities. The Government is concerned about speculative buying of farmland by foreigners in view of Poland's prospective accession to the EU. The issue will have to be resolved in the on-going accession negotiations, so as to conform to the common market principles of the EU.

The Government developed a rural development plan that will serve as the framework for the use of funds under the EU's pre-accession programme, SAPARD. This EU programme aims to foster **rural development** in applicant countries over a seven-year implementation period. The draft operational programme contains four priority areas: i) investment in farm holdings (15 per cent of total funds); ii) development of infrastructure in rural areas (45 per cent); iii) upgrading of agricultural and fishery product processing and marketing (35 per cent); and iv) diversification of economic activities in rural areas (5 per cent). In addition, a small number of pilot projects aimed at afforestation and environmental protection are envisaged.

During 1999, the domain of the Ministry of Agriculture and Food Economy was extended to cover fishery issues and it was renamed to become the **Ministry of Agriculture and Rural Development**, reflecting an increased focus on integrated rural policies. Moreover, the Agency for Restructuring and Modernisation of Agriculture (ARMA) will establish offices in Poland's 16 administrative districts, so as to be better able to administer and monitor the use of funds under the SAPARD programme, and eventually to act as the decentralised paying agency for EU-programmes, following Poland's prospective accession to the Union.

In November, a new regulation on the registration, packaging, and labelling of **genetically modified organisms** (GMOs) and products containing GMOs entered into force. Under the new law, the release of GMOs into the environment for experimental purposes requires permission and corresponding applications have to be accompanied by an evaluation of risks for human health and the environment. Products containing *any* amount of ingredients made from GMOs have to be labelled as such. However, the general lack of testing equipment to check GMO content could mean that the practical importance of the mandatory declarations will remain limited.

In January 2000, the Polish government introduced new **milk-quality standards** that eliminate third-grade milk from the commercial market. Dairy processing plants will only be allowed to procure high-quality milk that meets EU requirements and first- and second-grade milk from farmers, while lower-quality output will have to be used for on-farm purposes. It is expected that the introduction of the new standards will lead to a decrease in the volume of milk produced commercially by small-scale farmers and help to raise the average quality of milk in the country.

Developments in trade policy

In the first quarter of 1999, the Government increased **tariff duties** for some agricultural products within or up to the ceilings determined by WTO commitments. Import tariffs for flavoured yoghurt were raised from 9-22 per cent to 35 per cent. At the same time preferential tariff rates on wheat, pigmeat,

and poultry imports from some CEFTA countries were suspended. In August and September, the Government raised import tariffs for common wheat, sugar, rapeseed, butter, and pigmeat to the maximum level allowed by WTO commitments. For example, the tariff on butter went up from 40 to 111.7 per cent, and import duties on common wheat were increased from 3 to 70 per cent. The tariff on durum wheat imports remained at 3 per cent. At the same time, tariff-rate quotas came into force. Invoking the WTO special agricultural safeguard clause, Poland applied additional tariffs on pigmeat, poultrymeat, white sugar and ornamental flowers (from 17 June 1999), wheat, maize starch and other sugars (from 6 November 1999).

Poland continued to use *export subsidies* to sell surplus production of sugar on the international market. The AMA also exported 128 000 tonnes of pigmeat, which it sold for Zl 1 800 to Zl 3 000 (US\$455 to US\$758) per tonne – *i.e.* substantially below domestic price levels. In the summer of 1999, it introduced export subsidies for skimmed milk power (SMP) and starch. A total of about 41 500 tonnes of SMP were exported with an average subsidy of Zl 1 430 (US\$353) per tonne, and about 20 400 tonnes of starch were sold abroad with average export refunds of Zl 524 (US\$132) per tonne.

A *free-trade agreement* between Poland and Estonia entered into force in January 1999. Under the agreement, Poland established tariff-rate quotas for Estonian agro-food products with tariffs ranging from 0 to 50 per cent of the most-favoured-nation rate. With Bulgaria joining CEFTA at the beginning of 1999, a mutual *liberalisation of agricultural trade between Bulgaria and Poland* was initiated. Tariffs on agro-food products were eliminated or reduced, and tariff-rate quotas, which will be expanded over time, were established.

Overall evaluation

Agricultural policy in Poland showed two contradictory trends during 1999. On the one hand, the (partial) switch from price support for grains to deficiency payments will tend to improve economic efficiency, as distortions on the consumer side are removed. On the other hand, the substantial increases in agricultural tariffs point to protectionist tendencies. The tariff increases were motivated by pressure on farm incomes (which had fallen in 1999 for the fourth consecutive year and were 30 per cent below 1995 levels), the influx of subsidised agro-food imports, the collapse of the major export market in Russia, and by “strategic” considerations in the run-up to the WTO Millennium Round of trade negotiations. While the PSE in monetary terms decreased, the %PSE rose from 23 per cent in 1998 to 25 per cent in 1999. This means that the medium-term increase of transfers to agricultural producers continued to some extent, with the average %PSE during 1997-99 twice as high as during 1991-93. Such transfers place a considerable burden on Poland’s food industry, consumers, and taxpayers at a time when the country is in the process of restructuring and modernising its economy in anticipation of EU accession.

Switzerland

Main policy instruments

Border tariffs, supply-control measures, deficiency payments and other direct payments are the most important agricultural policy instruments used in Switzerland. Imports face high tariff barriers, and surplus production of dairy products is sold abroad using export subsidies. Milk production is subject to production quotas. Budgetary payments are granted to farmers mainly in the form of area and headage payments, payments based on input constraints (“ecological payments”), payments to support farm income. Deficiency payments are used to mitigate the effects of the agricultural price-support policies for agro-processors and consumers by reducing wholesale prices of domestic produce. A comprehensive agricultural reform programme (“AP 2002”), covering the organisation of agricultural markets, direct payments, and agri-environmental standards, began to be implemented in 1999.

Support to agriculture

Since the 1986-88 period, the %PSE has decreased slightly, while the composition of producer support has increasingly shifted from market price support to direct payments (Tables III.56-58, Figure III.14). In 1999, the %PSE increased by 3 percentage points to 73 per cent. This increase in support was mainly due to a rise in direct payments, combined with a reduction in output. Adverse weather

conditions led to a poor harvest, and lower domestic producer prices induced a decrease in the production of some livestock products, notably milk. Since most budgetary payments are not directly linked to output, the reduction in production volume led to an increase in support per tonne. As a result of domestic policy reforms, however, market price support fell slightly. Nevertheless, border protection continued to provide the bulk of transfers to agricultural producers, still accounting for more than 60 per cent of total support. The producer NAC of 3.75 suggests that 1999 gross farm receipts (including support) were almost three times what they would have been without any support.

Support for general services was 18 per cent higher in 1999, mainly because of expenditure related to the dissolution of the state-sanctioned foreign trade monopolies for butter and cheese. The GSSE now accounts for 7.7 per cent of the TSE. The %CSE increased from 59 to 62 per cent, as taxpayer-financed measures to reduce the costs of domestically produced food products were scaled down. As indicated by the consumer NAC, consumers were implicitly taxed, and paid on average one-and-a-half times more than they would have in the absence of any market price support to producers and consumer subsidies. The TSE amounted to SF 9 billion (US\$6 billion), or 2.3 per cent of Switzerland's GDP.

Developments in domestic policies

With the phasing in of the new agricultural policy framework "AP 2002", the domestic agro-food market was largely deregulated. State-guaranteed processing margins were eliminated, and all **agricultural price guarantees** were discontinued except those for bread-wheat and bread-rye, where State agencies still acquired supplies at guaranteed prices in 1999 and are committed to do the same one more time in 2000. Area limits on oilseed production were eliminated, and sugarbeet production quotas were abolished. Under the new policy framework, the Government pays the two sugarbeet processors a lump sum of SF 45 million (US\$30 million) if their output falls within the range of 120 000 tonnes to 185 000 tonnes. The State reduces the lump sum amount if the sugar price at the Swiss border rises above SF 450 (US\$300) per tonne and increases it if the domestic price falls below SF 350 (US\$233) per tonne, such that the processing industry is exposed to price variability only within the range of SF 350-450 per tonne. The previous state-guaranteed price for sugarbeets was replaced by a procurement price, which is negotiated among growers and processors under the auspices of the inter-professional sugar organisation.

The guaranteed price for milk was converted into a non-binding target price, which was set at SF 770 (US\$512) per tonne (Table II.22). **Milk quotas** became tradable *among* the different mountainous zones, and among lowland zones, but not *between* mountainous and lowland zones. According to first estimates, 10 to 15 per cent of all dairy farmers made use of the opportunity to sell or lease their milk quotas.

Table II.22. **Switzerland: Target prices**

	1998		1999		Change in SF price 1998 to 1999 %
	SF/t	US\$/t	SF/t	US\$/t	
Bread wheat ^{1, 2, 3}	890	614	820	546	-7.9
Bread rye	740	510	680	453	-8.1
Rapeseed	1 500	1 035	1 500	998	0.0
Sugarbeet ⁴	120	83	112	75	-6.7
Milk ²	870	600	770	512	-11.5
Barley	503	347	n.a.	n.a.	n.c.
Oats	463	319	n.a.	n.a.	n.c.
Maize	530	366	n.a.	n.a.	n.c.
Beef ⁵	4 300	2 966	n.a.	n.a.	n.c.
Pigmeat	4 000	2 759	n.a.	n.a.	n.c.
Sheepmeat	3 200	2 207	n.a.	n.a.	n.c.

n.a. Not applicable.

n.c. Not calculated.

1. Class 1b.

2. Price before deduction of producer levy.

3. Guaranteed price.

4. Sugar content of 16 per cent.

5. Live weight, class T.

Source: Federal Office of Agriculture, Bern, 1999.

Table II.23. Switzerland: Budgetary payment rates

Type of payment	Basis for payment	1998		1999	
		SF	US\$	SF	US\$
Complementary direct payments					
– Base farm payment ^{1, 8}	Per farm	2 000-3 000	1 380-2 069	n.a.	n.a.
– Supplementary farm payment ⁸	Per livestock farm	2 700	1 863	n.a.	n.a.
– Base area payment ⁸	Per hectare	380	262	n.a.	n.a.
– Supplementary area payment for meadows ^{1, 8}	Per hectare	180-290	124-200	n.a.	n.a.
Area payments ⁷	Per hectare	n.a.	n.a.	1 200	799
Payments in difficult production locations					
– Holding of livestock in mountainous areas ^{1, 8}	Per animal-unit	230-1 500	159-1 035	n.a.	n.a.
– Holding of livestock under difficult conditions ⁷	Per animal-unit	n.a.	n.a.	260-1 190	173-792
– Farming on steep slopes ^{2, 8}	Per hectare	370-510	255-352	370-510	246-339
– Wine cultivation on steep slopes ^{3, 7}	Per hectare	n.a.	n.a.	1 500-5 000	998-3 327
Ecological payments					
– Ecological compensation					
• Extensive meadows and litter areas ¹	Per hectare	450-1 200	310-828	450-1 500	299-998
• Floral fallow land	Per hectare	3 000	2 069	3 000	1 996
• Extensive meadows on set-aside land ⁸	Per hectare	3 000	2 069	n.a.	n.a.
• Rational set-aside ⁷	Per hectare	n.a.	n.a.	2 500	1 664
• Low-intensity meadows ³	Per hectare	300-650	207-448	300-650	200-433
• Extensive area strips ⁷	Per hectare	n.a.	n.a.	1000	665
• Tall fruit trees	Per tree	15	10	15	10
– Integrating production ^{4, 8}	Per hectare	430-1 200	297-828	n.a.	n.a.
– Organic farming ⁴	Per hectare	530-1 800	366-1 242	100-1 000	67-665
– Coralling of animals in the open air ^{3, 8}	Per animal-unit	120-240	83-66	n.a.	n.a.
– Regularly keeping animals outdoors ^{3, 7}	Per animal-unit	n.a.	n.a.	135-180	90-120
– Animal welfare through housing systems ³	Per animal-unit	60-120	41-83	70-180	
– Extensive cereal farming	Per hectare	500	345	400	266
– Extensive farming on dryland and litter areas ^{1, 8}	Per hectare	450-1 500	310-1 035	n.a.	n.a.
– Summer pasturing ³	Per animal-unit	10-300	7-207	10-300	47-120
Production directing payments					
– Crop cultivation ^{3, 7}	Per hectare	n.a.	n.a.	770-1 500	512-998
– Acreage premiums for coarse grains ^{3, 8}	Per hectare	770-1 260	531-869	n.a.	n.a.
– Green fallow ⁸	Per hectare	3 000	2 069	n.a.	n.a.
– Production of renewable raw material ^{3, 8}	Per hectare	1 500-3 000	1 035-2 069	n.a.	n.a.
– Holding of cows whose milk is not marketed ^{5, 8}	Per animal-unit	400-1 250	276-862	n.a.	n.a.
– Holding of roughage-eating animals ^{3, 7}	Per animal-unit	n.a.	n.a.	400-900	266-599
Deficiency payments					
– Non-silage premium for milk	Per tonne of milk	40	28	40	27
– Price supplement for milk ⁶	Per tonne of milk	120	83	120	80
Social payments					
– Child allowance for farmers ¹	Per child	1 920-2 160	1 324-1 490	1 920-2 160	1 278-1 437
– Household allowance for farm workers	Per household	1 200	828	1 200	799

Note: The names under which these programmes appear are those given to them by the Swiss Government. They do not necessarily relate to any agreed OECD-wide classification system.

n.a. Not applicable.

1. Payment rate varies with the altitude of the farming location.

2. Payment rate varies with the gradient of the land.

3. Payment rate varies by species.

4. Payment rate varies by land use (meadow, cropland, orchard).

5. Payment rate varies with herd size.

6. Payment is partly granted to cheese factory operators.

7. This measure was introduced in 1999.

8. This measure was discontinued in 1999.

Source: Federal Office of Agriculture, Bern, 1999.

Under AP 2002, the system of *direct payments* was fundamentally reformed, eliminating some programmes, replacing existing measures with similar ones, and creating some entirely new payments (Table II.23). The previous *complementary direct payment* and *integrated production* programmes were discontinued, and replaced by uniform *area payments*.⁷ The scope of some programmes was widened, such as in the case of the one for *husbanding of livestock in mountainous areas* (which was turned into a *husbanding of*

livestock under difficult production conditions), the controlled husbanding of animals in the open air (which became a programme for regularly keeping animals outdoors), and the husbanding of cows whose milk is not marketed (which was converted into the husbanding of roughage-eating animals). Some new environmental programmes were introduced, including programmes that reward rotational set-aside and the creation of extensive area-strips. Also, a new compensation programme for measures to protect water quality was launched. One key innovation under AP 2002 is that farmers are only entitled to receive direct payments if their production methods satisfy basic environmental standards and farm-management practice requirements (known in Switzerland as “integrated production”).

This cross-compliance provision does not apply to some production-directing payments, notably the non-silage premiums, which are paid to milk producers who refrain from feeding silage to their cows in order to allow for speciality cheeses to be made from raw milk, and the price supplement for milk used in cheese production. With the introduction of AP 2002, the non-silage premium was granted throughout the entire year and not only during the winter months, as under the previous system. Furthermore, the price supplement for milk used for cheese production was paid entirely to cheese producers and no longer split between farmers and cheese-factory operators. However, cheese producers are expected to pass the price supplement on to farmers in the form of higher procurement prices. In total, outlays for direct payments increased by 2.1 per cent (Table II.24).

With AP 2002, the allocation method for *concessionary credits* was changed. Starting in January 1999, investments were encouraged through fixed amounts of subsidised credit per unit of investment, instead of concessionary credit that covered the share of investment costs that could not be financed from farmers’ own funds, as under the previous system.

According to a *financial envelope* adopted by the Swiss Parliament in the spring of 1999, the agricultural budget for 2000-03 will return to its 1998 level of about SF 3.5 billion (US\$2.3 billion). Production and marketing expenditure, such as price supplements and marketing aid, will fall from about SF 1.25 billion (US\$0.83 billion) in 1998 to about SF 790 million (US\$526 million) in 2003, while outlays for direct payments will increase from about SF 2.1 billion (US\$1.4 billion) to about SF 2.4 billion (US\$1.6 billion) over the same period (Table II.25). Also, infrastructure expenditure, including investment credits, is scheduled to increase from about SF 160 million (US\$106 million) to about SF 270 million (US\$179 million) between 1998 and 2003.

Switzerland brought its regulations on *organic farming* largely into line with corresponding legislation in the European Union. Since January 1999, uniform definitions and standards for organic farming methods have been applied nation-wide. In October 1999, the Federal Office of Agriculture published its first list of requests for registration under the new legislation on *labels of origin and geographical indications*. Four of the five products on the list (varieties of dried meat, maize, cheese, and apple cider) were newly protected, while the inclusion of Gruyère cheese in the register represents a change in previously existing product protection regulations. During 2000, the publication of about 20 additional requests for protection of labels-of-origin and geographical indications is expected.

The first of a series of *annual reviews of agricultural policy effectiveness, including environmental performance*, was launched. The evaluation uses, for example, agri-environmental indicators to monitor the extent to which policy objectives relating to pollution reduction and other agri-environmental goals, such as those for biodiversity, have been met. The results of the review will be published annually, with the first report due in late 2000.

Developments in trade policy

In May 1999, the State-sanctioned *foreign trade monopolies* for butter imports (BUTYRA) and cheese exports (Swiss Cheese Union) were dissolved, and trade in dairy products has since then been carried out through private firms. The Government is henceforth limiting its involvement in foreign trade to setting the overall policy framework.

In order to protect the domestic market against increasing imports of pigmeat during spring 1999, the Government invoked the **WTO special agricultural safeguard clause** and levied additional tariffs on pigmeat imports in May 1999. This was the first time that Switzerland took recourse to the safeguard clause.

Table II.24. **Switzerland: Outlays for direct payments**

Type of payment	1998		1999p		Change in SF price 1998 to 1999p %
	mn SF	mn US\$	mn SF	mn US\$	
Complementary direct payments²	825.0	569.1	n.a.	n.a.	n.c.
<i>of which:</i>					
– Base farm payment	151.7	104.6	n.a.	n.a.	n.c.
– Supplementary farm payment	135.7	93.6	n.a.	n.a.	n.c.
– Base area payment	371.0	255.9	n.a.	n.a.	n.c.
– Supplementary area payment for meadows	166.6	114.9	n.a.	n.a.	n.c.
Area payments¹	n.a.	n.a.	1 188.0	790.6	n.c.
Payments for farming in difficult production locations	354.1	244.3	379.0	252.2	7.0
<i>of which:</i>					
– Holding of livestock in mountainous areas ²	259.1	178.7	n.a.	n.a.	n.c.
– Holding of livestock under difficult conditions ¹	n.a.	n.a.	267.0	177.7	n.c.
– Farming on steep slopes	95.0	65.5	102.0	67.9	7.4
– Wine cultivation on steep slopes ¹	n.a.	n.a.	10.0	6.7	n.c.
Ecological payments	809.5	558.4	367.8	244.8	–54.6
<i>of which:</i>					
– Ecological compensation	115.2	79.5	142.4	94.8	23.6
– Integrated production ²	460.0	317.3	n.a.	n.a.	n.c.
– Organic farming	44.1	30.4	30.0	20.0	–32.0
– Coralling of animals in the open air ²	56.4	38.9	n.a.	n.a.	n.c.
– Regularly keeping animals outdoors ¹	n.a.	n.a.	65.7	43.7	n.c.
– Animal welfare through housing systems	10.5	7.2	13.7	9.1	30.5
– Extensive cereal and rapeseed farming	45.6	31.5	40.0	26.6	–12.3
– Extensive farming on dryland and litter areas	10.8	7.5	11.0	7.3	1.9
– Summer pasturing	66.9	46.1	65.0	43.3	–2.8
Production directing payments	163.7	112.9	345.3	229.8	110.9
<i>of which:</i>					
– Crop cultivation ¹	n.a.	n.a.	61.9	41.2	n.c.
– Acreage premiums for coarse grains ²	53.0	36.6	n.a.	n.a.	n.c.
– Green fallow ²	13.3	9.2	n.a.	n.a.	n.c.
– Production of renewable raw material	5.4	3.7	3.4	2.3	–37.0
– Holding of cows whose milk is not marketed ²	92.0	63.5	n.a.	n.a.	n.c.
– Holding of roughage eating animals ¹	n.a.	n.a.	280.0	186.3	n.c.
Deficiency payments	217.3	149.9	185.3	123.3	–14.7
<i>of which:</i>					
– Non-silage premium	64.0	44.1	25.5	17.0	–60.2
– Price supplement for milk for cheese production	153.3	105.7	159.8	106.3	4.2
Social payments³	141.1	97.3	141.7	94.3	0.4
<i>of which:</i>					
– Child allowance for farmers	114.4	78.9	118.5	78.9	3.6
– Child and household allowances for farm workers	26.7	18.4	23.2	15.4	–13.1
Total	2 510.7	1 731.9	2 607.1	1 734.9	2.1

Note: As part of the AP 2002 reforms, the “integrated production programme” was discontinued, while all other direct payments (except deficiency payments) became subject to ecological restrictions similar to integrated production methods.

p Provisional.

n.a. Not applicable.

n.c. Not calculated.

1. This measure was introduced in 1999.

2. This measure was discontinued in 1999.

3. Excluding administration costs.

Source: Federal Office of Agriculture, Bern, 1999.

Switzerland's 1998 request, in conformance with WTO *dispute settlement procedures*, for a consultation with the Slovak Republic regarding certain measures imposed by that country on the importation of dairy products and the transit of cattle, were resolved bilaterally in March 2000 and notified to the WTO (see Part II.2).

The Government passed new *import labelling regulations* to apply from January 2000. Imports of fresh meat and eggs, which are produced with methods that are not allowed in Switzerland, have to be

Table II.25. **Switzerland: Framework plan for the agricultural budget, 1998-2003**

Million SF

Item	1998	1999 Preliminary	2000	2001	2002	2003
			Framework plan			
Infrastructure	163	149	221	272	272	272
Production and marketing	1 245	1 336	994	889	820	787
Direct payments ¹	2 082	2 296	2 321	2 366	2 396	2 419
Total	3 490	3 781	3 536	3 527	3 488	3 478

1. Some production-directing payments are included under production and marketing.

Source: Federal Office of Agriculture, Bern, 1999.

labelled as such. In particular, the use of hormones or anti-bacterial growth stimulators in meat production has to be clearly indicated, as have to be eggs laid by hens in batteries. Moreover, in December 1999 legislative consultations on the harmonisation of Swiss regulations on organic livestock farming with EU law were initiated. The way cows are kept in barns and the extent to which conventionally produced fodder can be used in organic livestock farming are two of the central issues. The harmonisation of Swiss with EU legislation is intended to facilitate the mutual recognition of products.

In January 2001, the *trade agreement* on agriculture between Switzerland and the European Union, negotiated in the framework of seven sectoral agreements, is scheduled to come into force. The agreement will lead to a progressive liberalisation of bilateral trade over five years for fruits and vegetables, flowers, speciality wines, speciality meats, and dairy products. Free bilateral trade in cheese is envisaged for 2005. The agreement calls also for the mutual recognition of technical norms, certifications, and labels of origin.

Overall evaluation

Support for agricultural producers in Switzerland remained considerably above the OECD average because of high import barriers and increased in 1999 by 3 percentage points to 73 per cent. Yet the new agricultural policy framework AP 2002 marks a significant shift towards domestic deregulation which, by removing minimum guaranteed prices and fixed processing margins, allows for a freer interaction of supply and demand in domestic agro-food markets. Similarly, the consolidation of several direct-payment programmes and the widening in scope of others, has left more room for farmers to make production decisions based on market signals rather than in response to government payment rates. The new cross-compliance provision introduced with AP 2002 will probably only have a modest environmental impact, since about three-quarters of Swiss farmers were already farming according to similar agri-environmental standards prior to 1999. The implementation of AP 2002 progressed smoothly, not least because of favourable conditions on the domestic market facilitated the release of stocks at BUTYRA and the Swiss Cheese Union, which were dissolved in May 1999. Overall, the reforms represented an important step towards a sustainable, more market-oriented agricultural sector, and continued the trend over the past decade of shifting increasingly from market price support to direct payments. However, import protection and overall producer support still remain among the highest within the OECD.

Turkey

Main policy instruments

In the past decade, support has mainly been provided through price support and payments based on input use, with the Government heavily involved in the marketing of crops. Import tariffs, complemented by administered prices in the case of cereals, sugar and tobacco, and by a sanitary ban on all imports of livestock, provide support for domestic production. Export subsidies are applied to a number of products, including fresh and processed fruits and vegetables and derived food products, poultry meat and eggs. Sugar beet production is controlled by a system of contracting. Interest concessions and other input subsidies, particularly for fertilisers, are significant. State Economic Enterprises (SEEs)

are used to implement agricultural market support policies for cereals, sugar and tobacco, and benefit from Government support in the form of debt write-offs, coverage of duty losses, and equity injections. The Government also controls and provides special privileges to Agricultural Sales Co-operatives (ASCUs) and plays a large role in investment in infrastructure, especially irrigation works. Most farmers are exempt from income tax.

Support to agriculture

Support, as measured by the %PSE, increased from an average of 19 per cent during 1986-88 to 36 per cent in 1998, but it is estimated to have stabilised at 36 per cent in 1999 – still below the OECD average of 39 per cent (Tables III.59-61, Figure III.15).⁸ These increases resulted mainly from an increase in market price support because producer prices fell by less than world prices, and to a lesser extent to an increase in payments based on input use. The level of support increased significantly, to Turkish lira (TL) 5 000 trillion (US\$11.9 billion). However, caution should be exercised in the interpretation of changes in nominal terms, because of the depreciation of the Turkish lira, the very high level of inflation (over 70 per cent per annum in 1997 and 1998, and around 60 per cent in 1999) and the lag between world and domestic price adjustments. Total gross farm receipts (including support), as measured by the producer NAC, were 57 per cent higher than what they would have been without any support.

As a result of the increase in market price support associated with border protection, the implicit tax on consumption increased significantly in 1997 and 1998 and is estimated to have stabilised at 41 per cent in 1999, as expressed by the %CSE. As indicated by the consumer NAC of 1.68, consumers were implicitly taxed, and paid on average 68 per cent more than they would have with no market price support to producers. In 1999, general services provided to agriculture represented 26 per cent of total support to agriculture. But over 90 per cent of support to general services goes to agencies involved in marketing; by contrast, support to general services, such as research and development, remained very low. Overall, the share of transfers from taxpayers and consumers associated with agricultural policies, as measured by the percentage TSE, declined by less than 1 percentage point and accounted for 8 per cent of GDP.

Developments in domestic policies

Support prices, set in a high inflation context, were fixed well above prices at the border (Table II.26). Support prices for **cereals** (wheat, barley, rye, oats and maize) were increased by around 40 per cent in 1999 compared with the previous year, leading again to the purchase of a large volume of grains by the Turkish Grain Board (TMO). The support price for **sugar** was increased by 64 per cent, but the maximum over-quota quantity that was allowed (without penalty) was reduced from 50 per cent to 25 per cent of a farmer's individual quota. The price premium to encourage sugar production in five provinces was increased by 150 per cent. Support prices for **tobacco** were increased by around 60 per cent on average, but the production quota reduced by 20 per cent. Deficiency payments were paid in 1999 for the first time for **olive oil** and silk cocoons and for **cotton** in respect of the 1998 cotton harvest – the second time that this has happened since the first occasion in 1993. Deficiency payments will also be paid for cotton produced in 1999, and for the first time for **oilseeds**. Loans at a rate 60 percentage points lower than commercial rates provided under the Price Support and Stabilisation Fund (PSSF) to Agricultural Co-operatives for purchasing selected commodities – in particular **hazelnuts**, **cotton** and **oilseeds** – were increased by 62 per cent to TL 240 trillion (US\$570 million). The %PSE declined for all crops, except for sugar, the %PSE for which rose by 15 percentage points to 72 per cent – by far the highest rate of commodity support in Turkey.

The **milk** premium per litre remained at the 1998 level, and as the producer price increased less than the world market price, support to milk producers, as measured by PSE, fell by 14 percentage points to 39 per cent in 1999. The sanitary ban on imports of **live animals** (dairy and beef cattle, sheep and goats and poultry) and **meat** (from cattle, sheep, goats and poultry), enforced since August 1996, remained in place, but some breeding animals were imported in 1999. Import duties on live cattle and meat were substantially increased (Table II.27) to indicate the level of support that farmers could expect were the ban to be lifted. About TL 28 trillion (US\$67 million) were provided to farmers for animal losses due to natural disasters.

Table II.26. **Turkey: Administered floor prices for cereals, sugar and tobacco**

Product	1998		1999		Change in TL price 1998 to 1999 %
	TL mn/t	US\$/t	TL mn/t	US\$/t	
Wheat					
Durum, Anatolian ¹	72	275	92	220	28.6
Durum, other ¹	61	234	84	200	37.8
Hard, white ¹	58	224	80	191	37.2
Hard, red Anatolian ¹	53	203	80	191	50.9
White barley ²	40	153	60	143	50.9
Rye ²	40	153	56	134	40.9
Oats ²	40	153	56	134	40.9
Maize ³	48	183	68	162	42.6
Sugar beet ⁴	17	63	27	64	63.6
Tobacco, Aegean A	900	3 455	1 400	3 341	55.6

1. Base prices raised by TL 2 mn (US\$8) per tonne each month for grain purchased from 1 July to 30 September 1998; no change in 1999.

2. Base prices raised by TL 1.25 mn (US\$5) per tonne each month in July and August and by a further TL 1 mn (US\$4) in September in 1998; and by the same amount from 1 July and 30 September 1999.

3. Base prices raised by TL 1.5 mn (US\$6) per tonne in October and November 1998.

4. Base prices for 16 per cent polar sugar: each additional (or lower) polar level is compensated by a payment (or deduction) of TL 1.7 mn (US\$7) per tonne.

Source: Government of Turkey, *Resmî Gazete* [Official Gazette], Ankara, 1999.

Producer prices are estimated to have increased much more than world market prices, and support to *beef* producers increased by 6 percentage points to a PSE of 54 per cent in 1999. A new law was introduced to regulate the use of pastoral land, which it recognises as the common property of villages and municipalities, in an effort to impede their conversion into cropland and arrest the deterioration of pastures.

Farmers continued to benefit from *interest concessions*. In 1999, subsidised interest rates on operational loans for crops and livestock production were respectively 45 and 56 percentage points below commercial loans. The rate of *subsidy to fertilisers* was reduced to about 30 per cent of purchase prices, and the quantity used increased by about 2 per cent. The total amount of the subsidy paid to fertiliser manufacturers and importers to cover rebates on farmers' bills fell by 15 per cent to TL 109 trillion (US\$260 million). The *subsidy to pesticides* (and veterinary medicines) was increased by 10 percentage points, to 30 per cent of the purchase price, but only for those substances identified as the most environmentally benign; it was eliminated for any other substances that did not meet these criteria. Expenditure on *seed subsidies* increased. Overall, total Government expenditure on these forms of input subsidies declined by 5 per cent to TL 135 trillion (US\$322 million).

Farmers also benefit from an *irrigation subsidy* estimated as the difference between the water fee they pay and the operation and maintenance cost incurred by State Hydraulic Works (DSI). Since 1986, the fee collected has, in general, covered less than 40 per cent of the attributable costs incurred by DSI, despite the fact that the cost-recovery component for capital investment has not been adjusted for inflation since 1985, and is therefore negligible. Moreover, user associations taking over the irrigation schemes from DSI have benefited from loans at low interest rates (provided by the World Bank) for improving equipment, with associations paying only 72 per cent of total expenditure on the purchase, management and maintenance of such equipment. In addition, user associations received an *electricity subsidy* through lower prices of electricity for water pumping of about TL 10 trillion (US\$24 million) in 1999.

Privatisation of SEEs in the agro-food sector has made no progress in the past few years. However, most of the *irrigation schemes* operated by the State Hydraulic Works (DSI) have been transferred to farmers' co-operatives or water-user associations, which from 1999 will directly collect farmers' fees and operate the schemes. By end 1999, approximately 85 per cent of the 2.2 million hectares covered by *irrigation schemes* operated by DSI had been transferred to farmers' co-operatives and water users associations. As in 1998, about TL 2 trillion (US\$7 million) was spent on three *rural development* projects.

A new law on *income taxation* came into force. Under the old law, an income threshold determined which farmers were subject to taxation; this was replaced by a floor based on animal numbers and land area, against which the taxes are also calculated. As a result, the number of farmers eligible to pay

income tax was further reduced, although most farmers were already exempt from income tax. **Foreign investment** in agriculture grew by 8 per cent in 1999, to over US\$5 million.

Trade policy developments

After three years of a sanitary ban on imports of livestock and meat products, a number of preliminary **import approvals** were issued to importers of breeding cattle. Import approvals for rice and wheat were not granted at the end of 1999. **Ad valorem import tariffs** above 50 per cent continued to apply to a number of agricultural commodities, including grains, livestock and livestock products. Throughout 1999, these tariffs remained at the levels established at the end of 1998, except that the tariffs for maize was lowered and those for live animals and meats were raised (Table II.27). **Export subsidies**, which were limited to a maximum of 10 or 20 per cent of the export values and 30 to 100 per cent of quantities exported, continued to be provided to fresh and processed fruits and vegetables, olive oil and derived food products, poultry meat, and eggs. In 1999, the announced rates of export subsidy and related limits remained around the 1998 levels, except for olive oil, which rate was more than doubled to help dispose of record stockpiles.

Table II.27. **Turkey: Import tariffs**

Commodity	Import tariff (<i>ad valorem</i>)				
	7-11-98	1-1-99	30-5-99	11-9-99	29-9-99
Wheat	50	50	50	50	50
Barley	85	85	85	85	85
Maize	60	60	30	50	50
Live cattle and sheep	115	115	115	115	143
Meat	200	200	200	200	238
Milk	130	130	130	130	130

Note: Tariffs are expressed as percentage of c.i.f. value.

Source: Government of Turkey, *Resmî Gazete*, [Official Gazette] various issues, Ankara, 1999.

Overall evaluation

Since 1986-88, when the %PSE averaged around 19 per cent, support to agricultural producers has varied considerably – reflecting the Government's frequent and often *ad hoc* changes to policy settings (made in a climate of high inflation) – but has tended to increase, reaching an average of 34 per cent in the 1997-99 period. Support mechanisms remained fundamentally unchanged in 1999, and support levels remained below the OECD average. Price support, input subsidies in the crop sector, and the ban on imports of livestock and meat products continued to limit, however, the influence of world market signals on production decisions. Moreover, support continued to benefit mainly larger farmers who produce more output and use more purchased inputs, and penalise consumers, in particular low-income consumers, for which food comprises a high share of total household expenditure. Turkey's current support policies tend to widen income disparities among regions, in as much as poor regions use smaller quantities of subsidised inputs and market a smaller share of subsidised products. The transfers associated with these policies, combined with continued support to SEEs and ASCUs involved in marketing, impose a heavy burden on the economy, as indicated by the 8 per cent share of the TSE in GDP – again the highest share in the OECD. Strengthening of policies and programmes to restructure and improve the country's agricultural marketing framework; to promote land consolidation, soil and water conservation, research, education, extension and training; and to assist farmers affected by structural change in the sector, could be a more effective way of increasing productivity and reducing rural poverty.

United States

Main policy instruments

The Federal Agriculture Improvement and Reform Act of 1996 (1996 FAIR Act) provides the basic legislation governing farm policy for the period 1996-2002. The main policy instruments for the crop sector

are the predetermined annual Production Flexibility Contract (PFC) payments based on historical enrolled area of contract crops (wheat, maize, grain sorghum, barley, oats, rice and upland cotton), together with minimum-price provisions operating through non-recourse loans and marketing loans and occasionally export subsidies for wheat, feed grains and rice. The price of sugar is supported by a tariff-rate quota, together with provisions for non-recourse loans. Milk and dairy products are supported by minimum prices and government purchases of dairy products (to be progressively reduced and eliminated by the end of 2000), as well as by tariffs, import quotas and export subsidies. Other livestock industries are supported only through border measures, including tariff-rate quotas for beef and sheep meat, and export subsidies for pork, poultry, and eggs. Input subsidies, including interest concessions, fuel tax reductions and subsidies for animal feed and irrigation, are also provided. Environmental programmes form an increasingly important dimension of agricultural policy, focusing on measures to convert highly erodible cropland to approved conservation uses (including long-term retirement), to return farmland back into wetlands, and to encourage crop and livestock producers to adopt practices that reduce environmental problems, on a cost-sharing basis. Research and advice are increasingly focused on promoting sustainable farming practices.

Support to agriculture

As measured by the PSE, support declined significantly during the decade to 1996, but has since increased, due mainly to an increase in payments for crops (Tables III.62-64, Figure III.16).⁹ The %PSE increased from a low of 11 per cent in 1995 to 22 per cent in 1998 and 24 per cent in 1999. After an increase of 59 per cent in 1998, the PSE is estimated to have further increased by 11 per cent in 1999. These changes in the last two years were mainly due to significant increases in payments based on output (loan deficiency payments and marketing loan gains) and to large *ad hoc* and *ex-post* measures mainly through payments based on historical support (PFC payments). However, market price support, which mainly benefits sugar and milk producers, has declined and accounts for less than one-half of total support to producers, as measured by the PSE. Despite the increases in recent years, the %PSE was estimated at about two-thirds of the OECD average in 1999. The producer NAC shows that gross farm receipts (including support) were 32 per cent greater than what they would have been without any support.

The combination of a declining trend in market price support and increasing budgetary support to food consumers (including 36 per cent of Food Stamps expenditure¹⁰) resulted in a reduction in the implicit tax on consumers in the decade to 1996, and became a net subsidy to consumption in recent years. Despite the increase in market price support for milk in 1998 and for sugar in 1999, domestic prices were on average very closely aligned with world prices. As shown by the low consumer NAC, consumers were implicitly taxed but paid only 2 per cent more than they would have in the absence of support to producers and consumer subsidies. Support to general services provided to agriculture, as measured by the GSSE, has fallen gradually in recent years, representing in 1999 around 22 per cent of total transfers from taxpayers and consumers associated with agricultural policies (TSE). Overall, the TSE grew by about 10 per cent due to higher taxpayer transfers (including outlays on food stamps and other food assistance programmes) – more than offsetting a reduction in consumer transfers. It accounted for about 1 per cent of GDP.

Developments in domestic policies

Total annual PFC payments for **contract crops** (based on historically enrolled contract area but not related to current plantings) decreased by 2 per cent, to US\$5.5 billion in 1999, and are scheduled to continue to be reduced progressively to 2002 as specified in the 1996 FAIR Act. However, as in 1998, these payments were supplemented by an additional US\$5.5 billion “market loss assistance payment” (provided in proportion to the 1999 PFC payments), resulting in an overall increase of 29 per cent for the two payments combined. In addition, “emergency assistance” legislation provided US\$1.2 billion for crop losses due to natural disasters in 1999. Some US\$400 million will be used as incentive payments to encourage all farmers to purchase higher levels of crop insurance for their 2000 crops. Other crop payments authorised in 1999 include US\$328 million to **tobacco** producers, US\$475 million to **oilseeds** producers, based on 1997 or 1998 production (or 1999 for new producers), US\$200 million for **cotton** exporters or

domestic cotton processors, and about US\$42 million for *peanuts*. This quota for peanuts was increased by 1 per cent, to 1.1 million tonnes.

Loan rates, which provide a minimum price for contract crops, oilseeds, tobacco and sugar, remained at their 1998 level for most crops, but were increased by around 2 per cent for barley and oats (Table II.28). A loan rate was, for the first time announced for *crambe* (an industrial oilseed crop). The loan rate for burley tobacco was increased by around 1 per cent, but the marketing quota was reduced by 29 per cent. Overall, the loan deficiency payments increased by 148 per cent to US\$6.9 billion in 1999, as a result of a fall in market prices during the year. Marketing loan gains also increased by 39 per cent to over US\$1.4 billion. Moreover, the payment limitation for loan deficiency payments and marketing loan gains was doubled and fixed at US\$150 000, applicable only to the 1999 crop year. The Government provided approximately US\$2 million in compensation to certain producers and handlers of wheat for losses and expenses incurred because of Karnal bunt (a fungal disease of wheat) in the 1997-98 crop season.

As domestic prices for *grains* were, in general, close to world price levels, no crop export subsidies were used under EEP, and market price support was zero in 1999. However, in July 1999 the CCC solicited bids to purchase more than 475 000 tonnes of wheat for food aid. Shipments of wheat and wheat products under food aid programmes increased from 1 million tonnes in 1998 to about 6 million tonnes in 1999. Over the same period, shipments of *maize* increased from 10 000 to 850 000 tonnes, those of soybean meal and soybeans rose from 174 000 to 789 000 tonnes, and those of rice jumped from 55 000 to 360 000 tonnes. These disposals, together with the large increase in loan-related output payments, contributed to the 1999 increase support to producers as measured by the PSE for all these crops.

The loan rate for *sugar* and the sugar marketing assessment rates (levies on all processed sugar) have not changed since 1996. The assessments are suspended for fiscal years (FY) 2000 and 2001 at an annual cost to the Government of about US\$44 million. For the entire FY 1999, loans were non-recourse (processors could repay the loan by forfeiting sugar to the CCC). In FY 1999, the final total tariff-rate quota (TRQ) for raw sugar was 1.2 million tonnes (25 per cent less than the initial announcement for the year). An increase of the TRQ up to 1.4 tonnes was announced for FY 2000. (The minimum TRQ that was agreed to in the URAA is 1.1 million tonnes.) While world prices for sugar in FY 1999 declined, domestic prices remained stable, and market price support increased significantly. The level of support to producers increased to a PSE of 68 per cent, which was by far the highest rate of support for any commodity in the United States in 1999.

Table II.28. **United States: Loan rates (crop years)**

Commodity	Loan rates US\$/t		Change in US\$ price 1998 to 1999 %
	1998	1999	
Wheat	94.8	94.8	0.0
Maize	74.4	74.4	0.0
Sorghum	68.5	68.5	0.0
Barley	71.7	73.0	1.9
Oats	76.5	77.9	1.8
Rice	143.3	143.3	0.0
Upland cotton	1 144.6	1 144.6	0.0
Soybeans	193.3	193.3	0.0
Other oilseeds	205.0	205.0	0.0
Sugar	396.8	396.8	0.0
Milk ¹	221.6	218.3	-1.5

Note: Crop year periods vary between different commodities. Complete documentation is provided in the OECD Diskette: *Producer and Consumer Support Estimates*, Paris, 2000.

1. Minimum price, calendar years.

Source: United States Department of Agriculture, Washington D.C., 1999.

The minimum price for *milk* was further reduced by 1.5 per cent to US\$218 per tonne in 1999 (Table II.28). However, the expiry of the Dairy Price Support Purchase Program, originally scheduled for the end of 1999, was postponed to the end of 2000, which will postpone the expected decline in

2000 milk prices. In the October 1998-September 1999 marketing year, there were no purchases of butter or cheese, but about 78 000 tonnes of skim milk powder were purchased. Milk producers received US\$200 million in 1999 from the “1998 market loss assistance”. Producers marketing milk in the last quarter of 1998 were eligible for payments on the quantity marketed in either 1997 or 1998. This resulted in a payment of about US\$5 per tonne, up to a limit of 1 179 tonnes per farm. An additional US\$125 million in payments to milk producers was authorised under the 1999 Disaster Emergency Assistance (indemnity) Program. Some US\$200 million was authorised to fund a Livestock Assistance Program, which alleviates losses on grazing through payments based extra feed, and a Livestock Indemnity Program to provide relief to producers for livestock losses due to natural disaster. The quantities sold under the Dairy Export Incentive Program were 16 per cent above 1998 sales, and the average export subsidy increased by 13 per cent to US\$1066 per tonne of milk. After an increase of 16 per cent in 1998, the milk producer price is estimated to have fallen by 7 per cent. Because the world market price rose, market price support and the %PSE for milk fell, the latter to 57 per cent, making milk the second-highest supported commodity in the United States in 1999.

There were no export subsidies for *pork*, but the quantity of *frozen poultry* benefiting from export subsidies increased by 63 per cent to 2 446 tonnes (about 1 per cent of total poultry exports) in 1999. The unit subsidy remained at about US\$570 per tonne. Some US\$150 million were spent under the Small Hog Operation Payment Program to provide US\$10 per marketed hog to producers who marketed no more than 2 500 hogs during the second half of 1998. Payments were limited to a maximum of 500 hogs – i.e. US\$5 000 per producer. In addition, US\$80 million were allocated to a special fund used to dispose of animals infected with the swine disease pseudorabies. The level of support for all these products remained stable and low at around 4 per cent in 1999.

A TRQ of 31 851 tonnes (product weight equivalent) was imposed (beginning 22 July 1999) for imports of *lamb meat*, with a tariff of 40 per cent on over-quota imports and a 9 per cent tariff on imports within the quota. The quota is equal to 1998 lamb imports, which were subject to a duty of US\$2 per tonne (about 0.4 per cent equivalent). The quota will be increased by 857 tonnes in each of the following two years, and the in-quota tariff reduced to 6 per cent in the second year and the 3 per cent in the third year, and the over-quota tariff reduced, respectively, to 32 and 24 per cent (see Part II.2). Producers of sheep meat received US\$100 million in adjustment assistance for productivity improvements, market promotion and improvement of animal health. Market price support for sheepmeat increased because of increased border protection, and the %PSE – which has been stable and low at around 4 per cent in recent years – is estimated to have increased to 13 per cent in 1999.

Some US\$25 million were made available for *emergency disaster loans*. Although the total area covered by crop insurance expanded by only 8 per cent, total public expenditure on crop and revenue insurance rose by 69 per cent, to US\$1.7 billion in 1998; a decline of around 10 per cent is expected for the 1999 crop year. In addition, some US\$400 million were made available for premium discounts on crop and revenue insurance purchased for the 1999 crop year. The maximum coverage level (75 per cent of expected yield or revenue) was increased for several crops to 85 per cent.

Although the PFC Program is still the main regular source of budgetary payments to farmers, payments for conservation purposes are also significant. Appropriations for *conservation programmes* were reduced by 10 per cent to US\$3.3 billion in 1999. Of this amount, US\$1.4 billion was allocated to land rental and conservation-easement (purchase or transfer of land development rights) programmes, especially the Conservation Reserve Program (CRP), for which expenditure dropped 21 per cent below that for 1998. The area enrolled in the CRP shrank by 1.4 million hectares to 11 million hectares in 1999. The programme paid more than US\$1.3 billion, or an average of US\$5 000 per farm and US\$111 per hectare on more than 400 000 contracts and 270 000 farms. About US\$1 billion was allocated to conservation programmes based on technical assistance and administration (4 per cent below the 1998 level) and US\$0.5 billion to data and research programmes (also below the 1998 level). Cost-sharing programmes, however, were increased by 35 per cent in 1999 to US\$400 million.

About US\$12 million were provided through the Emergency Watershed Protection Program to purchase floodplain easements and protect over 7 000 hectares of flood-prone land in eight states. Five other states had previously received a total of US\$19 million to purchase floodplain easements on

nearly 5 000 hectares. Conservation organisations and public agencies are increasingly engaged in purchasing development rights through conservation easement contracts all over the country. More than thirty states have passed legislation specifically sanctioning conservation easements for conservation, scenic, or historic purposes (see Box I.5).

In 1999, some US\$1.3 million was granted under the Biotechnology Risk Assessment Research Grants Program to support **agricultural research** on the environmental effects and risks associated with agricultural biotechnology. Grants totalling of US\$12 million were awarded also to map and sequence the genome of the rice plant, which can lead to better quality and improved yields. About US\$3 million was provided under the Federal-State Improvement Program to support market research and demonstration projects; to identify new market opportunities for farm products; to help small agricultural enterprises to develop innovative marketing techniques for building beneficial partnerships between farmers and consumers; and to promote the development of co-operatives serving the market with new, value-added food products.

Domestic food assistance programmes fell by over 2 per cent to about US\$33 billion in FY 1999; following a 6 per cent fall in 1998. These changes were the result of a reduction on expenditure on the Food Stamp Program, which was largely due to a continuing decline in programme participation. A grant of US\$4 million was awarded to 16 states for **nutrition training** and demonstration projects.

It is estimated that the Department of Agriculture (USDA) would award US\$1.3 billion in 1999 to programmes to support *rural development*. Among the programmes supported were: safe drinking water projects in poor rural areas of 40 states; loan guarantees to boost rural businesses (credited with creating or saving about 2 500 jobs in areas of high unemployment); grants to assist farm workers in areas under disaster declaration; and loans and grants for the construction of rental housing units for domestic farm workers.

Trade policy developments

Export Enhancement Program (EEP) **export subsidies** of US\$2.1 million in FY 1998 benefited barley and frozen poultry, and US\$1.4 million in FY 1999 was used for poultry exports. Total expenditure on export subsidies under the Dairy Export Incentive Program increased by 32 per cent to US\$145 million in FY 1999. The total value of **export credit guarantees** to help foreign countries finance purchases of US farm goods under the Export Credit Guarantee Program declined by 47 per cent to US\$2.1 billion. Planned total commodity shipments under all **food-aid** programmes, if fully realised, would jump from 3.5 million tonnes (valued at US\$0.8 billion) in 1998, to about 13 million tonnes (valued at US\$2.5 billion) in 1999. Moreover, a total of US\$123 million has been authorised under the Market Access Program and the Foreign Market Development Co-operation Program to US trade organisations for export promotion activities in foreign markets. In 1997 and 1998, there was an under-utilisation for the **tariff quotas** set up under the URAA, the main exception being raw cane sugar for which in-quota imports in both years were about 38 per cent greater than the TRQ. In 1999, the TRQ for sugar was lower than the initial announcement for the year, and a new TRQ was introduced for sheep meat. The United States was involved in a number of WTO **dispute settlement procedures** involving agriculture (see Part II.2).

Overall evaluation

Support increased again in 1999, reversing the significant decline achieved during the decade to 1996. Agricultural policy in the United States continued to be implemented under the 1996 FAIR Act, the provisions of which, as pointed out in previous editions of this report, marked a significant movement towards greater market orientation for crops. However, payments based on output (loan deficiency payments and marketing loan gains) more than doubled, and large additional *ad hoc* and *ex post* payments were, for the second consecutive year, provided to compensate for low crop prices. And the abolition of administered prices and the dairy purchase programme was postponed. These deviations from the Act are not consistent with the long-term principles of policy reform, and have reduced the influence of market signals on farmers' production decisions. The increase in budgetary expenditure for measures encouraging the disposal of supplies in foreign markets, especially wheat and dairy products, and the introduction of a TRQ and high tariffs on imports of sheep meat, might have also played a role in reducing the influence of world market developments on US agriculture. Nevertheless, the conservation

and rural development programmes promoting research, providing technical and educational assistance and improving rural infrastructure, contribute to improving the economic, environmental and social sustainability of US agriculture. Purchases of land development rights through voluntary conservation easement contracts have the potential to strengthen environmental protection and operate more effectively than land-use regulation and cost-sharing conservation programmes. Overall, the significant increase in payments based on crop output might have played a role in depressing prices, in both domestic and world markets, and isolating producers from market signals. Although support to producers remains below the OECD average, the use of *ad hoc* and *ex post* payments, even those based on historical entitlements, may affect production decisions inasmuch as they lead producers to expect that they will receive extra support whenever prices fall.

Web sites for further information on Member countries' agricultural policies

Readers wishing to find out more about recent policy developments in particular OECD Member countries are encouraged to consult the following URLs (web sites):

- **Australia**, Department of Agriculture, Fisheries and Forestry: <http://www.affa.gov.au/>.
- **Austria**, Federal Ministry for Agriculture and Forestry: <http://www.bmlf.gv.at/>.
- **Belgium**, Ministry of Small Enterprises, Traders and Agriculture: Ministerie van Middenstand en Landbouw <http://www.cmlag.fgov.be/> – Ministère des Classes Moyennes et de l'Agriculture <http://www.cmlag.fgov.be/>.
- Agriculture and Agri-Food **Canada**: <http://www.agr.ca/>.
- **Czech Republic**, Ministry of Agriculture: <http://www.mze.cz/>.
- **Denmark**, Ministry of Food, Agriculture and Fisheries: <http://www.fvm.dk/>.
- **European Commission**, Directorate General VI: Agriculture: <http://europa.eu.int/comm/dg06/>.
- **Finland**, Ministry of Agriculture and Forestry: <http://www.mmm.fi/>.
- **France**, Ministry of Agriculture and Fisheries: <http://www.agriculture.gouv.fr/>.
- **Germany**, Federal Ministry for Food, Agriculture and Forestry: <http://www.bml.de/>.
- **Greece**, Ministry of Agriculture: <http://www.minagric.gr/>.
- **Hungary**, Ministry of Agriculture and Regional Development: <http://www.fvm.hu/index.html>.
- **Iceland**, Ministry of Agriculture: <http://brunnur.stjr.is/interpro/lan/lan.nsf/pages/lan>.
- **Ireland**, Department of Agriculture, Food and Rural Development: <http://www.irlgov.ie/daff/>.
- **Italy**, Ministry for Agricultural Policies: <http://www.politicheagricole.it/>.
- **Japan**, Ministry of Agriculture, Forestry and Fisheries: <http://www.maff.go.jp/>.
- **Korea**, Ministry of Agriculture and Forestry: <http://www.maf.go.kr/>.
- **Luxembourg**, Ministry of Agriculture, Viniculture and Rural Development, National Office of Consolidation: <http://www.etat.lu/ONR/>.
- **Mexico**, Secretariat of Agriculture, Cattle and Rural Development: <http://www.sagar.gob.mx/>; Secretariat of Agrarian Reform: <http://www.sra.gob.mx/>.
- **The Netherlands**, Ministry of Agriculture, Nature Management and Fisheries: <http://www.minlnv.nl/>.
- **New Zealand**, Ministry of Agriculture and Forestry: <http://www.maf.govt.nz/MAFnet/>.
- **Norway**, Ministry of Agriculture: <http://odin.dep.no/ld/>.
- **Poland**, Ministry for Agriculture and Rural Development: <http://www.minrol.gov.pl/>.
- **Portugal**, Ministry of Agriculture, Rural Development and Fisheries: <http://www.min-agricultura.pt/>.
- **Spain**, Ministry of Agriculture, Fisheries and Food: <http://www.mapya.es/>.
- **Sweden**, Ministry of Agriculture: <http://jordbruk.regeringen.se/>.
- **Switzerland**, Federal Office of Agriculture: <http://www.blw.admin.ch/>.
- **Turkey**, Ministry of Agriculture and Rural Affairs: <http://www.tarim.gov.tr/>.
- **United Kingdom**, Ministry of Agriculture, Fisheries and Food: <http://www.aff.gov.uk/>.
- **United States**, Department of Agriculture: <http://www.usda.gov/>.

2. DEVELOPMENTS IN WTO AND NAFTA TRADE DISPUTE SETTLEMENT PROCEDURES INVOLVING AGRICULTURAL PRODUCTS

Recent developments in the WTO

In the World Trade Organisation (WTO), the Committee on Agriculture and the Committee on Sanitary and Phytosanitary Measures are mandated to review progress in the implementation of the Agreement on Agriculture and the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) respectively. The various notification requirements of members' policies and regular meetings of the Agriculture and SPS Committees can contribute to modify the development of other members' agricultural policies and to avoid conflicts.

In cases of disputes, WTO members have access to a formal dispute settlement procedure, under the WTO Dispute Settlement Understanding (DSU), in which claims on any of the WTO agreements can be examined. The dispute settlement procedure is a central element of the WTO in providing security and predictability to the multilateral trading system. It serves to preserve the rights and obligations of Members and to clarify the existing provisions of those agreements in accordance with customary rules of interpretation of public international law.

The first stage in settling disputes is the holding of consultations between the members concerned. If a mutually acceptable solution cannot be found through consultations, the Dispute Settlement Body (DSB) can be asked to establish a panel to examine the matter. The panel makes an objective assessment of the issues and submits a report to the DSB. The adoption of panel reports is automatic unless there is a consensus for not adopting them. An appeal procedure is provided and decisions of the Appellate Body are also automatically adopted unless there is a consensus not to adopt them. The implementation of panel reports is subject to specific deadlines and, in cases where measures found to be inconsistent are not modified within a reasonable time period, members involved enter into negotiations for developing mutually acceptable compensation. If no satisfactory compensation can be agreed upon, within a fixed period of time determined in the DSU, the affected members may request authorisation from the DSB to apply retaliatory actions.

In 1999, some 22 new panels were established to examine the conformity of specific measures with WTO obligations of individual members and four of these new panels dealt with agriculture-related disputes. A particular feature of the 1999 disputes is that, for the first time, the DSB authorised retaliation against a country member for failing to comply with DSB rulings. Retaliation was in fact authorised twice – once in respect of EU import policies affecting bananas, and once in respect of the EU's import prohibition on beef raised with growth hormones – in both cases in response to agriculture-related disputes. Another salient feature is that several panels were set up to examine the WTO conformity of import restrictions imposed under trade remedy laws (*i.e.* anti-dumping and safeguard measures). Many of these measures were applied in the steel sector, reflecting continued tensions among steel producers operating in a global market characterised by excess capacity. Of the four new disputes involving agriculture, two of them (wheat gluten and lamb imports) relate to alleged inconsistencies in the application of safeguard measures in the United States.

The year was also marked by the Third WTO Ministerial Conference held in Seattle 30 November to 3 December, whose suspension threw into question the balance and basis for an agreement to launch a new round of multilateral trade negotiations. A number of other issues could not be dealt with by Ministers, including the mandated full review of dispute-settlement rules initiated under the provisions of the Final Act of the Uruguay Round. The WTO General Council will consider the related issues of the

follow-up to the Ministerial in early 2000. In the meantime, WTO Members have been invited to exercise “due restraint” regarding their rights and obligations on all matters covered by the follow-up.

The SPS Agreement also provides for a review of its operations and implementation within three years after the entry into force of the WTO. The SPS Committee adopted at the end of 1997 a procedure to conduct the review. In 1999, Members recognised that the review had not been exhaustive and no agreement could be reached for establishing a deadline for its completion. During the Ministerial Conference, opposition was raised about the opportunity to open up the SPS Agreement for modifications. The question of the completion of the review is likely to be raised in the context of the follow-up actions to the Ministerial Conference.

WTO trade dispute developments

The following paragraphs summarise the nature of the trade disputes involving agricultural products and OECD Member countries that were submitted to the Dispute Settlement Body of the WTO, and the efforts made to solve them in 1999 and early 2000. In several cases, consultations or panel processes were pending or still proceeding as of end-March 2000. For more up-to-date information, consult the WTO's web site, at <http://www.wto.org/wto/dispute/bulletin.htm>.

Requests for consultations

Argentina: test data protection for agricultural chemical products. In May 1999, the *United States* requested consultations with Argentina regarding the length of the period for the protection against unfair commercial use for undisclosed test data or other data submitted to Argentine regulatory authorities in support of applications for marketing approval for agricultural chemical products. The USA claims that, prior to August 1998, Argentina had provided no effective protection for data protection against unfair commercial use and that the Argentine regime is inconsistent with Article 65.5 of the Trade-Related Aspects of the Intellectual Property Rights (TRIP) Agreement.

Argentina: countervailing duties on imports of wheat gluten. In September 1998, the *European Union* requested consultations with Argentina regarding the imposition of countervailing duties on imports of wheat gluten originating from the EU. The EU claims that the investigation which led to the imposition of duties exceeded 18 months and thus violates the provision of the Subsidies Agreement. Consultations are pending.

Czech Republic: import duties on wheat. In October 1998, *Hungary* requested consultations with the Czech Republic regarding an increased import duty (CKr 2 290 per tonne) on wheat originating from Hungary. Hungary claimed that it was the only country against which this duty was applicable and that the new duty exceeded the respective bound rates by the Czech Republic. Following bilateral consultations, in November 1998 the two countries reached an agreement under which a maximum of 80 000 tonnes of feed wheat could be imported into the Czech Republic annually at a preferential duty rate of 15 per cent. The wheat may be imported through just one border crossing. Milling wheat continued to be barred from export from Hungary to the Czech Republic until 26 April 1999, after which the tariff reverted to the preferential 15 per cent rate. As part of the same deal, the Czech Republic raised its annual import quota for Hungarian wine by around 20 000 hectolitres.

European Union: protection of trademarks and geographical indications for agricultural products. In June 1999, the *United States* requested consultations with the European Union regarding the EC Regulation 2081-92. The United States claims that the regulation does not provide national treatment with respect to geographical indications and does not provide sufficient protection to pre-existing trademarks that are similar or identical to a geographical indication. It claims that these provisions are inconsistent with the EU's obligations under the TRIP Agreement.

European Union: importation, sale and distribution of bananas. In January 1999, five countries (Guatemala, Honduras, *Mexico*, Panama and the *United States*) requested consultations with the European Union in respect of the implementation of the recommendations of the DSB regarding the banana dispute. The complaining parties claimed that the EU-modified regime will not allow conclusion of this

dispute by the end of the reasonable period of time agreed upon for the EU to implement the recommendations of the DSB.

European Union: differentiated treatment for soluble coffee. In December 1998, *Brazil* requested consultations with the EU regarding duty-free preferential treatment granted under the EU's generalised system of preferences for soluble coffee originating from the Andean Group of countries and the Central American Common Market countries. Brazil claims that these preferences adversely affect its soluble coffee exports to the EU. Consultations are pending.

European Union: patent protection for pharmaceutical and agricultural products. In December 1998, *Canada* requested consultations with the EU regarding the protection of inventions in the area of pharmaceutical and agricultural chemical products covered under regulations EEC No. 1768/92 and EC No. 1610/96. Canada claims that these regulations are inconsistent with the EU's obligations under the TRIP Agreement, which prevents discrimination on the basis of field-of-technology as these regulations only apply to pharmaceutical and agricultural products. Consultations are pending.

European Union: import duties on rice. In May 1998, *India* requested consultations with the EU regarding the alleged restrictions introduced by a regulation establishing a so-called cumulative recovery system for determining import duties on rice. India claims that this regulation will restrict the number of importers of rice from India and will adversely affect its exports. It claims that the measure also violates several Articles of the GATT 1994, the Customs Valuation Agreement, the Import Licensing Agreement and the SPS, TBT and Agriculture Agreements. Consultations are pending.

European Union: exportation of processed cheese. In October 1997, the *United States* requested consultations with the EU regarding alleged export subsidies on processed cheese without regard to the export subsidy reduction commitments of the EU. The United States claims that these export subsidies distort markets and that they may be inconsistent with several provisions of the GATT 1994, the Agriculture and the Subsidy Agreements. Consultations are pending.

Japan: pork imports. In January 1997, the EU requested consultations with Japan regarding certain measures affecting imports of pork and processed pork products. The EU claims that these measures may be inconsistent with Japan's obligations under several provisions of the GATT 1994. Consultations are pending.

Korea: inspection procedures for fresh and processed agricultural products. In April 1996, the *United States* requested consultations with Korea regarding Korea's customs inspection procedures for fresh and processed agricultural products. The United States claims that such measures restrict imports and may be inconsistent with several provisions of the GATT 1994, the Agreement on Technical Barriers to Trade (TBT) and the SPS Agreement. Consultations are pending.

Slovak Republic: import duties on wheat. In September 1998, *Hungary* requested consultations with the Slovak Republic regarding an increased import duty (SK 2 540 per tonne) on wheat originating from Hungary. Hungary claimed that it was the only country against which this duty on wheat was applicable and that the new duties exceeded the respective bound rates by the Slovak Republic. The dispute was solved bilaterally in November 1998. Under the agreement, Slovakia abolished its duty on Hungarian wheat with effect from 2 November 1998 within a tariff quota of 45 000 tonnes.

Slovak Republic: imports of dairy products and the transit of cattle. In May 1998, *Switzerland* requested consultations with the Slovak Republic regarding certain measures imposed on the importation of dairy products and the transit of cattle. Switzerland claims that these measures adversely affect its exports of cheese and cattle and violates several provisions of the GATT 1994, the SPS and Import Licensing Agreements. Consultations were concluded on the basis of a mutually acceptable solution.

United States: reclassification of certain sugar syrups. In September 1999, *Canada* requested consultations with the United States regarding the proposed reclassification of certain sugar syrups by the US Customs Service. Canada claims that the measures would be inconsistent with Article II of the GATT 1994 and Article 4 of the Agreement on Agriculture.

United States: countervailing duties on live cattle. In March 1999, *Canada* requested consultations with the United States regarding the initiation of a countervailing duty investigation by the United States with respect to live cattle from Canada. Canada claims that insufficient information was provided

with respect to the measures or actions alleged to be subsidies. It further claims that the initiation of this countervailing investigation is inconsistent with the US obligations under the Subsidies Agreement.

United States: tariff-rate quota for groundnuts. In December 1997, *Argentina* requested consultations with the United States regarding the determination of the US tariff-rate quota for groundnut imports. Argentina claims that the restrictive interpretation by the United States is adversely affecting Argentinean exports and further results in violation of several provisions of the GATT 1994, the Rules of Origin and Import Licensing Agreements. Consultations are pending.

United States: poultry products. In August 1997, the EU requested consultations with the United States regarding a ban on imports of poultry and poultry products originating from the EU. It claims that the grounds for this ban have not been demonstrated and the ban may be inconsistent with several provisions of the GATT 1994, the SPS and TBT Agreements. Consultations are pending.

United States: safeguard measures on corn brooms. In April 1997, *Colombia* requested consultations with the United States regarding the application of a safeguard measure on imports of corn brooms. Colombia claims that the adoption of this safeguard measure is inconsistent with the Agreement on Safeguards and several provisions of the GATT 1994. Consultations are pending.

Panel reports, appeals, and requests for the establishment of a panel

Canada: milk imports and exportation of dairy products (requested by the *United States* and *New Zealand*). A panel was established in March 1998 to examine the conformity of Canadian measures in respect of alleged export subsidies on dairy products and the administration of the tariff-rate quota on milk. The applicants claim that Canadian measures are inconsistent with several provisions of the Agreement on Agriculture, the Subsidies and Import Licensing Agreements. In May 1999, the panel report was published and found that the measures complained against were inconsistent with the Canadian obligations under Article II: 1(b) of the GATT 1994 and Articles 3.3 and 8 of the Agreement on Agriculture by providing export subsidies as listed in Article 9.1(a) and 9.1(c) of the Agreement on Agriculture. In July 1999, Canada notified its intention to appeal certain issues of law and legal interpretations developed by the panel. The Appellate Body reversed the panel's interpretations regarding Article 9.1(a) and Article II: 1(b) but upheld the panel's interpretation of Article 9.1(c) referred to above. In October 1999, the DSB adopted the Appellate Body report and the panel report, as modified by the Appellate Body report. In November 1999, Canada stated its intention to comply with the DSB recommendations. Subsequently, Canada, the United States and New Zealand reached an understanding for the duration of the reasonable period of time for an implementation process that would comply with the recommendations of the DSB. The agreed period would end no later than 31 December 2000.

European Union: bananas (requested by Ecuador, Guatemala, Honduras, *Mexico* and the *United States*). A panel was established in May 1996 to examine the conformity of EU regulations on the Common Market Organisation for bananas with several provisions of the GATT and other WTO obligations. The report of the panel found that the EU banana import regime was inconsistent with several GATT Articles and WTO Agreements. The panel also found that the Lomé waiver removes the inconsistency with Article XIII of the GATT but not the WTO inconsistencies arising from the licensing system. In June 1997, the EU notified its decision to appeal against certain legal interpretations developed by the panel. The Appellate Body upheld most of the panel's findings but reversed some of the original panel's findings relating to the Lomé waiver. The DSB adopted the Appellate Body's report and the panel report, as modified by the Appellate Body's report, on 25 September 1997. The reasonable period of time for implementation of the recommendations of the DSB was determined by arbitration to expire on 1 January 1999. In July 1998, the EU Council adopted the regulation No. 1637/98 amending regulation No. 404/93 on the common organisation of the market in bananas, and in October regulation No. 2362/98 laying down detailed rules for the implementation of their new import regime, both of which to be applied as of 1 January 1999. In January 1999, the United States request authorisation from the DSB to suspend concessions to the EU on trade of about US\$520 million. The level of suspension was subsequently determined by arbitrators to equal US\$191.4 million. In the meantime, the original panel was reconvened, at the request of Ecuador, to examine the WTO consistency of the EU measures taken in implementation of the DSB recommendations. The reconvened panel found that the

EU implementation measures were *not* fully compatible with its WTO obligations. In April 1999, the DSB authorised the United States to suspend concessions to the EU and, in May 1999, it adopted the panel report requested by Ecuador. In November 1999, Ecuador requested the DSB authorisation to suspend concessions to the EU for an amount of \$450 million. The European Commission requested arbitration on the level of suspension and DSB referred the issue to the original panel. It also informed the DSB of its proposal for reform of its banana regime, which envisages a two-stage process, including a TRQ to be replaced by a tariff-only regime no later than 1 January 2006. Consultations among interested parties are still proceeding.

European Union: ban on beef raised with growth hormones. The *United States* and *Canada* requested the establishment of an individual panel to examine the conformity with several provisions of the GATT, the TBT and SPS Agreements of the measures prohibiting the use in livestock farming of certain substances having a hormonal action. The report of the panel found that the EU ban on imports of meat and meat products from cattle treated with growth hormones was inconsistent with several provisions of the SPS Agreement. In September 1997, the EU notified its decision to appeal against certain legal interpretations developed by the panel. The Appellate Body upheld the panel's findings that the EU import prohibition was inconsistent with Article 5.1 of the SPS Agreement. It reversed the panel's findings concerning the inconsistency of the EU prohibition with Articles 3.1 and 5.5 of the SPS Agreement. It further reversed the interpretative ruling of the panel on the burden of proof and modified the panel's interpretation of the concept of risk assessment. The DSB adopted the Appellate Body's report and the panel report, as modified by the Appellate Body's report on 13 February 1998. The reasonable period of time for implementation of the recommendations of the DSB was determined by arbitration to expire on 13 May 1999. In June, both the United States and Canada requested authorisation to the DSB to suspend concessions to the EU, and the DSB referred the issue to the original panel for arbitration. The arbitrators determined the level of nullification suffered by the United States to be equal to US\$116.8 million and C\$ 11.3 million for Canada. In July 1999, the DSB authorised the suspension of concessions to the EU by the United States and Canada in the respective amounts determined by the arbitrators as being equivalent to the level of nullification suffered by them.

European Union: poultry products (requested by *Brazil*). A panel was established in July 1997 to examine the EU regime for the importation of certain poultry products and the implementation of the tariff-rate quota for these products. The panel found that Brazil had not demonstrated that the EU had failed to implement and to administer the tariff-rate quota for poultry in line with its obligations. In April 1998, Brazil notified its intention to appeal certain legal interpretations developed by the panel. The Appellate Body upheld most of the panel's finding but concluded that the EU had acted inconsistently with Article 5.5 of the Agreement on Agriculture. In July 1998, the DSB adopted the Appellate Body report and the panel report. The EU has undertaken to comply with the recommendations and ruling of the DSB within a reasonable period of time agreed upon to expire on 31 March 1999.

European Union: butter products (requested by *New Zealand*). A panel was established in November 1997 to examine the EU decision to exclude butter manufactured under some butter-making processes in New Zealand from eligibility for New Zealand's country-specific tariff quota established by the EU's WTO Schedule. New Zealand claims that the EU decision is inconsistent with the EU's obligations under several provisions of the GATT and the TBT Agreement. In February 1999, New Zealand requested the suspension of the panel proceedings and in the following November a mutually agreed solution to the dispute was notified to the DSB.

India: patent protection for agricultural chemical products (requested by the *United States*). A panel was established to examine the conformity with the TRIP Agreement of India's patent protection for pharmaceutical and agricultural chemical products. The report of the panel, issued in September 1997, found that India was not in compliance with its obligations under several provisions of the TRIP Agreement. In October 1997, India notified its decision to appeal against certain legal interpretations developed by the panel. The Appellate Body upheld, with modifications, the panel's findings. The DSB adopted the Appellate Body's report and the panel report, as modified by the Appellate Body's report in January 1998. In April 1999, at the end of the reasonable period of time for implementing the recommendations of the DSB, India presented its final status report on implementation of this matter.

India: quantitative restrictions on agricultural products (requested by the *United States*). A panel was established in November 1997 to examine the conformity of quantitative restrictions imposed by India on the importation of a large number of agricultural, textile and industrial products. Several other member countries also requested consultations with India regarding these quantitative restrictions. The panel report issued in April 1999 found that the measures at issue were inconsistent with India's obligations under several Articles of the GATT 1994 and the Agreement on Agriculture. In May, India notified its intention to appeal certain issues of law and legal interpretations developed in the panel report. The Appellate Body upheld the findings of the panel, and the DSB adopted the panel and Appellate Body reports in September 1999. On 28 December 1999, the parties informed the DSB that they had reached an agreement on the reasonable period of time for India to comply with the recommendations and rulings of the DSB – *i.e.* 1 April 2000, except for some tariff items to be notified by India to the United States, for which the reasonable period of time is to expire on 1 April 2001. Pursuant to the agreement reached, India also is to treat the United States no less favourably than any other Member with respect to the elimination, or modification, of quantitative restrictions affecting any product covered by the agreement.

Japan: quarantine of agricultural products (requested by the *United States*). A panel was established in November 1997 to examine the import prohibition imposed by Japan on each variety of products requiring quarantine treatment, even if the treatment has proved to be effective for other varieties of the same agricultural product. The panel found that Japanese measures were inconsistent with several provisions of the SPS Agreement. In November 1998, Japan notified its intention to appeal certain issues of legal interpretations developed in the panel report. The Appellate Body upheld the basic finding that Japan's varietal testing of apples, cherries, nectarines and walnuts was without scientific basis. In March 1999, the DSB adopted the Appellate Body report and the panel report, as modified by the Appellate Body report. In a joint communication, the two parties informed the DSB on 15 June 1999 that they had agreed on an implementation period ending on 31 December 1999. On 31 December 1999, Japan abolished the varietal testing requirement as well as the "Experimental Guide" in accordance with the DSB's rulings. At the DSB meeting on 14 January 2000, Japan also stated that it was conducting consultations with the United States regarding a new quarantine methodology for products subject to import prohibitions because they are hosts of codling moth (*Cydia pomonella*).

Korea: dairy products. In August 1997, the EU requested consultations with Korea regarding the imposition of a definitive safeguard measure on imports of certain dairy products. The EU claims that the imposition of an import quota for these products may be inconsistent with several provisions of the Agreement on Safeguard Measures and the GATT 1994. The DSB established a panel in July 1998 and the panel report issued in June 1999 found that Korea's determination of serious injury has not been carried out in accordance with the Safeguard Agreement. In September 1999, Korea notified the DSB of its intention to appeal certain issues of law and legal interpretations developed in the panel. The Appellate Body reversed one of the panel's conclusions on the interpretation of Article XIX of GATT 1994 and its relationship with the Agreement on Safeguards; upheld one, but reversed another of the panel's interpretations of Article 5.1 of the Agreement on Safeguards; and concluded that Korea violated Article 12.2 of the Agreement on Safeguards, thereby reversing in part the panel's finding. The DSB adopted the Appellate Body Report and the Panel Report, as modified by the Appellate Body Report, on 12 January 2000. In February 2000, Korea notified the DSB that it was studying ways to implement the Board's recommendations.

Korea: beef (requested by the *United States* and *Australia*). Further to processes of consultations that were found unsatisfactory by the United States and Australia, the DSB established two panels – in May and one in July 1999 – to examine certain Korean regulatory measures that are alleged to discriminate against imported beef. It is claimed that the regulations are confining sales of imported beef to specialised stores and that Korea provides domestic support to the Korean cattle industry which exceeds its aggregate measure of support (AMS) as provided in the Korean Schedule of commitments. It is claimed that these measures are inconsistent with several provisions of the Agreement on Agriculture and the GATT 1994. At the request of Korea, the DSB agreed that the same panel would examine the two complaints. As of March 2000 the panel had not yet released its report.

Mexico: high-fructose corn syrup. In the September 1997, the *United States* requested consultations with Mexico regarding the imposition of provisional anti-dumping measures on imports of high-fructose corn syrup. In October 1998, the United States requested the establishment of a panel to examine the conformity of the Mexican imposition of definitive anti-dumping measures. It claims that these measures are inconsistent with several provisions of the Anti-Dumping Agreement. The DSB established a panel in November 1998. The panel found that Mexico's initiation of the anti-dumping investigation on imports of HFCS from the United States was consistent with the requirements of Articles 5.2, 5.3, 5.8, 12.1 and 12.1.1(iv) of the Anti-Dumping Agreement. The panel further found that Mexico's imposition of the definitive anti-dumping measure on imports of HFCS from the US was inconsistent with the following provisions of the Anti-Dumping Agreement: Articles 3.1, 3.2, 3.4, 3.7 and 3.7(i); Article 7.4; Article 10.2; Article 10.4; and Articles 12.2 and 12.2.2. The report of the panel was adopted by the DSB in February 2000.

United States: banana retaliation measures (requested by the *European Union*). Further to a process of consultation that was found unsatisfactory by the EU, the DSB established a panel in June 1999 to examine the contingent liability imposed by US Customs Service on a series of imported products from the EU. The EU alleges that these contingent liabilities are equivalent to 100 per cent duties on respective products and exceeds the bound rates of duty of respective products in the US Schedule of commitments. It is claimed that these measures are inconsistent with several provisions of the Dispute Settlement Understanding (DSU) and the GATT 1994. As of March 2000, the panel had not yet released its report.

United States: safeguard measures on wheat gluten imports (requested by the *European Union*). Further to a process of consultation that was found unsatisfactory by the EU, the DSB established a panel in July 1999 to examine the imposition of definitive safeguard measures in the form of a quantitative limitation on imports of wheat gluten from the EU. It is claimed that these measures are inconsistent with the several provisions of the Agreement on Safeguards, the Agreement on Agriculture and the GATT 1994. As of March 2000 the panel had not yet released its report.

United States: safeguard measures on lamb meat imports (requested by *Australia* and *New Zealand*). In November 1999, the DSB established two panels to examine the imposition of definitive safeguard measures in the form of a tariff-rate quota on imports of fresh, chilled and frozen lamb meat from Australia and from New Zealand. It is claimed that these measures are inconsistent with several provisions of the Agreement on Safeguards and the GATT 1994. The DSB agreed that the same panel would examine the two complaints.

United States: tax treatment for "Foreign Sales Corporations" (complaint by the *European Union*). This request, dated 18 November 1997, is in respect of Sections 921-927 of the US Internal Revenue Code and related measures, establishing special tax treatment for "Foreign Sales Corporations" (FSCs). The EC contends that these provisions are inconsistent with US obligations under Articles III:4 and XVI of the GATT 1994, Articles 3.1(a) and (b) of the Subsidies Agreement, and Articles 3 and 8 of the *Agreement on Agriculture*. On 1 July 1998, the EC requested the establishment of a Panel, invoking Article 3.1(a) and (b) of the Subsidies Agreement, and Articles 3 and 8, 9 and 10 of the Agreement on Agriculture, and did not pursue the claims under the GATT 1994. At its meeting on 22 September 1998, the DSB established a panel. Barbados, *Canada* and *Japan* reserved their rights as third-parties to the dispute. The panel found that, through the FSC scheme, the United States has acted inconsistently with its obligations under Article 3.1(a) of the Subsidies Agreement, as well as with its obligations under Article 3.3 of the Agreement on Agriculture (and consequently with its obligations under Article 8 of that Agreement). On 28 October 1999, the United States notified its intention to appeal certain issues of law and legal interpretations developed by the Panel. On 2 November 1999, the United States withdrew its notice of appeal pursuant to Rule 30 of the Working Procedures for Appellate Review, stating that the withdrawal was conditional on its right to file a new notice of appeal pursuant to Rule 20. On 26 November 1999, the United States notified its intention to appeal certain issues of law and legal interpretations developed by the panel. The report of the Appellate Body upheld the panel's finding that the FSC measures constituted a prohibited subsidy under the Agreement on Subsidies and Countervailing Measures (SCM) and reversed certain other findings. It also found that the United States acted inconsistently with its obligations under the Agreement on Agriculture by applying export subsidies, which threatened to result in circumvention of its export subsidy commitments with respect to agricultural products.

NAFTA dispute settlement procedures

The North American Free Trade Agreement (NAFTA) established the Free Trade Commission to resolve disputes between Canada, the United States and Mexico that may arise over the interpretation or application of the NAFTA. No new request was put forward to the Free Trade Commission to rule on disputes with respect to agricultural products in 1999 and the first quarter of 2000.

3. OECD MINISTERIAL COMMUNIQUÉS RELATED TO AGRICULTURAL POLICIES

In 1987, the OECD Council at Ministerial level adopted a number of principles for agricultural policy reform. These principles, reaffirmed and extended through subsequent Ministerial communiqués, provide the reference by which agricultural policy developments in Member countries are evaluated in this monitoring report. Selected text from the most relevant communiqués are presented below.

OECD Council at Ministerial Level, May 1999

The OECD Council at Ministerial level met on 26-27 May 1999. The communiqué issued at the conclusion of that meeting included the following text related to agricultural policy:¹¹

(11.) Ministers stressed the importance of both effective implementation of existing WTO agreements and, as an integral part of the new round, the negotiations mandated in the “built-in agenda”, which includes *agriculture* and *services*. In addition, further liberalisation of non-agricultural tariffs, removal of non-tariff barriers, trade facilitation and expansion of government procurement opportunities would enhance market access on a broader front, and produce substantial benefits for all participants. The WTO must also remain fully responsive to the changing needs of the global economy and society. Ministers consider it essential that the WTO contribute to sustainable development as agreed in Marrakech, including through appropriate account being taken of environmental issues in the future trade negotiations. The current WTO Work programmes on Trade & Investment and Trade & Competition as established in Singapore have been constructive. In the preparations for the Seattle Ministerial, their results should provide the WTO General Council with a basis for building consensus on appropriate recommendations to the third WTO Ministerial Conference that may be desirable to enhance the rules-based multilateral trading system.

* * *

(18.) Ministers regretted that the Participants to the *Export Credit Arrangement* had not yet reached agreement on an Understanding covering agriculture as mandated in the Uruguay Round. They urged, once more, the Participants to intensify their efforts to conclude this Understanding promptly, if possible by the Seattle Conference, and to report back at the next Ministerial Council Meeting. They welcomed the progress towards the OECD Agreement on Environmental Information Exchange for Larger Projects in relation to officially supported export credits and urged that the work continue with a view to strengthening common approaches and to report on progress made at the next Ministerial Council Meeting.

(19.) *Agriculture* remains of central importance. While progress has been made in agricultural policy reform, more needs to be done: overall levels of support and protection remain high; trade disputes and tensions persist; and the sector is of key interest to developing countries. Ministers agreed to continue their efforts to implement the broad-set of shared goals and policy principles for agricultural policy reform, and recognised: the multifunctional characteristics of the sector; the need to ensure that agro-food policies are targeted, transparent, cost-effective and avoid distortion of production and trade; and the long-term objective of substantial progressive reductions in support and protection resulting in fundamental reform, as agreed by OECD Agriculture Ministers in March 1998 and as noted by the OECD Ministerial Council in April 1998.

(21.) *Biotechnology* offers great opportunities but also presents significant challenges and has given rise to public debate on its implications. Ministers stressed the importance of safeguarding human health and the environment while enabling people to enjoy the benefits that flow from advances in biotechnology.

Scientific research is essential to the process. The OECD should continue to examine the various dimensions of this issue, including in the discussion at the forthcoming CSTP Ministerial and in other fora.

OECD Committee for Agriculture at Ministerial Level, March 1998

(1.) The OECD Committee for Agriculture met at Ministerial level on 5-6 March 1998 in Paris, under the chairmanship of Mr. J. van Aartsen, Minister for Agriculture, Nature Management and Fisheries, The Netherlands. The Vice-Chairs were Mr. J. Anderson, Minister for Primary Industries and Energy, Australia, Mr. D. Glickman, Secretary of Agriculture, United States, Mr. Y. Shimamura, Minister for Agriculture, Forestry and Fisheries, Japan, and Mr. F. Fischler, Commissioner for Agriculture and Rural Development, European Commission. Prior to the meeting the Chair had a useful exchange of views with the International Federation of Agricultural Producers and the Confederation of European Agriculture.

(2.) The world is adapting to the challenges of globalisation and evolving public expectations. Ministers judged it timely to examine the future role of the agro-food sector and related policies in the light of recent developments, in particular the outcome of the Uruguay Round Agreement on Agriculture, and of the World Food Summit. Most OECD countries have adjusted their agricultural policies over the last decade, and many are actively exploring new initiatives. Ministers undertook to further the process of the reform of agricultural policies as agreed in the 1987 OECD Council, through adoption of a set of shared goals and policy principles. In this context, Ministers noted that, in conformity with the conditions of Article 20 of the Uruguay Round Agreement on Agriculture (URAA)¹² and including all the elements contained therein, further trade negotiations are due to continue the ongoing process towards the long-term objective of substantial progressive reductions in support and protection resulting in fundamental reform.

Progress has been made in agricultural policy reform...

(3.) Ministers took note of the report prepared by the OECD Secretariat ***Agricultural Policy Reform: Stocktaking of Achievements*** as a good basis for discussion. They acknowledged that progress has been made since 1987, but more remains to be done. According to OECD Secretariat calculations, support to agricultural producers, as measured by the Producer Subsidy Equivalent, has fallen from an OECD-wide average of 45 per cent of the value of production in 1986-88 to an estimated 35 per cent in 1997. During the same period, total transfers from consumers and taxpayers due to agricultural policies decreased from a share of 2.2 per cent of GDP to 1.3 per cent, reaching a level of US\$280 billion in 1997. There has been some shift away from price support towards direct payments and other policy measures that are less distorting to production and trade, that allow a greater influence of market signals, and are more efficient in the targeting of support. OECD countries have developed agricultural policy measures to address environmental, rural development and structural adjustment issues, and more attention has been paid to the impact of agricultural policy reforms on the agro-food sector as a whole. The growing importance of these issues had been identified by OECD Agriculture Ministers in 1992.

(4.) The 1994 Uruguay Round Agreement was a major step on the path of agricultural policy reform, bringing agricultural trade policies and associated domestic policies within the scope of a comprehensive framework of multilateral trade disciplines. Domestic and trade policy reform efforts have contributed to a reduction in the serious problem of over-production that characterised the 1980s, to gains in economic efficiency, to an improvement in the functioning of world commodity markets, and a closer relationship between developments in domestic and world markets.

... but more needs to be done...

(5.) Nonetheless, Ministers recognised that policy reform is an on-going process, that policy reform is not complete and therefore more needs to be done. Progress in policy reform has been uneven across countries and commodities, and the pace of reform has been affected by social and economic factors. While some countries have made substantial reforms, in others the agricultural sector is still substantially supported and is not sufficiently responsive to market signals. Some commodity sectors continue to be subject to production-limiting programmes, which can have positive and negative economic impacts. Although decreasing, market price support remains the major form of support in most

OECD countries. And much support is linked to current production. Many agricultural policies still involve substantial costs to consumers and taxpayers. In many cases they either do not achieve their intended outcomes or do not do so in the most efficient and equitable ways.

(6.) In many cases, agricultural trade is subject to relatively high import tariffs. The use of export subsidies has been subject to discipline under the URAA, but remains a contentious issue. Export credits for agricultural products are not yet disciplined. Technical barriers to trade, sanitary and phytosanitary measures, labels of origin, quality standards, and export and import monopolies have also become important trade policy issues. Ministers recalled that agricultural trade policy measures are closely linked to domestic agricultural policy measures, and that the further reform of domestic and trade policies has to be compatible. In this context, Ministers noted that agricultural policy also needs to give due consideration to non-trade concerns, as referenced in Article 20 of the Uruguay Round Agreement on Agriculture.

... and new challenges are emerging

(7.) Ministers took note of the report prepared by the OECD Secretariat ***Agricultural Policy: The Need for Further Reform***, and its suggested policy approaches, as a valuable contribution to the discussion on advancing the policy reform process. Ministers stressed that a major challenge for agriculture and the agro-food sector in OECD countries is to meet the growing demand for adequate and safe supplies of food in efficient and sustainable ways, while recognising the diversity of agricultural, economic and social situations and public preferences concerning the role of the agro-food sector across OECD countries.

(8.) On-going structural adjustment, innovation, and a tendency in some countries or sectors towards vertical co-ordination with upstream and downstream industries are important developments, with implications for farm incomes. Many farmers have responded to these developments, and to market signals, by adopting different farm practices, developing alternative products and supplying new markets. The income sources of many farm households are becoming more diversified. Problems of low farm incomes mainly affect specific farmers and less-favoured regions, or occur during periods of severe and sudden income loss. Producers in some countries, which previously had a high level of price support and protection, could face increased price variability. Providing appropriate safety nets and associated measures in least production- and trade-distorting ways would allow governments to assist in particular the most vulnerable farmers, in cost-efficient ways.

(9.) As globalisation advances, foreign investment in agro-food industries is increasing and trade in agricultural goods is expanding rapidly, particularly for processed products. There are closer agricultural trade and investment relations between OECD and non-OECD countries, especially some Asian and South American countries, which are emerging as major players in agricultural markets. The OECD area also has a responsibility to contribute to world food security, and Ministers stressed the importance of the 1996 World Food Summit declaration on global food security and the plan of action agreed upon. Food security requires a multifaceted approach involving national and international efforts, including: ensuring the eradication of poverty, sufficient food production, and a fair and market-oriented world trade system.

(10.) Beyond its primary function of supplying food and fibre, agricultural activity can also shape the landscape, provide environmental benefits such as land conservation, the sustainable management of renewable natural resources and the preservation of bio-diversity, and contribute to the socio-economic viability of many rural areas. In many OECD countries, because of this multifunctional character, agriculture plays a particularly important role in the economic life of rural areas. There can be a role for policy where there is an absence of effective markets for such public goods, where all costs and benefits are not internalised. The reform of agricultural policy according to the principles agreed upon in the OECD in 1987, including well-targeted policy measures, will enable the sector to contribute to the viability of rural areas and address environmental issues, while enhancing efficient and sustainable resource use in agriculture.

(11.) Rapid development and dissemination of new technologies, including biotechnology and information technology, is providing not only challenges but also opportunities for the agro-food sector. But there is growing public concern about food quality standards and food safety, including the effects of new technologies; animal welfare standards in agriculture; and those cases where agriculture causes

environmental damage, such as degradation of water, soil and habitats. Most of these issues have trans-boundary and trans-sectoral dimensions. For many of them there is a need for further research, a better understanding of current scientific knowledge, and better information to consumers.

Ministers outlined their Shared Goals...

(12.) Against this background Ministers outlined a set of *Shared Goals*, stressing that the goals should be viewed as an integrated and complementary whole. There was a broad consensus that OECD Member governments should provide the appropriate framework to ensure that the agro-food sector:

- is responsive to market signals;
- is efficient, sustainable, viable and innovative, so as to provide opportunities to improve standards of living for producers;
- is further integrated into the multilateral trading system;
- provides consumers with access to adequate and reliable supplies of food, which meets their concerns, in particular with regard to safety and quality;
- contributes to the sustainable management of natural resources and the quality of the environment; contributes to the socio-economic development of rural areas including the generation of employment opportunities through its multifunctional characteristics, the policies for which must be transparent. contributes to food security at the national and global levels.

(13.) Ministers stressed that agro-food policies should seek to strengthen the intrinsic complementarities between the shared goals, thereby allowing agriculture to manifest its multifunctional character in a transparent, targeted and efficient manner. The challenge in pursuing the shared goals is to use a range of well-targeted policy measures and approaches which can ensure that the growing concerns regarding food safety, food security, environmental protection and the viability of rural areas are met in ways that maximise benefits, are most cost-efficient, and avoid distortion of production and trade.

... adopted a set of policy principles...

(14.) Ministers viewed future public policy as contributing to the achievement of the shared goals through appropriate well-targeted policy measures to accompany competitive, market-led developments in the agro-food sector. They noted that agricultural policy cannot be isolated from influences that are shaping the economy of which the agricultural sector is a part, and saw a clear need to ensure that agricultural policies are compatible and mutually reinforcing with broader economy-wide policies in areas such as social welfare, employment, environment and regional development.

(15.) In striving to realise the shared goals, Ministers adopted a set of *policy principles*, while recognising that governments will want to retain flexibility in the choice of policy measures and in the pace of reform, taking into account the diverse situations in Member countries. These principles, which build on the agricultural policy reform principles agreed by OECD Ministers in 1987 and reiterated by Agriculture Ministers in 1992, are as follows:

- reaffirm the support for Article 20 of the Uruguay Round Agreement on Agriculture* and the commitment to undertake further negotiations as foreseen in that Article and to the long-term goal of domestic and international policy reform to allow for a greater influence of market signals:

* "Recognising that the long-term objective of substantial progressive reductions in support and protection resulting in fundamental reform is an ongoing process, members agree that negotiations for continuing the process will be initiated one year before the end of the implementation period, taking into account:

- a) the experience to that date from implementing the reduction commitments;
- b) the effects of the reduction commitments on world trade in agriculture;
- c) non-trade concerns, special and differential treatment to developing country Members, and the objective to establish a fair and market-oriented agricultural trading system, and the other objectives and concerns mentioned in the preamble to this Agreement; and
- d) what further commitments are necessary to achieve the above mentioned long-term objectives";

- address the problem of additional trade barriers, emerging trade issues and discipline on export restrictions and export credits;
- strengthen world food security in particular through the actions agreed in the Rome Declaration and Plan of Action of the 1996 World Food Summit;
- promote innovative policies that facilitate responsiveness to market conditions by agricultural producers;
- facilitate improvement in the structures in the agricultural and agro-food sectors, taking into account the needs of farmers affected, in particular those in disadvantaged regions;
- enhance the contribution of the agro-food sector to the viability of the rural economy through, for example, efficient and well-targeted agricultural policy measures, facilitating the mobility of labour, new market opportunities, alternative uses of land (both within and outside agriculture), and the provision of rural amenities;
- take actions to ensure the protection of the environment and sustainable management of natural resources in agriculture by encouraging good farming practices, and create the conditions so that farmers take both environmental costs and benefits from agriculture into account in their decisions;
- take account of consumer concerns by improving the effectiveness and reliability of food safety regulations, strengthening standards on origin and quality, and improving the content and availability of information to consumers, within the framework of international rules;
- encourage increased innovation, economic efficiency, and sustainability of agro-food systems through, *inter alia*, appropriate public and private research and development efforts, respect for the protection of intellectual property, and improvements in public infrastructures, information, advice and training;
- in a manner fully consistent with paragraph 13 of this communiqué, preserve and strengthen the multifunctional role of agriculture in order to combat territorial imbalances, to encourage the sustainable management of natural resources and to favour diverse farm development strategies.

(16.) Ministers agreed to seek innovative ways and appropriate institutional frameworks to integrate public, private and co-operative initiatives, which take into account local and regional conditions. They agreed that in designing and implementing cost-effective policy measures, these should be regularly monitored and evaluated with respect to their stated objectives. Ministers also agreed that policy measures should seek to meet a number of operational criteria, which would apply in both the domestic and the international context, and should be:

- *transparent*: having easily identifiable policy objectives, costs, benefits and beneficiaries;
- *targeted*: to specific outcomes and as far as possible decoupled;
- *tailored*: providing transfers no greater than necessary to achieve clearly identified outcomes;
- *flexible*: reflecting the diversity of agricultural situations, be able to respond to changing objectives and priorities, and applicable to the time period needed for the specific outcome to be achieved;
- *equitable*: taking into account the effects of the distribution of support between sectors, farmers and regions.

... and outlined a role for the OECD

(17.) In order to contribute to the achievement of the shared goals, Ministers agreed on a number of priority areas for future work by the OECD, which they recommended be reflected in the overall programme of work determined by the OECD Council. Ministers asked the OECD to:

- *develop the analysis and analytical tools* to monitor and evaluate developments in agricultural policies against the shared goals, policy principles, and operational criteria of policy measures;
- *continue and strengthen* the analysis of main agricultural markets and trade developments, taking into account market developments in non-OECD countries;

- *examine* ongoing and new agricultural trade and trans-boundary policy issues and their impacts, provide analytical support, as appropriate, to the process of agricultural trade liberalisation, without duplicating the work of the WTO. In this connection, Ministers noted the contributions that the OECD Committees, within their existing work programmes, might make to the process of information exchange and analysis now underway in the various WTO Committees, while avoiding unwanted duplication with work in other fora.
- *identify and analyse existing and new policy approaches* to address issues related to structural adjustment in the agro-food sector, rural development, farm incomes, farm employment, income risk management, and food security and food safety;
- *foster sustainable development* through analysing and measuring the effects on the environment of domestic agricultural and agri-environmental policies and trade measures;
- *promote an active policy dialogue with non-member countries* in particular those that are relevant players in agricultural production and trade;
- *improve the dialogue with non-government organisations*, in particular those representing farmers, other actors in the agro-food sector including consumers, and those concerned with agriculture and the environment.

(18.) Ministers recommended that the communiqué be drawn to the attention of the OECD Ministerial Council.

OECD Committee for Agriculture at Ministerial Level, March 1992

(1.) The Committee for Agriculture of the OECD met at Ministerial level at the Château de la Muette on 26 and 27 March 1992, under the chairmanship of Mr. K.-E. Olsson, Minister of Agriculture of Sweden. The other Members of the Bureau were Mr. S. Crean, Minister for Primary Industries and Energy of Australia, Mr. R. MacSharry, Member of the Commission of the European Communities with responsibility for Agriculture and Rural Development and Mr. E. Madigan, Secretary of Agriculture of the United States.

(2.) The Ministers¹³ discussed the current situation and likely future developments in agricultural policies and markets. They considered the state of policy reform and its domestic and international dimensions. They recognised that it was necessary to examine in a coherent manner the relationships among structural adjustment in the agricultural sector, environmental issues, and rural development, and any measures used to address them. They also discussed the significant changes occurring in parts of the world and how these affect the agricultural relationships between the OECD countries and non-member countries.

The reform of agricultural policies

(3.) Ministers confirmed all the agricultural reform principles set out in 1987 and reaffirmed in subsequent meetings of the OECD Council at Ministerial level. They reaffirmed the commitment to the long-term objective of the reform. They noted the very limited and uneven progress that has been made in implementing the 1987 principles.

(4.) Ministers reaffirmed the commitment of their Governments to the achievement of a swift and successful conclusion of the Uruguay Round negotiations under the General Agreement on Tariffs and Trade. To this end, they stressed the need for a further political impetus to bring to conclusion the negotiating process currently under way. They recognised that agriculture is one of the most important elements in the negotiations, and that the resolution of the outstanding issues in this sector, among others, is therefore essential. A successful conclusion of the negotiations will represent a major multilateral contribution towards the implementation of the agricultural reform agreed upon in 1987, and subsequently. In contrast, there would be significant down-side risks for the world trading system and costs for the world economy of a failure to conclude quickly the Uruguay Round. It will be important to assess in depth the various impacts of reform. In this regard, Ministers stressed the fruitful role that the Organisation has played in the preparation of the negotiations and requested it to continue its analytical function following their conclusion.

(5.) Ministers stressed the central function of agriculture and the rest of the agro-food sector as a provider of food and raw materials, including raw materials for new uses, and its role as a source of employment. As a user of land and other natural resources, agriculture is a major custodian of the environment. In order for agriculture and the rest of the agro-food sector to fulfil these multiple functions and to contribute to overall economic growth, adjustment is necessary. In this context, the reform of agricultural policies is essential to ensure a more market-oriented agricultural system producing high quality products and to contribute to trade liberalisation, and to promote environmentally sustainable agriculture. In addition to policies within the sector, appropriate policies outside the sector, such as macro-economic policies, including monetary policies, contributing to sustained economic growth, and labour market policies, are also necessary to facilitate the adjustment of agriculture and the rest of the agro-food sector.

(6.) Many of the agricultural policy measures currently in use are costly. The large consumer, taxpayer and other costs of agricultural policies are a continuing source of concern.¹⁴ While successful in achieving some stated objectives, many policy measures have limited success in achieving some of their aims, such as improving farm incomes and aiding disadvantaged rural areas. In some countries, policies have resulted in burdensome production surpluses with consequent negative effects on international markets, in particular for food exporting countries. Measures to control production have, in some cases, reduced market imbalances, but they have to be applied in an appropriate mix with other policy instruments in order to be able to address the fundamental need for adjustment in agriculture and an improved allocation of resources. Despite recent improvements in the balance of supply and demand, the medium-term outlook is one of continuing surpluses for many commodities in the OECD area. This prospect makes the reform of policies even more urgent. Ministers noted with appreciation the work done by the Organisation in monitoring developments in the agricultural policies of Member countries, in analysing medium-term market outlook, in assessing the domestic and international implications of policies, including those in the income field, and in analysing the ways and means of implementing policy reform. With the increasing need for reform, Ministers requested the continuation and deepening of work in these areas.

Structural adjustment

(7.) Ministers agreed that adjustment of the agricultural sector in order to make it more viable necessitates greater market orientation through progressively less distorted market signals, a progressive reduction in assistance, and enhanced self-reliance by producers. While noting that meaningful reform would have benefits for the economy as a whole as well as for the agro-food sector, Ministers recognised that such reform would also impose hardship, in certain OECD countries, on segments of the population and on some regions heavily dependent on agriculture. Some of those adversely affected will be capable of accommodating adjustment on their own. Others will need appropriate help to transform their farm operations and off-farm activities in order to remain viable, or to seek other alternatives. In addition, analysis of the economic utilisation of agricultural products for non-food purposes should be enhanced. In any event, any measures taken should not erect further impediments to structural change, but should reduce economic distortions, and adhere to the principles of transparency and efficiency. They should strengthen competitiveness in the agro-food sector as a whole. To clarify the choices involved, Ministers requested that the Organisation strengthen its work on structural adjustment in the agro-food sector with a view to evaluating appropriate measures which could be used to support reform.

Agriculture and the environment

(8.) Ministers stressed the growing importance of the two-way relationships between agriculture and forestry on the one hand, and the environment on the other hand, and the fact that both sectors contribute both positively and negatively to the environment. They recognise that in some countries many of the most valuable landscapes have been shaped and preserved by agricultural and silvicultural activities. Such activities, in all countries, could contribute increasingly and positively to environmental sustainability, and the conservation of rural resources. The sectors will also be affected increasingly by environmental changes largely outside their control and by policy responses to those changes, such as those associated with the threat of global warming. It was agreed that agricultural policy

reform could be beneficial for the environment, and that a new set of responses may be needed to internalise environmental costs and benefits into agricultural decision-making. The new set of responses encompasses both regulatory and market-based solutions, for example, environmental management agreements, financial measures, research and development initiatives, and the pricing of previously unpriced environmental services. Ministers noted that the polluter pays principle should be applied to the extent possible, as indicated by OECD Environment Ministers¹⁵ among others. They also stressed the need for transparent policy responses to reduce economic and trade distortions. Ministers endorsed the view that the international dimensions of environmental impacts or the policy responses to them can best be addressed through multilateral approaches. Finally, Ministers endorsed the need for further analysis by the Organisation of the linkage between agriculture and the environment and its implications for policy.

Rural development

(9.) Rural development relates to a broad range of social as well as economic dimensions. Agriculture is a major part of the rural economy in OECD countries. Ministers emphasised that rural development should be addressed primarily through an integrated rural development policy, rather than only through agricultural policy. The primary focus of rural development policy should be the reduction of impediments to, and the promotion of, viable economic activities. Such a focus would contribute to efficient adjustment in agriculture. This in turn would improve the long-term viability of the agricultural sector and its economic and social contribution to rural areas.

(10.) Ministers noted the work underway in the Organisation on the inter-related issues of agricultural reform, the environment, and rural development, and stressed the need for an integrated approach to these issues.

Implications of developments in non-Member countries

(11.) Ministers noted the growing importance of relationships between the OECD countries and non-member countries, and the major changes in some of these relationships in recent years. They affirmed the need for further expansion of dialogue on agricultural issues between the OECD countries and non-member countries. In this context, Ministers discussed the need to provide food aid in specific circumstances, to provide technical assistance for the development of the agro-food sector as a whole, and within the multilateral system to improve access to OECD markets as a contribution to the process of economic reform in non-member countries. They suggested a deepening of the monitoring and analysis of developments in non-member countries, and their implications for the OECD countries and world markets.

(12.) Ministers noted the increased emphasis being placed by the OECD on central and eastern European countries (CEECs). The agro-food system has an important role to play in their transition to a market economy. Ministers encouraged the expansion of co-operation, particularly in the form of technical assistance by OECD countries, to aid this process by facilitating the transition to an efficient, market-oriented private agro-food sector. They noted the concrete steps already taken by the OECD countries in this regard. They welcomed the opportunity for dialogue provided by their meeting with the Agricultural Ministers of the Partners in Transition (PIT) countries, held on 26 March. In relation to the Commonwealth of Independent States (CIS), Georgia, and the Baltic States, Ministers noted that, in the short-term, food aid will be vital to prevent hardship, particularly among poorer segments of the population in food-deficit areas, while it is necessary to ensure that such aid does not impair the development of the food and agricultural sectors of these countries. Ministers endorsed the need for continued co-ordination among OECD countries in the provision of food aid and technical assistance.

(13.) Ministers recognised that the increasingly diverse situations in developing countries require different policy responses. They noted the role that OECD countries play in the development process and as markets for developing country exports. Ministers reaffirmed the commitment to assist in the improvement of the food situation in developing countries by helping to strengthen the agro-food sectors in those countries, and by pursuing food aid efforts. They recognised that agricultural policy reform, in both the OECD countries and in the developing countries, should aid, in the long run, the development process.

OECD Council at Ministerial Level, May 1987

The Council of the OECD met at Ministerial level on 12 and 13 May 1987. The following is the full text of the section on agriculture in the communiqué issued at the conclusion of that meeting:¹⁶

The 1987 OECD Ministerial Principles for agricultural policy reform

(19.) "The joint report of the Trade and Agricultural Committees¹⁷ was approved. This important work clearly highlights the serious imbalances that prevail in the markets for the main agricultural products. Boosted by policies which have prevented an adequate transmission of market signals to farmers, supply substantially exceeds effective demand. The cost of agricultural policies is considerable, for government budgets, for consumers and for the economy as a whole. Moreover, excessive support policies entail an increasing distortion of competition on world markets; run counter to the principle of comparative advantage which is at the root of international trade and severely damage the situation of many developing countries. This steady deterioration, compounded by technological change and other factors such as slow economic growth or wide exchange rate changes, creates serious difficulties in international trade, which risk going beyond the bounds of agricultural trade alone.

(20.) "All countries bear some responsibilities in the present situation. The deterioration must be halted and reversed. Some countries, or groups of countries, have begun to work in this direction. But, given the scope of the problems and their urgency, a concerted reform of agricultural policies will be implemented in a balanced manner.

(21.) "Reform will be based on the following principles:

- a) The long-term objective is to allow market signals to influence by way of a progressive and concerted reduction of agricultural support, as well as by all other appropriate means, the orientation of agricultural production; this will bring about a better allocation of resources which will benefit consumers and the economy in general.
- b) In pursuing the long-term objective of agricultural reform, consideration may be given to social and other concerns, such as food security, environmental protection or overall employment, which are not purely economic. The progressive correction of policies to achieve the long-term objective will require time; it is all the more necessary that this correction be started without delay.
- c) The most pressing need is to avoid further deterioration of present market imbalances. It is necessary:
 - on the demand side, to improve prospects as much as possible inside as well as outside the OECD area;
 - on the supply side, to implement measures which, by reducing guaranteed prices and other types of production incentives, by imposing quantitative production restrictions, or by other means, will prevent an increase in excess supply.
- d) When production restrictions are imposed or productive farming resources withdrawn by administrative decision, these steps should be taken in such a way as to minimise possible economic distortions and should be conceived and implemented in such a way as to permit better functioning of market mechanisms.
- e) Rather than being provided through price guarantees or other measures linked to production or to factors of production, farm income support should, as appropriate, be sought through direct income support. This approach would be particularly well suited to meeting the needs of, amongst others, low-income farmers, those in particularly disadvantaged regions, or those affected by structural adjustment in agriculture.
- f) The adjustment of the agricultural sector will be facilitated if it is supported by comprehensive policies for the development of various activities in rural areas. Farmers and their families will thus be helped to find supplementary or alternative income.

g) In implementing the above principles, Governments retain flexibility in the choice of the means necessary for the fulfilment of commitments.

(22.) "The Uruguay Round is of decisive importance. The Ministerial Declaration of Punta del Este and its objectives provide for the improvement of market access and the reduction of trade barriers in agriculture and will furnish a framework for most of the measures necessary to give effect to the principles for agricultural reform agreed upon by OECD Ministers, including a progressive reduction of assistance to and protection of agriculture on a multi-country and multi-commodity basis. As agreed in paragraph 16,¹⁸ the Uruguay Round negotiations will be vigorously pursued and comprehensive negotiating proposals tabled over the coming months, in this as in other fields. In the Uruguay Round, appropriate account should be taken of actions made unilaterally.

(23.) "In order to permit a de-escalation of present tensions and thereby enhance prospects for the earliest possible progress in the Uruguay Round as a whole, OECD governments will carry out expeditiously their standstill and rollback commitments and, more generally, refrain from actions which would worsen the negotiating climate: they will, *inter alia*, avoid initiating actions which would result in stimulating production in surplus agricultural commodities and in isolating the domestic market further from international markets; additionally, they will act responsibly in disposing of surplus stocks and refrain from confrontational and destabilising trade practices.

(24.) "Agricultural reform is not solely in the interests of Member countries. Developing countries which are agricultural exporters will benefit from a recovery on world markets. Developing countries which are importers of agricultural produce will be encouraged to base their economic development on more solid ground, by strengthening their own farm sector.

(25.) "Agricultural reform poses vast and difficult problems for Member countries. Strengthened international co-operation is needed to overcome these problems. The OECD will continue to contribute to their solution by deepening further its work; by updating and improving the analytical tools it has begun to develop and which will prove particularly valuable in many respects; by monitoring the implementation of the various actions and principles listed above. The Secretary-General is asked to submit a progress report to the Council at Ministerial level in 1988."

4. MEASUREMENT OF SUPPORT TO AGRICULTURE

Introduction

The OECD has, since 1987, been measuring support to agriculture using the Producer Support Estimate (PSE) and Consumer Subsidy Estimate (CSE).¹⁹ With the reform of agricultural policies in OECD countries, the number and complexity of policy measures has increased significantly. A given objective may be achieved through different measures, the economic impacts of which depend very much on the way they are implemented. Therefore, a comprehensive policy evaluation of recent policy measures requires grouping them according to their implementation criteria – independently of their objectives and effects. This is the basis of the OECD classification system presented here.

This chapter explains the coverage, definitions, criteria of classification and methods of calculation of the four OECD indicators of support associated with agricultural policies: PSE, CSE, GSSE and TSE. It also presents the method of decomposing the PSE and CSE to calculate the contribution of each component to the country PSE or CSE change. Finally, it provides definitions for full-time farmer equivalents and for agricultural land.

The work on implementing the current classification system, presented for the first time in the 1999 edition of this report, was undertaken by the Secretariat in close co-operation with Member countries. It provided not only the opportunity to “reclassify” policy measures, but also to “clean up” the data bases and calculations for each country, in order to ensure consistency. The detailed results for all countries, and documentation of the data sources, are available in the Electronic Data Product, OECD PSE/CSE Database.

Although the Secretariat has made an effort to ensure consistency on the treatment and completeness of coverage of policies, this exercise should be seen as a dynamic process and the results included in this report have to be seen as preliminary. As in the past, future annual exercises will offer the opportunity to revise the calculations for the entire period in the light of more updated information on policy measures.

Definitions and methods

Classification and definitions

The current 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 Box II.3.

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 the farm-gate level, arising from policy measures that 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.* one in which producers are subject only to general policies (including economic, social, environmental and tax policies) of the country. Although the PSE is measured **net** of producer contributions to help finance a support policy (*e.g.*, through a levy on production) it is fundamentally a **gross** concept because any costs associated with those policies, and incurred by individual producers, are not deducted.²⁰ It is also a measure of **nominal assistance** in the sense that increased costs associated with import duties on inputs are not deducted. The PSE includes both implicit and explicit payments, such as price gaps on outputs or inputs, tax exemptions, and budgetary payments, including those for remunerating non-marketed goods and services. Therefore, the indicator measures more than

the “subsidy element”. Although **farm receipts** (revenue)²¹ are increased (or farm expenditure reduced) by the amount of support, the PSE is not in itself an estimate of the impacts on farm production or income. The following sections describe the main components of the PSE.

A. Market Price Support (MPS): an indicator of the annual monetary value of gross transfers from consumers and taxpayers²² to agricultural producers arising from policy measures that create 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 export. It is measured by the price gap applied to current unlimited production (a. *Based on unlimited output*); or, where restrictions on output apply, to current limited production (b. *Based 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 (c. *Price levies*); and, in the case of livestock production, it is net of the market price support on domestically produced coarse grains and oilseeds used as animal feed (d. *Excess feed cost*).

B. Payments based on output: an indicator of the annual monetary value of gross 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 certain types of payments per tonne, per hectare or per animal to current unlimited production (a. *Based on unlimited output*), or limited production (b. *Based on limited output*).

C. Payments based on area planted/animal numbers: an indicator of the annual monetary value of gross 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 a specific crop or crops, or maintaining particular number of livestock, it includes certain types of payments per hectare or per head to current unlimited (a. *Based on unlimited area or animal numbers*), or limited (b. *Based on limited area or animal numbers*) area planted or animal numbers.

D. Payments based on historical entitlements: an indicator of the annual monetary value of gross 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.

These constraints are 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 (a. *Based on plantings/animal numbers or production*); and payments based on historical support programmes for such commodities (b. *Based on historical support programmes*).²³

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 (a. *Based on use of variable inputs*); the cost of on-farm technical, sanitary and phytosanitary services (b. *Based on use of on-farm services*); or affecting specific fixed input costs, including investment costs (c. *Based 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.

These payments are conditional on the application of certain constraints (reduction, replacement, or withdrawal) on the on-farm use of specific variable inputs (a. *Based on constraints on variable inputs*); or fixed inputs (b. *Based 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 (c. *Based on constraints on a set of inputs*).²⁴

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 being an eligible farming enterprise or farmer, it includes payments to compensate for farm income fluctuations or losses (a. *Based on farm income level*); or for guaranteeing a minimum income (b. *Based on established minimum income*).²⁵

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 (a. *National payments*), or state, regional, prefectural or provincial governments (b. *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 generally and not individually to farms, including collective actions for agri-environmental purposes, it includes taxpayer's transfers to: improve agricultural production (**I. Research and development**); agricultural training and education (**J. Agricultural schools**); control of quality and safety of food, agricultural inputs, and the environment (**K. Inspection services**); improve off-farm collective infrastructures, including downstream and upstream industry (**L. Infrastructures**); assist marketing and promotion (**M. Marketing and promotion**); meet the costs of depreciation and disposal of public storage of agricultural products (**N. Public stockholding**); other general services that cannot be disaggregated and allocated to the above categories due, for example, to a lack of information (**O. Miscellaneous**). 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. Transfers to producers from consumers**); and transfers to the budget or importers, or both, on the share of consumption that is imported (**Q. Other transfers from consumers**); and is **net** of any payment to consumers that offsets their contribution to market price support of a specific commodity (**R. Transfers 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. Excess 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 that support agriculture, net of the associated budgetary receipts, regardless of their objectives and impacts on farm production and income, or consumption of farm products.

Box II.3. 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

- a.* Based on unlimited output
- b.* Based on limited output
- c.* Price levies
- d.* Excess feed cost

B. Payments based on output

- a.* Based on unlimited output
- b.* Based on limited output

C. Payments based on area planted/animal numbers

- a.* Based on unlimited area or animal numbers
- b.* Based on limited area or animal numbers

D. Payments based on historical entitlements

- a.* Based on historical plantings/animal numbers or production
- b.* Based on historical support programmes

E. Payments based on input use

- a.* Based on use of variable inputs
- b.* Based on use of on-farm services
- c.* Based on use of fixed inputs

F. Payments based on input constraints

- a.* Based on constraints on variable inputs
- b.* Based on constraints on fixed inputs
- c.* Based on constraints on a set of inputs

G. Payments based on overall farming income

- a.* Based on farm income level
- b.* Based on established minimum income

H. Miscellaneous payments

- a.* National payments
- b.* 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

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 (which appear in MPS and CSE); the gross transfers from taxpayers to agricultural producers (in the 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 the 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. Budget revenues**).

Criteria for classification

a) How to define measures to be included in the PSE, CSE or GSSE

The general criterion to determine whether to include policy measures in the PSE, CSE or GSSE is if the implementation of the measure provides transfers to agricultural producers individually (PSE), to (from) consumers of agricultural commodities individually (CSE), or to the general services provided to agriculture collectively (GSSE). Therefore, the TSE includes all transfers included in the three other indicators (adjusted to exclude double-accounting).

In the case of the PSE (transfers to producers) it is necessary for an individual farmer to take decisions or actions to produce goods or services, to use factors of production, or to be defined as an eligible farming enterprise or farmer to receive a transfer, which therefore changes gross farm receipts (revenue) by the amount of the transfer. In the case of the CSE (transfers to/or from consumers), it is also necessary for consumers to take decisions or actions to consume agricultural commodities to provide (or receive) a transfer, which therefore changes gross consumer expenditure by the amount of the transfer. GSSE transfers do not depend on any decisions or actions of individual farmers or consumers, are not received by individual producers or individual consumers, and do not affect farm receipts (revenue) or consumption expenditure by the amount of the transfer.

Therefore, the **general criteria** for classifying policy measures included in each of the indicators composing the TSE requires responses to the following sequence of questions:

- **First**, does the policy measure create a transfer to (from) consumers of agricultural commodities? If yes, consider it under CSE and also proceed to the following question; if not, proceed to the following question;
- **Second**, does the policy measure (including those creating a transfer to (from) consumers) create a transfer to producers individually based on goods and services produced, on inputs used, or on being a farming enterprise or farmer? If yes, consider it under PSE; if not, proceed to the following question;
- **Third**, does the policy measure create a transfer to general services provided to agriculture collectively? If yes, consider it under the GSSE; if not, do not consider it in the TSE calculation.

b) How to classify transfers to producers in the PSE

The implications of policy measures on variables such as production, consumption, trade, income, employment and the environment depend primarily on the way policy measures are implemented. Therefore, to be helpful for policy analysis, policy measures to be included in the PSE are classified according to implementation criteria. For a given policy measure, the **implementation criteria** are defined as *the conditions under which the associated transfers are provided to farmers, or the conditions of eligibility for the payment*. However, these conditions are often multiple. Thus, the criteria used to classify payments to producers is defined in a way that facilitates: the analysis of policies in the light of the “operational criteria” defined by OECD Ministers of Agriculture in 1998; the assessment of their impacts (on for example, production, consumption, income, employment, and the environment) through, for example, the policy models and the classification of new policy measures in a consistent way across countries, policy measures and over time.

Policy measures with environmental eligibility conditions illustrate the importance of the PSE classification based on implementation criteria. Payments with *cross-compliance* conditions are defined as measures to support specific agricultural commodities conditional in respect of some environmental constraints. *Cost-sharing* payments are defined as measures to support specific environmental activities or outcomes through the respect of some constraints on agricultural production or pollution. Although in both cases the payments may be provided per farm, per hectare or per animal, their main implementation criteria are not the same, and therefore, these payments should not be considered under the same category.²⁶

The **criteria** for classifying each of the policy measures to be included in the PSE, into a specific category of measures requires responding to the following sequence of questions:

- **First**, does the policy measure provide an implicit or explicit payment to individual producers on the basis of their overall farming receipts or income, and independently of the commodities they produce, or the fixed and variable inputs they use? If yes, consider it under G. *Payments based on overall farming income*; if not, proceed to the following question;
- **Second**, does the policy measure affect the domestic market price (to consumers and producers) of a specific commodity? If yes, consider it under A. *Market price support*; if not, proceed to the following question;
- **Third**, does the policy measure provide a payment to agricultural producers conditional on production of a specific commodity or a specific group of commodities? If yes, consider it under B. *Payments based on output*; if not, proceed to the following question;
- **Fourth**, does the policy measure provide a payment to agricultural producers conditional on planting a specific crop or maintaining a herd of livestock or a specific group of crops (or animals)? If yes, consider it under C. *Payments based on area planted/animal numbers*; if not, proceed to the following question;
- **Fifth**, does the policy measure provide a payment to agricultural producers based on historical support, area, animal numbers, or production of a specific commodity or a specific group of commodities without obligation to continue planting or producing such commodities? If yes, consider it under D. *Payments based on historical entitlements*; if not, proceed to the following question;
- **Sixth**, does the policy measure provide an explicit or implicit payment to individual producers using a specific input (variable or fixed) or a specific group of inputs to produce agricultural commodities? If yes, consider it under E. *Payments based on input use*; if not, proceed to the following question;
- **Seventh**, does the policy measure provide an explicit or implicit payment to individual producers conditional on the application of certain constraints (reduction, replacement, or withdrawal) on the use of specific variable or fixed inputs, or based on constraints on the use of a set of inputs through limiting the choice of production techniques, including the remuneration of farm inputs used to produce non-market goods and services? If yes, consider it under F. *Payments based on input constraints*; if not, consider it under G. *Payments based on overall farming income*, which includes transfers to individual producers conditional on being an eligible farming enterprise or farmer, but without any requirement to produce specific commodities or use specific fixed or variable inputs.

These criteria are mutually exclusive and have to be applied to each policy measure in the above order.²⁷ Although a given policy measure may be conditional on several of the above criteria, it would be classified under the first applicable criteria. The following section includes some classification rules, which help to implement the general criteria.

Rules for classification

a) How to classify transfers associated with market price support

Border measures on imports and exports, together with on-farm and public stockholding, domestic and foreign food-aid measures, and consumption subsidies create a price gap between domestic and

border prices.²⁸ Transfers to producers (from consumers) created by a situation in which domestic prices for commodities are maintained at a higher level than border prices (*price gap*) are included (+) under the PSE, and (–) under the CSE. Transfers to producers (from taxpayers) through **export subsidies** (the same price gap) are included in the PSE.

But while transfers from taxpayers for **on-farm stockholding** are transfers to producers and are included in the PSE, transfers from taxpayers for the operational costs of public purchasing agencies and the depreciation and disposal costs associated with **public stocks** are *not* in themselves transfers to producers and hence are included in the GSSE. **Transfers to processors** (first consumers) to compensate them for paying domestic prices higher than border prices, and **consumption subsidies** in cash or in kind to support various consumption levels are included under the CSE. However, when these subsidies also cover imported food, only the share attributable to domestic production is included under the CSE (see Box II.4).

b) On-farm services in PSE or services to agriculture in the GSSE?

On-farm services in the PSE are explicit or implicit payments reducing the prices paid by farmers for services provided to them individually and therefore affecting farm receipts by the amount of the payment. This category includes, typically, extension services and technical assistance to farmers, as well as pest and disease control on farmers' crops and livestock, through, for example, animal vaccination. **General services to agriculture** in the GSSE are explicit or implicit payments to general services provided to agriculture as a whole, which are not received by producers or consumers individually, and therefore do not affect farm receipts or consumption expenditure by the amount of the payment. This includes payments to institutions for research, the control of quality of food and agricultural inputs (through, for example, quarantine) or the control of environmental quality in agriculture.

c) Input subsidies in the PSE or transfers for infrastructure in the GSSE?

Input subsidies are typically explicit or implicit payments reducing the price paid by farmers for variable inputs (for example, fertilisers, feed, seeds, energy, water, transportation, insurance), provided to farmers through a given policy instrument or a set of instruments, including interest concessions, tax rebates and budgetary transfers to input industries to provide lower input prices for farmers.

In the absence of such instruments, and with input industries (or services) providing inputs at prices fully reflecting depreciation and operational costs, there are neither input subsidies (in the PSE) nor transfers for infrastructure (in the GSSE). Otherwise, **PSE transfers to producers** associated with the policy measures are, for example, the budget receipts forgone in the case of tax rebates and interest concessions (implicit payment), or the annual budgetary expenditure to compensate industry (banks) for losses associated with lower input prices paid by farmers (explicit payment). Such transfers could in principle also be measured by the gap between the price (interest or tax rate) actually paid by farmers and the price (rates) paid by others in the domestic market.²⁹

However, public expenditure is sometimes also used with the intention of increasing the competitiveness of the sector as a whole through improving infrastructure related to input, processing and marketing industries. It is for example the case of Regulation 355/77 (replaced by Regulations 866/90 and 867/90) for improving infrastructure related to processing and marketing of agricultural products in the European Union. Such transfers are not as such received by farmers and are included in **Infrastructure** in the GSSE and added to those in the PSE to estimate the overall support to agriculture (TSE).

While most agricultural inputs in the OECD are provided through private investment, the off-farm provision of water for irrigation is usually based on public investment. Although, in this case, the initial investment is financed by taxpayers, it is not included in the PSE or GSSE. In both cases of public or private investment – and as for any other input – the question is whether the price for water paid by farmers covers all the industry costs or not.³⁰ If the answer is no, the annual budgetary expenditure to compensate industry for operational costs associated with lower input prices for farmers is included in the PSE. On the other hand, public expenditure for maintaining or improving collective infrastructure related to the input, processing and marketing industries is considered in the GSSE.

Box II.4. 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 (Figure II.1), farmers sell all their production (S_2) to domestic consumers (D_2) and GPAs ($S_2 - D_2$) at an average producer price (P_p) that is higher than the world reference price (P_r). The quantities purchased by the GPAs are sold in the same year in the domestic market at the average price P_p , offered as domestic food aid at the opportunity cost of P_p , sold in the world market (with export subsidies) at the average price P_r , offered as foreign food aid at an opportunity cost of P_r , 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 (P_p) that is higher than the price at which the GPAs export the commodity (P_r), the transfers to producers associated with MPS to the commodity is measured by the area $[abcd = (P_p - P_r) \cdot S_2]$ and considered under **I.A. Market Price Support**. Where the area $[abfg = (P_p - P_r) \cdot D_2]$ measures the share of MPS financed by consumers and is considered under **I.A. MPS** in the PSE, and **III.P. Transfers to producers from consumers** in the CSE. The area $[gfgd = (P_p - P_r) \cdot (S_2 - D_2)]$ 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 $[abfg = (P_p - P_r) \cdot D_2]$ 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 $[abcd = (P_p - P_r) \cdot S_2]$ – transfers under marketing and stockholding in the GSSE, consumption subsidies in cash, and price compensation in the CSE.

Figure II.1. Export Commodities

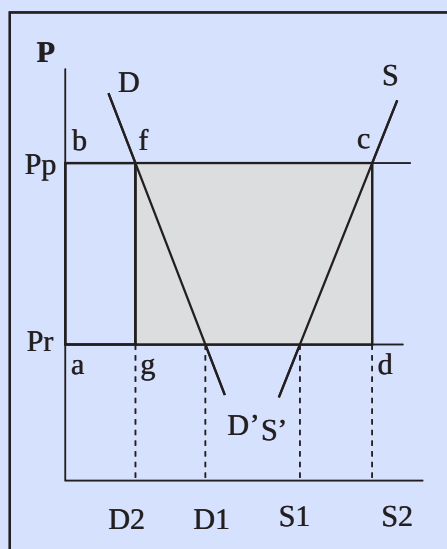
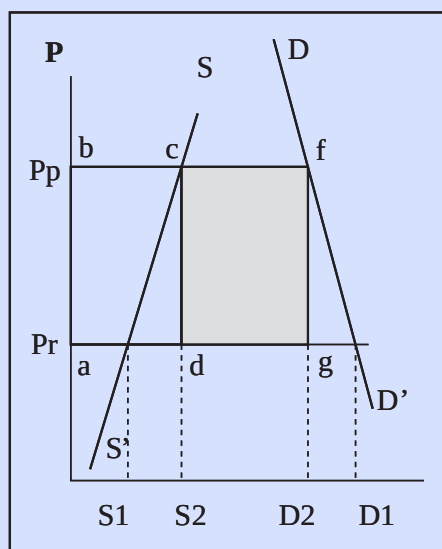


Figure II.2. Import commodities



In the case of imported commodities (Figure II.2), both domestic production (S_2) and imports ($D_2 - S_2$) are sold in the domestic market at the average producer price (P_p). But in both cases price compensation is provided by Government to processors (first consumers) to help them to stay competitive in the world market for 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 P_p , offered as domestic food aid at the opportunity cost of P_p or as foreign food aid at the opportunity cost of P_r , or kept in public storage for later sale.

(continued on next page)

Box II.4. Transfers associated with market price support (cont.)

In these conditions, the transfers to producers associated with MPS to the commodity is measured by area $[abcd = (P_p - P_r) \cdot S_2]$ 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 $[dcfg = (P_p - P_r) \cdot (D_2 - S_2)]$ measures the transfers from consumers to the budget through import receipts or as rents to importers or exporters due to tariff quotas (**III.Q. Other transfers from consumers** or **IV.V. Budget revenues**).

The CSE is measured by the area $[abfg = (P_p - P_r) \cdot D_2]$ (**III.P. Transfers to producers from consumers** and **III.Q. Other 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 $[abcd = (P_p - P_r) \cdot S_2]$ – 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 importers, or both.

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 create 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. Marketing and promotion** (in the case of the operational costs of GPAs), and **II.N. Public stockholding** (in the case of the stock depreciation and disposal costs), which are in most of the cases dead-weight losses.

d) How to treat taxes and levies?

The PSE and CSE are defined as net of producer contributions to help finance policy measures provide support to them. This is one of the reasons why the **excess feed cost** is calculated and deducted from the market transfers to producers and to (from) consumers. The PSE and CSE are calculated relative to total production and consumption – *i.e.* including quantities domestically produced and used as feed. Therefore, the MPS for feed crops domestically produced and consumed by livestock producers is included as negative in the PSE for livestock and in the CSE for crops. This avoids double counting when aggregating the PSE and CSE for crops and livestock.³¹

In the same way, the receipts from **production taxes and levies** to finance a given measure are also deducted from the total amount of the payment provided to producers through such policy measures. However, the receipts from taxes and levies on purchases of inputs or penalties on farmers resulting from economy-wide regulations – for example, for reducing environmental pollution – are not considered in the PSE calculation. This is because the PSE is a “nominal assistance” concept, meaning that increased costs associated with import duties on inputs are not deducted; and a “gross” concept, meaning that increased costs to farmers associated with the policy measure are also not deducted. Therefore, achieving the level of environmental quality (through good agricultural practices) as required by regulations should be at the expense of farmers, and a payment for reducing pollution is support to help farmers to reach the required environmental quality (see Box II.5).

Methods of calculation

a) PSE and TSE by country

To calculate the PSE and the TSE for a given country, the only component that has to be calculated for each commodity is that part of market price support which is financed by consumers. This is because all the other PSE and TSE components are recorded, explicitly or implicitly, as budgetary expenditure.

In calculating Total Transfers associated with agricultural policies, the OECD method of calculation starts with the actual total budget transfers associated with agricultural policies. The average market price support of the common set of commodities is then applied to all commodities (*i.e.* to the total value of production of the whole agricultural sector) according to their share in the value of production.³² This

Box II.5. The case of negative support

The concept of the PSE as a “gross” measure allows for cases of negative support. This is the case of agricultural policy measures that tax producers relative to the situation in the absence of such measures – i.e. if only general economy-wide policies were in place. The typical example of negative support is an export tax, or any other agricultural policy measure discouraging exports and imposing a domestic price lower than the world price.

Under the concept of the PSE as a “nominal assistance” measure, taxes on producers in the context of general economy-wide policies applied in a country are not included as negative support. For example, V.A.T. or other general taxes on purchases of inputs, and taxes on salaries for social protection, or taxes on inputs for environmental protection are not considered as negative support, except if the rates applied to agricultural producers differ from those resulting from the general tax, social and environmental policies in a manner that does not reflect sound technical differences. In such a case, the difference between a lower rate for producers and the general rate would mean positive support, while the difference between a higher rate and the general rate would mean negative support. A consistent and comprehensive PSE coverage of such cases would need more work on taxation and on social and environmental policies.

Therefore, a producer who, confronted with the general requirement in a country to respect a given environmental quality, bears the costs incurred in eliminating pollution caused by his production activity, is respecting the Polluter Pays Principle, and is not subject to negative support. Neither is a producer paying a pollution tax, which represents the cost incurred for polluting. But if a payment is received to compensate for the costs incurred in eliminating pollution which the producer has caused, such a payment is considered as support.

method, even when consistently applied across countries, may over- or under-estimate the MPS for particular countries. To reduce such error, it would be sufficient to estimate for each country MPS for each of the commodities not included in the common set of commodities.

b) PSE and CSE by commodity

The calculation of any indicator by commodity needs to have a precise meaning to be useful for policy analysis. In a given year, the allocation of a transfer to specific commodities has a policy meaning only when such a transfer depends on individual farmers or consumers' decisions or actions and influences farm receipts or consumer expenditure and affects, to some extent, commodity production or consumption. This is the case for transfers in the PSE and CSE, but not for transfers in the GSSE and the TSE. As shown in this section, only the calculation of the PSE and CSE by commodity has a meaning useful for policy analysis.

All transfers included in the CSE are transfers to (from) individual consumers of a specific commodity and affect consumption decisions relating to that commodity. Therefore, there is no specific conceptual or practical difficulty in the CSE calculation by commodity. All transfers included in the PSE of a given country are transfers to agricultural producers individually that implicitly or explicitly increase gross farm receipts. But some of these transfers influence overall farming receipts across many or all commodities, and thus have been allocated among commodities. However, such an allocation is made in a case-by-case basis according to the specific implementation criteria of the policy measure in question.

Market price support payments based on output and *payments based on planted area or animal numbers* are, by definition, commodity-specific. Payments based on historical entitlements are provided to producers of a specific commodity or a specific group of commodities at the moment of introduction of the payment. In some cases, the payment rates are specific to particular livestock or crops, and by country.

Payments based on input use and *Payments based on input constraints* also affect production decisions concerning the limited group of commodities that a given farm can produce using the inputs in question. As most of these programmes are input-specific (and often specific to regions), they are allocated to the limited group of commodities that can be produced from the inputs and in the regions in question. *Payments based on overall farming income* allow farmers to produce any agricultural commodity, but by increasing

overall farm receipts, they also influence farmers' decision to stay in the sector. As most of the programmes in this category are in practice region-specific in their basic conditions or implementation, they are as far as possible allocated to the relevant commodities.

However, it should be made clear that some of these allocations to commodities are only a proxy for the payments received by producers of such commodities in a given year. That is especially the case of the *Payments based on historical entitlements* and the *Payments based on overall farming income*. Therefore, more than for any other group of payments in the PSE by commodity, in the case of these payments attention should be drawn to the fact that there is no direct link between the amount allocated to each commodity and the level of production of that commodity.

Finally, transfers included in the TSE of a given country include transfers to individual producers and consumers, and transfers to general services provided to agriculture collectively (GSSE). Although some of the GSSE transfers (for example, for research) may be intended for work on specific commodities, they do not affect farm receipts or consumer expenditure in such a way that the amounts involved can be directly attributed to producers or consumers. Therefore, the GSSE transfers are not allocated to commodities, as such transfers do not depend on the decisions or actions of any individual farmer or consumer affecting the production or consumption of specific commodities in a given year.

c) **Percentage 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,³³ 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, and without budgetary support – the **producer NAC** (Nominal Assistance Coefficient).

In algebraic form, these PSE expressions can be written as follows:

$$\%PSE = PSE / (Q \bullet Pp + PP) \times 100 \quad (1)$$

$$(100 - \%PSE) = Q \bullet Pb / (Q \bullet Pp + PP) \times 100 \quad (2)$$

$$[100 \times 1 / (100 - \%PSE)] = [\%PSE / (100 - \%PSE) + 1] = [(PSE / Q \bullet Pb) \pm 1] = NACp \quad (3)$$

Where:

PP = Payments to producers = PSE – Market Price Support = Sections I.B to I.H (see Box II.3);

$Q \bullet Pp$ = value of production at producer prices;

$Q \bullet Pb$ = value of production at border prices.

For example, a %PSE of 60 per cent, 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 per cent of gross farm receipts is derived from the market without any support [equation (2)]. The value of gross farm receipts is two and a half times (or 150 per cent 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 consumers – the **consumer NAC**.

In algebraic form, the CSE expressions can be written as follows:

$$\%CSE = CSE / (Qc \bullet Pd - TC) \times 100 \quad (4)$$

$$(100 - \%CSE) = Qc \bullet Pb / (Qc \bullet Pd - TC) \times 100 \quad (5)$$

$$[100 \times 1 / (100 + \%CSE)] = [1 + \%CSE / (1 - \%CSE) + 1] = [(CSE / Qc \bullet Pb) \pm 1] = NACc \quad (6)$$

Where:

– TC = taxpayer transfers to consumers = III.R. *Transfers to consumers from taxpayers* (Box II.1);

- $Q_c \cdot P_d$ = value of consumption at domestic prices (at farm gate);
- $Q_c \cdot P_b$ = value of consumption at border prices.

For example, a %CSE of –60 per cent expresses the share of transfers from consumers to producers 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)]. Expenditure by primary consumers is two-and-a-half times of (or 150 per cent higher than) what it would have been if it had been conducted entirely 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 the farm gate) is on average the producer price, 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.

d) **Percentage 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.³⁴ Moreover, as percentage indicators take account of the effect of inflation on both the numerator and the 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 transfers from taxpayers (which are a component of the total current government expenditure) and transfers from consumers (which are a component of the total domestic consumption expenditure). 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.

The method for decomposing the PSE and CSE

The purpose of decomposing total PSEs and CSEs is to facilitate the evaluation of year-to-year changes in these aggregate indicators. The procedure allows the analyst to identify the relative importance of the various PSE and CSE components in explaining the overall year-to-year changes in PSEs and CSEs, while condensing a large volume of data into a compact format. The basic approach for the decomposition procedure was presented in the 1992 edition of the *Monitoring and Outlook* report. The following description reiterates the fundamental aspects of decomposition in the light of some methodological adjustments that became necessary with the new classification of PSEs and CSEs this year.

The decomposition procedure expresses the total PSE for a given country in terms of its components: a *production quantity* component and a *unit* (i.e. per tonne) PSE component. The unit PSE is in turn broken down into its *unit value* components – namely *market price support* and *budgetary payments*. The budgetary component is subsequently disaggregated according to the PSE classification criteria (payments based on *output*, *area planted* or *animal numbers*, *historical entitlements*, *input use*, *input constraints*, *overall farming income*, and *miscellaneous*). Market price support is further decomposed into a *domestic producer price (net of levies)* component, an *excess feed cost* component, and a *world market price in national currency* component. The latter in turn is made up of an *exchange rate* component and a *world market price in US dollars* component.

Similar to the PSE decomposition procedure, the CSE is broken down into a *consumption quantity* component and a *unit CSE* component. The unit CSE is made up of *unit market transfers* and *unit budgetary transfers*. *Unit market transfers* in turn are separated into a *consumer price* component, an *excess feed cost* component, and a *world market price in national currency* component. The latter is broken down into an *exchange rate* factor and a *world market price in US dollars* factor.

For each PSE component, the contribution of any change in that component, in terms of percentage points, to the overall change in percentage PSE is calculated and presented in a “tree” figure (the “branch” with the seven budgetary payment components is condensed into a table in order to improve the readability of the overall figure). The contribution of an individual component can also be interpreted as the change in total PSE that would have occurred if nothing else, except the respective component, had changed. Some further insight can be gained by investigating some intermediate decomposition components or sub-trees. In particular, the sum of the contributions along the branches of a sub-tree equals the contribution of the trunk of that sub-tree. For example, the contribution of the *unit market price support* component is the sum of the *domestic producer price*, the *world market price in national currency*, and the *excess feed cost* components. Hence, it is possible to determine which component contributed to the change in *unit market price support* and to what extent. The presentation and interpretation of the CSE decomposition is similar to that of the PSE tree.

The derivation of the tree is as follows. For total PSE, and for each of its components, year-to-year percentage change Fisher ideal indices are calculated for the aggregate of each country, for the aggregate of each commodity, and for the OECD as a whole.³⁵ Aggregation across countries (and commodities) is done by weighting these country (and commodity) indices for each individual PSE and CSE component. Weighted Fisher ideal indices are calculated from weighted Laspeyres and Paasche indices.³⁶ The weights used are component-specific. For example, the OECD aggregate index is calculated as the weighted sum of Member country total PSE indices, where the weights are the country shares in the total PSE for the OECD. Each country's share of OECD budgetary payments (BP) is used for the BP_u index; its share of OECD production valued at MPS prices is used in the OECD price index of commodities for which market price support is not zero (i.e. MPS commodities), and so on. The weights are evaluated at base period prices for the Laspeyres indices and at current period prices for the Paasche indices.

Algebraically the decomposition analysis for PSEs, in terms of component contributions, can be represented as follows:

$$\Delta PSE = \Delta PSE_u + \Delta Q + \Delta PSE_u \cdot \Delta Q \quad (7)$$

$$\Delta PSE_u = S_{mps} \cdot \Delta MPS_u + S_{bp} \cdot \Delta BP_u \quad (8)$$

$$\Delta BP_u = S_{po} \cdot \Delta PO_u + S_{pn} \cdot \Delta PN_u + S_{ph} \cdot \Delta PH_u + S_{piu} \cdot \Delta PIU_u + S_{pic} \cdot \Delta PIC_u + S_{pfi} \cdot \Delta PFI_u + S_{pm} \cdot \Delta PM_u \quad (9)$$

$$\Delta MPS_u = (S_{pd} \cdot \Delta Pd - S_{pwn} \cdot \Delta Pw_{nc} - S_{efc} \cdot \Delta EFC) / S_{mps} \quad (10)$$

$$\Delta Pw_{nc} = \Delta XR + \Delta \$Pw + \Delta XR \cdot \Delta \$Pw \quad (11)$$

Where:

- Δ indicates the percentage change in the nominated variable;
- MPS_u is unit market price support (per tonne);
- BP_u are unit budgetary payments (per tonne);
- PO_u are unit budgetary payments based on output (per tonne);
- PN_u are unit budgetary payments based on area or numbers (per tonne);
- PH_u are unit budgetary payments based on historical entitlements (per tonne);
- PIU_u are unit budgetary payments based on input use (per tonne);
- PIC_u are unit budgetary payments based on input constraints (per tonne);
- PFI_u are unit budgetary payments based on overall farming income (per tonne);
- PM_u are unit miscellaneous payments (per tonne);
- EFC_u is excess feed costs per unit (per tonne);

- S_{mps} and S_{bp} are, respectively, the shares of market price support, and budgetary payments in total PSE;
- S_{po} , S_{pn} , S_{ph} , S_{piu} , S_{pic} , S_{pfi} and S_{pm} are the shares of the different budgetary payment sub-categories (indicated by their subscript) in total budgetary payments;
- S_{pd} , S_{pwnc} and S_{efc} measure the value of production (calculated at domestic and border prices, respectively) and of excess feed costs as a share of total PSE;
- XR is the exchange rate in units of domestic currency per US\$;
- $\$Pw$ is the implicit border price in US dollars; it is calculated as the difference between domestic prices and unit market price support.³⁷

Equations (8) and (9) show that the change in *unit* PSE and *unit budgetary payments* are equal to the sum of the percentage changes in their components weighted by the shares of those components. However, as the changes are expressed by Fisher ideal indices, the above expressions are not exact. To avoid any inconsistencies, approximation techniques are used to preserve the additivity of the decomposition formulas.

The decomposition analysis is based on the assumption that components of assistance are independent of one another, which is a useful simplification but needs to be interpreted carefully. In some cases different components might be related. For example, changes in domestic producer prices might have an influence on excess feed costs. Moreover, the analyst should bear in mind that all changes in PSEs and CSEs are expressed in nominal terms. Inflation differentials among countries are not corrected for. Hence, countries with high inflation rates tend to have a stronger influence on the decomposition results than countries where prices are relatively more stable.

Definition of full-time farmer equivalent and agricultural land

All forms of farm labour – farmers, hired employees and unpaid family workers – are included in the calculation of *total transfer per full-time farmer equivalents* (FFE) to the extent that information is available. The FFE numbers are taken directly from national data for Australia, Austria (until 1994), Canada, the European Union and Norway. For Finland (until 1994), Iceland, Japan, New Zealand, Sweden (until 1994), and the United States, the FFE numbers are calculated on the basis of the European Union Annual Work Unit (2 200 hours of working time in agriculture each year). For Switzerland the number of farmers is drawn from the OECD's *Labour Force Statistics*, and has been used in place of the FFE. It should be noted that for methodological reasons FFE numbers could not be calculated for Poland and Turkey. Where data for 1997 or for earlier years were not available, they were estimated by the OECD Secretariat.

In the calculation of the *PSE per hectare of agricultural land*, the agricultural land area in each country has been measured as the sum of the area of arable land and land under permanent crops and permanent meadows and pastures (from FAO data). It should be noted that agricultural land area data for Iceland are not available. Where data for 1997 or for earlier years were not available they were estimated by the OECD Secretariat.

NOTES

1. The Commonwealth Government is the national, or federal, government of Australia.
2. Under the new arrangements, full diesel fuel rebates are extended to other sectors, mainly rail transport and the marine industry.
3. The Great Artesian Basin includes large areas of Queensland, New South Wales, the Northern Territory and South Australia, covering 22 per cent of Australia. It supports primary production valued at A\$ 3.5 billion (US\$2.3 billion) annually. Inefficient use of water in the Basin limits opportunities for new and higher-value water users. This waste results from a combination of old and new technology, an inefficient property rights system covering the responsibility for bore maintenance and economy in water use, and a limited capacity to invest in major bore maintenance and reticulation systems.
4. The total starch quota was maintained at the level specified in the URAA, but distributed only to starch made from maize or wheat.
5. Caution should be exercised in making comparisons over time, especially in the total PSE, because of successive enlargements of the EU.
6. This number (€ 250 million) includes most but not all the EU agricultural expenditure in Ireland.
7. In the current PSE calculations, the *area payments* are classified as “payments based on overall farming income”, but will be included under “payments based on historical entitlements” in future *Monitoring and Evaluation* reports.
8. Figures under “Marketing and promotion” in the GSSE published in the previous edition of this report inadvertently included the annual accounting costs associated with inflation for a payment to cotton producers by the TCZB in 1994, which has not been explicitly covered by public budget since then. Figures under this item in Table III.59 of this edition include budgetary expenditure for covering losses of government agencies associated with market intervention procedures plus debt write-offs of loans of these agencies, which were inadvertently included under “Transfers to consumers from taxpayers” in the CSE. These figures include expenditure on stockholding that is not possible to separate to be included under “Public stockholding” in the GSSE. For more detail see Electronic Data Product, OECD PSE/CSE Database, 2000.
9. Figures under the item “Miscellaneous payments” in the PSE in the 1999 edition of this report, which cover the part of State expenditure for extension and technical assistance to farmers, have been integrated under the item “Payments based on input use” (sub-item “Payments based on on-farm services”). Moreover, some of the Commodity Credit Corporation expenditure payments were inadvertently included under both GSSE (under “Marketing and promotion”) and under the PSE. Figures in Table III.62 in this edition have eliminated such double accounting. For more details, see the Electronic Data Product, OECD PSE/CSE Database, 2000.
10. USDA budget expenditure on domestic food assistance through coupons redeemable at retail food stores multiplied by 0.36 (farm value per dollar of retail food expenditure of food stamp households) to express it at the farm gate level. (Source: *The Economic Impact of Food Assistance Program. Modifications on Agriculture and the Economy*. USDA, ERS, January 1995.
11. OECD, OECD Council at Ministerial Level, Paris, 26-27 May 1999, Communiqué, “News Release”, 27 May 1999, http://www.oecd.org/news_and_events/release/nw99-52a.htm.
12. Paragraph 15 of this Communiqué contains the full text of Article 20 of the URAA.
13. All references to “Ministers in this Communiqué also include the Commissioner for Agriculture and Rural Development of the European Communities”.
14. Ministers recognised that OECD has done substantial work in this regard.
15. OECD Environment Committee at Ministerial Level, Communiqué [SG/PRESS(91)9].
16. OECD, “Communiqué” PRESS/A(87)27, Paris, 13 May 1987.
17. OECD, *National Policies and Agricultural Trade*, Paris, 1987.

18. See paragraph 16 of the Communiqué cited in note 6, above.
19. Previous to 1999, these indicators were referred to, respectively, as the Producer Subsidy Equivalent (PSE) and the Consumer Subsidy Equivalent (CSE). The method of calculating these indicators also changed at that time. See the 1999 edition of the report for further details.
20. 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.
21. Farm receipts (revenues) are not the same as farm income, which is farm receipts less farm costs.
22. Transfers from taxpayers occur, for example, when subsidies are used to finance exports.
23. 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).
24. 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.
25. 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).
26. This also shows that a classification exclusively based on payments per tonne, hectare or animal would not classify such measures in a way helpful for policy analysis.
27. If transfers to agricultural producers provided through two (or more) policy measures are only available as aggregate amounts, an appropriate allocation key should be found to assign them to the appropriate categories; if such a key cannot be found, assign the total to **H. Miscellaneous payments**.
28. Border prices are world market prices: f.o.b. for exported commodities and c.i.f. for imported commodities.
29. Sometimes, part of the budgetary transfer is kept by industry or services (*e.g.* banks) (and not transferred to farmers), and this part should strictly speaking be included in the GSSE. However, as it is not always possible to identify the part that does not accrue to producers, the PSE (GSSE) is over (under)-evaluated to some extent. The same could also be said in the case of other programmes, such as certain schemes of deficiency payments for commodities. That is one of the reasons why a price-gap calculation would, in many cases, be the most appropriate. However, the choice of the method to be used will often be dictated by data availability and quality.
30. Sometimes, part of the price gap for farmers is paid by other consumers of the input. For example, other consumers of water finance the price gap for farmers through higher power or water prices paid by other consumers. That is another reason why the price gap calculation would, in many cases, be the most appropriate.
31. The CSE for crops is therefore calculated net of producer contributions, or in other words does not include the share of domestic production used as feed in the sector. In the same way, the aggregate PSE for crops and livestock does not include the share of domestic production used as feed in the sector, but the method shows that the associated support to crops is an implicit tax on livestock products.
32. The tables in Part III show the amount of the MPS for the set of 13 common commodities and the shares of these commodities in the total value of agricultural production.
33. Gross farm receipts are not the same as farm income, which is farm receipts less farm costs.
34. 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).
35. The Fisher ideal index has been developed expressly to deal with large changes in weights when measuring economic aggregates. The Fisher ideal index has been demonstrated to be a "superlative" index, meaning that in situations where quantities produced and consumed undergo large changes between year t and $t + 1$, the Fisher ideal index of changes in prices and unit support is the best approximation of the underlying "true" theoretical index. The changes in unit aggregates, in other words, do not suffer a bias.
36. The Laspeyres price index L is a weighted average of prices in year 1 (P_1) and year 0 (P_0) with the weights being the quantity for year 0 (Q_0):

$$L = \frac{\sum P_1 \cdot Q_0}{\sum P_0 \cdot Q_0}$$

The Paasche price index P is a weighted average of price changes between year 1 and year 0 with the weights

being the quantity for year 1 (Q_1):

$$P = \frac{\sum P_1 \cdot Q_1}{\sum P_0 \cdot Q_1}$$

The Fisher ideal index F is the geometric average of the Laspeyres and Paasche indices:

$$F = \sqrt{L \cdot P} = \sqrt{\left(\frac{\sum P_1 \cdot Q_0}{\sum P_0 \cdot Q_0} \right) \cdot \left(\frac{\sum P_1 \cdot Q_1}{\sum P_0 \cdot Q_1} \right)}$$

Readers interested in the properties of the Fisher ideal index are referred to the following papers:

W.E. Diewert, "Fisher ideal output, input and productivity indexes revisited", *Journal of Productivity Analysis*, No. 3, 1992, pp. 211-248; W.E. Diewert, "Exact and superlative index numbers", *Journal of Econometrics*, No. 4, 1976, pp. 115-145; and W. Eichhorn, R. Henn, O. Optiz and R.W. Shephard (editors), *Theory and Application of Economic Indexes*, Physica Verlag, Wurzburg, 1978.

37. It may not therefore equate exactly with the actual reference price used in estimating the PSE, as transport costs, quality adjustment factors etc., are all reflected in this implicit price.

Part III

SUMMARY TABLES
ON ESTIMATES OF SUPPORT TO AGRICULTURE

Table III.1. **OECD: Estimates of support to agriculture**
(US\$ mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	559 189	660 896	709 778	655 573	617 337
<i>of which share of common commodities (%)</i>	<i>66</i>	<i>61</i>	<i>61</i>	<i>60</i>	<i>61</i>
Total value of consumption (at farm gate)	537 785	642 921	684 588	630 859	613 315
Producer Support Estimate (PSE)	246 226	266 605	246 167	270 869	282 780
Market price support	191 137	180 173	164 929	183 701	191 888
<i>of which common commodities</i>	<i>125 657</i>	<i>106 982</i>	<i>98 421</i>	<i>108 171</i>	<i>114 353</i>
Payments based on output	12 649	11 102	6 681	10 208	16 417
Payments based on area planted/animal numbers	15 332	29 960	29 605	31 506	28 769
Payments based on historical entitlements	515	10 203	8 226	10 294	12 091
Payments based on input use	20 911	23 519	24 747	23 596	22 214
Payments based on input constraints	3 006	8 177	9 407	7 970	7 154
Payments based on overall farming income	2 327	2 759	2 109	2 696	3 472
Miscellaneous payments	348	712	462	898	776
Percentage PSE	40	36	31	36	40
Producer NAC	1.67	1.56	1.45	1.57	1.66
General Services Support Estimate (GSSE)	41 058	53 875	54 773	54 585	52 267
Research and development	3 885	5 881	5 876	5 933	5 833
Agricultural schools	846	805	839	804	772
Inspection services	1 097	1 733	1 664	1 746	1 788
Infrastructure	12 183	16 958	17 977	18 752	14 145
Marketing and promotion	13 040	21 969	21 108	21 157	23 643
Public stockholding	7 842	3 566	4 302	3 166	3 229
Miscellaneous	2 164	2 963	3 008	3 026	2 856
GSSE as a share of TSE (%)	13.3	15.5	16.7	15.5	14.5
Consumer Support Estimate (CSE)	-175 515	-168 191	-150 324	-170 859	-183 391
Transfers to producers from consumers	-192 936	-177 375	-161 742	-181 539	-188 845
Other transfers from consumers	-14 874	-20 885	-18 013	-20 387	-24 256
Transfers to consumers from taxpayers	20 504	26 957	27 822	26 605	26 446
Excess feed cost	11 791	3 112	1 610	4 462	3 264
Percentage CSE	-34	-27	-23	-28	-31
Consumer NAC	1.52	1.38	1.30	1.39	1.45
Total Support Estimate (TSE)	307 787	347 438	328 762	352 058	361 493
Transfers from consumers	207 810	198 261	179 755	201 926	213 101
Transfers from taxpayers	114 851	170 062	167 020	170 519	172 648
Budget revenues	-14 874	-20 885	-18 013	-20 387	-24 256
TSE as a share of GDP (%)	2.3	1.4	1.4	1.5	1.4

Notes: See Part II.2 for detailed explanations. p: provisional. Market price support is net of producer levies and excess feed costs. TSE in percentage of GDP for 1986-88 for the OECD excludes the Czech Republic, Hungary and Poland for which GDP is not available for 1986-88.

Source: OECD, PSE/CSE database.

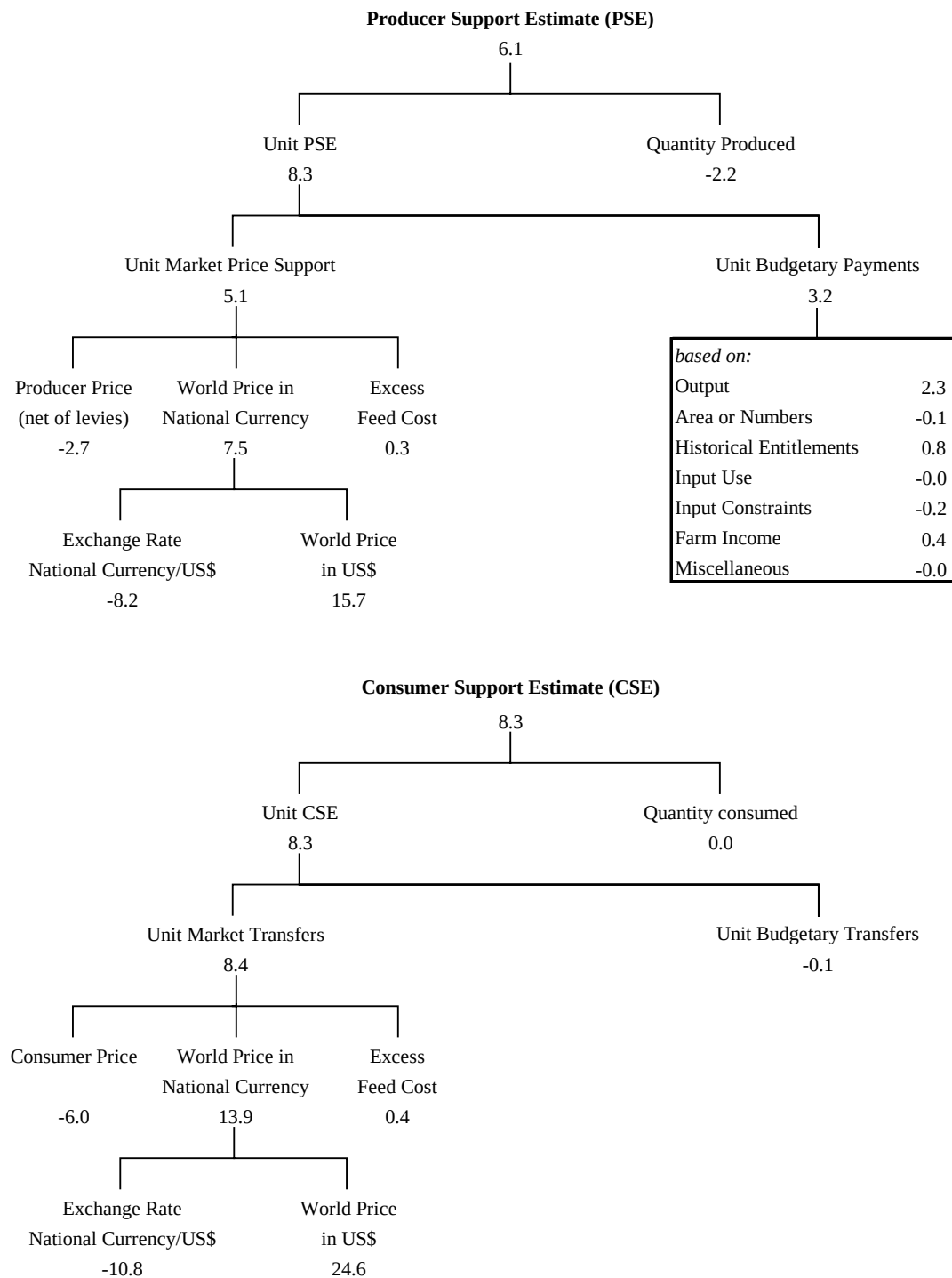
Table III.2. **OECD: Estimates of support to agriculture**
(Euro mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	506 583	597 284	626 294	586 162	579 394
of which share of common commodities (%)	66	61	61	60	61
Total value of consumption (at farm gate)	486 541	581 251	604 067	564 065	575 620
Producer Support Estimate (PSE)	223 781	241 601	217 213	242 190	265 400
Market price support	173 708	163 292	145 530	164 251	180 094
of which common commodities	114 301	96 963	86 844	96 718	107 325
Payments based on output	11 458	10 143	5 895	9 127	15 408
Payments based on area planted/animal numbers	13 982	27 098	26 123	28 170	27 001
Payments based on historical entitlements	489	9 270	7 258	9 204	11 348
Payments based on input use	18 943	21 261	21 836	21 097	20 849
Payments based on input constraints	2 732	7 380	8 301	7 127	6 714
Payments based on overall farming income	2 146	2 510	1 861	2 410	3 258
Miscellaneous payments	324	646	408	803	728
Percentage PSE	40	36	31	36	40
Producer NAC	1.67	1.56	1.45	1.57	1.66
General Services Support Estimate (GSSE)	37 314	48 730	48 331	48 805	49 055
Research and development	3 505	5 321	5 184	5 305	5 475
Agricultural schools	762	728	741	719	724
Inspection services	994	1 569	1 468	1 561	1 678
Infrastructure	11 123	15 302	15 862	16 767	13 276
Marketing and promotion	11 843	19 911	18 625	18 917	22 190
Public stockholding	7 130	3 219	3 796	2 831	3 030
Miscellaneous	1 957	2 680	2 654	2 705	2 681
GSSE as a share of TSE (%)	13.3	15.5	16.7	15.5	14.5
Consumer Support Estimate (CSE)	-159 278	-152 510	-132 643	-152 769	-172 119
Transfers to producers from consumers	-175 295	-160 758	-142 718	-162 319	-177 238
Other transfers from consumers	-13 380	-18 963	-15 894	-18 228	-22 765
Transfers to consumers from taxpayers	18 617	24 386	24 549	23 788	24 821
Excess feed cost	10 781	2 825	1 420	3 990	3 064
Percentage CSE	-34	-27	-23	-28	-31
Consumer NAC	1.52	1.38	1.30	1.39	1.45
Total Support Estimate (TSE)	279 712	314 717	290 093	314 783	339 275
Transfers from consumers	188 676	179 721	158 612	180 547	200 003
Transfers from taxpayers	104 416	153 959	147 375	152 465	162 037
Budget revenues	-13 380	-18 963	-15 894	-18 228	-22 765
TSE as a share of GDP (%)	2.3	1.4	1.4	1.5	1.4

Notes: See Part II.2 for detailed explanations. p: provisional. Market price support is net of producer levies and excess feed costs. TSE in percentage of GDP for 1986-88 for the OECD excludes the Czech Republic, Hungary and Poland for which GDP is not available for 1986-88.

Source: OECD, PSE/CSE database.

Figure III.1. **OECD: Decomposition of PSE and CSE changes, 1998 to 1999.**
All commodities - total



Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed 5.1 percentage points to the 6.1 percent change in PSE. See Part II.2. for detailed explanations.

Table III.3. **OECD 24: Estimates of support to agriculture**
(US\$ mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	500 752	586 575	626 164	585 034	548 527
<i>of which share of common commodities (%)</i>	<i>67</i>	<i>61</i>	<i>62</i>	<i>60</i>	<i>61</i>
Total value of consumption (at farm gate)	482 693	566 710	600 457	560 748	538 926
Producer Support Estimate (PSE)	220 721	238 863	216 003	248 338	252 249
Market price support	170 323	156 088	138 655	164 568	165 041
<i>of which common commodities</i>	<i>112 091</i>	<i>92 883</i>	<i>83 403</i>	<i>96 752</i>	<i>98 494</i>
Payments based on output	12 495	10 988	6 633	10 103	16 227
Payments based on area planted/animal numbers	15 332	29 838	29 460	31 406	28 647
Payments based on historical entitlements	164	9 241	7 273	9 366	11 083
Payments based on input use	17 864	21 447	22 382	21 675	20 283
Payments based on input constraints	3 006	8 112	9 313	7 928	7 096
Payments based on overall farming income	1 208	2 448	1 832	2 403	3 108
Miscellaneous payments	329	703	455	890	762
Percentage PSE	40	36	31	37	40
Producer NAC	1.67	1.56	1.44	1.59	1.66
General Services Support Estimate (GSSE)	37 935	49 116	49 032	50 336	47 979
Research and development	3 630	5 414	5 372	5 481	5 388
Agricultural schools	593	521	546	526	491
Inspection services	1 022	1 442	1 442	1 460	1 425
Infrastructure	11 443	14 569	14 967	16 578	12 161
Marketing and promotion	13 029	21 852	20 991	21 043	23 522
Public stockholding	6 059	2 396	2 755	2 259	2 173
Miscellaneous	2 160	2 922	2 960	2 988	2 819
GSSE as a share of TSE (%)	13.8	15.7	16.8	15.5	14.7
Consumer Support Estimate (CSE)	-159 489	-144 194	-124 786	-152 776	-155 020
Transfers to producers from consumers	-173 273	-154 233	-136 778	-162 973	-162 948
Other transfers from consumers	-14 458	-18 580	-15 716	-19 194	-20 831
Transfers to consumers from taxpayers	16 975	25 763	26 233	25 288	25 769
Excess feed cost	11 266	2 856	1 475	4 103	2 990
Percentage CSE	-34	-27	-22	-29	-30
Consumer NAC	1.53	1.37	1.28	1.40	1.43
Total Support Estimate (TSE)	275 630	313 742	291 268	323 962	325 997
Transfers from consumers	187 730	172 814	152 494	182 167	183 779
Transfers from taxpayers	102 357	159 509	154 490	160 989	163 049
Budget revenues	-14 458	-18 580	-15 716	-19 194	-20 831
TSE as a share of GDP (%)	2.2	1.3	1.3	1.4	1.3

Notes: See Part II.2 for detailed explanations. p: provisional. OECD 24 excludes most recent Member countries: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994), and Poland (1996). Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.4. **OECD 24: Estimates of support to agriculture**
(Euro mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	453 490	530 140	552 515	523 092	514 813
<i>of which share of common commodities (%)</i>	<i>67</i>	<i>61</i>	<i>62</i>	<i>60</i>	<i>61</i>
Total value of consumption (at farm gate)	436 551	512 337	529 831	501 377	505 803
Producer Support Estimate (PSE)	200 657	216 462	190 596	222 045	236 745
Market price support	154 850	141 463	122 347	147 144	154 898
<i>of which common commodities</i>	<i>102 008</i>	<i>84 181</i>	<i>73 594</i>	<i>86 508</i>	<i>92 441</i>
Payments based on output	11 320	10 039	5 852	9 033	15 230
Payments based on area planted/animal numbers	13 982	26 987	25 995	28 080	26 886
Payments based on historical entitlements	167	8 398	6 418	8 374	10 402
Payments based on input use	16 172	19 389	19 749	19 380	19 037
Payments based on input constraints	2 732	7 322	8 217	7 088	6 660
Payments based on overall farming income	1 127	2 227	1 616	2 149	2 917
Miscellaneous payments	307	638	401	796	716
Percentage PSE	40	36	31	37	40
Producer NAC	1.67	1.56	1.44	1.59	1.66
General Services Support Estimate (GSSE)	34 466	44 434	43 265	45 006	45 031
Research and development	3 273	4 899	4 740	4 901	5 057
Agricultural schools	531	471	481	470	461
Inspection services	926	1 305	1 272	1 305	1 338
Infrastructure	10 449	13 148	13 207	14 823	11 413
Marketing and promotion	11 832	19 805	18 522	18 815	22 076
Public stockholding	5 500	2 164	2 431	2 020	2 040
Miscellaneous	1 953	2 643	2 612	2 672	2 645
GSSE as a share of TSE (%)	13.8	15.7	16.8	15.5	14.7
Consumer Support Estimate (CSE)	-144 765	-130 734	-110 109	-136 600	-145 492
Transfers to producers from consumers	-157 459	-139 781	-120 690	-145 718	-152 933
Other transfers from consumers	-12 998	-16 860	-13 868	-17 162	-19 551
Transfers to consumers from taxpayers	15 403	23 315	23 148	22 610	24 185
Excess feed cost	10 289	2 592	1 301	3 669	2 806
Percentage CSE	-34	-27	-22	-29	-30
Consumer NAC	1.53	1.37	1.28	1.40	1.43
Total Support Estimate (TSE)	250 526	284 211	257 009	289 662	305 961
Transfers from consumers	170 458	156 641	134 558	162 880	172 484
Transfers from taxpayers	93 066	144 430	136 319	143 944	153 028
Budget revenues	-12 998	-16 860	-13 868	-17 162	-19 551
TSE as a share of GDP (%)	2.2	1.3	1.3	1.4	1.3

Notes: See Part II.2 for detailed explanations. p: provisional. OECD 24 excludes most recent Member countries: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994), and Poland (1996). Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.5. OECD: Producer Support Estimate by country

	1986-88	1997-99	1997	1998	1999p
Australia					
US\$ mn	1 190	1 344	1 563	1 252	1 216
Euro mn	1 087	1 213	1 379	1 120	1 141
Percentage PSE	8	7	7	7	6
Producer NAC	1.09	1.07	1.08	1.07	1.07
Canada					
US\$ mn	5 645	3 529	3 113	3 573	3 903
Euro mn	5 161	3 201	2 747	3 194	3 663
Percentage PSE	34	17	14	18	20
Producer NAC	1.51	1.21	1.17	1.21	1.24
Czech Republic					
US\$ mn	4 595	722	370	879	919
Euro mn	4 211	658	326	785	863
Percentage PSE	59	18	9	21	25
Producer NAC	2.48	1.23	1.10	1.26	1.33
European Union					
US\$ mn	95 214	116 552	112 260	122 946	114 450
Euro mn	86 332	105 467	99 056	109 929	107 416
Percentage PSE	44	44	38	45	49
Producer NAC	1.79	1.79	1.61	1.82	1.95
Hungary					
US\$ mn	3 015	661	394	692	898
Euro mn	2 767	603	348	619	842
Percentage PSE	39	13	7	13	20
Producer NAC	1.65	1.16	1.08	1.15	1.24
Iceland					
US\$ mn	194	151	128	162	163
Euro mn	175	137	113	144	153
Percentage PSE	74	64	57	67	68
Producer NAC	3.93	2.86	2.35	3.06	3.17
Japan					
US\$ mn	53 637	53 127	50 534	49 962	58 885
Euro mn	48 617	48 176	44 590	44 672	55 265
Percentage PSE	67	61	57	62	65
Producer NAC	3.04	2.59	2.35	2.60	2.82
Korea					
US\$ mn	12 264	17 398	20 861	12 309	19 023
Euro mn	11 002	15 756	18 407	11 006	17 854
Percentage PSE	71	65	65	56	74
Producer NAC	3.54	3.00	2.88	2.29	3.85
Mexico					
US\$ mn	1 383	4 996	4 804	4 490	5 695
Euro mn	1 210	4 533	4 239	4 015	5 345
Percentage PSE	8	19	16	17	22
Producer NAC	1.09	1.23	1.19	1.21	1.29
New Zealand					
US\$ mn	478	98	129	75	91
Euro mn	454	89	114	67	86
Percentage PSE	11	2	2	1	2
Producer NAC	1.13	1.02	1.02	1.01	1.02
Norway					
US\$ mn	2 605	2 675	2 650	2 678	2 695
Euro mn	2 356	2 421	2 339	2 395	2 529
Percentage PSE	66	66	64	67	69
Producer NAC	2.94	2.99	2.77	3.00	3.19

Table III.5. **OECD: Producer Support Estimate by country (cont'd)**

	1986-88	1997-99	1997	1998	1999p
Poland					
US\$ mn	3 947	3 521	3 507	3 760	3 296
Euro mn	3 670	3 183	3 094	3 362	3 094
Percentage PSE	29	23	22	23	25
Producer NAC	1.41	1.30	1.28	1.30	1.33
Switzerland					
US\$ mn	5 048	4 951	4 903	5 049	4 902
Euro mn	4 560	4 480	4 326	4 515	4 601
Percentage PSE	73	70	67	70	73
Producer NAC	3.67	3.37	3.06	3.30	3.76
Turkey					
US\$ mn	3 648	12 133	10 263	14 200	11 935
Euro mn	3 318	10 985	9 056	12 696	11 202
Percentage PSE	19	34	31	36	36
Producer NAC	1.24	1.53	1.44	1.57	1.57
United States					
US\$ mn	41 890	44 303	30 459	48 441	54 009
Euro mn	38 482	40 293	26 877	43 313	50 690
Percentage PSE	25	20	14	22	24
Producer NAC	1.34	1.25	1.16	1.28	1.32
OECD 24					
US\$ mn	220 721	238 863	216 003	248 338	252 249
Euro mn	200 657	216 462	190 596	222 045	236 745
Percentage PSE	40	36	31	37	40
Producer NAC	1.67	1.56	1.44	1.59	1.66
OECD					
US\$ mn	246 226	266 605	246 167	270 869	282 780
Euro mn	223 781	241 601	217 213	242 190	265 400
Percentage PSE	40	36	31	36	40
Producer NAC	1.67	1.56	1.45	1.57	1.66

Notes: See Part II.2 for detailed explanations. p: provisional. NAC: Nominal Assistance Coefficient. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990. OECD 24 excludes most recent Member countries: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994), and Poland (1996). Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.

Source: OECD, PSE/CSE database.

Table III.6. OECD: Producer Support Estimate by commodity

	1986-88	1997-99	1997	1998	1999p
Wheat					
US\$ mn	19 458	20 466	17 486	22 430	21 483
Euro mn	17 739	18 549	15 429	20 055	20 163
Percentage PSE	49	42	34	45	48
Producer NAC	1.98	1.75	1.52	1.81	1.92
Maize					
US\$ mn	12 804	10 156	7 691	11 102	11 675
Euro mn	11 734	9 224	6 787	9 927	10 957
Percentage PSE	40	27	20	29	32
Producer NAC	1.69	1.38	1.24	1.42	1.48
Other grains					
US\$ mn	12 062	12 688	11 907	13 989	12 170
Euro mn	11 012	11 479	10 507	12 508	11 422
Percentage PSE	53	53	45	58	56
Producer NAC	2.21	2.15	1.80	2.38	2.26
Rice					
US\$ mn	27 116	26 027	27 145	22 179	28 757
Euro mn	24 652	23 591	23 952	19 831	26 990
Percentage PSE	81	76	73	74	81
Producer NAC	5.46	4.25	3.64	3.85	5.27
Oilseeds					
US\$ mn	6 748	6 485	5 292	6 433	7 730
Euro mn	6 024	5 892	4 670	5 752	7 255
Percentage PSE	31	23	18	23	29
Producer NAC	1.44	1.31	1.21	1.30	1.40
Sugar (refined equivalent)					
US\$ mn	5 348	5 888	5 357	5 620	6 687
Euro mn	4 870	5 342	4 727	5 025	6 276
Percentage PSE	51	48	40	46	56
Producer NAC	2.04	1.94	1.68	1.85	2.30
Milk					
US\$ mn	45 791	48 544	43 470	51 988	50 175
Euro mn	41 858	43 977	38 357	46 484	47 091
Percentage PSE	58	54	48	57	57
Producer NAC	2.47	2.18	1.92	2.32	2.30
Beef and Veal					
US\$ mn	22 624	27 094	27 487	27 253	26 540
Euro mn	20 645	24 510	24 254	24 367	24 909
Percentage PSE	30	32	31	33	32
Producer NAC	1.43	1.47	1.46	1.49	1.47
Sheepmeat					
US\$ mn	4 752	4 151	4 460	4 084	3 910
Euro mn	4 282	3 752	3 935	3 652	3 669
Percentage PSE	55	41	39	42	42
Producer NAC	2.25	1.70	1.65	1.73	1.73
Wool					
US\$ mn	232	128	152	117	117
Euro mn	211	116	134	104	110
Percentage PSE	5	6	6	7	6
Producer NAC	1.06	1.07	1.06	1.07	1.06
Pigmeat					
US\$ mn	6 504	7 148	7 134	6 554	7 757
Euro mn	5 763	6 478	6 295	5 860	7 280
Percentage PSE	13	17	13	15	22
Producer NAC	1.16	1.20	1.15	1.18	1.27

Table III.6. **OECD: Producer Support Estimate by commodity (cont'd)**

	1986-88	1997-99	1997	1998	1999p
Poultry					
US\$ mn	4 435	4 012	3 902	3 068	5 066
Euro mn	3 943	3 647	3 443	2 743	4 755
Percentage PSE	19	11	11	9	14
Producer NAC	1.24	1.13	1.12	1.09	1.17
Eggs					
US\$ mn	2 271	1 961	1 829	2 001	2 053
Euro mn	2 049	1 777	1 614	1 789	1 927
Percentage PSE	15	12	10	12	13
Producer NAC	1.17	1.14	1.11	1.14	1.15
Other commodities					
US\$ mn	76 081	91 856	82 855	94 052	98 660
Euro mn	68 998	83 267	73 110	84 094	92 596
Percentage PSE	38	33	28	34	38
Producer NAC	1.62	1.50	1.40	1.51	1.61
All commodities					
US\$ mn	246 226	266 605	246 167	270 869	282 780
Euro mn	223 781	241 601	217 213	242 190	265 400
Percentage PSE	40	36	31	36	40
Producer NAC	1.67	1.56	1.45	1.57	1.66

Notes: See Part II.2 for detailed explanations. p: provisional. NAC: Nominal Assistance Coefficient. The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities. Austria, Finland and Sweden are included in the total for "all commodities" for all years, and in the commodity detail from 1995 (since joining the EU).

Source: OECD, PSE/CSE database.

Table III.7. OECD: Producer Support Estimate per full-time farmer equivalent

	1986-88	1997-99	1997	1998	1999p
US\$ '000					
Australia	3	3	4	3	3
Canada	12	8	7	8	9
Czech Republic	8	4	2	4	5
European Union	11	17	16	18	17
Hungary	3	2	1	2	3
Iceland	26	33	28	35	36
Japan	15	23	21	22	26
Korea	8	22	26	15	24
Mexico	n.c.	1	1	1	1
New Zealand	4	1	1	1	1
Norway	24	32	31	32	33
Poland	1	1	1	1	1
Switzerland	33	33	32	33	32
Turkey	n.c.	n.c.	n.c.	n.c.	n.c.
United States	17	18	12	19	21
OECD 24	13	18	17	19	20
OECD	11	11	10	11	11
EURO '000					
Australia	3	3	3	3	3
Canada	11	7	6	7	8
Czech Republic	8	3	2	4	4
European Union	10	15	14	16	16
Hungary	3	2	1	2	3
Iceland	24	30	25	32	33
Japan	13	21	19	20	25
Korea	7	20	23	14	22
Mexico	n.c.	1	1	1	1
New Zealand	4	1	1	1	1
Norway	22	29	27	29	31
Poland	1	1	1	1	1
Switzerland	30	29	28	30	30
Turkey	n.c.	n.c.	n.c.	n.c.	n.c.
United States	16	16	11	17	20
OECD 24	12	17	15	17	18
OECD	10	10	9	10	11

Notes: See Part II.2 for detailed explanations. p: provisional. n.c.: not calculated. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990. OECD 24 excludes most recent Member countries: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994) and Poland (1996). Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995. Data on full-time farmer equivalents is not available for Mexico (1986-88) and Turkey.

Source: OECD, PSE/CSE database.

Table III.8. **OECD: Producer Support Estimate per hectare of agricultural land**

	1986-88	1997-99	1997	1998	1999p
US\$					
Australia	3	3	3	3	3
Canada	75	47	42	48	52
Czech Republic	1 063	169	86	205	215
European Union	707	845	815	890	831
Hungary	463	107	64	112	145
Iceland	102	79	67	85	85
Japan	10 048	10 671	10 211	10 005	11 792
Korea	5 504	8 800	10 504	6 240	9 644
Mexico	17	50	46	45	59
New Zealand	34	7	10	6	7
Norway	2 660	2 553	2 544	2 553	2 562
Poland	209	190	189	203	178
Switzerland	3 195	3 134	3 103	3 196	3 102
Turkey	93	295	247	348	292
United States	98	106	73	116	129
OECD 24	187	206	186	214	218
OECD	187	205	189	209	218
EURO					
Australia	2	3	3	2	2
Canada	69	43	37	43	49
Czech Republic	974	154	76	184	201
European Union	641	765	719	796	780
Hungary	425	97	56	100	136
Iceland	92	72	59	76	80
Japan	9 107	9 676	9 010	8 946	11 067
Korea	4 938	7 969	9 268	5 579	9 051
Mexico	15	46	41	40	55
New Zealand	32	7	8	5	6
Norway	2 406	2 311	2 244	2 283	2 404
Poland	195	172	167	181	167
Switzerland	2 886	2 836	2 738	2 857	2 912
Turkey	85	267	218	311	274
United States	90	96	64	104	121
OECD 24	170	187	164	191	204
OECD	170	186	167	186	204

Notes: See Part II.2 for detailed explanations. p: provisional. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990. OECD 24 excludes most recent Member countries: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994), and Poland (1996). Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.

Source: OECD, PSE/CSE database.

Table III.9. **OECD: Composition of Producer Support Estimate**
(percentage share in PSE)

	1986-88	1997-99	1997	1998	1999p
Australia					
Market Price Support	43	40	42	41	36
Payments based on output	0	3	3	3	3
Payments based on area planted/animal numbers	0	0	0	0	0
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	34	44	40	44	49
Payments based on input constraints	0	0	0	0	0
Payments based on overall farm income	23	13	15	12	12
Miscellaneous payments	0	0	0	0	0
Canada					
Market Price Support	49	60	64	60	57
Payments based on output	17	7	8	7	8
Payments based on area planted/animal numbers	17	5	4	4	6
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	15	10	13	8	8
Payments based on input constraints	0	0	0	0	0
Payments based on overall farm income	0	17	10	21	21
Miscellaneous payments	2	1	1	1	1
Czech Republic					
Market Price Support	78	64	50	71	70
Payments based on output	3	0	0	0	0
Payments based on area planted/animal numbers	0	3	3	4	4
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	5	25	47	15	14
Payments based on input constraints	0	0	0	0	0
Payments based on overall farm income	14	7	0	10	12
Miscellaneous payments	0	0	0	0	0
European Union					
Market Price Support	85	60	56	62	63
Payments based on output	6	3	3	3	3
Payments based on area planted/animal numbers	3	23	25	22	22
Payments based on historical entitlements	0	1	1	1	0
Payments based on input use	6	8	9	8	8
Payments based on input constraints	1	4	6	4	4
Payments based on overall farm income	0	0	0	0	0
Miscellaneous payments	0	0	0	1	1
Hungary					
Market Price Support	75	36	20	35	52
Payments based on output	0	13	11	14	13
Payments based on area planted/animal numbers	0	0	0	0	0
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	9	41	56	41	26
Payments based on input constraints	0	0	1	0	0
Payments based on overall farm income	15	10	12	8	9
Miscellaneous payments	1	0	0	0	0
Iceland					
Market Price Support	87	51	44	53	55
Payments based on output	1	27	30	26	26
Payments based on area planted/animal numbers	1	0	0	0	0
Payments based on historical entitlements	0	15	17	13	13
Payments based on input use	11	8	9	8	6
Payments based on input constraints	0	0	0	0	0
Payments based on overall farm income	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0

Table III.9. **OECD: Composition of Producer Support Estimate (cont'd)**
(percentage share in PSE)

	1986-88	1997-99	1997	1998	1999p
Japan					
Market Price Support	90	91	90	91	92
Payments based on output	3	3	3	2	3
Payments based on area planted/animal numbers	0	0	0	0	0
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	4	4	5	4	4
Payments based on input constraints	3	2	2	2	2
Payments based on overall farm income	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Korea					
Market Price Support	99	95	94	94	96
Payments based on output	0	0	0	0	0
Payments based on area planted/animal numbers	0	0	0	0	0
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	1	4	4	5	3
Payments based on input constraints	0	0	0	0	0
Payments based on overall farm income	0	1	1	1	1
Miscellaneous payments	0	0	0	0	0
Mexico					
Market Price Support	n.c.	68	66	67	70
Payments based on output	0	0	0	0	0
Payments based on area planted/animal numbers	0	1	1	1	1
Payments based on historical entitlements	0	19	20	21	18
Payments based on input use	n.c.	11	12	10	10
Payments based on input constraints	0	0	0	0	0
Payments based on overall farm income	0	1	1	1	1
Miscellaneous payments	0	0	0	0	0
New Zealand					
Market Price Support	26	79	82	75	78
Payments based on output	0	0	0	0	0
Payments based on area planted/animal numbers	0	0	0	0	0
Payments based on historical entitlements	20	0	0	0	0
Payments based on input use	45	21	17	24	21
Payments based on input constraints	0	0	0	0	0
Payments based on overall farm income	9	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Norway					
Market Price Support	46	41	40	42	43
Payments based on output	24	18	20	18	16
Payments based on area planted/animal numbers	9	9	9	9	10
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	19	29	30	30	27
Payments based on input constraints	2	2	1	2	2
Payments based on overall farm income	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Poland					
Market Price Support	63	85	84	87	83
Payments based on output	0	1	0	0	2
Payments based on area planted/animal numbers	0	1	2	0	0
Payments based on historical entitlements	9	0	0	0	0
Payments based on input use	28	14	14	13	14
Payments based on input constraints	0	0	0	0	0
Payments based on overall farm income	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0

Table III.9. **OECD: Composition of Producer Support Estimate (cont'd)**
(percentage share in PSE)

	1986-88	1997-99	1997	1998	1999p
Switzerland					
Market Price Support	82	62	62	64	61
Payments based on output	1	2	1	2	3
Payments based on area planted/animal numbers	6	17	21	19	11
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	8	6	7	6	4
Payments based on input constraints	0	2	2	2	2
Payments based on overall farm income	0	9	5	5	16
Miscellaneous payments	3	3	3	3	3
Turkey					
Market Price Support	75	85	79	86	89
Payments based on output	0	1	1	1	1
Payments based on area planted/animal numbers	0	0	0	0	0
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	25	14	20	13	10
Payments based on input constraints	0	0	0	0	0
Payments based on overall farm income	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
United States					
Market Price Support	46	46	49	49	40
Payments based on output	7	9	1	8	18
Payments based on area planted/animal numbers	27	4	1	6	4
Payments based on historical entitlements	0	20	21	18	20
Payments based on input use	16	15	20	13	11
Payments based on input constraints	2	4	6	4	3
Payments based on overall farm income	2	3	3	3	3
Miscellaneous payments	0	0	0	0	0
OECD 24					
Market Price Support	77	65	64	66	65
Payments based on output	6	5	3	4	6
Payments based on area planted/animal numbers	7	13	14	13	11
Payments based on historical entitlements	0	4	3	4	4
Payments based on input use	8	9	10	9	8
Payments based on input constraints	1	3	4	3	3
Payments based on overall farm income	1	1	1	1	1
Miscellaneous payments	0	0	0	0	0
OECD					
Market Price Support	78	68	67	68	68
Payments based on output	5	4	3	4	6
Payments based on area planted/animal numbers	6	11	12	12	10
Payments based on historical entitlements	0	4	3	4	4
Payments based on input use	8	9	10	9	8
Payments based on input constraints	1	3	4	3	3
Payments based on overall farm income	1	1	1	1	1
Miscellaneous payments	0	0	0	0	0

Notes: See Part II.2 for detailed explanations. p: provisional, n.c.: not calculated. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990. OECD 24 excludes most recent Member countries: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994), and Poland (1996). Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995. Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.10. OECD: General Services Support Estimate by country

	1986-88	1997-99	1997	1998	1999p
Australia					
US\$ mn	377	540	604	499	518
Euro mn	340	488	533	447	486
Percentage of TSE	24	29	28	29	30
Canada					
US\$ mn	1 454	1 222	1 311	1 302	1 052
Euro mn	1 319	1 103	1 157	1 165	988
Percentage of TSE	20	26	30	27	21
Czech Republic					
US\$ mn	58	104	110	106	98
Euro mn	53	94	97	94	92
Percentage of TSE	1	14	23	11	10
European Union					
US\$ mn	10 774	7 995	8 208	8 282	7 495
Euro mn	9 746	7 228	7 243	7 406	7 034
Percentage of TSE	10	6	7	6	6
Hungary					
US\$ mn	83	155	92	171	202
Euro mn	76	141	81	153	190
Percentage of TSE	2	19	19	20	18
Iceland					
US\$ mn	23	18	18	19	16
Euro mn	20	16	16	17	15
Percentage of TSE	9	11	13	10	9
Japan					
US\$ mn	8 775	14 659	15 158	16 343	12 477
Euro mn	7 889	13 233	13 375	14 613	11 710
Percentage of TSE	14	22	23	25	17
Korea					
US\$ mn	2 011	3 659	4 663	3 073	3 242
Euro mn	1 817	3 301	4 114	2 747	3 042
Percentage of TSE	14	17	18	20	15
Mexico					
US\$ mn	680	398	370	417	406
Euro mn	637	360	327	373	381
Percentage of TSE	23	6	6	7	6
New Zealand					
US\$ mn	104	109	126	100	101
Euro mn	94	99	112	90	94
Percentage of TSE	21	53	50	57	52
Norway					
US\$ mn	128	90	96	85	88
Euro mn	116	81	85	76	83
Percentage of TSE	4	3	3	3	3
Poland					
US\$ mn	291	443	507	482	340
Euro mn	265	399	447	431	319
Percentage of TSE	5	11	13	11	9
Switzerland					
US\$ mn	455	427	412	407	462
Euro mn	412	387	363	364	433
Percentage of TSE	7	7	7	6	7

Table III.10. **OECD: General Services Support Estimate by country (cont'd)**

	1986-88	1997-99	1997	1998	1999p
Turkey					
US\$ mn	313	3 473	2 628	3 585	4 206
Euro mn	281	3 157	2 319	3 205	3 948
Percentage of TSE	8	22	20	20	26
United States					
US\$ mn	15 233	20 598	20 490	19 727	21 579
Euro mn	13 980	18 657	18 080	17 638	20 252
Percentage of TSE	22	24	29	22	22
OECD 24					
US\$ mn	37 935	49 116	49 032	50 336	47 979
Euro mn	34 466	44 434	43 265	45 006	45 031
Percentage of TSE	14	16	17	16	15
OECD					
US\$ mn	41 058	53 875	54 773	54 585	52 267
Euro mn	37 314	48 730	48 331	48 805	49 055
Percentage of TSE	13	16	17	16	14

Notes: See Part II.2 for detailed explanations. p: provisional. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990. OECD 24 excludes most recent Member countries: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994), and Poland (1996). Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.

Source: OECD, PSE/CSE database.

Table III.11. **OECD: Composition of General Services Support Estimate**
(percentage share in GSSE)

	1986-88	1997-99	1997	1998	1999p
Australia					
Research and Development	57	71	68	73	72
Agricultural schools	0	0	0	0	0
Inspection services	15	5	7	5	5
Infrastructure	11	20	21	19	20
Marketing and promotion	9	1	1	1	1
Public stockholding	0	0	0	0	0
Miscellaneous	8	2	2	2	2
Canada					
Research and Development	17	21	21	20	22
Agricultural schools	15	15	15	15	16
Inspection services	17	22	20	21	24
Infrastructure	25	18	16	18	19
Marketing and promotion	26	25	28	27	19
Public stockholding	0	0	0	0	0
Miscellaneous	0	0	0	0	0
Czech Republic					
Research and Development	18	26	21	26	30
Agricultural schools	75	46	47	47	44
Inspection services	7	1	1	1	1
Infrastructure	0	27	31	25	25
Marketing and promotion	0	0	0	0	0
Public stockholding	0	0	0	0	0
Miscellaneous	0	0	0	0	0
European Union					
Research and Development	10	22	23	22	22
Agricultural schools	1	1	1	1	1
Inspection services	2	4	4	4	4
Infrastructure	8	23	22	24	23
Marketing and promotion	27	26	24	26	28
Public stockholding	51	23	26	21	22
Miscellaneous	0	1	1	1	1
Hungary					
Research and Development	4	12	13	10	12
Agricultural schools	6	7	9	6	5
Inspection services	55	75	71	78	75
Infrastructure	36	4	4	3	4
Marketing and promotion	0	3	3	3	4
Public stockholding	0	0	0	0	0
Miscellaneous	0	0	0	0	0
Iceland					
Research and Development	10	13	11	14	15
Agricultural schools	17	27	26	27	28
Inspection services	4	8	7	7	10
Infrastructure	30	30	37	31	24
Marketing and promotion	1	2	2	2	2
Public stockholding	37	18	15	19	20
Miscellaneous	1	1	1	1	1
Japan					
Research and Development	4	4	3	4	5
Agricultural schools	2	2	2	1	2
Inspection services	1	1	1	1	1
Infrastructure	80	81	82	83	79
Marketing and promotion	2	2	1	1	2
Public stockholding	3	3	4	3	3
Miscellaneous	9	8	8	7	8

Table III.11. **OECD: Composition of General Services Support Estimate (cont'd)**
(percentage share in GSSE)

	1986-88	1997-99	1997	1998	1999p
Korea					
Research and Development	3	7	6	7	7
Agricultural schools	0	1	1	1	1
Inspection services	1	2	2	2	2
Infrastructure	23	59	58	62	57
Marketing and promotion	0	0	0	0	0
Public stockholding	72	31	32	28	32
Miscellaneous	0	0	0	0	0
Mexico					
Research and Development	9	25	28	25	23
Agricultural schools	14	29	29	29	30
Inspection services	0	14	11	16	16
Infrastructure	27	14	13	14	15
Marketing and promotion	2	8	9	8	9
Public stockholding	48	1	0	2	0
Miscellaneous	1	9	11	7	8
New Zealand					
Research and Development	44	60	60	61	59
Agricultural schools	0	5	6	5	5
Inspection services	30	25	25	25	26
Infrastructure	26	9	9	9	10
Marketing and promotion	0	0	0	0	0
Public stockholding	0	0	0	0	0
Miscellaneous	0	0	0	0	0
Norway					
Research and Development	57	74	72	75	75
Agricultural schools	0	0	0	0	0
Inspection services	0	0	0	0	0
Infrastructure	15	12	13	11	10
Marketing and promotion	27	10	11	10	10
Public stockholding	0	4	4	3	5
Miscellaneous	0	0	0	0	0
Poland					
Research and Development	43	18	18	20	17
Agricultural schools	38	15	13	14	19
Inspection services	0	10	5	5	19
Infrastructure	19	33	42	40	18
Marketing and promotion	0	15	13	13	17
Public stockholding	0	7	7	6	9
Miscellaneous	0	2	1	2	2
Switzerland					
Research and Development	19	20	21	21	17
Agricultural schools	3	3	4	3	3
Inspection services	2	2	2	2	2
Infrastructure	19	12	13	13	11
Marketing and promotion	12	19	14	15	28
Public stockholding	14	12	13	13	11
Miscellaneous	30	31	32	33	28
Turkey					
Research and Development	19	1	2	1	1
Agricultural schools	1	0	0	0	0
Inspection services	16	2	3	2	2
Infrastructure	2	0	0	0	0
Marketing and promotion	28	96	94	96	97
Public stockholding	0	0	0	0	0
Miscellaneous	34	0	1	0	0

Table III.11. **OECD: Composition of General Services Support Estimate (cont'd)**
(percentage share in GSSE)

	1986-88	1997-99	1997	1998	1999p
United States					
Research and Development	10	10	10	11	11
Agricultural schools	0	0	0	0	0
Inspection services	3	3	3	3	3
Infrastructure	19	2	2	3	1
Marketing and promotion	62	77	78	75	78
Public stockholding	0	0	0	0	0
Miscellaneous	7	7	7	8	7
OECD 24					
Research and Development	10	11	11	11	11
Agricultural schools	2	1	1	1	1
Inspection services	3	3	3	3	3
Infrastructure	30	30	31	33	25
Marketing and promotion	35	45	43	42	49
Public stockholding	16	5	6	4	5
Miscellaneous	6	6	6	6	6
OECD					
Research and Development	9	11	11	11	11
Agricultural schools	2	1	2	1	1
Inspection services	3	3	3	3	3
Infrastructure	30	31	33	34	27
Marketing and promotion	32	41	39	39	45
Public stockholding	19	7	8	6	6
Miscellaneous	5	6	5	6	5

Notes: See Part II.2 for detailed explanations. p: provisional. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.

OECD 24 excludes most recent Member countries: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994), and Poland (1996). Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.

Source: OECD, PSE/CSE database.

Table III.12. **OECD: Consumer Support Estimate by country**

	1986-88	1997-99	1997	1998	1999p
Australia					
US\$ mn	-300	-250	-338	-222	-188
Euro mn	-276	-225	-298	-199	-177
Percentage CSE	-7	-3	-4	-3	-3
Consumer NAC	1.07	1.04	1.04	1.04	1.03
Canada					
US\$ mn	-2 508	-2 152	-2 019	-2 175	-2 262
Euro mn	-2 283	-1 950	-1 781	-1 945	-2 123
Percentage CSE	-22	-16	-14	-17	-17
Consumer NAC	1.28	1.19	1.17	1.20	1.21
Czech Republic					
US\$ mn	-2 161	-418	-131	-534	-590
Euro mn	-1 986	-382	-116	-477	-554
Percentage CSE	-46	-13	-4	-15	-19
Consumer NAC	1.89	1.15	1.04	1.18	1.24
European Union					
US\$ mn	-72 124	-63 543	-57 243	-67 628	-65 756
Euro mn	-65 472	-57 564	-50 510	-60 468	-61 715
Percentage CSE	-40	-31	-25	-33	-36
Consumer NAC	1.66	1.46	1.33	1.48	1.57
Hungary					
US\$ mn	-1 581	-279	-150	-271	-417
Euro mn	-1 459	-255	-133	-242	-391
Percentage CSE	-29	-8	-4	-8	-13
Consumer NAC	1.41	1.09	1.04	1.08	1.15
Iceland					
US\$ mn	-115	-75	-57	-81	-85
Euro mn	-104	-68	-50	-73	-80
Percentage CSE	-67	-50	-40	-53	-56
Consumer NAC	3.13	2.03	1.66	2.13	2.29
Japan					
US\$ mn	-56 391	-61 605	-56 722	-60 184	-67 910
Euro mn	-50 956	-55 866	-50 050	-53 812	-63 736
Percentage CSE	-58	-50	-46	-51	-53
Consumer NAC	2.41	2.02	1.86	2.06	2.15
Korea					
US\$ mn	-12 005	-17 348	-19 878	-11 733	-20 432
Euro mn	-10 791	-15 736	-17 540	-10 491	-19 177
Percentage CSE	-67	-61	-62	-54	-67
Consumer NAC	3.09	2.61	2.62	2.16	3.06
Mexico					
US\$ mn	830	-3 161	-2 534	-2 515	-4 432
Euro mn	838	-2 882	-2 236	-2 249	-4 160
Percentage CSE	8	-12	-9	-10	-18
Consumer NAC	0.94	1.14	1.10	1.11	1.21
New Zealand					
US\$ mn	-92	-77	-104	-56	-70
Euro mn	-84	-69	-92	-50	-66
Percentage CSE	-10	-5	-6	-4	-5
Consumer NAC	1.11	1.06	1.07	1.04	1.06
Norway					
US\$ mn	-1 180	-1 170	-1 051	-1 165	-1 294
Euro mn	-1 072	-1 061	- 927	-1 041	-1 215
Percentage CSE	-50	-49	-42	-49	-55
Consumer NAC	1.99	1.97	1.73	1.97	2.20

Table III.12. **OECD: Consumer Support Estimate by country (cont'd)**

	1986-88	1997-99	1997	1998	1999p
Poland					
US\$ mn	-1 109	-2 791	-2 843	-3 031	-2 499
Euro mn	-1 114	-2 521	-2 509	-2 710	-2 345
Percentage CSE	-6	-20	-18	-20	-21
Consumer NAC	1.09	1.25	1.22	1.25	1.27
Switzerland					
US\$ mn	-4 543	-3 020	-2 960	-3 145	-2 954
Euro mn	-4 100	-2 732	-2 612	-2 812	-2 773
Percentage CSE	-68	-58	-54	-58	-61
Consumer NAC	3.15	2.37	2.17	2.38	2.57
Turkey					
US\$ mn	-2 832	-11 007	-8 946	-12 568	-11 505
Euro mn	-2 591	-9 977	-7 894	-11 238	-10 798
Percentage CSE	-17	-37	-30	-40	-40
Consumer NAC	1.21	1.59	1.43	1.68	1.67
United States					
US\$ mn	-9 194	-1 297	4 654	-5 551	-2 994
Euro mn	-8 602	-1 222	4 107	-4 963	-2 810
Percentage CSE	-8	-1	3	-4	-2
Consumer NAC	1.09	1.01	0.97	1.04	1.02
OECD 24					
US\$ mn	-159 489	-144 194	-124 786	-152 776	-155 020
Euro mn	-144 765	-130 734	-110 109	-136 600	-145 492
Percentage CSE	-34	-27	-22	-29	-30
Consumer NAC	1.53	1.37	1.28	1.40	1.43
OECD					
US\$ mn	-175 515	-168 191	-150 324	-170 859	-183 391
Euro mn	-159 278	-152 510	-132 643	-152 769	-172 119
Percentage CSE	-34	-27	-23	-28	-31
Consumer NAC	1.52	1.38	1.30	1.39	1.45

Notes: See Part II.2 for detailed explanations. p: provisional. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.

OECD 24 excludes most recent Member countries: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994), and Poland (1996). Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.

Source: OECD, PSE/CSE database.

Table III.13. OECD: Consumer Support Estimate by commodity

	1986-88	1997-99	1997	1998	1999p
Wheat					
US\$ mn	-7 065	-2 612	-1 526	-3 105	-3 204
Euro mn	-6 383	-2 377	-1 346	-2 777	-3 007
Percentage CSE	-29	-11	-6	-13	-15
Consumer NAC	1.41	1.13	1.06	1.15	1.18
Maize					
US\$ mn	228	2 106	2 465	2 054	1 799
Euro mn	227	1 900	2 175	1 837	1 689
Percentage CSE	1	10	10	10	9
Consumer NAC	0.99	0.91	0.91	0.91	0.92
Other grains					
US\$ mn	-2 023	-510	-299	-702	-528
Euro mn	-1 842	-462	-264	-628	-495
Percentage CSE	-12	-4	-2	-6	-4
Consumer NAC	1.14	1.04	1.02	1.06	1.05
Rice					
US\$ mn	-23 546	-23 773	-23 408	-21 366	-26 546
Euro mn	-21 343	-21 558	-20 655	-19 104	-24 914
Percentage CSE	-78	-74	-70	-73	-80
Consumer NAC	4.63	4.02	3.36	3.72	4.96
Oilseeds					
US\$ mn	-988	-832	-1 114	-819	-565
Euro mn	-871	-748	-983	-732	-530
Percentage CSE	-5	-3	-4	-3	-2
Consumer NAC	1.06	1.03	1.04	1.03	1.03
Sugar (refined equivalent)					
US\$ mn	-7 505	-7 510	-6 723	-7 106	-8 701
Euro mn	-6 823	-6 817	-5 932	-6 354	-8 166
Percentage CSE	-59	-56	-48	-55	-65
Consumer NAC	2.50	2.34	1.93	2.23	2.85
Milk					
US\$ mn	-33 830	-37 569	-32 169	-41 111	-39 426
Euro mn	-30 996	-34 049	-28 385	-36 759	-37 003
Percentage CSE	-57	-50	-43	-54	-53
Consumer NAC	2.43	2.03	1.77	2.18	2.15
Beef and Veal					
US\$ mn	-18 327	-17 625	-17 447	-16 438	-18 988
Euro mn	-16 724	-15 971	-15 395	-14 698	-17 821
Percentage CSE	-26	-22	-21	-21	-23
Consumer NAC	1.35	1.28	1.27	1.27	1.30
Sheepmeat					
US\$ mn	-3 679	-513	-459	-788	-292
Euro mn	-3 304	-461	-405	-705	-274
Percentage CSE	-53	-8	-7	-13	-5
Consumer NAC	2.13	1.09	1.07	1.15	1.06
Wool					
US\$ mn	-9	0	1	0	0
Euro mn	-8	0	1	0	0
Percentage CSE	-3	0	0	0	0
Consumer NAC	1.03	1.00	1.00	1.00	1.00
Pigmeat					
US\$ mn	-7 920	-5 496	-4 502	-5 390	-6 598
Euro mn	-7 072	-4 994	-3 972	-4 819	-6 192
Percentage CSE	-18	-15	-9	-14	-21
Consumer NAC	1.22	1.17	1.10	1.17	1.26

Table III.13. **OECD: Consumer Support Estimate by commodity (cont'd)**

	1986-88	1997-99	1997	1998	1999p
Poultry					
US\$ mn	-4 007	-1 915	-1 829	-1 186	-2 730
Euro mn	-3 564	-1 746	-1 614	-1 061	-2 563
Percentage CSE	-19	-6	-6	-4	-9
Consumer NAC	1.24	1.07	1.06	1.04	1.10
Eggs					
US\$ mn	-2 174	-1 455	-1 313	-1 543	-1 510
Euro mn	-1 965	-1 318	-1 159	-1 380	-1 417
Percentage CSE	-15	-10	-8	-11	-11
Consumer NAC	1.18	1.11	1.09	1.12	1.12
Other commodities					
US\$ mn	-64 671	-70 488	-62 001	-73 358	-76 104
Euro mn	-58 610	-63 909	-54 709	-65 591	-71 426
Percentage CSE	-37	-30	-25	-31	-34
Consumer NAC	1.59	1.43	1.33	1.45	1.51
All commodities					
US\$ mn	-175 515	-168 191	-150 324	-170 859	-183 391
Euro mn	-159 278	-152 510	-132 643	-152 769	-172 119
Percentage CSE	-34	-27	-23	-28	-31
Consumer NAC	1.52	1.38	1.30	1.39	1.45

Notes: See Part II.2 for detailed explanations. p: provisional. NAC: Nominal Assistance Coefficient. The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities. Austria, Finland and Sweden are included in the total for "all commodities" for all years, and in the commodity detail from 1995 (since joining the EU).

Source: OECD, PSE/CSE database.

Table III.14. **Composition of Consumer Support Estimate**
(US\$ mn)

	1986-88	1997-99	1997	1998	1999p
Australia					
Transfers to producers from consumers	-300	-250	-338	-222	-188
Other transfers from consumers	0	0	0	0	0
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	0	0	0	0	0
Canada					
Transfers to producers from consumers	-2 751	-2 120	-2 010	-2 122	-2 229
Other transfers from consumers	-31	-32	-10	-53	-33
Transfers to consumers from taxpayers	39	0	0	0	0
Excess feed cost	234	0	1	0	0
Czech Republic					
Transfers to producers from consumers	-3 144	-397	-65	-571	-556
Other transfers from consumers	-6	-5	-5	-3	-6
Transfers to consumers from taxpayers	806	0	0	0	0
Excess feed cost	182	-17	-61	40	-29
European Union					
Transfers to producers from consumers	-83 189	-67 664	-60 576	-73 747	-68 670
Other transfers from consumers	-2 073	-1 861	-1 667	-1 047	-2 870
Transfers to consumers from taxpayers	4 669	4 255	4 497	4 341	3 928
Excess feed cost	8 469	1 728	503	2 824	1 855
Hungary					
Transfers to producers from consumers	-1 892	-183	-8	-181	-361
Other transfers from consumers	-7	-1	1	-1	-4
Transfers to consumers from taxpayers	301	0	0	0	0
Excess feed cost	16	-95	-143	-88	-53
Iceland					
Transfers to producers from consumers	-154	-75	-57	-82	-86
Other transfers from consumers	-2	0	0	0	0
Transfers to consumers from taxpayers	41	0	0	1	0
Excess feed cost	0	0	0	0	0
Japan					
Transfers to producers from consumers	-47 903	-48 438	-45 654	-45 628	-54 033
Other transfers from consumers	-8 878	-13 508	-11 465	-14 866	-14 191
Transfers to consumers from taxpayers	-108	130	207	103	80
Excess feed cost	498	210	190	206	235
Korea					
Transfers to producers from consumers	-11 826	-16 128	-18 690	-11 485	-18 210
Other transfers from consumers	-251	-1 461	-1 520	-558	-2 304
Transfers to consumers from taxpayers	73	241	331	311	82
Excess feed cost	0	0	0	0	0
Mexico					
Transfers to producers from consumers	-131	-3 466	-3 220	-3 052	-4 127
Other transfers from consumers	-16	-764	-634	-575	-1 083
Transfers to consumers from taxpayers	873	950	1 254	1 003	593
Excess feed cost	105	120	65	109	186
New Zealand					
Transfers to producers from consumers	-90	-75	-103	-54	-67
Other transfers from consumers	-2	-2	-2	-1	-3
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	0	0	0	0	0
Norway					
Transfers to producers from consumers	-1 507	-1 325	-1 196	-1 333	-1 446
Other transfers from consumers	-138	-24	-14	-28	-30
Transfers to consumers from taxpayers	220	20	22	18	19
Excess feed cost	244	159	137	179	162

Table III.14. **Composition of Consumer Support Estimate (cont'd)**

(US\$ million)

	1986-88	1997-99	1997	1998	1999p
Poland					
Transfers to producers from consumers	-2 670	-2 965	-2 982	-3 277	-2 636
Other transfers from consumers	-137	-74	-139	-55	-28
Transfers to consumers from taxpayers	1 476	3	3	3	3
Excess feed cost	222	245	274	298	163
Switzerland					
Transfers to producers from consumers	-4 287	-3 259	-3 227	-3 412	-3 139
Other transfers from consumers	-1 237	-786	-780	-780	-799
Transfers to consumers from taxpayers	741	824	829	842	799
Excess feed cost	240	202	217	204	184
Turkey					
Transfers to producers from consumers	-2 906	-11 071	-8 846	-12 874	-11 493
Other transfers from consumers	-70	-490	-526	-378	-566
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	145	554	426	683	554
United States					
Transfers to producers from consumers	-19 099	-19 956	-14 772	-23 499	-21 598
Other transfers from consumers	-1 520	-1 877	-1 252	-2 041	-2 339
Transfers to consumers from taxpayers	11 131	20 534	20 679	19 982	20 942
Excess feed cost	294	2	0	7	0
OECD 24					
Transfers to producers from consumers	-173 273	-154 233	-136 778	-162 973	-162 948
Other transfers from consumers	-14 458	-18 580	-15 716	-19 194	-20 831
Transfers to consumers from taxpayers	16 975	25 763	26 233	25 288	25 769
Excess feed cost	11 266	2 856	1 475	4 103	2 990
OECD					
Transfers to producers from consumers	-192 936	-177 375	-161 742	-181 539	-188 845
Other transfers from consumers	-14 874	-20 885	-18 013	-20 387	-24 256
Transfers to consumers from taxpayers	20 504	26 957	27 822	26 605	26 446
Excess feed cost	11 791	3 112	1 610	4 462	3 264

Notes: See Part II.2 for detailed explanations. p: provisional. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.

OECD 24 excludes most recent Member countries: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994), and Poland (1996). Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.

Source: OECD, PSE/CSE database.

Table III.15. **Composition of Consumer Support Estimate**

(Euro mn)

	1986-88	1997-99	1997	1998	1999p
Australia					
Transfers to producers from consumers	-276	-225	-298	-199	-177
Other transfers from consumers	0	0	0	0	0
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	0	0	0	0	0
Canada					
Transfers to producers from consumers	-2 510	-1 921	-1 773	-1 897	-2 092
Other transfers from consumers	-27	-29	-9	-47	-31
Transfers to consumers from taxpayers	38	0	0	0	0
Excess feed cost	216	0	1	0	0
Czech Republic					
Transfers to producers from consumers	-2 886	-363	-57	-510	-521
Other transfers from consumers	-5	-4	-5	-3	-6
Transfers to consumers from taxpayers	735	0	0	0	0
Excess feed cost	170	-15	-54	36	-27
European Union					
Transfers to producers from consumers	-75 554	-61 280	-53 451	-65 939	-64 449
Other transfers from consumers	-1 868	-1 700	-1 471	-936	-2 694
Transfers to consumers from taxpayers	4 223	3 845	3 968	3 881	3 687
Excess feed cost	7 726	1 570	444	2 525	1 741
Hungary					
Transfers to producers from consumers	-1 754	-169	-7	-162	-338
Other transfers from consumers	-7	-1	1	-1	-3
Transfers to consumers from taxpayers	281	0	0	0	0
Excess feed cost	20	-85	-126	-79	-49
Iceland					
Transfers to producers from consumers	-139	-68	-50	-74	-80
Other transfers from consumers	-1	0	0	0	0
Transfers to consumers from taxpayers	36	0	0	1	0
Excess feed cost	0	0	0	0	0
Japan					
Transfers to producers from consumers	-43 368	-43 931	-40 284	-40 797	-50 712
Other transfers from consumers	-7 949	-12 243	-10 117	-13 292	-13 319
Transfers to consumers from taxpayers	-97	117	183	92	75
Excess feed cost	458	191	168	184	220
Korea					
Transfers to producers from consumers	-10 627	-14 617	-16 492	-10 269	-17 091
Other transfers from consumers	-231	-1 334	-1 341	-499	-2 162
Transfers to consumers from taxpayers	66	215	292	278	77
Excess feed cost	0	0	0	0	0
Mexico					
Transfers to producers from consumers	-63	-3 150	-2 841	-2 729	-3 880
Other transfers from consumers	-14	-697	-559	-514	-1 017
Transfers to consumers from taxpayers	822	853	1 107	897	556
Excess feed cost	92	112	57	97	181
New Zealand					
Transfers to producers from consumers	-82	-67	-91	-49	-63
Other transfers from consumers	-2	-2	-1	-1	-3
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	0	0	0	0	0
Norway					
Transfers to producers from consumers	-1 368	-1 201	-1 056	-1 192	-1 357
Other transfers from consumers	-127	-22	-12	-25	-28
Transfers to consumers from taxpayers	202	18	19	16	18
Excess feed cost	221	144	121	160	152

Table III.15. **Composition of Consumer Support Estimate (cont'd)**

(Euro million)

	1986-88	1997-99	1997	1998	1999p
Poland					
Transfers to producers from consumers	-2 507	-2 678	-2 631	-2 930	-2 474
Other transfers from consumers	-126	-66	-122	-49	-26
Transfers to consumers from taxpayers	1 310	3	2	3	3
Excess feed cost	209	220	242	266	153
Switzerland					
Transfers to producers from consumers	-3 870	-2 948	-2 847	-3 050	-2 946
Other transfers from consumers	-1 114	-712	-689	-697	-749
Transfers to consumers from taxpayers	668	745	732	753	750
Excess feed cost	215	182	192	183	173
Turkey					
Transfers to producers from consumers	-2 660	-10 034	-7 805	-11 511	-10 786
Other transfers from consumers	-64	-445	-465	-338	-531
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	133	502	376	611	520
United States					
Transfers to producers from consumers	-17 590	-18 105	-13 035	-21 011	-20 270
Other transfers from consumers	-1 398	-1 708	-1 105	-1 825	-2 195
Transfers to consumers from taxpayers	10 114	18 589	18 246	17 866	19 655
Excess feed cost	273	2	0	6	0
OECD 24					
Transfers to producers from consumers	-157 459	-139 781	-120 690	-145 718	-152 933
Other transfers from consumers	-12 998	-16 860	-13 868	-17 162	-19 551
Transfers to consumers from taxpayers	15 403	23 315	23 148	22 610	24 185
Excess feed cost	10 289	2 592	1 301	3 669	2 806
OECD					
Transfers to producers from consumers	-175 295	-160 758	-142 718	-162 319	-177 238
Other transfers from consumers	-13 380	-18 963	-15 894	-18 228	-22 765
Transfers to consumers from taxpayers	18 617	24 386	24 549	23 788	24 821
Excess feed cost	10 781	2 825	1 420	3 990	3 064

Notes: See Part II.2 for detailed explanations. p: provisional. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.

OECD 24 excludes most recent Member countries: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994), and Poland (1996). Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.

Source: OECD, PSE/CSE database.

Table III.16. **OECD: Total Support Estimate by country**

	1986-88	1997-99	1997	1998	1999p
Australia					
US\$ mn	1 566	1 884	2 167	1 752	1 733
Euro mn	1 427	1 702	1 912	1 566	1 627
Percentage of GDP	0.76	0.48	0.53	0.48	0.44
Canada					
US\$ mn	7 139	4 751	4 424	4 875	4 955
Euro mn	6 518	4 304	3 904	4 359	4 650
Percentage of GDP	1.70	0.76	0.70	0.81	0.78
Czech Republic					
US\$ mn	5 459	827	480	984	1 017
Euro mn	4 999	752	423	880	954
Percentage of GDP	n.c.	1.51	0.91	1.74	1.89
European Union					
US\$ mn	110 657	128 803	124 965	135 570	125 873
Euro mn	100 301	116 540	110 267	121 216	118 137
Percentage of GDP	2.60	1.53	1.52	1.60	1.49
Hungary					
US\$ mn	3 399	817	486	864	1 100
Euro mn	3 123	744	429	772	1 032
Percentage of GDP	n.c.	1.70	1.06	1.81	2.23
Iceland					
US\$ mn	258	169	146	182	180
Euro mn	231	153	129	163	169
Percentage of GDP	5.05	2.06	1.95	2.21	2.01
Japan					
US\$ mn	62 305	67 916	65 899	66 408	71 442
Euro mn	56 408	61 525	58 148	59 377	67 051
Percentage of GDP	2.58	1.65	1.57	1.75	1.63
Korea					
US\$ mn	14 348	21 298	25 855	15 692	22 346
Euro mn	12 885	19 272	22 814	14 031	20 973
Percentage of GDP	10.07	5.25	5.42	4.89	5.44
Mexico					
US\$ mn	2 936	6 344	6 428	5 911	6 693
Euro mn	2 668	5 746	5 672	5 285	6 282
Percentage of GDP	1.88	1.48	1.60	1.43	1.41
New Zealand					
US\$ mn	583	208	255	176	192
Euro mn	550	187	225	157	180
Percentage of GDP	1.85	0.36	0.40	0.33	0.36
Norway					
US\$ mn	2 953	2 784	2 768	2 782	2 803
Euro mn	2 674	2 520	2 443	2 487	2 631
Percentage of GDP	3.36	1.85	1.80	1.90	1.85
Poland					
US\$ mn	5 714	3 967	4 016	4 245	3 639
Euro mn	5 245	3 585	3 544	3 796	3 415
Percentage of GDP	n.c.	2.63	2.80	2.70	2.39
Switzerland					
US\$ mn	6 245	6 201	6 144	6 298	6 162
Euro mn	5 640	5 612	5 421	5 631	5 783
Percentage of GDP	3.78	2.40	2.40	2.40	2.39

Table III.16. **OECD: Total Support Estimate by country (cont'd)**

	1986-88	1997-99	1997	1998	1999p
Turkey					
US\$ mn	3 961	15 606	12 891	17 784	16 142
Euro mn	3 598	14 142	11 375	15 901	15 150
Percentage of GDP	4.70	8.01	6.79	8.96	8.29
United States					
US\$ mn	68 254	85 436	71 628	88 150	96 530
Euro mn	62 575	77 539	63 203	78 817	90 597
Percentage of GDP	1.44	0.97	0.86	1.01	1.05
OECD 24					
US\$ mn	275 630	313 742	291 268	323 962	325 997
Euro mn	250 526	284 211	257 009	289 662	305 961
Percentage of GDP	2.16	1.33	1.27	1.39	1.34
OECD					
US\$ mn	307 787	347 438	328 762	352 058	361 493
Euro mn	279 712	314 717	290 093	314 783	339 275
Percentage of GDP	2.32	1.41	1.36	1.45	1.42

Notes: See Part II.2 for detailed explanations. p: provisional. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990. OECD 24 excludes most recent Member countries: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994), and Poland (1996). Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.

Source: OECD, PSE/CSE database.

Table III.17. **OECD: Total Support Estimate per capita**

	1986-88	1997-99	1997	1998	1999p
US\$					
Australia	97	102	119	95	93
Canada	268	157	148	161	163
Czech Republic	530	81	47	96	100
European Union	325	344	335	362	336
Hungary	324	82	49	87	111
Iceland	1 044	611	532	656	644
Japan	510	539	525	527	566
Korea	344	462	566	340	481
Mexico	41	71	71	66	76
New Zealand	177	52	65	44	48
Norway	705	636	634	635	638
Poland	152	103	104	110	94
Switzerland	939	847	844	860	836
Turkey	75	245	205	279	249
United States	277	312	264	322	350
OECD 24	328	340	317	351	351
OECD	302	309	294	313	320
Euro					
Australia	88	92	105	85	87
Canada	245	143	130	144	153
Czech Republic	485	74	41	86	93
European Union	295	312	295	324	315
Hungary	298	75	43	78	105
Iceland	938	554	469	587	604
Japan	462	489	463	472	531
Korea	309	418	499	304	451
Mexico	37	64	62	59	71
New Zealand	167	47	57	39	45
Norway	639	576	560	568	599
Poland	139	93	92	98	88
Switzerland	848	766	745	769	785
Turkey	68	222	181	249	234
United States	254	283	233	288	328
OECD 24	298	308	280	313	329
OECD	275	280	259	280	300

Notes: See Part II.2 for detailed explanations. p: provisional. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.

OECD 24 excludes most recent Member countries: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994), and Poland (1996). Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.

Source: OECD, PSE/CSE database.

Table III.18. **OECD: Composition of Total Support Estimate by country**
(US\$ mn)

	1986-88	1997-99	1997	1998	1999p
Australia					
Transfer from consumers	300	250	338	222	188
Transfer from taxpayers	1 266	1 634	1 829	1 529	1 545
Budget revenues	0	0	0	0	0
Canada					
Transfer from consumers	2 782	2 152	2 020	2 175	2 262
Transfer from taxpayers	4 388	2 631	2 414	2 753	2 726
Budget revenues	-31	-32	-10	-53	-33
Czech Republic					
Transfer from consumers	3 150	402	70	574	562
Transfer from taxpayers	2 315	430	415	414	461
Budget revenues	-6	-5	-5	-3	-6
European Union					
Transfer from consumers	85 262	69 526	62 243	74 794	71 540
Transfer from taxpayers	27 468	61 138	64 389	61 822	57 203
Budget revenues	-2 073	-1 861	-1 667	-1 047	-2 870
Hungary					
Transfer from consumers	1 899	185	7	183	364
Transfer from taxpayers	1 507	633	478	683	740
Budget revenues	-7	-1	1	-1	-4
Iceland					
Transfer from consumers	156	75	57	83	86
Transfer from taxpayers	103	94	89	99	94
Budget revenues	-2	0	0	0	0
Japan					
Transfer from consumers	56 781	61 946	57 120	60 494	68 224
Transfer from taxpayers	14 401	19 478	20 245	20 780	17 409
Budget revenues	-8 878	-13 508	-11 465	-14 866	-14 191
Korea					
Transfer from consumers	12 078	17 589	20 210	12 043	20 514
Transfer from taxpayers	2 521	5 169	7 165	4 207	4 136
Budget revenues	-251	-1 461	-1 520	-558	-2 304
Mexico					
Transfer from consumers	147	4 230	3 854	3 627	5 210
Transfer from taxpayers	2 804	2 878	3 208	2 859	2 566
Budget revenues	-16	-764	-634	-575	-1 083
New Zealand					
Transfer from consumers	92	77	104	56	70
Transfer from taxpayers	493	133	153	121	125
Budget revenues	-2	-2	-2	-1	-3
Norway					
Transfer from consumers	1 645	1 349	1 210	1 361	1 476
Transfer from taxpayers	1 446	1 459	1 572	1 449	1 357
Budget revenues	-138	-24	-14	-28	-30
Poland					
Transfer from consumers	2 807	3 039	3 120	3 332	2 664
Transfer from taxpayers	3 044	1 002	1 035	968	1 003
Budget revenues	-137	-74	-139	-55	-28
Switzerland					
Transfer from consumers	5 524	4 045	4 007	4 191	3 937
Transfer from taxpayers	1 958	2 942	2 917	2 887	3 023
Budget revenues	-1 237	-786	-780	-780	-799

Table III.18. **OECD: Composition of Total Support Estimate by country (cont'd)**
(US\$ million)

	1986-88	1997-99	1997	1998	1999p
Turkey					
Transfer from consumers	2 977	11 561	9 372	13 252	12 059
Transfer from taxpayers	1 055	4 535	4 046	4 911	4 649
Budget revenues	-70	-490	-526	-378	-566
United States					
Transfer from consumers	20 619	21 833	16 024	25 540	23 937
Transfer from taxpayers	49 155	65 480	56 855	64 651	74 933
Budget revenues	-1 520	-1 877	-1 252	-2 041	-2 339
OECD 24					
Transfer from consumers	187 730	172 814	152 494	182 167	183 779
Transfer from taxpayers	102 357	159 509	154 490	160 989	163 049
Budget revenues	-14 458	-18 580	-15 716	-19 194	-20 831
OECD					
Transfer from consumers	207 810	198 261	179 755	201 926	213 101
Transfer from taxpayers	114 851	170 062	167 020	170 519	172 648
Budget revenues	-14 874	-20 885	-18 013	-20 387	-24 256

Notes: See Part II.2 for detailed explanations. p: provisional. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.

OECD 24 excludes most recent Member countries: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994), and Poland (1996). Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.

Source: OECD, PSE/CSE database.

Table III.19. **OECD: Composition of Total Support Estimate by country**
(Euro mn)

	1986-88	1997-99	1997	1998	1999p
Australia					
Transfer from consumers	276	225	298	199	177
Transfer from taxpayers	1 150	1 477	1 614	1 367	1 450
Budget revenues	0	0	0	0	0
Canada					
Transfer from consumers	2 537	1 950	1 782	1 945	2 123
Transfer from taxpayers	4 009	2 383	2 130	2 462	2 558
Budget revenues	-27	-29	-9	-47	-31
Czech Republic					
Transfer from consumers	2 891	367	62	513	527
Transfer from taxpayers	2 113	390	366	370	433
Budget revenues	-5	-4	-5	-3	-6
European Union					
Transfer from consumers	77 422	62 980	54 922	66 875	67 143
Transfer from taxpayers	24 746	55 260	56 815	55 277	53 688
Budget revenues	-1 868	-1 700	-1 471	-936	-2 694
Hungary					
Transfer from consumers	1 760	170	6	163	342
Transfer from taxpayers	1 370	575	422	610	694
Budget revenues	-7	-1	1	-1	-3
Iceland					
Transfer from consumers	140	68	50	74	80
Transfer from taxpayers	93	85	78	89	88
Budget revenues	-1	0	0	0	0
Japan					
Transfer from consumers	51 317	56 174	50 401	54 089	64 031
Transfer from taxpayers	13 041	17 594	17 864	18 580	16 339
Budget revenues	-7 949	-12 243	-10 117	-13 292	-13 319
Korea					
Transfer from consumers	10 857	15 951	17 833	10 768	19 253
Transfer from taxpayers	2 258	4 655	6 322	3 762	3 882
Budget revenues	-231	-1 334	-1 341	-499	-2 162
Mexico					
Transfer from consumers	76	3 845	3 400	3 243	4 890
Transfer from taxpayers	2 606	2 598	2 831	2 556	2 409
Budget revenues	-14	-697	-559	-514	-1 017
New Zealand					
Transfer from consumers	84	69	92	50	66
Transfer from taxpayers	467	106	118	96	103
Budget revenues	-2	-2	-1	-1	-3
Norway					
Transfer from consumers	1 495	1 223	1 068	1 217	1 385
Transfer from taxpayers	1 306	1 319	1 387	1 296	1 274
Budget revenues	-127	-22	-12	-25	-28
Poland					
Transfer from consumers	2 633	2 744	2 753	2 979	2 500
Transfer from taxpayers	2 738	907	913	865	941
Budget revenues	-126	-66	-122	-49	-26
Switzerland					
Transfer from consumers	4 984	3 660	3 536	3 748	3 695
Transfer from taxpayers	1 770	2 664	2 574	2 581	2 837
Budget revenues	-1 114	-712	-689	-697	-749

Table III.19. **OECD: Composition of Total Support Estimate by country (cont'd)**
(Euro million)

	1986-88	1997-99	1997	1998	1999p
Turkey					
Transfer from consumers	2 724	10 479	8 270	11 849	11 318
Transfer from taxpayers	938	4 108	3 570	4 391	4 363
Budget revenues	-64	-445	-465	-338	-531
United States					
Transfer from consumers	18 988	19 813	14 139	22 835	22 466
Transfer from taxpayers	44 985	59 434	50 168	57 806	70 327
Budget revenues	-1 398	-1 708	-1 105	-1 825	-2 195
OECD 24					
Transfer from consumers	170 458	156 641	134 558	162 880	172 484
Transfer from taxpayers	93 066	144 430	136 319	143 944	153 028
Budget revenues	-12 998	-16 860	-13 868	-17 162	-19 551
OECD					
Transfer from consumers	188 676	179 721	158 612	180 547	200 003
Transfer from taxpayers	104 416	153 959	147 375	152 465	162 037
Budget revenues	-13 380	-18 963	-15 894	-18 228	-22 765

Notes: See Part II.2 for detailed explanations. p: provisional. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.

OECD 24 excludes most recent Member countries: Czech Republic (1995), Hungary (1996), Korea (1996), Mexico (1994), and Poland (1996). Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.

Source: OECD, PSE/CSE database.

Table III.20. **Australia: Estimates of support to agriculture**
(A\$ mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	20 101	28 318	28 016	28 534	28 404
<i>of which share of common commodities (%)</i>	<i>79</i>	<i>70</i>	<i>70</i>	<i>70</i>	<i>71</i>
Total value of consumption (at farm gate)	6 516	10 637	10 648	10 415	10 849
Producer Support Estimate (PSE)	1 670	1 995	2 107	1 994	1 884
Market price support	726	797	893	818	681
<i>of which common commodities</i>	<i>575</i>	<i>558</i>	<i>625</i>	<i>570</i>	<i>480</i>
Payments based on output	0	60	60	60	60
Payments based on area planted/animal numbers	0	0	0	0	0
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	564	877	843	869	920
Payments based on input constraints	0	0	0	0	0
Payments based on overall farming income	379	261	312	247	223
Miscellaneous payments	1	0	0	0	0
Percentage PSE	8	7	7	7	6
Producer NAC	1.09	1.07	1.08	1.07	1.07
General Services Support Estimate (GSSE)	524	804	814	795	802
Research and development	298	572	557	580	578
Agricultural schools	0	0	0	0	0
Inspection services	77	44	58	37	37
Infrastructure	59	162	172	153	161
Marketing and promotion	49	11	11	11	10
Public stockholding	0	0	0	0	0
Miscellaneous	41	15	15	15	15
GSSE as a share of TSE (%)	24.0	28.7	27.9	28.5	29.9
Consumer Support Estimate (CSE)	-423	-367	-455	-354	-292
Transfers to producers from consumers	-424	-367	-455	-354	-292
Other transfers from consumers	0	0	0	0	0
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	0	0	0	0	0
Percentage CSE	-7	-3	-4	-3	-3
Consumer NAC	1.07	1.04	1.04	1.04	1.03
Total Support Estimate (TSE)	2 194	2 799	2 921	2 789	2 686
Transfers from consumers	424	367	455	354	292
Transfers from taxpayers	1 771	2 432	2 466	2 435	2 394
Budget revenues	0	0	0	0	0
TSE as a share of GDP (%)	0.8	0.5	0.5	0.5	0.4

Notes: See Part II.2 for detailed explanations. p: provisional; NAC: Nominal Assistance Coefficient.

Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.21. Australia: Producer Support Estimate by commodity

	1986-88	1997-99	1997	1998	1999p
Wheat					
A\$ mn	234	380	360	374	406
Percentage PSE	11	10	10	10	11
Producer NAC	1.12	1.12	1.11	1.11	1.12
Maize					
A\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains					
A\$ mn	88	132	148	133	115
Percentage PSE	11	11	11	11	12
Producer NAC	1.13	1.13	1.12	1.13	1.13
Rice					
A\$ mn	16	13	13	13	12
Percentage PSE	17	5	4	5	6
Producer NAC	1.22	1.05	1.05	1.05	1.06
Oilseeds					
A\$ mn	9	41	26	42	55
Percentage PSE	8	6	6	5	8
Producer NAC	1.09	1.07	1.06	1.06	1.09
Sugar (refined equivalent)					
A\$ mn	85	38	40	36	38
Percentage PSE	13	4	3	4	4
Producer NAC	1.15	1.04	1.03	1.04	1.04
Milk					
A\$ mn	483	606	671	619	528
Percentage PSE	32	21	23	21	18
Producer NAC	1.49	1.26	1.30	1.26	1.22
Beef and Veal					
A\$ mn	161	120	137	115	108
Percentage PSE	5	3	4	3	3
Producer NAC	1.06	1.03	1.04	1.03	1.03
Sheepmeat					
A\$ mn	14	27	31	26	24
Percentage PSE	2	3	3	3	3
Producer NAC	1.02	1.03	1.04	1.03	1.03
Wool					
A\$ mn	87	102	123	92	91
Percentage PSE	2	4	5	4	4
Producer NAC	1.02	1.05	1.05	1.05	1.04
Pigmeat					
A\$ mn	8	14	12	13	17
Percentage PSE	2	2	2	2	2
Producer NAC	1.02	1.02	1.02	1.02	1.02
Poultry					
A\$ mn	18	24	22	24	25
Percentage PSE	3	2	2	2	2
Producer NAC	1.03	1.02	1.02	1.02	1.02
Eggs					
A\$ mn	44	12	12	12	13
Percentage PSE	17	4	4	4	4
Producer NAC	1.21	1.04	1.05	1.04	1.04
Other commodities					
A\$ mn	422	486	511	495	451
Percentage PSE	8	5	5	5	4
Producer NAC	1.08	1.05	1.05	1.05	1.05
All commodities					
A\$ mn	1 670	1 995	2 107	1 994	1 884
Percentage PSE	8	7	7	7	6
Producer NAC	1.09	1.07	1.08	1.07	1.07

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities.

Source: OECD, PSE/CSE database.

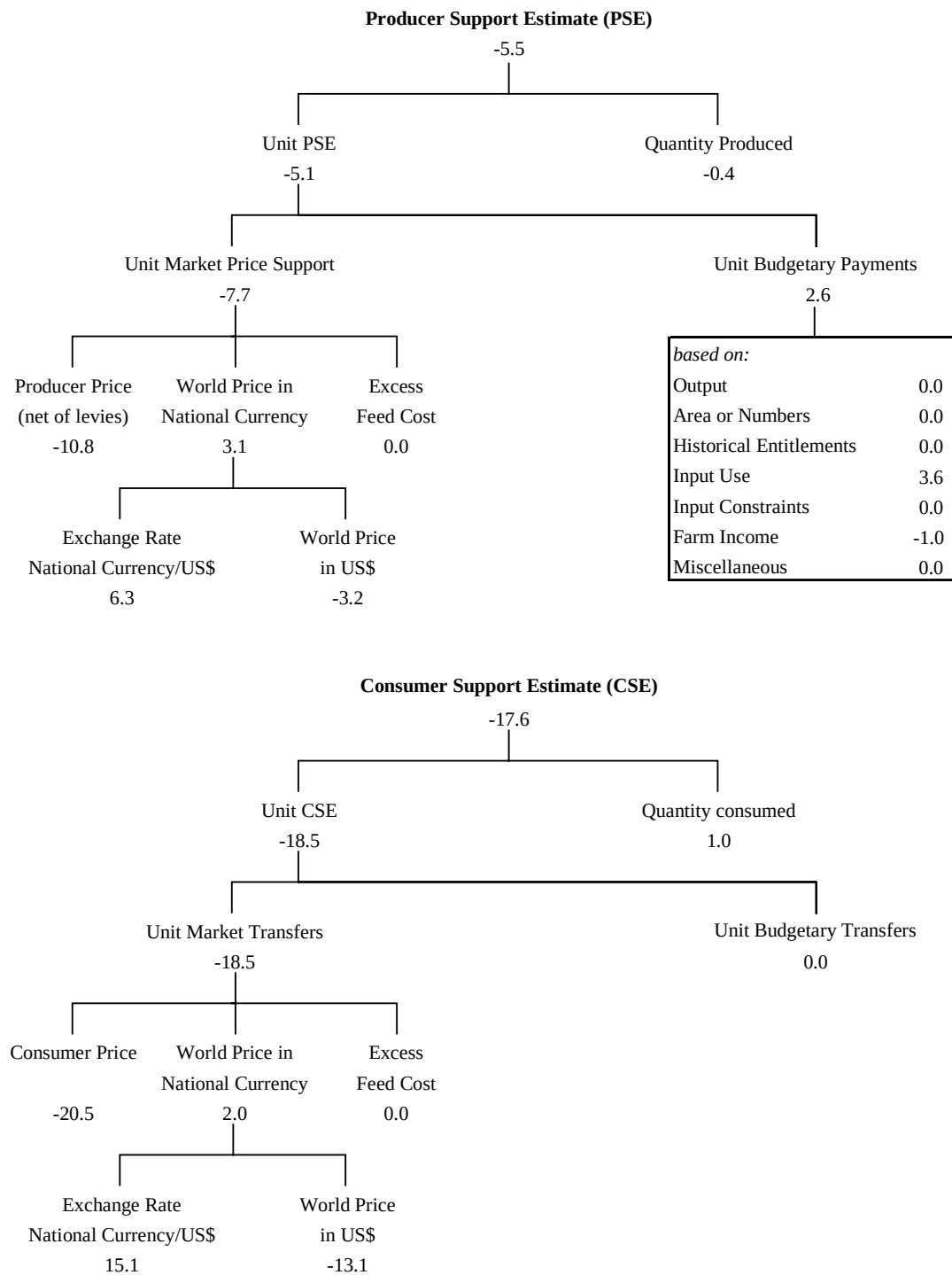
Table III.22. Australia: Consumer Support Estimate by commodity

	1986-88	1997-99	1997	1998	1999p
Wheat					
A\$ mn	-2	0	0	0	0
Percentage CSE	-1	0	0	0	0
Consumer NAC	1.01	1.00	1.00	1.00	1.00
Maize					
A\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains					
A\$ mn	0	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Rice					
A\$ mn	-4	-1	-1	-1	-2
Percentage CSE	-12	-2	-1	-2	-2
Consumer NAC	1.14	1.02	1.01	1.02	1.02
Oilseeds					
A\$ mn	0	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Sugar (refined equivalent)					
A\$ mn	-16	0	0	0	0
Percentage CSE	-11	0	0	0	0
Consumer NAC	1.12	1.00	1.00	1.00	1.00
Milk					
A\$ mn	-278	-251	-312	-240	-199
Percentage CSE	-30	-19	-22	-19	-17
Consumer NAC	1.45	1.24	1.28	1.24	1.20
Beef and Veal					
A\$ mn	0	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Sheepmeat					
A\$ mn	0	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Wool					
A\$ mn	0	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Pigmeat					
A\$ mn	0	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Poultry					
A\$ mn	0	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Eggs					
A\$ mn	-36	-5	-5	-5	-5
Percentage CSE	-14	-2	-2	-2	-2
Consumer NAC	1.18	1.02	1.02	1.02	1.02
Other commodities					
A\$ mn	-88	-110	-136	-107	-86
Percentage CSE	-7	-3	-4	-3	-3
Consumer NAC	1.07	1.04	1.04	1.04	1.03
All commodities					
A\$ mn	-423	-367	-455	-354	-292
Percentage CSE	-7	-3	-4	-3	-3
Consumer NAC	1.07	1.04	1.04	1.04	1.03

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.
The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for common (PSE) commodities.

Source: OECD, PSE/CSE database.

Figure III.2. **Australia: Decomposition of PSE and CSE changes, 1998 to 1999.**
All commodities - total



Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed -7.7 percentage points to the -5.5 percent change in PSE. See Part II.2. for detailed explanations.

Table III.23. **Canada: Estimates of support to agriculture**
(C\$ mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	18 420	27 937	28 737	27 917	27 157
<i>of which share of common commodities (%)</i>	83	78	79	78	77
Total value of consumption (at farm gate)	15 263	19 325	19 559	18 998	19 419
Producer Support Estimate (PSE)	7 452	5 136	4 312	5 300	5 798
Market price support	3 674	3 074	2 751	3 159	3 312
<i>of which common commodities</i>	3 033	2 389	2 172	2 461	2 535
Payments based on output	1 263	381	340	352	450
Payments based on area planted/animal numbers	1 217	256	178	233	356
Payments based on historical entitlements	0	1	3	0	0
Payments based on input use	1 134	480	574	430	436
Payments based on input constraints	10	0	0	0	0
Payments based on overall farming income	0	911	442	1 097	1 192
Miscellaneous payments	153	35	24	30	51
Percentage PSE	34	17	14	18	20
Producer NAC	1.51	1.21	1.17	1.21	1.24
General Services Support Estimate (GSSE)	1 907	1 770	1 816	1 932	1 563
Research and development	332	366	385	377	337
Agricultural schools	277	267	266	284	252
Inspection services	327	379	366	403	368
Infrastructure	473	316	299	347	302
Marketing and promotion	498	441	500	520	304
Public stockholding	0	0	0	0	0
Miscellaneous	0	0	0	0	0
GSSE as a share of TSE (%)	20.5	25.9	29.6	26.7	21.2
Consumer Support Estimate (CSE)	-3 306	-3 128	-2 796	-3 227	-3 360
Transfers to producers from consumers	-3 628	-3 081	-2 783	-3 148	-3 312
Other transfers from consumers	-40	-47	-14	-79	-49
Transfers to consumers from taxpayers	53	0	0	0	0
Excess feed cost	310	0	1	0	0
Percentage CSE	-22	-16	-14	-17	-17
Consumer NAC	1.28	1.19	1.17	1.20	1.21
Total Support Estimate (TSE)	9 412	6 907	6 127	7 232	7 361
Transfers from consumers	3 669	3 128	2 797	3 227	3 360
Transfers from taxpayers	5 784	3 826	3 344	4 084	4 049
Budget revenues	-40	-47	-14	-79	-49
TSE as a share of GDP (%)	1.7	0.8	0.7	0.8	0.8

Notes: See Part II.2 for detailed explanations. p: provisional; NAC: Nominal Assistance Coefficient.

Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.24. Canada: Producer Support Estimate by commodity

	1986-88	1997-99	1997	1998	1999p
Wheat					
C\$ mn	2 047	327	245	341	395
Percentage PSE	45	9	6	10	11
Producer NAC	1.83	1.10	1.07	1.11	1.13
Maize					
C\$ mn	210	108	70	108	146
Percentage PSE	25	14	9	14	19
Producer NAC	1.36	1.16	1.10	1.16	1.24
Other grains					
C\$ mn	710	83	67	82	101
Percentage PSE	54	7	6	7	9
Producer NAC	2.50	1.08	1.07	1.07	1.09
Rice					
C\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
C\$ mn	377	279	182	332	323
Percentage PSE	25	8	5	10	10
Producer NAC	1.34	1.09	1.06	1.11	1.12
Sugar (refined equivalent)					
C\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Milk					
C\$ mn	2 293	2 358	2 166	2 452	2 456
Percentage PSE	61	57	53	59	58
Producer NAC	2.61	2.32	2.12	2.45	2.40
Beef and Veal					
C\$ mn	346	366	238	408	452
Percentage PSE	9	7	5	8	9
Producer NAC	1.10	1.08	1.05	1.09	1.09
Sheepmeat					
C\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool					
C\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
C\$ mn	98	222	149	197	320
Percentage PSE	5	8	5	8	12
Producer NAC	1.05	1.09	1.05	1.09	1.14
Poultry					
C\$ mn	191	71	104	62	48
Percentage PSE	18	4	7	4	3
Producer NAC	1.23	1.05	1.07	1.04	1.03
Eggs					
C\$ mn	126	180	173	151	216
Percentage PSE	25	37	35	31	44
Producer NAC	1.38	1.59	1.53	1.45	1.79
Other commodities					
C\$ mn	1 053	1 142	918	1 167	1 342
Percentage PSE	39	16	13	16	20
Producer NAC	1.67	1.19	1.15	1.19	1.24
All commodities					
C\$ mn	7 452	5 136	4 312	5 300	5 798
Percentage PSE	34	17	14	18	20
Producer NAC	1.51	1.21	1.17	1.21	1.24

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities.

Source: OECD, PSE/CSE database.

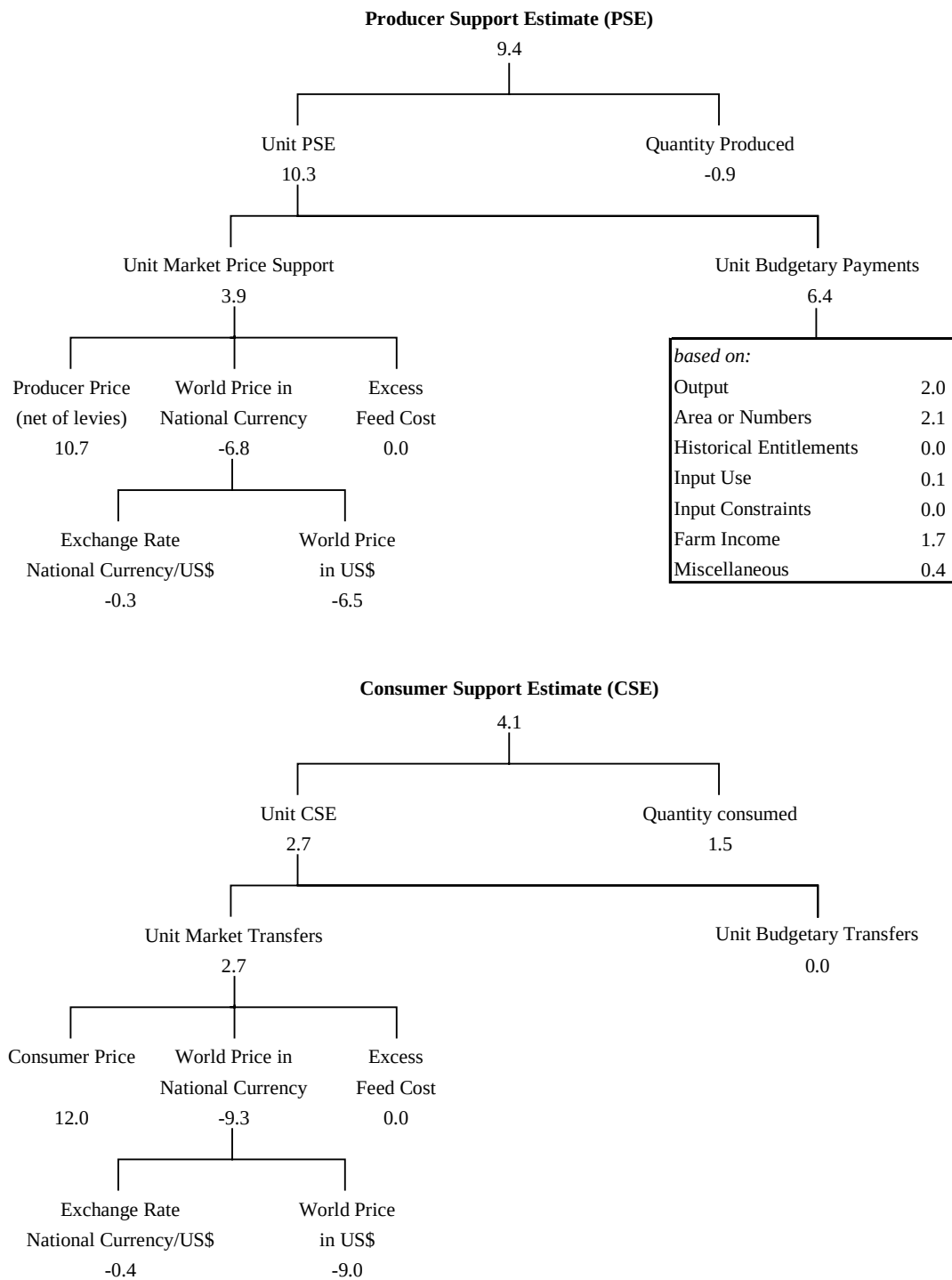
Table III.25. **Canada: Consumer Support Estimate by commodity**

	1986-88	1997-99	1997	1998	1999p
Wheat					
C\$ mn	-259	0	0	0	0
Percentage CSE	-25	0	0	0	0
Consumer NAC	1.38	1.00	1.00	1.00	1.00
Maize					
C\$ mn	-2	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Other grains					
C\$ mn	11	0	0	0	0
Percentage CSE	4	0	0	0	0
Consumer NAC	0.97	1.00	1.00	1.00	1.00
Rice					
C\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
C\$ mn	-46	0	0	0	0
Percentage CSE	-6	0	0	0	0
Consumer NAC	1.06	1.00	1.00	1.00	1.00
Sugar (refined equivalent)					
C\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Milk					
C\$ mn	-2 061	-2 211	-1 973	-2 319	-2 342
Percentage CSE	-63	-55	-51	-57	-57
Consumer NAC	2.84	2.23	2.03	2.34	2.32
Beef and Veal					
C\$ mn	-62	-5	-1	-13	0
Percentage CSE	-2	0	0	0	0
Consumer NAC	1.02	1.00	1.00	1.00	1.00
Sheepmeat					
C\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool					
C\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
C\$ mn	0	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Poultry					
C\$ mn	-157	-39	-66	-33	-19
Percentage CSE	-15	-3	-4	-2	-1
Consumer NAC	1.19	1.03	1.04	1.02	1.01
Eggs					
C\$ mn	-107	-176	-167	-150	-211
Percentage CSE	-23	-36	-33	-30	-43
Consumer NAC	1.34	1.56	1.50	1.43	1.76
Other commodities					
C\$ mn	-624	-697	-589	-713	-788
Percentage CSE	-24	-16	-14	-17	-17
Consumer NAC	1.31	1.19	1.17	1.20	1.21
All commodities					
C\$ mn	-3 306	-3 128	-2 796	-3 227	-3 360
Percentage CSE	-22	-16	-14	-17	-17
Consumer NAC	1.28	1.19	1.17	1.20	1.21

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient. The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for common (PSE) commodities.

Source: OECD, PSE/CSE database.

Figure III.3. **Canada: Decomposition of PSE and CSE changes, 1998 to 1999.**
All commodities - total



Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed 3.9 percentage points to the 9.4 percent change in PSE. See Part II.2. for detailed explanations.

Table III.26. **Czech Republic: Estimates of support to agriculture**
(CKr mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	91 684	125 055	127 107	129 057	119 000
<i>of which share of common commodities (%)</i>	67	71	72	72	69
Total value of consumption (at farm gate)	74 454	111 551	113 497	114 980	106 176
Producer Support Estimate (PSE)	61 966	23 957	11 719	28 359	31 793
Market price support	48 371	16 055	5 847	20 207	22 111
<i>of which common commodities</i>	32 976	11 390	4 225	14 617	15 327
Payments based on output	2 088	0	0	0	0
Payments based on area planted/animal numbers	0	850	332	1 032	1 186
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	3 001	4 773	5 540	4 186	4 594
Payments based on input constraints	0	39	0	48	70
Payments based on overall farming income	8 506	2 239	0	2 886	3 832
Miscellaneous payments	0	0	0	0	0
Percentage PSE	59	18	9	21	25
Producer NAC	2.48	1.23	1.10	1.26	1.33
General Services Support Estimate (GSSE)	781	3 424	3 489	3 408	3 374
Research and development	142	872	728	893	996
Agricultural schools	583	1 580	1 644	1 612	1 485
Inspection services	56	40	41	35	45
Infrastructure	..	921	1 066	858	838
Marketing and promotion	0	10	10	10	10
Public stockholding	0	0	0	0	0
Miscellaneous	0	0	0	0	0
GSSE as a share of TSE (%)	1.1	14.4	22.9	10.7	9.6
Consumer Support Estimate (CSE)	-29 111	-13 938	-4 163	-17 229	-20 421
Transfers to producers from consumers	-42 362	-13 229	-2 051	-18 417	-19 219
Other transfers from consumers	-78	-161	-162	-109	-213
Transfers to consumers from taxpayers	10 895	0	0	0	0
Excess feed cost	2 433	-547	-1 949	1 296	-989
Percentage CSE	-46	-13	-4	-15	-19
Consumer NAC	1.89	1.15	1.04	1.18	1.24
Total Support Estimate (TSE)	73 643	27 381	15 208	31 767	35 167
Transfers from consumers	42 439	13 391	2 214	18 526	19 432
Transfers from taxpayers	31 281	14 151	13 157	13 350	15 948
Budget revenues	-78	-161	-162	-109	-213
TSE as a share of GDP (%)	n.c.	1.5	0.9	1.7	1.9

Notes: See Part II.2 for detailed explanations. p: provisional, n.c.: not calculated; ..: not available.

NAC: Nominal Assistance Coefficient. Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.27. Czech Republic: Producer Support Estimate by commodity

	1986-88	1997-99	1997	1998	1999p
Wheat					
CKr mn	2 479	130	-1 333	1 357	368
Percentage PSE	36	1	-9	10	3
Producer NAC	1.60	1.02	0.92	1.11	1.03
Maize					
CKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains					
CKr mn	2 686	18	-994	1 549	-500
Percentage PSE	52	1	-11	22	-8
Producer NAC	2.30	1.04	0.90	1.29	0.92
Rice					
CKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
CKr mn	561	-1 048	-962	-1 328	-854
Percentage PSE	45	-23	-25	-27	-16
Producer NAC	1.88	0.82	0.80	0.79	0.86
Sugar (refined equivalent)					
CKr mn	1 514	736	747	588	872
Percentage PSE	64	27	23	20	38
Producer NAC	2.91	1.39	1.30	1.25	1.62
Milk					
CKr mn	13 179	7 932	6 183	9 819	7 795
Percentage PSE	62	36	30	43	36
Producer NAC	2.80	1.58	1.42	1.76	1.56
Beef and Veal					
CKr mn	9 203	1 331	1 391	1 795	807
Percentage PSE	73	13	13	17	8
Producer NAC	3.75	1.15	1.15	1.20	1.09
Sheepmeat					
CKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool					
CKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
CKr mn	7 983	3 444	-146	1 439	9 038
Percentage PSE	58	16	-1	6	43
Producer NAC	2.39	1.27	0.99	1.07	1.75
Poultry					
CKr mn	2 128	2 313	1 646	2 804	2 490
Percentage PSE	63	38	31	40	42
Producer NAC	2.76	1.61	1.46	1.66	1.72
Eggs					
CKr mn	1 863	2 277	2 272	2 553	2 007
Percentage PSE	51	38	34	38	40
Producer NAC	2.12	1.61	1.53	1.62	1.68
Other commodities					
CKr mn	20 368	6 823	2 914	7 783	9 771
Percentage PSE	59	18	8	21	25
Producer NAC	2.46	1.22	1.08	1.26	1.33
All commodities					
CKr mn	61 966	23 957	11 719	28 359	31 793
Percentage PSE	59	18	9	21	25
Producer NAC	2.48	1.23	1.10	1.26	1.33

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities.

Source: OECD, PSE/CSE database.

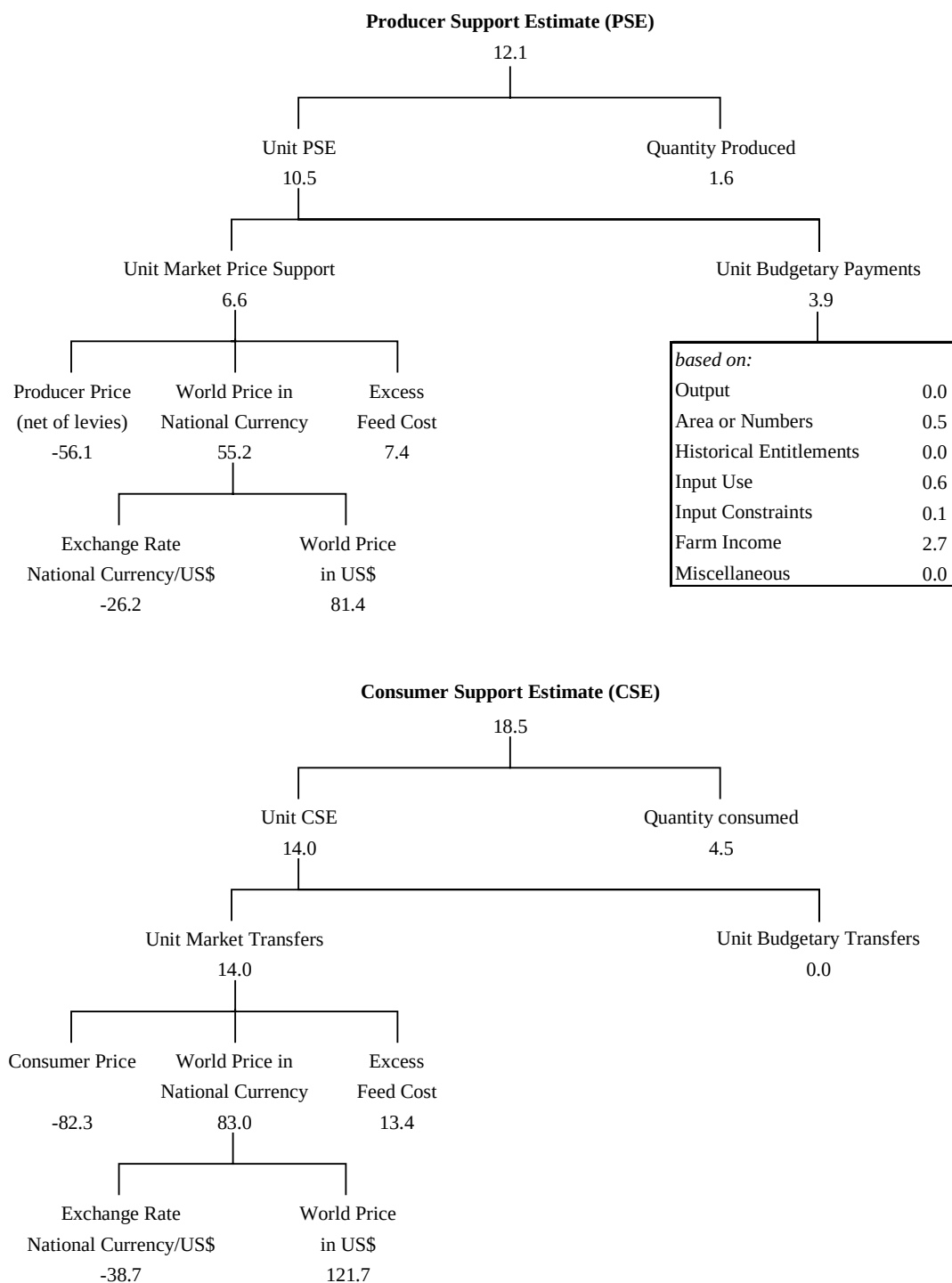
Table III.28. Czech Republic: Consumer Support Estimate by commodity

	1986-88	1997-99	1997	1998	1999p
Wheat					
CKr mn	232	197	633	-201	159
Percentage CSE	5	2	5	-2	2
Consumer NAC	0.95	0.99	0.96	1.02	0.98
Maize					
CKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains					
CKr mn	-421	73	271	-298	245
Percentage CSE	-10	1	3	-4	4
Consumer NAC	1.11	0.99	0.97	1.05	0.96
Rice					
CKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
CKr mn	-363	925	942	1 117	717
Percentage CSE	-36	29	29	34	25
Consumer NAC	1.60	0.78	0.77	0.75	0.80
Sugar (refined equivalent)					
CKr mn	-330	-600	-570	-375	-855
Percentage CSE	-35	-23	-21	-16	-34
Consumer NAC	1.61	1.32	1.26	1.19	1.51
Milk					
CKr mn	179	-4 317	-3 005	-5 814	-4 133
Percentage CSE	4	-30	-22	-40	-29
Consumer NAC	1.04	1.45	1.29	1.66	1.41
Beef and Veal					
CKr mn	-5 189	-254	-181	-844	263
Percentage CSE	-64	-3	-2	-9	3
Consumer NAC	2.92	1.03	1.02	1.10	0.97
Sheepmeat					
CKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool					
CKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
CKr mn	-6 820	-2 203	1 546	-940	-7 214
Percentage CSE	-60	-11	8	-4	-37
Consumer NAC	2.52	1.18	0.93	1.04	1.58
Poultry					
CKr mn	-1 454	-2 017	-1 399	-2 584	-2 068
Percentage CSE	-61	-33	-25	-38	-36
Consumer NAC	2.56	1.51	1.34	1.62	1.57
Eggs					
CKr mn	-1 436	-1 842	-1 787	-2 166	-1 572
Percentage CSE	-49	-33	-29	-37	-35
Consumer NAC	2.10	1.51	1.40	1.59	1.53
Other commodities					
CKr mn	-13 509	-3 900	-614	-5 125	-5 962
Percentage CSE	-57	-12	-2	-16	-18
Consumer NAC	2.41	1.15	1.02	1.19	1.22
All commodities					
CKr mn	-29 111	-13 938	-4 163	-17 229	-20 421
Percentage CSE	-46	-13	-4	-15	-19
Consumer NAC	1.89	1.15	1.04	1.18	1.24

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient. The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for common (PSE) commodities.

Source: OECD, PSE/CSE database.

Figure III.4. **Czech Republic: Decomposition of PSE and CSE changes, 1998 to 1999.**
All commodities - total



Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed 6.6 percentage points to the 12.1 percent change in PSE. See Part II.2. for detailed explanations.

Table III.29. **European Union: Estimates of support to agriculture**
(Euro mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	182 471	200 162	217 538	202 717	180 232
<i>of which share of common commodities (%)</i>	68	62	61	61	63
Total value of consumption (at farm gate)	169 961	190 014	205 955	189 788	174 298
Producer Support Estimate (PSE)	86 332	105 467	99 056	109 929	107 416
Market price support	73 076	63 705	55 750	67 978	67 388
<i>of which common commodities</i>	50 059	39 414	34 098	41 597	42 548
Payments based on output	5 327	3 465	3 435	3 422	3 539
Payments based on area planted/animal numbers	2 157	24 115	24 625	24 086	23 636
Payments based on historical entitlements	0	543	850	740	39
Payments based on input use	5 063	8 501	8 628	8 527	8 348
Payments based on input constraints	643	4 641	5 498	4 519	3 905
Payments based on overall farming income	0	0	0	0	0
Miscellaneous payments	65	496	270	658	562
Percentage PSE	44	44	38	45	49
Producer NAC	1.79	1.79	1.61	1.82	1.95
General Services Support Estimate (GSSE)	9 746	7 228	7 243	7 406	7 034
Research and development	971	1 615	1 651	1 659	1 536
Agricultural schools	132	68	79	78	46
Inspection services	164	293	279	310	288
Infrastructure	775	1 641	1 563	1 775	1 587
Marketing and promotion	2 666	1 874	1 731	1 956	1 935
Public stockholding	5 011	1 655	1 857	1 546	1 561
Miscellaneous	26	82	82	82	82
GSSE as a share of TSE (%)	9.7	6.2	6.6	6.1	6.0
Consumer Support Estimate (CSE)	-65 472	-57 564	-50 510	-60 468	-61 715
Transfers to producers from consumers	-75 554	-61 280	-53 451	-65 939	-64 449
Other transfers from consumers	-1 868	-1 700	-1 471	-936	-2 694
Transfers to consumers from taxpayers	4 223	3 845	3 968	3 881	3 687
Excess feed cost	7 726	1 570	444	2 525	1 741
Percentage CSE	-40	-31	-25	-33	-36
Consumer NAC	1.66	1.46	1.33	1.48	1.57
Total Support Estimate (TSE)	100 301	116 540	110 267	121 216	118 137
Transfers from consumers	77 422	62 980	54 922	66 875	67 143
Transfers from taxpayers	24 746	55 260	56 815	55 277	53 688
Budget revenues	-1 868	-1 700	-1 471	-936	-2 694
TSE as a share of GDP (%)	2.6	1.5	1.5	1.6	1.5

Notes: See Part II.2 for detailed explanations. p: provisional; NAC: Nominal Assistance Coefficient.

EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.

Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.30. **European Union: Producer Support Estimate by commodity**

	1986-88	1997-99	1997	1998	1999p
Wheat					
Euro mn	8 635	11 893	10 151	12 972	12 556
Percentage PSE	55	53	44	55	58
Producer NAC	2.22	2.14	1.79	2.24	2.38
Maize					
Euro mn	2 986	2 539	2 462	2 613	2 542
Percentage PSE	54	40	35	42	42
Producer NAC	2.21	1.67	1.55	1.73	1.72
Other grains					
Euro mn	6 127	8 936	8 306	9 760	8 743
Percentage PSE	60	65	56	71	67
Producer NAC	2.64	2.93	2.27	3.46	3.06
Rice					
Euro mn	359	174	168	141	214
Percentage PSE	57	23	20	18	29
Producer NAC	2.32	1.30	1.25	1.22	1.42
Oilseeds					
Euro mn	4 002	2 927	3 300	3 020	2 461
Percentage PSE	66	47	49	46	46
Producer NAC	2.95	1.89	1.95	1.86	1.85
Sugar (refined equivalent)					
Euro mn	2 812	2 629	2 356	2 588	2 942
Percentage PSE	60	51	44	51	58
Producer NAC	2.49	2.07	1.78	2.04	2.41
Milk					
Euro mn	17 217	20 162	18 238	20 843	21 406
Percentage PSE	56	54	48	56	58
Producer NAC	2.32	2.21	1.94	2.29	2.40
Beef and Veal					
Euro mn	13 039	18 688	18 408	19 004	18 653
Percentage PSE	48	58	56	59	60
Producer NAC	1.96	2.40	2.27	2.44	2.50
Sheepmeat					
Euro mn	3 696	3 376	3 640	3 224	3 264
Percentage PSE	71	53	53	53	54
Producer NAC	3.50	2.14	2.11	2.14	2.16
Wool					
Euro mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
Euro mn	217	1 828	2 220	2 029	1 234
Percentage PSE	1	11	10	12	10
Producer NAC	1.03	1.12	1.11	1.13	1.12
Poultry					
Euro mn	1 279	1 625	1 490	913	2 473
Percentage PSE	22	23	20	12	35
Producer NAC	1.29	1.31	1.25	1.14	1.55
Eggs					
Euro mn	571	349	60	408	580
Percentage PSE	12	9	1	10	16
Producer NAC	1.14	1.11	1.01	1.11	1.19
Other commodities					
Euro mn	25 709	30 837	28 435	33 079	30 997
Percentage PSE	43	38	31	39	43
Producer NAC	1.75	1.61	1.45	1.63	1.75
All commodities					
Euro mn	86 332	105 467	99 056	109 929	107 416
Percentage PSE	44	44	38	45	49
Producer NAC	1.79	1.79	1.61	1.82	1.95

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

UE-12 for 1986-94, UE-15 from 1995, EU includes ex-GDR from 1990.

The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities.

Source: OECD, PSE/CSE database.

Table III.31. **European Union: Consumer Support Estimate by commodity**

	1986-88	1997-99	1997	1998	1999p
Wheat					
Euro mn	-3 546	-481	258	-804	-897
Percentage CSE	-32	-6	2	-9	-10
Consumer NAC	1.47	1.06	0.98	1.09	1.12
Maize					
Euro mn	-466	-41	-27	-98	0
Percentage CSE	-8	-1	-1	-2	0
Consumer NAC	1.09	1.01	1.01	1.02	1.00
Other grains					
Euro mn	-938	-257	-92	-460	-219
Percentage CSE	-12	-5	-2	-9	-5
Consumer NAC	1.14	1.06	1.02	1.10	1.05
Rice					
Euro mn	-358	-103	-127	-78	-104
Percentage CSE	-57	-17	-20	-13	-20
Consumer NAC	2.35	1.21	1.25	1.15	1.24
Oilseeds					
Euro mn	-325	-465	-644	-497	-256
Percentage CSE	-6	-6	-8	-7	-4
Consumer NAC	1.06	1.07	1.09	1.07	1.04
Sugar (refined equivalent)					
Euro mn	-2 887	-2 251	-2 007	-2 341	-2 405
Percentage CSE	-61	-55	-48	-55	-61
Consumer NAC	2.56	2.23	1.92	2.21	2.56
Milk					
Euro mn	-13 934	-16 720	-14 712	-17 369	-18 079
Percentage CSE	-59	-53	-46	-55	-57
Consumer NAC	2.54	2.14	1.86	2.22	2.32
Beef and Veal					
Euro mn	-11 724	-11 917	-11 107	-11 479	-13 165
Percentage CSE	-48	-46	-43	-47	-49
Consumer NAC	1.95	1.87	1.75	1.89	1.95
Sheepmeat					
Euro mn	-3 088	-297	-351	-478	-61
Percentage CSE	-64	-8	-8	-13	-2
Consumer NAC	2.86	1.08	1.09	1.14	1.02
Wool					
Euro mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
Euro mn	-2 772	-1 711	-1 386	-2 259	-1 488
Percentage CSE	-17	-13	-7	-15	-15
Consumer NAC	1.22	1.15	1.08	1.18	1.18
Poultry					
Euro mn	-2 270	-1 559	-1 379	-1 011	-2 287
Percentage CSE	-41	-25	-21	-16	-38
Consumer NAC	1.71	1.35	1.26	1.19	1.61
Eggs					
Euro mn	-904	-381	-69	-460	-614
Percentage CSE	-19	-10	-2	-12	-17
Consumer NAC	1.24	1.12	1.02	1.14	1.21
Other commodities					
Euro mn	-22 090	-21 366	-18 612	-23 275	-22 212
Percentage CSE	-43	-31	-24	-33	-36
Consumer NAC	1.76	1.46	1.32	1.49	1.56
All commodities					
Euro mn	-65 472	-57 564	-50 510	-60 468	-61 715
Percentage CSE	-40	-31	-25	-33	-36
Consumer NAC	1.66	1.46	1.33	1.48	1.57

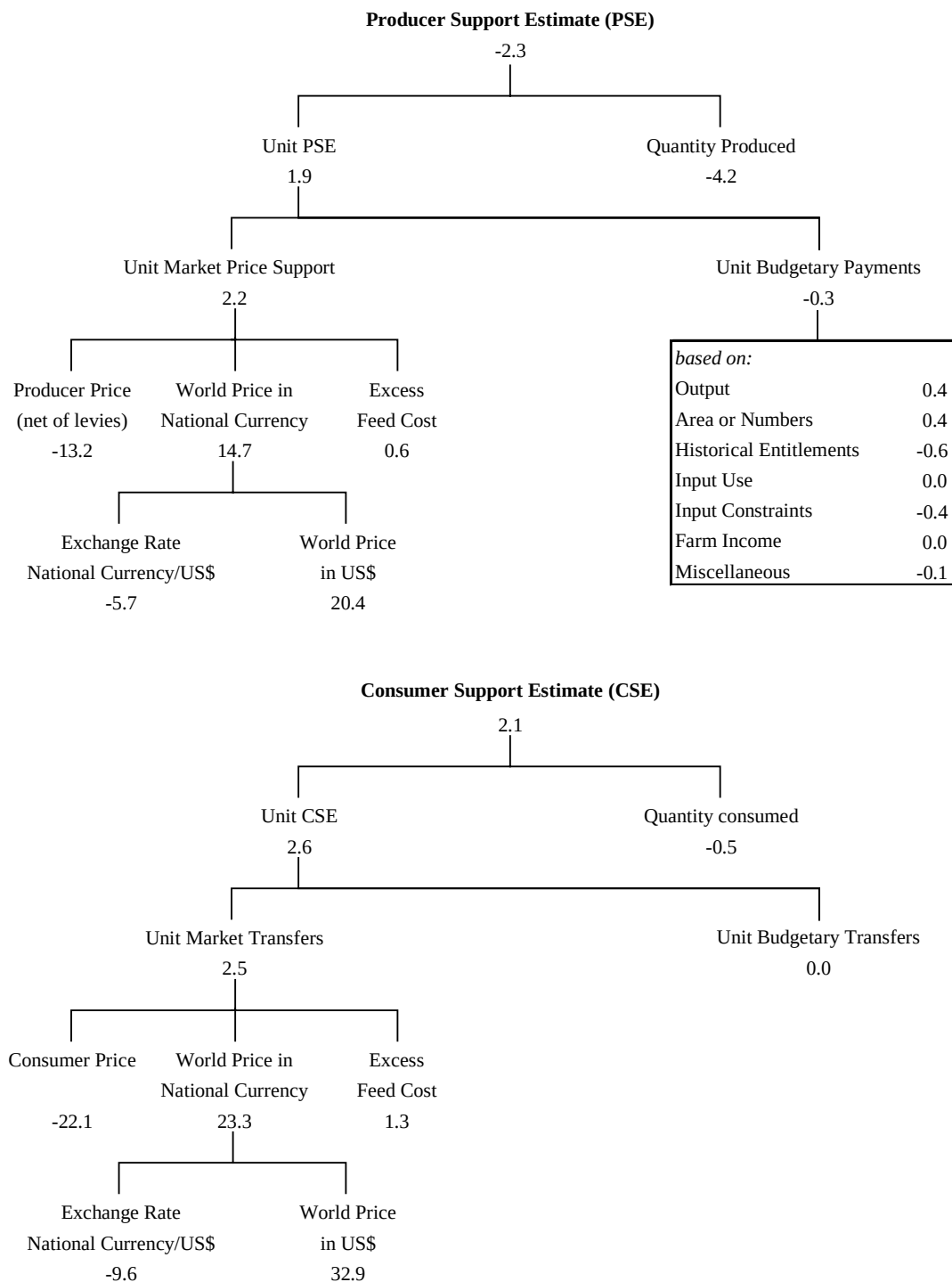
Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.

The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for common (PSE) commodities.

Source: OECD, PSE/CSE database.

Figure III.5. European Union: Decomposition of PSE and CSE changes, 1998 to 1999.
All commodities - total



Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed 2.2 percentage points to the -2.3 percent change in PSE. See Part II.2. for detailed explanations.

Table III.32. **Hungary: Estimates of support to agriculture**
(Ft mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	287 762	1 014 784	994 251	1 071 100	979 000
<i>of which share of common commodities (%)</i>	69	72	72	68	76
Total value of consumption (at farm gate)	239 641	742 786	712 365	770 262	745 731
Producer Support Estimate (PSE)	124 391	144 892	73 498	148 376	212 804
Market price support	93 926	58 893	14 407	52 442	109 832
<i>of which common commodities</i>	64 384	43 052	10 323	35 642	83 190
Payments based on output	0	19 409	8 380	21 399	28 448
Payments based on area planted/animal numbers	0	0	0	0	0
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	10 833	52 774	41 140	61 497	55 686
Payments based on input constraints	0	449	693	554	100
Payments based on overall farming income	18 832	13 265	8 879	12 484	18 433
Miscellaneous payments	800	102	0	0	305
Percentage PSE	39	13	7	13	20
Producer NAC	1.65	1.16	1.08	1.15	1.24
General Services Support Estimate (GSSE)	3 437	33 940	17 140	36 704	47 976
Research and development	137	3 911	2 218	3 734	5 781
Agricultural schools	199	2 035	1 515	2 234	2 356
Inspection services	1 882	25 633	12 170	28 584	36 145
Infrastructure	1 220	1 138	760	960	1 695
Marketing and promotion	0	1 223	478	1 192	2 000
Public stockholding	0	0	0	0	0
Miscellaneous	0	0	0	0	0
GSSE as a share of TSE (%)	2.5	19.0	18.9	19.8	18.4
Consumer Support Estimate (CSE)	-65 063	-61 598	-28 040	-57 997	-98 757
Transfers to producers from consumers	-77 449	-41 915	-1 447	-38 828	-85 470
Other transfers from consumers	-253	-329	133	-288	-833
Transfers to consumers from taxpayers	12 233	0	0	0	0
Excess feed cost	406	-19 354	-26 726	-18 881	-12 454
Percentage CSE	-29	-8	-4	-8	-13
Consumer NAC	1.41	1.09	1.04	1.08	1.15
Total Support Estimate (TSE)	140 062	178 833	90 639	185 079	260 780
Transfers from consumers	77 703	42 244	1 315	39 115	86 303
Transfers from taxpayers	62 613	136 918	89 192	146 252	175 310
Budget revenues	-253	-329	133	-288	-833
TSE as a share of GDP (%)	n.c.	1.7	1.1	1.8	2.2

Notes: See Part II.2 for detailed explanations. p: provisional, n.c.: not calculated; NAC: Nominal Assistance Coefficient.

Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.33. Hungary: Producer Support Estimate by commodity

	1986-88	1997-99	1997	1998	1999p
Wheat					
Ft mn	2 602	-5 689	-15 103	-6 655	4 691
Percentage PSE	11	-4	-13	-7	8
Producer NAC	1.15	0.97	0.88	0.93	1.09
Maize					
Ft mn	2 457	-26 796	-37 088	-29 013	-14 287
Percentage PSE	8	-23	-32	-27	-10
Producer NAC	1.11	0.82	0.76	0.78	0.91
Other grains					
Ft mn	1 454	2 705	-1 727	6 246	3 595
Percentage PSE	37	11	-6	23	15
Producer NAC	1.72	1.14	0.95	1.30	1.18
Rice					
Ft mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
Ft mn	2 559	5 635	336	1 197	15 370
Percentage PSE	27	11	1	3	29
Producer NAC	1.45	1.15	1.01	1.03	1.41
Sugar (refined equivalent)					
Ft mn	2 968	8 032	8 379	7 805	7 912
Percentage PSE	55	49	48	45	54
Producer NAC	2.39	1.98	1.93	1.82	2.19
Milk					
Ft mn	10 400	57 293	39 210	65 519	67 149
Percentage PSE	45	48	41	53	50
Producer NAC	1.92	1.94	1.69	2.14	1.99
Beef and Veal					
Ft mn	10 448	2 153	2 532	2 592	1 335
Percentage PSE	69	10	12	11	5
Producer NAC	3.28	1.11	1.14	1.12	1.06
Sheepmeat					
Ft mn	1 697	532	-94	1 270	422
Percentage PSE	39	7	-1	17	5
Producer NAC	1.64	1.09	0.99	1.21	1.06
Wool					
Ft mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
Ft mn	33 249	-1 318	2 648	-6 503	-100
Percentage PSE	53	-1	2	-3	0
Producer NAC	2.14	0.99	1.02	0.97	1.00
Poultry					
Ft mn	12 015	41 041	30 295	33 094	59 734
Percentage PSE	44	33	28	27	43
Producer NAC	1.81	1.50	1.39	1.37	1.75
Eggs					
Ft mn	5 411	21 846	25 309	25 712	14 516
Percentage PSE	48	48	51	56	36
Producer NAC	2.03	1.95	2.05	2.25	1.56
Other commodities					
Ft mn	39 133	39 460	18 802	47 111	52 467
Percentage PSE	40	13	6	13	20
Producer NAC	1.66	1.15	1.07	1.14	1.25
All commodities					
Ft mn	124 391	144 892	73 498	148 376	212 804
Percentage PSE	39	13	7	13	20
Producer NAC	1.65	1.16	1.08	1.15	1.24

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities.

Source: OECD, PSE/CSE database.

Table III.34. Hungary: Consumer Support Estimate by commodity

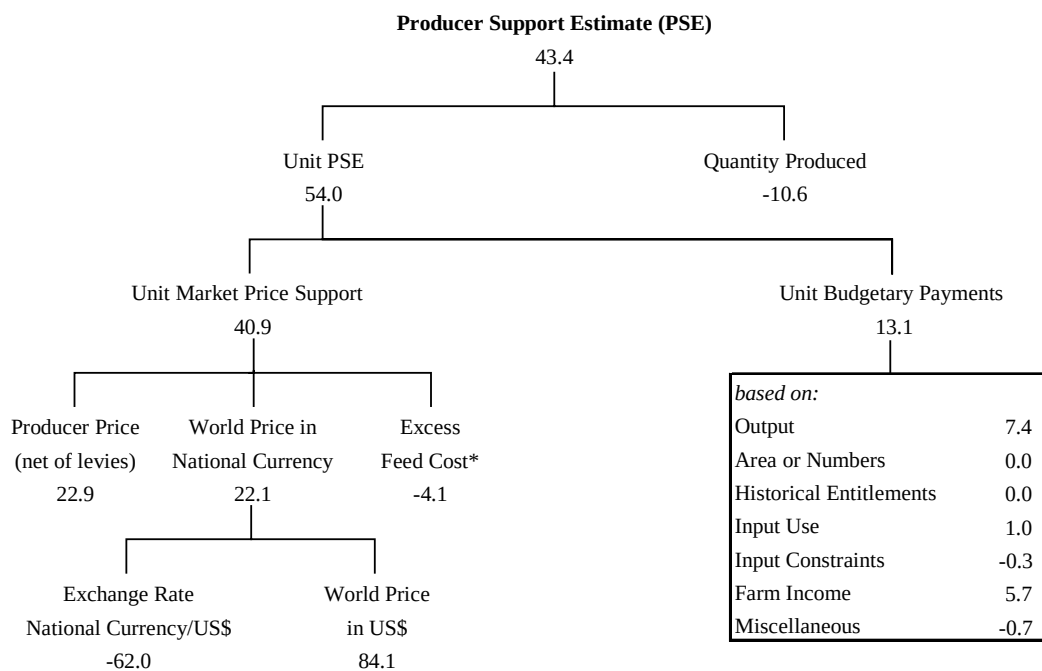
	1986-88	1997-99	1997	1998	1999p
Wheat					
Ft mn	9	5 127	8 475	6 252	653
Percentage CSE	0	8	12	12	1
Consumer NAC	1.01	0.92	0.89	0.89	0.99
Maize					
Ft mn	78	9 287	11 271	9 655	6 935
Percentage CSE	0	12	14	13	8
Consumer NAC	1.00	0.90	0.88	0.88	0.93
Other grains					
Ft mn	-396	-598	539	-1 860	-474
Percentage CSE	-9	-2	2	-7	-2
Consumer NAC	1.10	1.03	0.98	1.08	1.02
Rice					
Ft mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
Ft mn	-1 442	-2 206	1 018	2 191	-9 826
Percentage CSE	-19	-4	4	6	-21
Consumer NAC	1.31	1.06	0.96	0.95	1.27
Sugar (refined equivalent)					
Ft mn	-1 912	-6 768	-7 630	-5 647	-7 027
Percentage CSE	-51	-45	-46	-40	-49
Consumer NAC	2.17	1.83	1.84	1.68	1.98
Milk					
Ft mn	-33	-37 054	-26 216	-42 123	-42 823
Percentage CSE	-2	-41	-33	-47	-43
Consumer NAC	1.08	1.71	1.50	1.88	1.76
Beef and Veal					
Ft mn	-6 019	1 256	1 263	847	1 659
Percentage CSE	-64	7	8	4	9
Consumer NAC	2.84	0.93	0.92	0.96	0.92
Sheepmeat					
Ft mn	-277	120	465	-305	198
Percentage CSE	-29	3	13	-8	6
Consumer NAC	1.41	0.97	0.89	1.09	0.95
Wool					
Ft mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
Ft mn	-23 116	12 767	11 098	15 613	11 589
Percentage CSE	-44	14	13	17	13
Consumer NAC	1.81	0.87	0.89	0.85	0.88
Poultry					
Ft mn	-3 619	-17 821	-11 535	-12 094	-29 833
Percentage CSE	-32	-22	-17	-16	-34
Consumer NAC	1.48	1.30	1.20	1.18	1.51
Eggs					
Ft mn	-3 950	-14 428	-16 415	-17 996	-8 874
Percentage CSE	-44	-39	-44	-48	-27
Consumer NAC	1.89	1.68	1.78	1.91	1.36
Other commodities					
Ft mn	-24 386	-11 279	-373	-12 530	-20 934
Percentage CSE	-33	-6	0	-5	-12
Consumer NAC	1.51	1.06	1.00	1.05	1.13
All commodities					
Ft mn	-65 063	-61 598	-28 040	-57 997	-98 757
Percentage CSE	-29	-8	-4	-8	-13
Consumer NAC	1.41	1.09	1.04	1.08	1.15

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

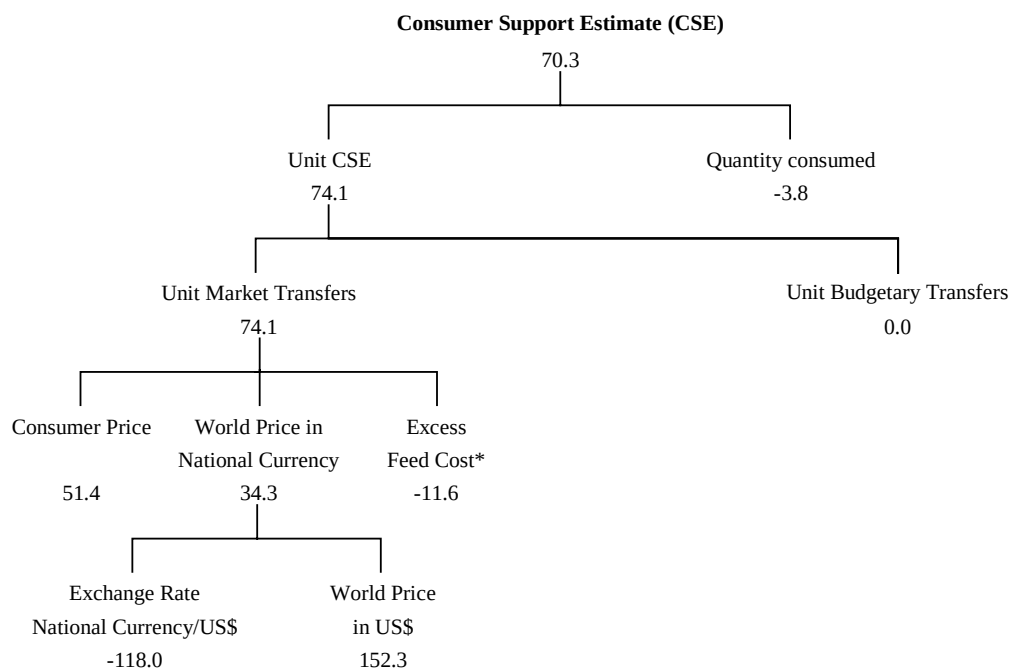
The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for common (PSE) commodities.

Source: OECD, PSE/CSE database.

Figure III.6. **Hungary: Decomposition of PSE and CSE changes, 1998 to 1999.**
All commodities - total



Feed Cost was negative in both periods.



Feed Cost was negative in both periods.

Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed 40.9 percentage points to the 43.4 percent change in PSE.

See Part II.2. for detailed explanations.

Table III.35. **Iceland: Estimates of support to agriculture**
(IKr mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	9 644	11 434	10 771	11 642	11 890
<i>of which share of common commodities (%)</i>	<i>81</i>	<i>74</i>	<i>74</i>	<i>74</i>	<i>75</i>
Total value of consumption (at farm gate)	8 625	10 728	10 206	10 997	10 982
Producer Support Estimate (PSE)	7 935	10 786	9 070	11 501	11 787
Market price support	6 921	5 517	4 029	6 058	6 465
<i>of which common commodities</i>	<i>5 623</i>	<i>4 104</i>	<i>2 971</i>	<i>4 502</i>	<i>4 839</i>
Payments based on output	113	2 905	2 719	2 979	3 015
Payments based on area planted/animal numbers	48	0	0	0	0
Payments based on historical entitlements	0	1 554	1 548	1 535	1 578
Payments based on input use	853	811	774	929	729
Payments based on input constraints	0	0	0	0	0
Payments based on overall farming income	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE	74	64	57	67	68
Producer NAC	3.93	2.86	2.35	3.06	3.17
General Services Support Estimate (GSSE)	935	1 279	1 298	1 349	1 191
Research and development	93	170	142	182	185
Agricultural schools	149	348	342	367	334
Inspection services	39	104	95	101	118
Infrastructure	281	393	481	414	283
Marketing and promotion	10	28	31	27	27
Public stockholding	359	228	200	250	236
Miscellaneous	5	8	9	8	9
GSSE as a share of TSE (%)	8.7	10.7	12.5	10.4	9.2
Consumer Support Estimate (CSE)	-4 669	-5 344	-4 061	-5 794	-6 176
Transfers to producers from consumers	-6 303	-5 368	-4 035	-5 870	-6 198
Other transfers from consumers	-71	-6	0	-11	-6
Transfers to consumers from taxpayers	1 705	30	-26	87	28
Excess feed cost	0	0	0	0	0
Percentage CSE	-67	-50	-40	-53	-56
Consumer NAC	3.13	2.03	1.66	2.13	2.29
Total Support Estimate (TSE)	10 575	12 095	10 342	12 938	13 007
Transfers from consumers	6 374	5 373	4 035	5 881	6 204
Transfers from taxpayers	4 272	6 728	6 307	7 068	6 809
Budget revenues	-71	-6	0	-11	-6
TSE as a share of GDP (%)	5.1	2.1	2.0	2.2	2.0

Notes: See Part II.2 for detailed explanations. p: provisional; NAC: Nominal Assistance Coefficient.

Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.36. **Iceland: Producer Support Estimate by commodity**

	1986-88	1997-99	1997	1998	1999p
Wheat					
IKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Maize					
IKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains					
IKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Rice					
IKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
IKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Sugar (refined equivalent)					
IKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Milk					
IKr mn	2 736	5 108	4 401	5 444	5 479
Percentage PSE	82	79	75	82	81
Producer NAC	5.60	4.90	4.08	5.44	5.17
Beef and Veal					
IKr mn	347	526	435	507	635
Percentage PSE	56	50	44	49	59
Producer NAC	2.35	2.05	1.78	1.95	2.42
Sheepmeat					
IKr mn	2 407	1 838	1 518	2 027	1 970
Percentage PSE	74	51	44	56	54
Producer NAC	3.99	2.08	1.78	2.27	2.19
Wool					
IKr mn	47	165	160	190	147
Percentage PSE	25	61	54	68	61
Producer NAC	1.33	2.62	2.19	3.09	2.58
Pigmeat					
IKr mn	321	498	323	517	655
Percentage PSE	67	51	33	53	66
Producer NAC	3.11	2.20	1.50	2.13	2.97
Poultry					
IKr mn	238	644	586	672	675
Percentage PSE	86	84	84	84	86
Producer NAC	7.31	6.47	6.15	6.27	6.98
Eggs					
IKr mn	304	413	411	395	432
Percentage PSE	80	78	74	78	81
Producer NAC	5.08	4.56	3.87	4.52	5.28
Other commodities					
IKr mn	1 535	1 593	1 236	1 749	1 794
Percentage PSE	73	51	41	55	57
Producer NAC	3.84	2.08	1.70	2.22	2.31
All commodities					
IKr mn	7 935	10 786	9 070	11 501	11 787
Percentage PSE	74	64	57	67	68
Producer NAC	3.93	2.86	2.35	3.06	3.17

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities.

Source: OECD, PSE/CSE database.

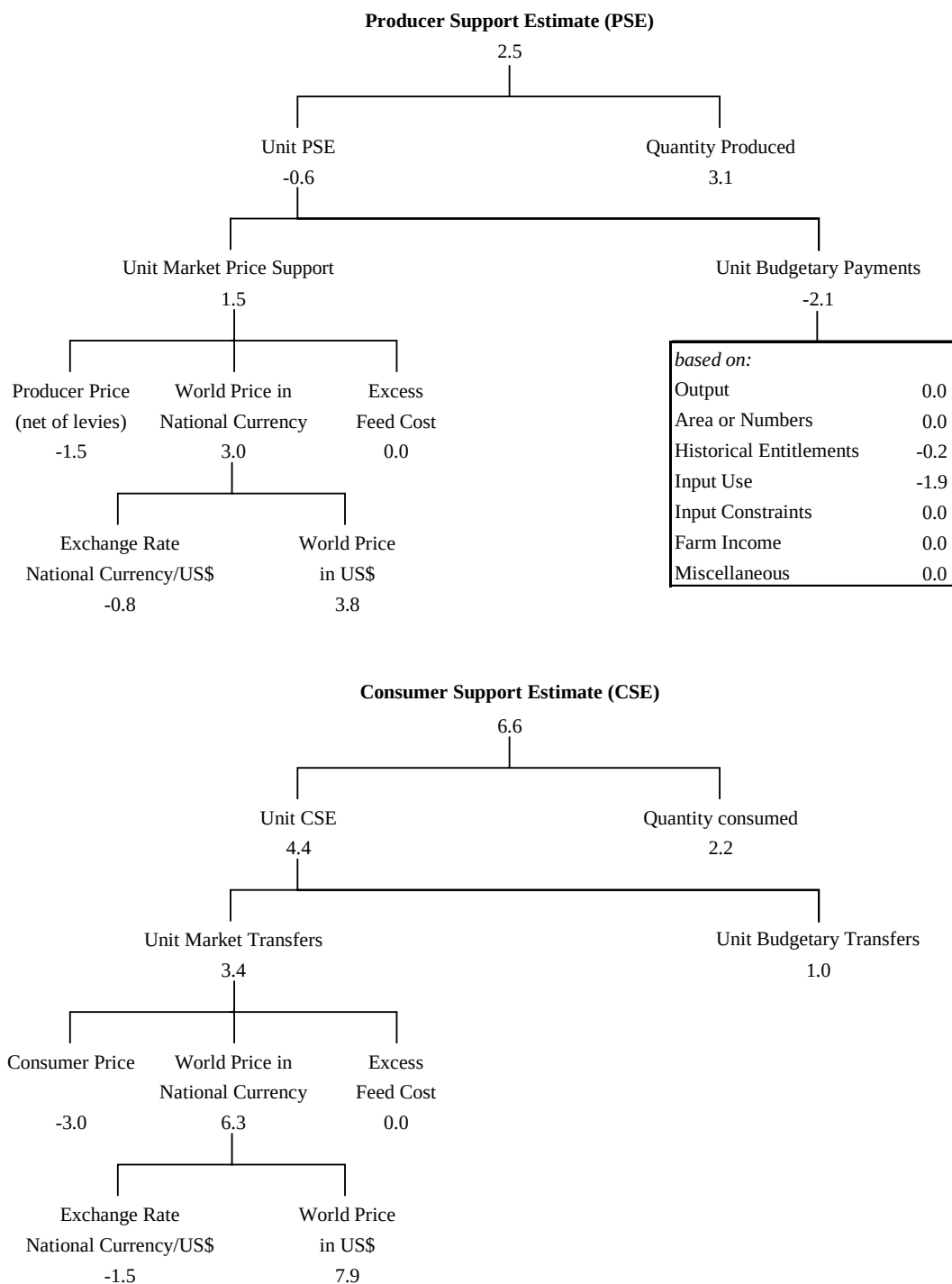
Table III.37. **Iceland: Consumer Support Estimate by commodity**

	1986-88	1997-99	1997	1998	1999p
Wheat					
IKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Maize					
IKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains					
IKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Rice					
IKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
IKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Sugar (refined equivalent)					
IKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Milk					
IKr mn	-1 536	-2 028	-1 627	-2 211	-2 247
Percentage CSE	-73	-62	-54	-66	-65
Consumer NAC	4.15	2.68	2.20	2.95	2.89
Beef and Veal					
IKr mn	-238	-490	-411	-459	-599
Percentage CSE	-45	-49	-43	-46	-58
Consumer NAC	2.00	1.99	1.75	1.85	2.36
Sheepmeat					
IKr mn	-977	-48	148	-145	-147
Percentage CSE	-60	-3	10	-10	-10
Consumer NAC	2.67	1.04	0.91	1.11	1.11
Wool					
IKr mn	77	77	110	52	68
Percentage CSE	104	310	519	142	267
Consumer NAC	0.49	0.28	0.16	0.41	0.27
Pigmeat					
IKr mn	-294	-492	-319	-510	-648
Percentage CSE	-67	-51	-33	-53	-66
Consumer NAC	3.02	2.20	1.50	2.12	2.97
Poultry					
IKr mn	-209	-629	-538	-669	-680
Percentage CSE	-87	-85	-83	-85	-86
Consumer NAC	7.80	6.55	5.95	6.46	7.25
Eggs					
IKr mn	-292	-355	-364	-339	-363
Percentage CSE	-80	-78	-74	-78	-81
Consumer NAC	5.13	4.59	3.86	4.56	5.35
Other commodities					
IKr mn	-1 200	-1 377	-1 060	-1 511	-1 560
Percentage CSE	-74	-50	-40	-53	-56
Consumer NAC	3.84	2.03	1.65	2.15	2.30
All commodities					
IKr mn	-4 669	-5 344	-4 061	-5 794	-6 176
Percentage CSE	-67	-50	-40	-53	-56
Consumer NAC	3.13	2.03	1.66	2.13	2.29

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient. The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for common (PSE) commodities.

Source: OECD, PSE/CSE database.

Figure III.7. **Iceland: Decomposition of PSE and CSE changes, 1998 to 1999.**
All commodities - total



Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed 1.5 percentage points to the 2.5 percent change in PSE. See Part II.2. for detailed explanations.

Table III.38. **Japan: Estimates of support to agriculture**
(¥ bn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	10 936	9 990	10 066	10 066	9 839
<i>of which share of common commodities (%)</i>	59	54	56	52	54
Total value of consumption (at farm gate)	14 022	14 896	14 861	15 354	14 472
Producer Support Estimate (PSE)	7 832	6 453	6 114	6 540	6 706
Market price support	7 085	5 883	5 524	5 972	6 154
<i>of which common commodities</i>	4 213	3 179	3 107	3 120	3 309
Payments based on output	221	170	173	160	178
Payments based on area planted/animal numbers	0	0	0	0	0
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	298	278	284	292	258
Payments based on input constraints	228	122	133	116	117
Payments based on overall farming income	0	0	0	0	0
Miscellaneous payments	..	..	..	..	..
Percentage PSE	67	61	57	62	65
Producer NAC	3.04	2.59	2.35	2.60	2.82
General Services Support Estimate (GSSE)	1 267	1 798	1 834	2 139	1 421
Research and development	46	73	61	86	71
Agricultural schools	29	29	29	29	28
Inspection services	8	11	11	11	11
Infrastructure	1 008	1 463	1 497	1 771	1 120
Marketing and promotion	22	27	27	28	26
Public stockholding	43	57	67	57	46
Miscellaneous	110	140	143	158	119
GSSE as a share of TSE (%)	14.0	21.7	23.0	24.6	17.5
Consumer Support Estimate (CSE)	-8 198	-7 492	-6 863	-7 878	-7 734
Transfers to producers from consumers	-6 985	-5 883	-5 524	-5 972	-6 154
Other transfers from consumers	-1 271	-1 650	-1 387	-1 946	-1 616
Transfers to consumers from taxpayers	-16	16	25	14	9
Excess feed cost	74	26	23	27	27
Percentage CSE	-58	-50	-46	-51	-53
Consumer NAC	2.41	2.02	1.86	2.06	2.15
Total Support Estimate (TSE)	9 083	8 267	7 974	8 692	8 136
Transfers from consumers	8 257	7 533	6 911	7 918	7 770
Transfers from taxpayers	2 098	2 384	2 450	2 720	1 983
Budget revenues	-1 271	-1 650	-1 387	-1 946	-1 616
TSE as a share of GDP (%)	2.6	1.7	1.6	1.8	1.6

Notes: See Part II.2 for detailed explanations. p: provisional; ..: not available; NAC: Nominal Assistance Coefficient.

Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.39. Japan: Producer Support Estimate by commodity

	1986-88	1997-99	1997	1998	1999p
Wheat					
¥ bn	166	84	84	84	85
Percentage PSE	88	88	86	89	88
Producer NAC	8.83	8.24	7.34	8.72	8.66
Maize					
¥ bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains					
¥ bn	54	19	21	16	22
Percentage PSE	76	69	68	70	70
Producer NAC	4.23	3.26	3.16	3.34	3.28
Rice					
¥ bn	2 974	2 303	2 268	2 227	2 414
Percentage PSE	85	83	78	84	88
Producer NAC	6.64	6.23	4.50	6.14	8.05
Oilseeds					
¥ bn	47	16	13	17	17
Percentage PSE	75	49	46	54	49
Producer NAC	4.15	1.99	1.85	2.17	1.95
Sugar (refined equivalent)					
¥ bn	86	65	57	71	67
Percentage PSE	67	64	59	65	67
Producer NAC	3.01	2.77	2.44	2.86	3.01
Milk					
¥ bn	632	546	529	547	564
Percentage PSE	84	78	75	78	80
Producer NAC	6.58	4.53	3.98	4.53	5.07
Beef and Veal					
¥ bn	377	215	229	215	201
Percentage PSE	44	33	33	33	33
Producer NAC	1.80	1.49	1.49	1.50	1.48
Sheepmeat					
¥ bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool					
¥ bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
¥ bn	294	231	216	234	242
Percentage PSE	42	49	43	50	56
Producer NAC	1.76	2.00	1.74	1.99	2.25
Poultry					
¥ bn	49	35	36	35	34
Percentage PSE	12	12	12	11	11
Producer NAC	1.14	1.13	1.13	1.13	1.13
Eggs					
¥ bn	74	68	77	64	63
Percentage PSE	18	17	17	17	16
Producer NAC	1.22	1.20	1.20	1.20	1.19
Other commodities					
¥ bn	3 079	2 870	2 586	3 028	2 998
Percentage PSE	67	58	54	58	61
Producer NAC	3.02	2.37	2.16	2.39	2.55
All commodities					
¥ bn	7 832	6 453	6 114	6 540	6 706
Percentage PSE	67	61	57	62	65
Producer NAC	3.04	2.59	2.35	2.60	2.82

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities.

Source: OECD, PSE/CSE database.

Table III.40. Japan: Consumer Support Estimate by commodity

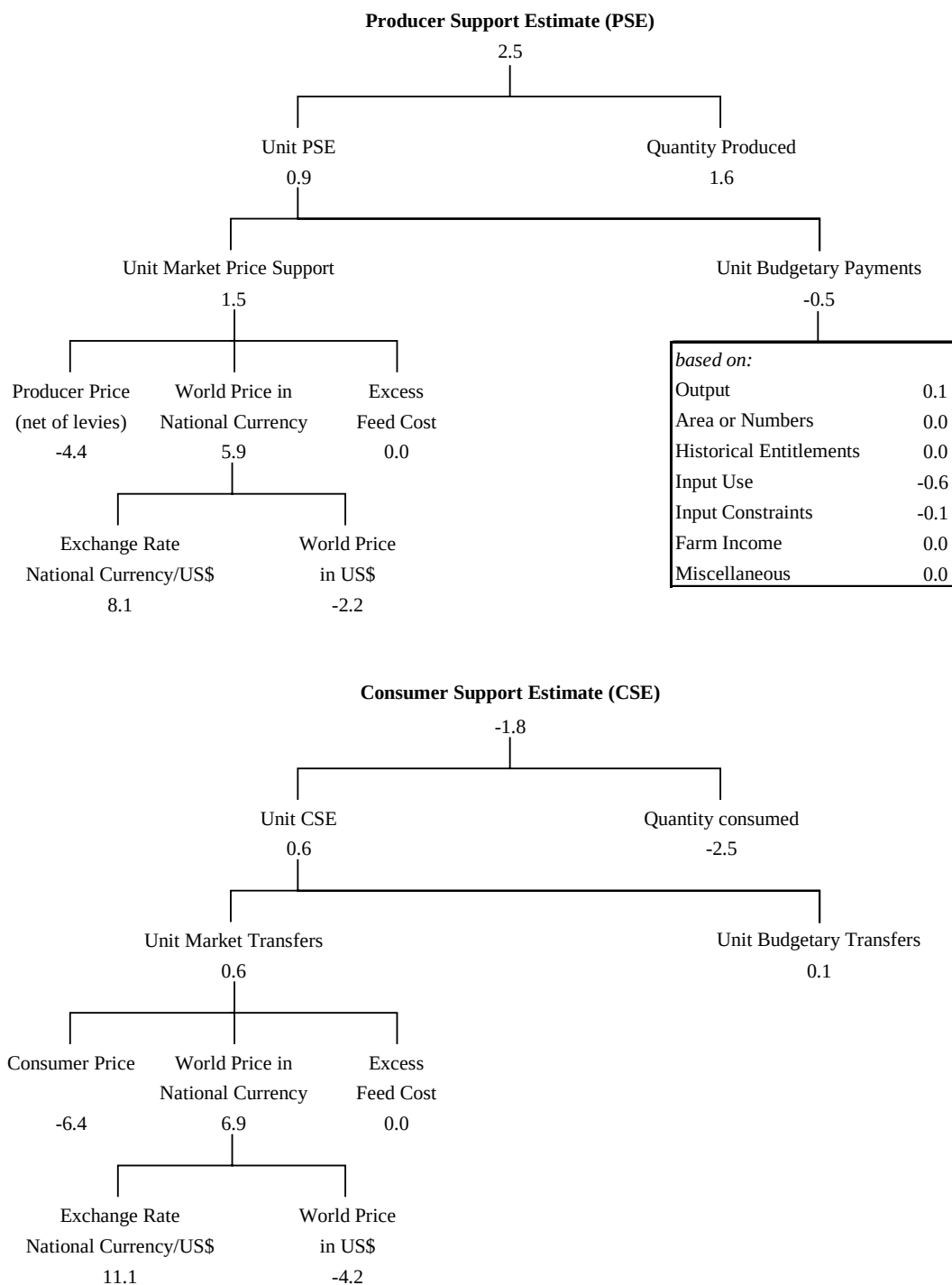
	1986-88	1997-99	1997	1998	1999p
Wheat					
¥ bn	-325	-178	-168	-183	-184
Percentage CSE	-73	-58	-55	-59	-60
Consumer NAC	3.76	2.39	2.24	2.45	2.47
Maize					
¥ bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains					
¥ bn	-51	-21	-20	-19	-25
Percentage CSE	-71	-29	-28	-26	-34
Consumer NAC	3.43	1.42	1.39	1.35	1.52
Rice					
¥ bn	-2 597	-2 157	-1 977	-2 228	-2 266
Percentage CSE	-80	-79	-73	-80	-85
Consumer NAC	5.12	5.10	3.68	5.09	6.54
Oilseeds					
¥ bn	0	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Sugar (refined equivalent)					
¥ bn	-267	-173	-165	-176	-178
Percentage CSE	-53	-49	-43	-51	-53
Consumer NAC	2.14	1.97	1.75	2.04	2.11
Milk					
¥ bn	-569	-501	-481	-502	-518
Percentage CSE	-78	-69	-65	-69	-72
Consumer NAC	4.78	3.22	2.87	3.23	3.57
Beef and Veal					
¥ bn	-558	-519	-570	-513	-473
Percentage CSE	-43	-30	-31	-30	-29
Consumer NAC	1.76	1.42	1.44	1.42	1.40
Sheepmeat					
¥ bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool					
¥ bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
¥ bn	-356	-368	-339	-371	-395
Percentage CSE	-41	-49	-42	-49	-55
Consumer NAC	1.73	1.97	1.72	1.96	2.22
Poultry					
¥ bn	-51	-45	-46	-45	-44
Percentage CSE	-11	-10	-10	-10	-10
Consumer NAC	1.13	1.12	1.12	1.12	1.12
Eggs					
¥ bn	-71	-64	-74	-60	-60
Percentage CSE	-17	-15	-16	-15	-15
Consumer NAC	1.20	1.18	1.18	1.18	1.17
Other commodities					
¥ bn	-3 354	-3 465	-3 023	-3 781	-3 591
Percentage CSE	-59	-51	-47	-52	-54
Consumer NAC	2.44	2.03	1.87	2.06	2.16
All commodities					
¥ bn	-8 198	-7 492	-6 863	-7 878	-7 734
Percentage CSE	-58	-50	-46	-51	-53
Consumer NAC	2.41	2.02	1.86	2.06	2.15

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for common (PSE) commodities.

Source: OECD, PSE/CSE database.

Figure III.8. **Japan: Decomposition of PSE and CSE changes, 1998 to 1999.**
All commodities - total



Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed 1.5 percentage points to the 2.5 percent change in PSE. See Part II.2. for detailed explanations.

Table III.41. **Korea: Estimates of support to agriculture**
(Won bn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	13 624	29 512	29 258	29 639	29 639
<i>of which share of common commodities (%)</i>	<i>65</i>	<i>56</i>	<i>55</i>	<i>56</i>	<i>56</i>
Total value of consumption (at farm gate)	14 254	32 671	30 838	31 081	36 094
Producer Support Estimate (PSE)	9 781	19 881	19 829	17 238	22 575
Market price support	9 684	18 881	18 686	16 249	21 709
<i>of which common commodities</i>	<i>6 120</i>	<i>10 561</i>	<i>10 324</i>	<i>9 143</i>	<i>12 215</i>
Payments based on output	0	0	0	0	0
Payments based on area planted/animal numbers	0	12	11	13	13
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	69	766	863	780	655
Payments based on input constraints	0	69	86	54	65
Payments based on overall farming income	28	152	182	142	132
Miscellaneous payments	0	0	0	0	0
Percentage PSE	71	65	65	56	74
Producer NAC	3.54	3.00	2.88	2.29	3.85
General Services Support Estimate (GSSE)	1 613	4 194	4 432	4 303	3 847
Research and development	52	280	260	293	287
Agricultural schools	5	50	56	43	53
Inspection services	21	88	88	81	95
Infrastructure	374	2 467	2 576	2 648	2 176
Marketing and promotion	0	17	13	20	19
Public stockholding	1 162	1 291	1 439	1 218	1 217
Miscellaneous	0	0	0	0	0
GSSE as a share of TSE (%)	14.2	17.4	18.0	19.6	14.5
Consumer Support Estimate (CSE)	-9 600	-19 858	-18 895	-16 432	-24 247
Transfers to producers from consumers	-9 454	-18 486	-17 765	-16 085	-21 610
Other transfers from consumers	-205	-1 654	-1 444	-782	-2 734
Transfers to consumers from taxpayers	59	282	315	435	97
Excess feed cost	0	0	0	0	0
Percentage CSE	-67	-61	-62	-54	-67
Consumer NAC	3.09	2.61	2.62	2.16	3.06
Total Support Estimate (TSE)	11 454	24 357	24 575	21 977	26 518
Transfers from consumers	9 659	20 140	19 209	16 866	24 344
Transfers from taxpayers	2 000	5 870	6 810	5 892	4 908
Budget revenues	-205	-1 654	-1 444	-782	-2 734
TSE as a share of GDP (%)	10.1	5.2	5.4	4.9	5.4

Notes: See Part II.2 for detailed explanations. p: provisional; NAC: Nominal Assistance Coefficient.

Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.42. **Korea: Producer Support Estimate by commodity**

	1986-88	1997-99	1997	1998	1999p
Wheat					
Won bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Maize					
Won bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains					
Won bn	222	160	158	141	183
Percentage PSE	73	77	79	70	81
Producer NAC	3.71	4.45	4.82	3.34	5.20
Rice					
Won bn	4 541	7 446	7 603	6 575	8 159
Percentage PSE	82	77	79	71	80
Producer NAC	5.62	4.42	4.85	3.51	4.90
Oilseeds					
Won bn	157	238	232	224	259
Percentage PSE	79	84	83	80	88
Producer NAC	4.78	6.44	5.72	5.08	8.52
Sugar (refined equivalent)					
Won bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Milk					
Won bn	328	709	595	738	794
Percentage PSE	73	67	66	66	70
Producer NAC	3.86	3.08	2.98	2.91	3.34
Beef and Veal					
Won bn	508	1 168	1 232	1 009	1 264
Percentage PSE	54	59	61	48	67
Producer NAC	2.26	2.53	2.59	1.93	3.06
Sheepmeat					
Won bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool					
Won bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
Won bn	311	919	669	622	1 467
Percentage PSE	33	37	32	27	53
Producer NAC	1.50	1.65	1.47	1.37	2.11
Poultry					
Won bn	140	361	386	226	471
Percentage PSE	51	46	54	29	55
Producer NAC	2.18	1.93	2.17	1.41	2.21
Eggs					
Won bn	-27	97	95	124	72
Percentage PSE	-10	14	14	17	10
Producer NAC	0.92	1.16	1.17	1.20	1.11
Other commodities					
Won bn	3 600	8 782	8 860	7 580	9 906
Percentage PSE	74	66	63	54	80
Producer NAC	4.92	3.31	2.73	2.19	5.00
All commodities					
Won bn	9 781	19 881	19 829	17 238	22 575
Percentage PSE	71	65	65	56	74
Producer NAC	3.54	3.00	2.88	2.29	3.85

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities.

Source: OECD, PSE/CSE database.

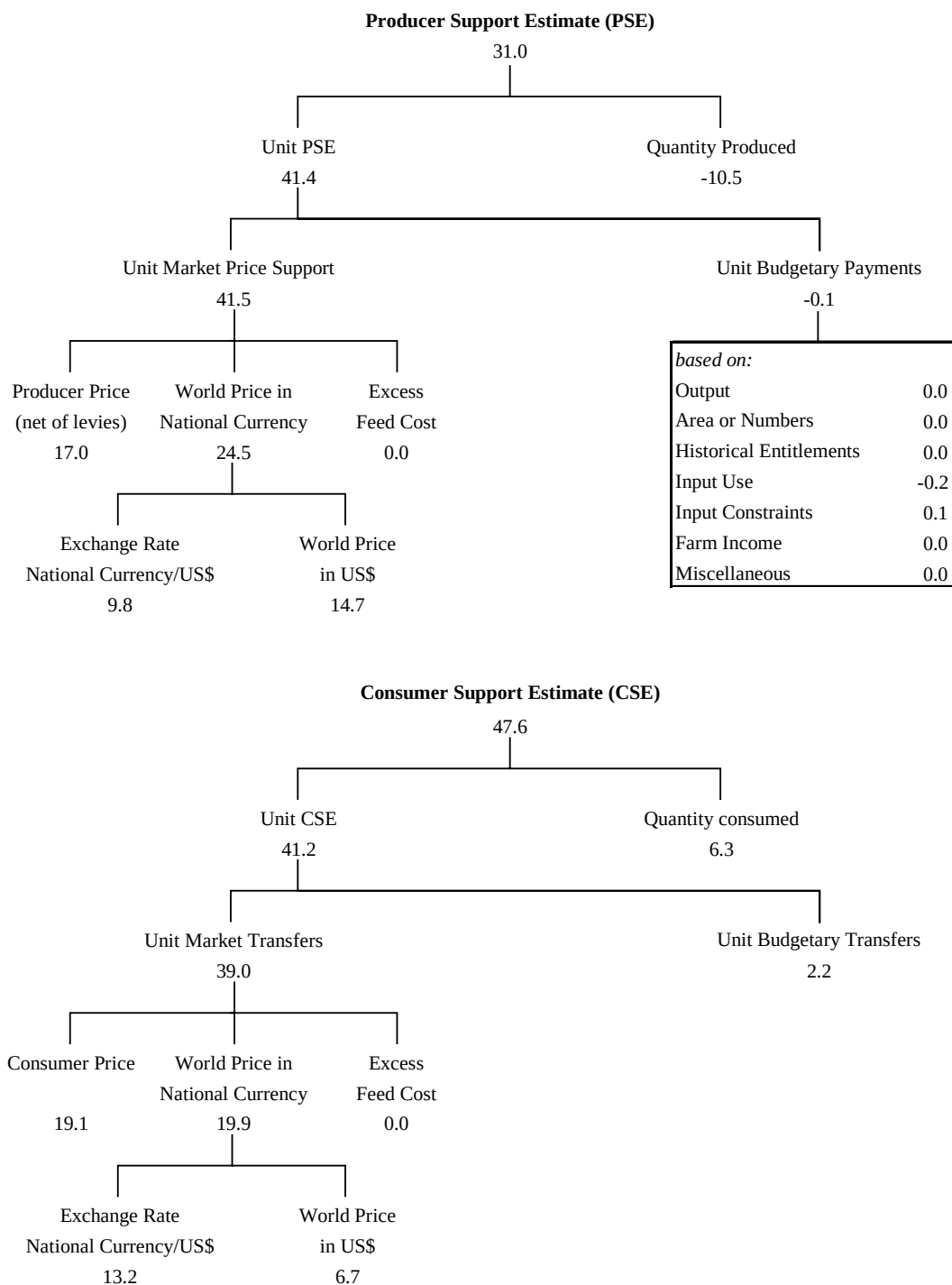
Table III.43. **Korea: Consumer Support Estimate by commodity**

	1986-88	1997-99	1997	1998	1999p
Wheat					
Won bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Maize					
Won bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains					
Won bn	-210	-156	-152	-135	-180
Percentage CSE	-71	-62	-63	-56	-67
Consumer NAC	3.42	2.68	2.73	2.27	3.04
Rice					
Won bn	-4 452	-6 961	-6 730	-6 203	-7 950
Percentage CSE	-82	-76	-79	-71	-79
Consumer NAC	5.58	4.28	4.66	3.39	4.78
Oilseeds					
Won bn	-176	-269	-244	-258	-303
Percentage CSE	-42	-33	-30	-29	-40
Consumer NAC	1.72	1.50	1.42	1.40	1.67
Sugar (refined equivalent)					
Won bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Milk					
Won bn	-322	-798	-714	-783	-898
Percentage CSE	-73	-66	-65	-64	-69
Consumer NAC	3.78	2.96	2.85	2.80	3.24
Beef and Veal					
Won bn	-495	-1 676	-1 543	-998	-2 487
Percentage CSE	-52	-55	-57	-41	-66
Consumer NAC	2.17	2.33	2.30	1.70	2.97
Sheepmeat					
Won bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool					
Won bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
Won bn	-303	-809	-578	-510	-1 339
Percentage CSE	-32	-35	-29	-24	-51
Consumer NAC	1.50	1.59	1.40	1.32	2.06
Poultry					
Won bn	-135	-345	-361	-204	-471
Percentage CSE	-50	-43	-50	-26	-53
Consumer NAC	2.14	1.83	2.02	1.35	2.14
Eggs					
Won bn	28	-75	-73	-101	-51
Percentage CSE	11	-11	-12	-14	-8
Consumer NAC	0.92	1.13	1.13	1.17	1.08
Other commodities					
Won bn	-3 536	-8 769	-8 499	-7 238	-10 569
Percentage CSE	-68	-61	-62	-54	-67
Consumer NAC	3.09	2.62	2.63	2.16	3.06
All commodities					
Won bn	-9 600	-19 858	-18 895	-16 432	-24 247
Percentage CSE	-67	-61	-62	-54	-67
Consumer NAC	3.09	2.61	2.62	2.16	3.06

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient. The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for common (PSE) commodities.

Source: OECD, PSE/CSE database.

Figure III.9. **Korea: Decomposition of PSE and CSE changes, 1998 to 1999.**
All commodities - total



Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed 41.5 percentage points to the 31 percent change in PSE. See Part II.2. for detailed explanations.

Table III.44. **Mexico: Estimates of support to agriculture**
(M\$ mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	23 588	224 263	220 588	226 101	226 101
<i>of which share of common commodities (%)</i>	<i>68</i>	<i>63</i>	<i>61</i>	<i>64</i>	<i>64</i>
Total value of consumption (at farm gate)	21 373	237 010	228 037	235 956	247 036
Producer Support Estimate (PSE)	2 428	44 522	38 062	41 101	54 402
Market price support	353	30 262	25 112	27 478	38 196
<i>of which common commodities</i>	<i>237</i>	<i>19 029</i>	<i>15 194</i>	<i>17 528</i>	<i>24 366</i>
Payments based on output	2	27	30	51	0
Payments based on area planted/animal numbers	1	605	532	544	739
Payments based on historical entitlements	0	8 554	7 547	8 492	9 624
Payments based on input use	2 073	4 619	4 541	4 134	5 183
Payments based on input constraints	0	0	0	0	0
Payments based on overall farming income	0	438	300	403	611
Miscellaneous payments	0	17	0	0	50
Percentage PSE	8	19	16	17	22
Producer NAC	1.09	1.23	1.19	1.21	1.29
General Services Support Estimate (GSSE)	848	3 543	2 932	3 821	3 876
Research and development	77	883	822	948	879
Agricultural schools	125	1 037	849	1 110	1 152
Inspection services	0	521	315	617	631
Infrastructure	223	488	368	527	570
Marketing and promotion	18	299	259	287	352
Public stockholding	400	19	0	58	0
Miscellaneous	6	295	319	274	292
GSSE as a share of TSE (%)	21.5	5.9	5.6	6.6	5.5
Consumer Support Estimate (CSE)	569	-28 482	-20 082	-23 022	-42 337
Transfers to producers from consumers	-653	-30 982	-25 512	-27 939	-39 424
Other transfers from consumers	-34	-6 879	-5 023	-5 262	-10 348
Transfers to consumers from taxpayers	1 087	8 261	9 937	9 181	5 664
Excess feed cost	169	1 118	516	998	1 772
Percentage CSE	8	-12	-9	-10	-18
Consumer NAC	0.94	1.14	1.10	1.11	1.21
Total Support Estimate (TSE)	4 363	56 326	50 931	54 104	63 942
Transfers from consumers	686	37 836	30 535	33 201	49 773
Transfers from taxpayers	3 710	25 367	25 419	26 165	24 517
Budget revenues	-34	-6 878	-5 023	-5 262	-10 348
TSE as a share of GDP (%)	1.9	1.5	1.6	1.4	1.5

Notes: See Part II.2 for detailed explanations. p: provisional; NAC: Nominal Assistance Coefficient.

Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.45. **Mexico: Producer Support Estimate by commodity**

	1986-88	1997-99	1997	1998	1999p
Wheat					
M\$ mn	-7	1 372	807	1 516	1 793
Percentage PSE	-2	27	15	30	36
Producer NAC	0.99	1.39	1.18	1.43	1.57
Maize					
M\$ mn	1 068	9 816	8 304	9 158	11 985
Percentage PSE	37	33	30	31	39
Producer NAC	1.64	1.50	1.43	1.45	1.64
Other grains					
M\$ mn	328	2 074	1 590	1 921	2 712
Percentage PSE	28	25	21	23	32
Producer NAC	1.40	1.34	1.26	1.30	1.46
Rice					
M\$ mn	-36	82	21	51	175
Percentage PSE	-31	10	3	6	20
Producer NAC	0.77	1.11	1.03	1.07	1.25
Oilseeds					
M\$ mn	25	101	62	114	125
Percentage PSE	13	25	13	26	36
Producer NAC	1.15	1.35	1.15	1.35	1.55
Sugar (refined equivalent)					
M\$ mn	96	5 061	3 160	4 694	7 329
Percentage PSE	17	47	34	39	66
Producer NAC	1.25	2.05	1.51	1.65	2.98
Milk					
M\$ mn	441	8 296	5 829	8 508	10 553
Percentage PSE	34	41	35	43	46
Producer NAC	1.62	1.71	1.53	1.76	1.84
Beef and Veal					
M\$ mn	-648	1 394	2 003	1 610	569
Percentage PSE	-36	9	13	10	3
Producer NAC	0.75	1.10	1.15	1.11	1.03
Sheepmeat					
M\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool					
M\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
M\$ mn	76	3 551	3 014	3 282	4 358
Percentage PSE	-19	25	19	25	31
Producer NAC	0.94	1.34	1.24	1.34	1.44
Poultry					
M\$ mn	220	513	1 423	-236	353
Percentage PSE	10	3	9	-1	2
Producer NAC	1.15	1.04	1.10	0.99	1.02
Eggs					
M\$ mn	-196	-2 732	-1 497	-2 976	-3 723
Percentage PSE	-31	-27	-16	-29	-36
Producer NAC	0.78	0.79	0.86	0.77	0.74
Other commodities					
M\$ mn	1 063	14 993	13 346	13 459	18 173
Percentage PSE	9	16	13	14	20
Producer NAC	1.10	1.19	1.15	1.16	1.26
All commodities					
M\$ mn	2 428	44 522	38 062	41 101	54 402
Percentage PSE	8	19	16	17	22
Producer NAC	1.09	1.23	1.19	1.21	1.29

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities.

Source: OECD, PSE/CSE database.

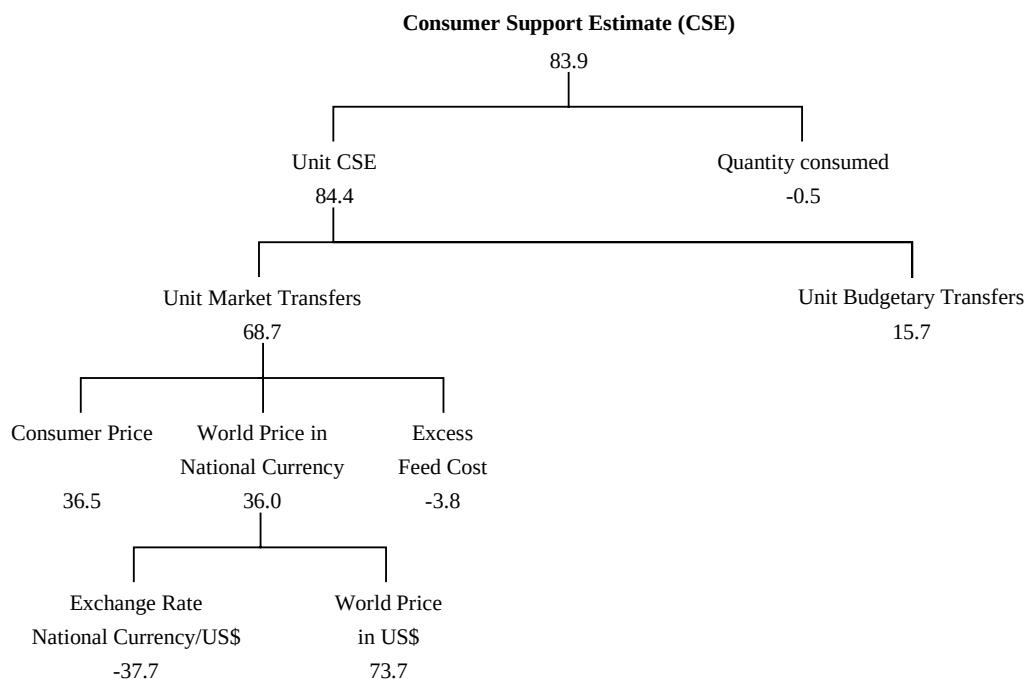
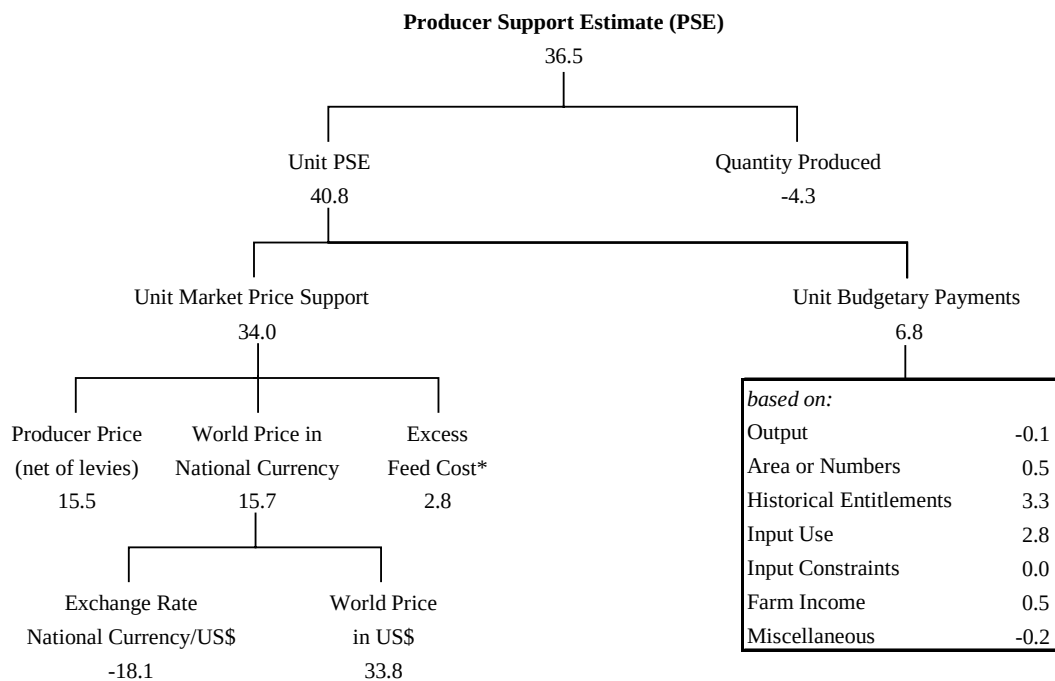
Table III.46. **Mexico: Consumer Support Estimate by commodity**

	1986-88	1997-99	1997	1998	1999p
Wheat					
M\$ mn	340	-189	290	-98	-759
Percentage CSE	218	-3	5	-2	-12
Consumer NAC	0.50	1.03	0.95	1.02	1.13
Maize					
M\$ mn	-267	1 372	4 021	2 263	-2 167
Percentage CSE	-2	8	22	9	-8
Consumer NAC	1.09	0.94	0.82	0.91	1.08
Other grains					
M\$ mn	-14	259	400	261	115
Percentage CSE	-2	3	5	3	1
Consumer NAC	1.02	0.97	0.95	0.97	0.99
Rice					
M\$ mn	81	-22	16	40	-123
Percentage CSE	144	-1	1	3	-7
Consumer NAC	0.43	1.01	0.99	0.97	1.07
Oilseeds					
M\$ mn	17	-361	-490	-373	-220
Percentage CSE	6	-5	-5	-5	-4
Consumer NAC	0.94	1.05	1.06	1.05	1.04
Sugar (refined equivalent)					
M\$ mn	28	-7 044	-4 791	-5 705	-10 637
Percentage CSE	-4	-58	-46	-50	-77
Consumer NAC	1.07	2.73	1.86	2.01	4.30
Milk					
M\$ mn	-130	-6 077	-2 608	-5 270	-10 352
Percentage CSE	-17	-31	-18	-31	-45
Consumer NAC	1.28	1.50	1.22	1.46	1.82
Beef and Veal					
M\$ mn	724	-821	-1 419	-1 117	73
Percentage CSE	45	-5	-9	-6	0
Consumer NAC	0.70	1.05	1.09	1.06	1.00
Sheepmeat					
M\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool					
M\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
M\$ mn	-41	-4 115	-2 928	-3 534	-5 881
Percentage CSE	24	-27	-19	-26	-37
Consumer NAC	0.91	1.39	1.23	1.35	1.59
Poultry					
M\$ mn	-225	-511	-1 291	183	-425
Percentage CSE	-10	-3	-7	1	-2
Consumer NAC	1.16	1.03	1.08	0.99	1.02
Eggs					
M\$ mn	223	2 758	1 606	2 962	3 705
Percentage CSE	37	27	17	29	36
Consumer NAC	0.76	0.79	0.85	0.77	0.73
Other commodities					
M\$ mn	-168	-13 729	-12 887	-12 635	-15 664
Percentage CSE	1	-16	-14	-15	-18
Consumer NAC	1.00	1.19	1.17	1.17	1.22
All commodities					
M\$ mn	569	-28 480	-20 082	-23 022	-42 337
Percentage CSE	8	-12	-9	-10	-18
Consumer NAC	0.94	1.14	1.10	1.11	1.21

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient. The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for common (PSE) commodities.

Source: OECD, PSE/CSE database.

Figure III.10. **Mexico: Decomposition of PSE and CSE changes, 1998 to 1999.**
All commodities - total



Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed 34 percentage points to the 36.5 percent change in PSE.

Table III.47. **New Zealand: Estimates of support to agriculture**
(NZ\$ mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	6 935	10 149	10 199	10 027	10 222
<i>of which share of common commodities (%)</i>	<i>72</i>	<i>70</i>	<i>71</i>	<i>70</i>	<i>71</i>
Total value of consumption (at farm gate)	1 675	2 471	2 470	2 518	2 426
Producer Support Estimate (PSE)	858	169	195	140	173
Market price support	161	134	161	106	136
<i>of which common commodities</i>	<i>115</i>	<i>94</i>	<i>113</i>	<i>74</i>	<i>96</i>
Payments based on output	3	0	0	0	0
Payments based on area planted/animal numbers	0	0	0	0	0
Payments based on historical entitlements	315	0	0	0	0
Payments based on input use	337	35	34	34	37
Payments based on input constraints	0	0	0	0	0
Payments based on overall farming income	42	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE	11	2	2	1	2
Producer NAC	1.13	1.02	1.02	1.01	1.02
General Services Support Estimate (GSSE)	177	190	191	188	190
Research and development	77	113	114	114	113
Agricultural schools	0	10	12	9	9
Inspection services	54	48	48	47	49
Infrastructure	47	18	17	18	19
Marketing and promotion	0	0	0	0	0
Public stockholding	0	0	0	0	0
Miscellaneous	0	0	0	0	0
GSSE as a share of TSE (%)	21.2	53.0	49.5	57.2	52.4
Consumer Support Estimate (CSE)	-159	-131	-158	-104	-133
Transfers to producers from consumers	-154	-128	-155	-101	-127
Other transfers from consumers	-4	-3	-2	-2	-5
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	0	0	0	0	0
Percentage CSE	-10	-5	-6	-4	-5
Consumer NAC	1.11	1.06	1.07	1.04	1.06
Total Support Estimate (TSE)	1 038	359	386	328	363
Transfers from consumers	159	131	158	104	133
Transfers from taxpayers	883	231	231	227	236
Budget revenues	-4	-3	-2	-2	-5
TSE as a share of GDP (%)	1.9	0.4	0.4	0.3	0.4

Notes: See Part II.2 for detailed explanations. p: provisional; NAC: Nominal Assistance Coefficient.

Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.48. New Zealand: Producer Support Estimate by commodity

	1986-88	1997-99	1997	1998	1999p
Wheat					
NZ\$ mn	5	0	0	0	0
Percentage PSE	7	0	0	0	0
Producer NAC	1.07	1.00	1.00	1.00	1.00
Maize					
NZ\$ mn	1	0	0	0	0
Percentage PSE	2	0	0	0	0
Producer NAC	1.02	1.00	1.00	1.00	1.00
Other grains					
NZ\$ mn	1	0	0	0	0
Percentage PSE	2	0	0	0	0
Producer NAC	1.02	1.00	1.00	1.00	1.00
Rice					
NZ\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
NZ\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Sugar (refined equivalent)					
NZ\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Milk					
NZ\$ mn	124	13	12	12	13
Percentage PSE	9	0	0	0	0
Producer NAC	1.10	1.00	1.00	1.00	1.00
Beef and Veal					
NZ\$ mn	74	13	13	13	14
Percentage PSE	7	1	1	1	1
Producer NAC	1.07	1.01	1.01	1.01	1.01
Sheepmeat					
NZ\$ mn	362	5	5	5	5
Percentage PSE	24	0	0	0	0
Producer NAC	1.56	1.00	1.00	1.00	1.00
Wool					
NZ\$ mn	86	0	0	0	0
Percentage PSE	6	0	0	0	0
Producer NAC	1.06	1.00	1.00	1.00	1.00
Pigmeat					
NZ\$ mn	6	3	3	3	3
Percentage PSE	5	2	2	2	3
Producer NAC	1.05	1.02	1.02	1.02	1.03
Poultry					
NZ\$ mn	59	60	82	43	54
Percentage PSE	57	32	46	23	28
Producer NAC	2.86	1.51	1.85	1.30	1.39
Eggs					
NZ\$ mn	37	36	33	33	43
Percentage PSE	45	40	36	36	49
Producer NAC	1.83	1.70	1.57	1.56	1.95
Other commodities					
NZ\$ mn	103	40	47	32	40
Percentage PSE	5	1	2	1	1
Producer NAC	1.05	1.01	1.02	1.01	1.01
All commodities					
NZ\$ mn	858	169	195	140	173
Percentage PSE	11	2	2	1	2
Producer NAC	1.13	1.02	1.02	1.01	1.02

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities.

Source: OECD, PSE/CSE database.

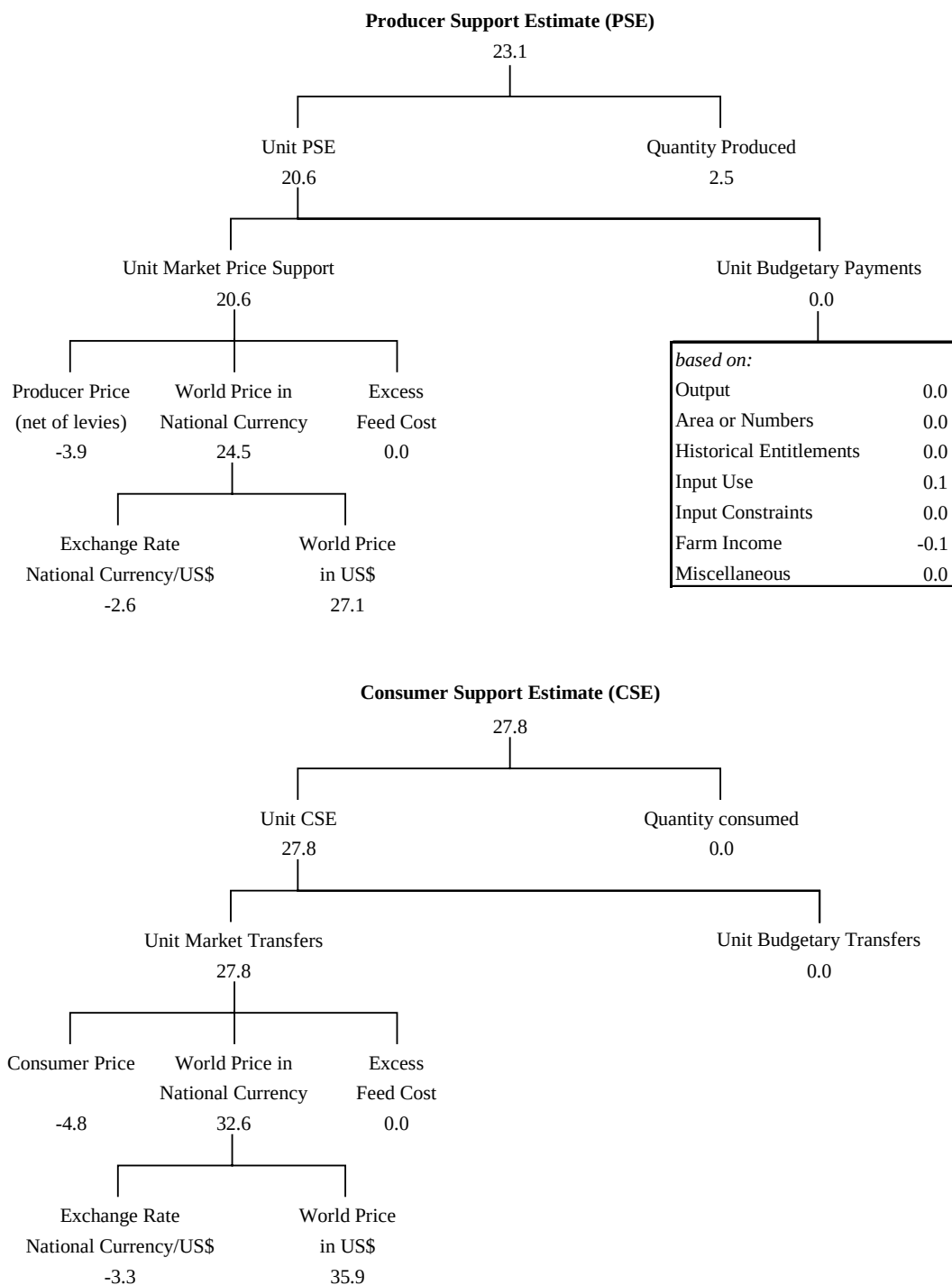
Table III.49. New Zealand: Consumer Support Estimate by commodity

	1986-88	1997-99	1997	1998	1999p
Wheat					
NZ\$ mn	0	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Maize					
NZ\$ mn	0	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Other grains					
NZ\$ mn	0	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Rice					
NZ\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
NZ\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Sugar (refined equivalent)					
NZ\$ mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Milk					
NZ\$ mn	-21	0	0	0	0
Percentage CSE	-8	0	0	0	0
Consumer NAC	1.09	1.00	1.00	1.00	1.00
Beef and Veal					
NZ\$ mn	0	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Sheepmeat					
NZ\$ mn	0	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Wool					
NZ\$ mn	0	0	0	0	0
Percentage CSE	0	0	0	0	0
Consumer NAC	1.00	1.00	1.00	1.00	1.00
Pigmeat					
NZ\$ mn	-2	0	0	0	0
Percentage CSE	-2	0	0	0	0
Consumer NAC	1.02	1.00	1.00	1.00	1.00
Poultry					
NZ\$ mn	-53	-54	-76	-38	-47
Percentage CSE	-56	-32	-46	-22	-27
Consumer NAC	2.80	1.50	1.84	1.28	1.38
Eggs					
NZ\$ mn	-38	-39	-35	-34	-47
Percentage CSE	-44	-40	-36	-36	-49
Consumer NAC	1.81	1.70	1.57	1.56	1.95
Other commodities					
NZ\$ mn	-45	-39	-46	-31	-39
Percentage CSE	-10	-5	-6	-4	-5
Consumer NAC	1.11	1.06	1.07	1.04	1.06
All commodities					
NZ\$ mn	-159	-131	-158	-104	-133
Percentage CSE	-10	-5	-6	-4	-5
Consumer NAC	1.11	1.06	1.07	1.04	1.06

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient. The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for common (PSE) commodities.

Source: OECD, PSE/CSE database.

Figure III.11. New Zealand: Decomposition of PSE and CSE changes, 1998 to 1999.
All commodities - total



Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed 20.6 percentage points to the 23.1 percent change in PSE. See Part II.2. for detailed explanations.

Table III.50. **Norway: Estimates of support to agriculture**
(Nkr mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	17 370	18 400	18 019	18 482	18 700
<i>of which share of common commodities (%)</i>	<i>73</i>	<i>82</i>	<i>82</i>	<i>82</i>	<i>82</i>
Total value of consumption (at farm gate)	17 916	18 129	17 732	18 018	18 638
Producer Support Estimate (PSE)	17 846	19 989	18 744	20 209	21 013
Market price support	8 174	8 307	7 416	8 397	9 108
<i>of which common commodities</i>	<i>5 984</i>	<i>6 817</i>	<i>6 112</i>	<i>6 904</i>	<i>7 436</i>
Payments based on output	4 297	3 601	3 722	3 615	3 466
Payments based on area planted/animal numbers	1 637	1 901	1 725	1 786	2 191
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	3 417	5 822	5 602	6 099	5 764
Payments based on input constraints	320	358	279	312	484
Payments based on overall farming income	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE	66	66	64	67	69
Producer NAC	2.94	2.99	2.77	3.00	3.19
General Services Support Estimate (GSSE)	877	670	679	644	688
Research and development	504	497	489	485	517
Agricultural schools	0	0	0	0	0
Inspection services	0	0	0	0	0
Infrastructure	133	77	87	73	72
Marketing and promotion	240	68	73	64	67
Public stockholding	0	28	30	22	33
Miscellaneous	0	0	0	0	0
GSSE as a share of TSE (%)	4.3	3.2	3.5	3.1	3.1
Consumer Support Estimate (CSE)	-8 109	-8 771	-7 431	-8 787	-10 093
Transfers to producers from consumers	-10 350	-9 930	-8 461	-10 058	-11 273
Other transfers from consumers	-958	-182	-96	-215	-234
Transfers to consumers from taxpayers	1 522	148	154	138	152
Excess feed cost	1 677	1 193	971	1 347	1 262
Percentage CSE	-50	-49	-42	-49	-55
Consumer NAC	1.99	1.97	1.73	1.97	2.20
Total Support Estimate (TSE)	20 245	20 808	19 578	20 991	21 854
Transfers from consumers	11 308	10 112	8 557	10 273	11 507
Transfers from taxpayers	9 895	10 877	11 117	10 933	10 581
Budget revenues	-958	-182	-96	-215	-234
TSE as a share of GDP (%)	3.4	1.8	1.8	1.9	1.9

Notes: See Part II.2 for detailed explanations. p: provisional; NAC: Nominal Assistance Coefficient.

Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.51. Norway: Producer Support Estimate by commodity

	1986-88	1997-99	1997	1998	1999p
Wheat					
NKr mn	468	689	636	709	721
Percentage PSE	80	74	71	73	78
Producer NAC	5.02	3.86	3.41	3.66	4.51
Maize					
NKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains					
NKr mn	2 486	2 284	2 131	2 432	2 288
Percentage PSE	82	77	71	80	80
Producer NAC	5.67	4.48	3.46	5.07	4.90
Rice					
NKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
NKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Sugar (refined equivalent)					
NKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Milk					
NKr mn	6 607	8 507	8 303	8 620	8 598
Percentage PSE	75	76	76	76	75
Producer NAC	3.98	4.10	4.17	4.17	3.97
Beef and Veal					
NKr mn	2 492	3 307	3 274	3 230	3 418
Percentage PSE	67	68	69	65	69
Producer NAC	3.08	3.09	3.18	2.87	3.21
Sheepmeat					
NKr mn	1 014	1 301	1 193	1 347	1 362
Percentage PSE	70	69	65	71	71
Producer NAC	3.38	3.24	2.83	3.49	3.41
Wool					
NKr mn	240	416	406	414	427
Percentage PSE	71	84	81	85	85
Producer NAC	3.46	6.16	5.21	6.74	6.54
Pigmeat					
NKr mn	1 204	943	476	964	1 389
Percentage PSE	44	35	19	35	50
Producer NAC	1.80	1.59	1.23	1.55	2.00
Poultry					
NKr mn	182	277	265	231	334
Percentage PSE	57	49	46	44	55
Producer NAC	2.49	1.96	1.85	1.80	2.23
Eggs					
NKr mn	532	301	277	288	337
Percentage PSE	56	48	44	48	53
Producer NAC	2.29	1.94	1.77	1.91	2.15
Other commodities					
NKr mn	2 622	1 966	1 784	1 973	2 140
Percentage PSE	52	52	49	52	55
Producer NAC	2.07	2.09	1.96	2.10	2.22
All commodities					
NKr mn	17 846	19 989	18 744	20 209	21 013
Percentage PSE	66	66	64	67	69
Producer NAC	2.94	2.99	2.77	3.00	3.19

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities.

Source: OECD, PSE/CSE database.

Table III.52. Norway: Consumer Support Estimate by commodity

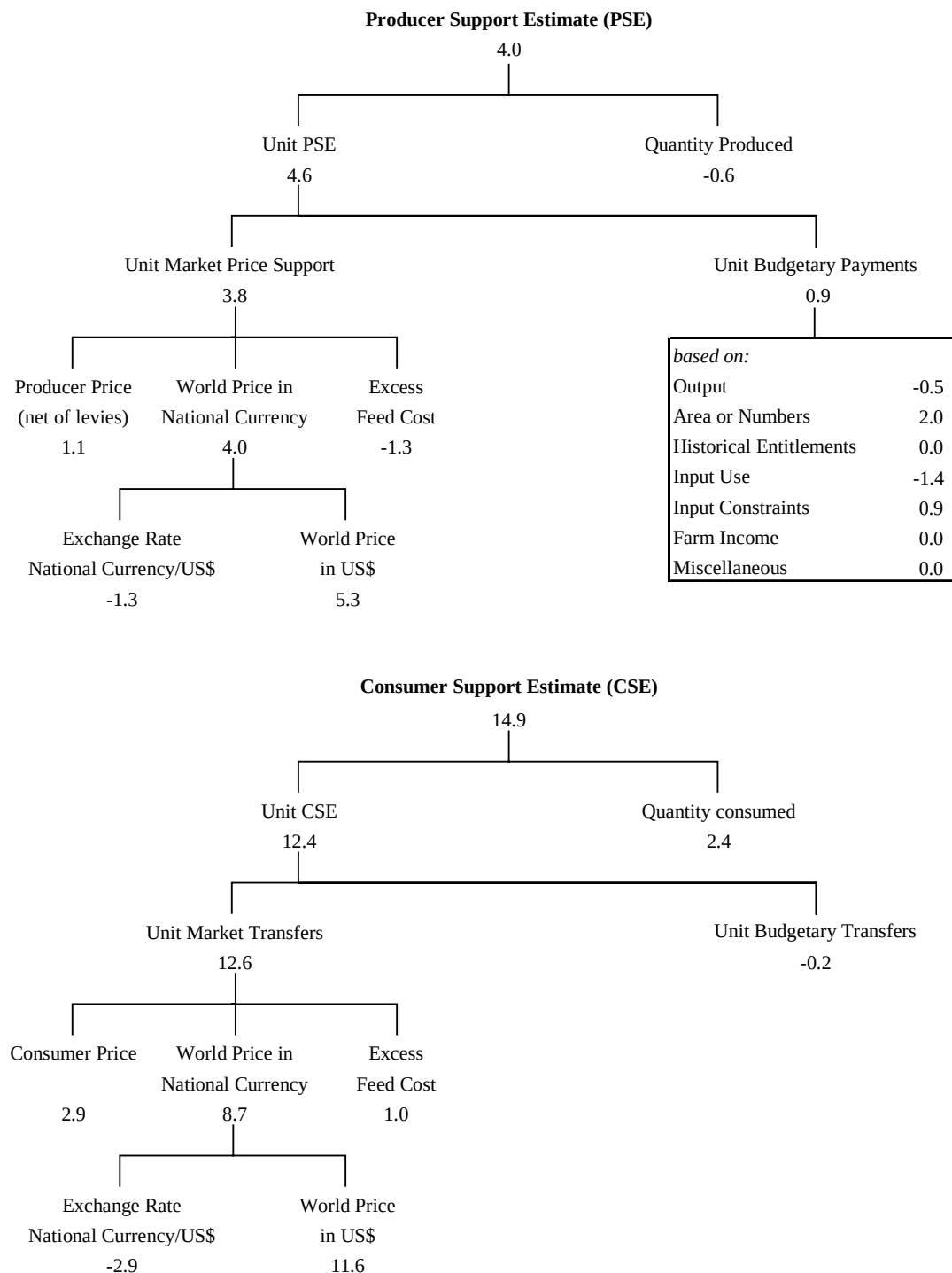
	1986-88	1997-99	1997	1998	1999p
Wheat					
NKr mn	-121	-121	-161	-19	-182
Percentage CSE	-19	-14	-18	-3	-22
Consumer NAC	1.25	1.18	1.22	1.03	1.28
Maize					
NKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains					
NKr mn	-609	-116	-77	-141	-131
Percentage CSE	-21	-6	-4	-7	-7
Consumer NAC	1.27	1.06	1.04	1.08	1.07
Rice					
NKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
NKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Sugar (refined equivalent)					
NKr mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Milk					
NKr mn	-381	-3 362	-3 122	-3 495	-3 471
Percentage CSE	-21	-66	-62	-68	-66
Consumer NAC	1.27	2.92	2.66	3.15	2.96
Beef and Veal					
NKr mn	-1 382	-1 521	-1 423	-1 425	-1 714
Percentage CSE	-58	-54	-53	-51	-60
Consumer NAC	2.45	2.21	2.13	2.03	2.48
Sheepmeat					
NKr mn	-369	-96	-17	-143	-129
Percentage CSE	-60	-15	-3	-23	-21
Consumer NAC	2.59	1.19	1.03	1.29	1.26
Wool					
NKr mn	-62	0	0	0	0
Percentage CSE	-54	0	0	0	0
Consumer NAC	2.19	1.00	1.00	1.00	1.00
Pigmeat					
NKr mn	-1 276	-1 060	-550	-1 098	-1 531
Percentage CSE	-56	-44	-24	-45	-64
Consumer NAC	2.31	1.97	1.32	1.83	2.75
Poultry					
NKr mn	-297	-361	-304	-329	-450
Percentage CSE	-85	-65	-58	-61	-76
Consumer NAC	7.14	3.04	2.37	2.55	4.22
Eggs					
NKr mn	-573	-319	-274	-313	-371
Percentage CSE	-74	-63	-54	-63	-72
Consumer NAC	4.02	2.83	2.17	2.69	3.63
Other commodities					
NKr mn	-3 039	-1 815	-1 504	-1 827	-2 113
Percentage CSE	-63	-56	-48	-57	-62
Consumer NAC	2.73	2.29	1.93	2.33	2.61
All commodities					
NKr mn	-8 109	-8 771	-7 431	-8 787	-10 093
Percentage CSE	-50	-49	-42	-49	-55
Consumer NAC	1.99	1.97	1.73	1.97	2.20

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient. The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for common (PSE) commodities.

Source: OECD, PSE/CSE database.

Figure III.12. Norway: Decomposition of PSE and CSE changes, 1998 to 1999.

All commodities - total



Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed 3.8 percentage points to the 4 percent change in PSE. See Part II.2. for detailed explanations.

Table III.53. **Poland: Estimates of support to agriculture**
(Zł mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	363	51 995	51 304	54 743	49 937
<i>of which share of common commodities (%)</i>	<i>73</i>	<i>65</i>	<i>65</i>	<i>64</i>	<i>64</i>
Total value of consumption (at farm gate)	362	50 084	50 826	52 322	47 104
Producer Support Estimate (PSE)	116	12 563	11 492	13 131	13 067
Market price support	73	10 656	9 682	11 377	10 909
<i>of which common commodities</i>	<i>53</i>	<i>6 878</i>	<i>6 260</i>	<i>7 337</i>	<i>7 036</i>
Payments based on output	0	91	0	0	274
Payments based on area planted/animal numbers	0	61	183	0	0
Payments based on historical entitlements	11	0	0	0	0
Payments based on input use	33	1 729	1 602	1 728	1 856
Payments based on input constraints	0	0	0	0	0
Payments based on overall farming income	0	0	0	0	0
Miscellaneous payments	0	26	25	26	28
Percentage PSE	29	23	22	23	25
Producer NAC	1.41	1.30	1.28	1.30	1.33
General Services Support Estimate (GSSE)	9	1 564	1 661	1 683	1 348
Research and development	4	287	302	330	229
Agricultural schools	3	235	222	231	251
Inspection services	0	140	77	91	251
Infrastructure	2	541	705	680	237
Marketing and promotion	0	224	221	216	235
Public stockholding	0	112	110	108	117
Miscellaneous	0	26	25	26	28
GSSE as a share of TSE (%)	5.2	11.1	12.6	11.4	9.3
Consumer Support Estimate (CSE)	-18	-9 936	-9 317	-10 585	-9 905
Transfers to producers from consumers	-75	-10 555	-9 770	-11 444	-10 450
Other transfers from consumers	-4	-252	-455	-191	-111
Transfers to consumers from taxpayers	55	10	9	11	11
Excess feed cost	6	861	899	1 039	645
Percentage CSE	-6	-20	-18	-20	-21
Consumer NAC	1.09	1.25	1.22	1.25	1.27
Total Support Estimate (TSE)	180	14 137	13 161	14 824	14 426
Transfers from consumers	79	10 807	10 225	11 635	10 561
Transfers from taxpayers	105	3 583	3 391	3 380	3 977
Budget revenues	-4	-252	-455	-191	-111
TSE as a share of GDP (%)	n.c.	2.6	2.8	2.7	2.4

Notes: See Part II.2 for detailed explanations. p: provisional, n.c.: not calculated; NAC: Nominal Assistance Coefficient.

Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.54. **Poland: Producer Support Estimate by commodity**

	1986-88	1997-99	1997	1998	1999p
Wheat					
Zl mn	12	942	933	1 224	669
Percentage PSE	37	21	21	26	15
Producer NAC	1.60	1.27	1.27	1.35	1.18
Maize					
Zl mn	0	43	56	67	5
Percentage PSE	30	18	25	26	2
Producer NAC	1.43	1.24	1.34	1.35	1.02
Other grains					
Zl mn	6	812	941	734	761
Percentage PSE	22	23	23	20	25
Producer NAC	1.32	1.29	1.30	1.26	1.33
Rice					
Zl mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
Zl mn	3	133	52	143	202
Percentage PSE	34	16	10	14	23
Producer NAC	1.51	1.19	1.11	1.16	1.31
Sugar (refined equivalent)					
Zl mn	4	622	574	685	607
Percentage PSE	35	42	36	45	46
Producer NAC	1.63	1.74	1.57	1.81	1.84
Milk					
Zl mn	9	987	575	1 664	722
Percentage PSE	15	13	8	21	9
Producer NAC	1.20	1.15	1.09	1.27	1.10
Beef and Veal					
Zl mn	11	94	326	38	-81
Percentage PSE	32	3	10	1	-2
Producer NAC	1.48	1.03	1.11	1.01	0.98
Sheepmeat					
Zl mn	1	4	6	5	1
Percentage PSE	25	9	13	12	3
Producer NAC	1.34	1.11	1.15	1.13	1.03
Wool					
Zl mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
Zl mn	21	2 634	2 342	2 000	3 560
Percentage PSE	29	30	27	20	41
Producer NAC	1.43	1.45	1.37	1.26	1.71
Poultry					
Zl mn	7	564	652	556	483
Percentage PSE	47	31	30	33	30
Producer NAC	1.91	1.45	1.42	1.49	1.43
Eggs					
Zl mn	6	1 154	780	1 225	1 456
Percentage PSE	37	54	44	57	62
Producer NAC	1.60	2.25	1.78	2.35	2.63
Other commodities					
Zl mn	35	4 576	4 256	4 789	4 683
Percentage PSE	47	24	22	24	25
Producer NAC	2.56	1.31	1.29	1.31	1.34
All commodities					
Zl mn	116	12 563	11 492	13 131	13 067
Percentage PSE	29	23	22	23	25
Producer NAC	1.41	1.30	1.28	1.30	1.33

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities.

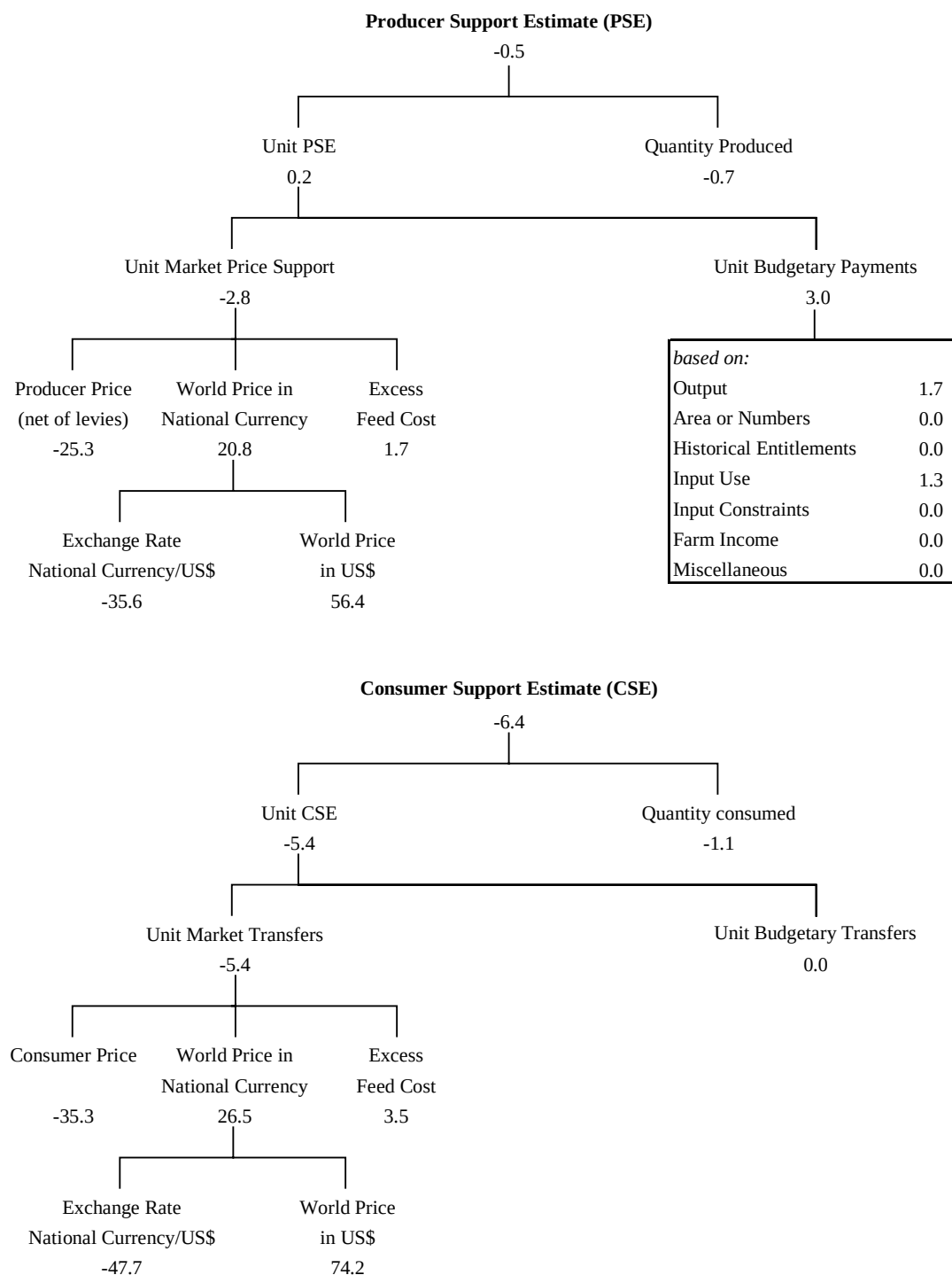
Source: OECD, PSE/CSE database.

Table III.55. **Poland: Consumer Support Estimate by commodity**

	1986-88	1997-99	1997	1998	1999p
Wheat					
Zl mn	-4	-410	-493	-607	-130
Percentage CSE	-11	-9	-10	-13	-3
Consumer NAC	1.12	1.10	1.11	1.15	1.03
Maize					
Zl mn	0	-32	-49	-52	4
Percentage CSE	-5	-7	-11	-11	1
Consumer NAC	1.06	1.08	1.13	1.12	0.99
Other grains					
Zl mn	6	-168	-244	-126	-134
Percentage CSE	19	-5	-6	-3	-4
Consumer NAC	0.87	1.05	1.07	1.04	1.04
Rice					
Zl mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
Zl mn	1	-90	-36	-102	-132
Percentage CSE	19	-12	-5	-11	-20
Consumer NAC	0.94	1.14	1.06	1.12	1.25
Sugar (refined equivalent)					
Zl mn	1	-456	-396	-490	-482
Percentage CSE	-3	-40	-33	-43	-43
Consumer NAC	1.19	1.67	1.50	1.74	1.76
Milk					
Zl mn	9	-997	-667	-1 698	-626
Percentage CSE	10	-14	-10	-24	-9
Consumer NAC	0.98	1.17	1.11	1.31	1.10
Beef and Veal					
Zl mn	-2	-142	-382	-111	67
Percentage CSE	-13	-4	-13	-4	3
Consumer NAC	1.21	1.05	1.14	1.04	0.97
Sheepmeat					
Zl mn	0	-2	-3	-3	0
Percentage CSE	13	-7	-12	-10	0
Consumer NAC	0.93	1.08	1.13	1.11	1.00
Wool					
Zl mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
Zl mn	-2	-2 242	-1 975	-1 632	-3 120
Percentage CSE	-5	-28	-26	-18	-40
Consumer NAC	1.06	1.41	1.34	1.23	1.66
Poultry					
Zl mn	-3	-551	-734	-518	-402
Percentage CSE	-29	-29	-28	-31	-28
Consumer NAC	1.43	1.41	1.40	1.45	1.39
Eggs					
Zl mn	-2	-1 015	-726	-1 115	-1 203
Percentage CSE	-16	-53	-43	-56	-61
Consumer NAC	1.21	2.20	1.74	2.29	2.56
Other commodities					
Zl mn	-22	-3 831	-3 614	-4 131	-3 750
Percentage CSE	-23	-22	-20	-22	-22
Consumer NAC	1.30	1.28	1.25	1.29	1.29
All commodities					
Zl mn	-18	-9 936	-9 317	-10 585	-9 905
Percentage CSE	-6	-20	-18	-20	-21
Consumer NAC	1.09	1.25	1.22	1.25	1.27

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient. The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for common (PSE) commodities.

Source: OECD, PSE/CSE database.

Figure III.13. **Poland: Decomposition of PSE and CSE changes, 1998 to 1999.****All commodities - total**

Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed -2.8 percentage points to the -0.5 percent change in PSE. See Part II.2. for detailed explanations.

Table III.56. **Switzerland: Estimates of support to agriculture**
(SF mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	9 482	7 610	7 845	7 847	7 139
<i>of which share of common commodities (%)</i>	85	83	85	82	82
Total value of consumption (at farm gate)	11 604	8 904	9 174	9 075	8 464
Producer Support Estimate (PSE)	7 921	7 265	7 109	7 319	7 366
Market price support	6 500	4 511	4 396	4 663	4 474
<i>of which common commodities</i>	5 547	3 736	3 756	3 802	3 649
Payments based on output	102	134	99	117	185
Payments based on area planted/animal numbers	494	1 228	1 466	1 379	838
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	609	427	480	475	327
Payments based on input constraints	0	129	107	120	160
Payments based on overall farming income	0	643	369	371	1 188
Miscellaneous payments	216	194	191	195	195
Percentage PSE	73	70	67	70	73
Producer NAC	3.67	3.37	3.06	3.30	3.76
General Services Support Estimate (GSSE)	715	627	597	590	694
Research and development	135	122	123	122	120
Agricultural schools	25	22	24	20	20
Inspection services	13	13	14	14	12
Infrastructure	137	77	80	75	75
Marketing and promotion	86	122	86	86	194
Public stockholding	103	77	78	77	77
Miscellaneous	216	194	191	195	195
GSSE as a share of TSE (%)	7.3	6.9	6.7	6.5	7.5
Consumer Support Estimate (CSE)	-7 121	-4 430	-4 293	-4 559	-4 440
Transfers to producers from consumers	-6 722	-4 780	-4 679	-4 946	-4 717
Other transfers from consumers	-1 934	-1 154	-1 132	-1 130	-1 200
Transfers to consumers from taxpayers	1 161	1 208	1 203	1 221	1 200
Excess feed cost	374	296	315	296	277
Percentage CSE	-68	-58	-54	-58	-61
Consumer NAC	3.15	2.37	2.17	2.38	2.57
Total Support Estimate (TSE)	9 797	9 100	8 909	9 130	9 260
Transfers from consumers	8 655	5 934	5 810	6 076	5 917
Transfers from taxpayers	3 075	4 319	4 230	4 185	4 543
Budget revenues	-1 934	-1 154	-1 132	-1 130	-1 200
TSE as a share of GDP (%)	3.8	2.4	2.4	2.4	2.4

Notes: See Part II.2 for detailed explanations. p: provisional; NAC: Nominal Assistance Coefficient.

Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.57. **Switzerland: Producer Support Estimate by commodity**

	1986-88	1997-99	1997	1998	1999p
Wheat					
SF mn	443	426	430	431	415
Percentage PSE	77	66	62	63	72
Producer NAC	4.37	2.98	2.65	2.73	3.56
Maize					
SF mn	167	107	105	110	107
Percentage PSE	80	71	66	71	75
Producer NAC	5.09	3.48	2.97	3.46	4.02
Other grains					
SF mn	275	182	191	198	157
Percentage PSE	85	70	68	71	70
Producer NAC	6.63	3.29	3.09	3.42	3.36
Rice					
SF mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
SF mn	85	76	82	80	65
Percentage PSE	85	82	81	80	85
Producer NAC	6.92	5.60	5.26	5.00	6.55
Sugar (refined equivalent)					
SF mn	101	155	157	143	165
Percentage PSE	74	75	76	73	77
Producer NAC	3.86	4.04	4.14	3.66	4.33
Milk					
SF mn	3 101	3 133	3 293	3 165	2 941
Percentage PSE	82	78	77	79	78
Producer NAC	5.61	4.54	4.40	4.74	4.48
Beef and Veal					
SF mn	1 573	942	897	870	1 058
Percentage PSE	76	68	65	66	74
Producer NAC	4.15	3.21	2.88	2.91	3.83
Sheepmeat					
SF mn	42	51	50	54	49
Percentage PSE	72	63	60	66	64
Producer NAC	3.58	2.74	2.50	2.94	2.78
Wool					
SF mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
SF mn	764	655	573	662	730
Percentage PSE	44	49	39	48	58
Producer NAC	1.79	1.99	1.65	1.92	2.41
Poultry					
SF mn	134	179	167	171	200
Percentage PSE	79	79	76	78	82
Producer NAC	4.83	4.76	4.12	4.57	5.57
Eggs					
SF mn	207	172	191	168	156
Percentage PSE	80	78	78	78	79
Producer NAC	4.95	4.63	4.48	4.61	4.79
Other commodities					
SF mn	1 029	1 188	974	1 265	1 325
Percentage PSE	70	69	66	68	73
Producer NAC	3.36	3.26	2.94	3.15	3.70
All commodities					
SF mn	7 921	7 265	7 109	7 319	7 366
Percentage PSE	73	70	67	70	73
Producer NAC	3.67	3.37	3.06	3.30	3.76

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities.

Source: OECD, PSE/CSE database.

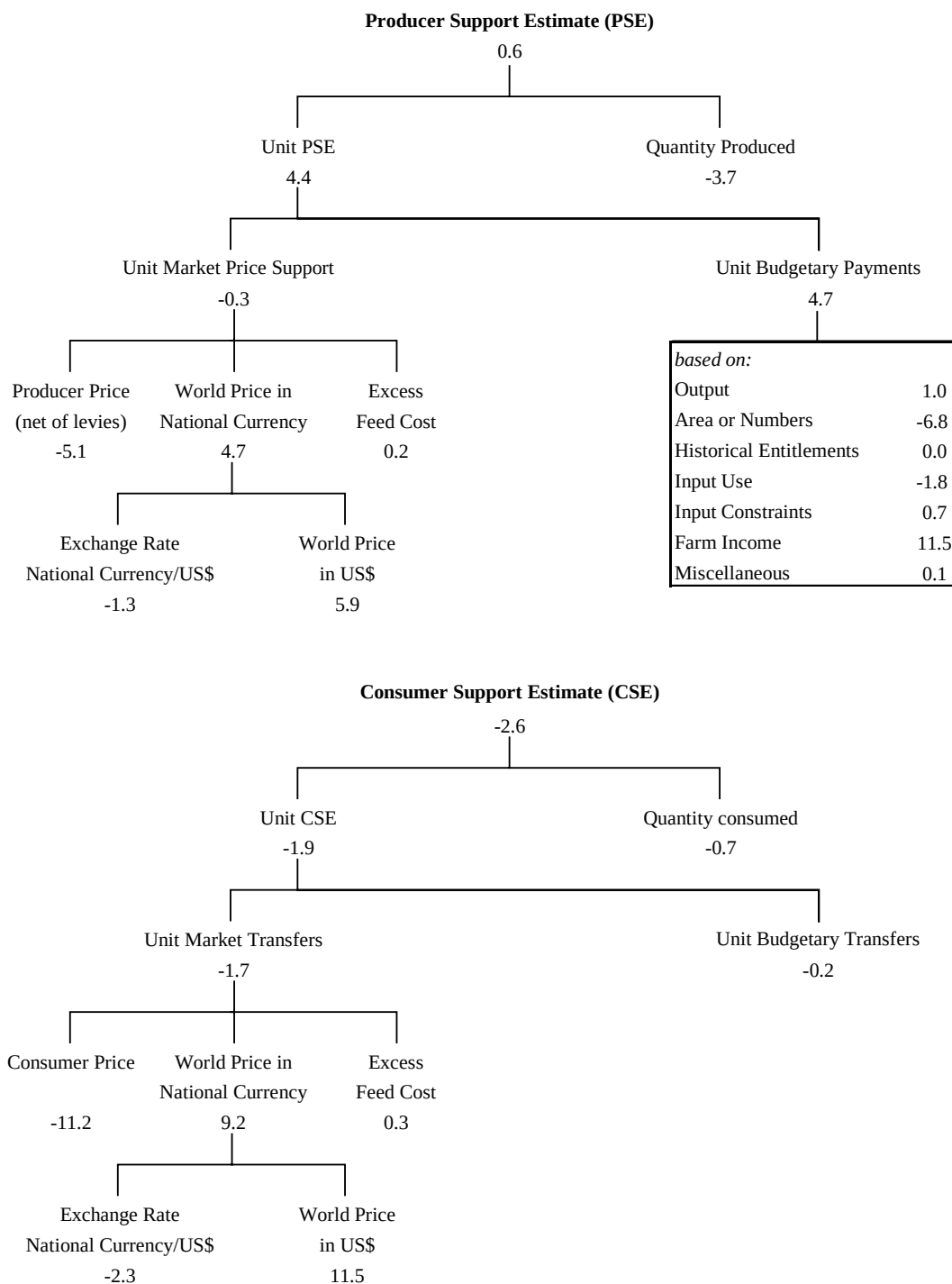
Table III.58. **Switzerland: Consumer Support Estimate by commodity**

	1986-88	1997-99	1997	1998	1999p
Wheat					
SF mn	-513	-380	-388	-380	-370
Percentage CSE	-62	-49	-46	-51	-52
Consumer NAC	2.62	1.98	1.85	2.03	2.07
Maize					
SF mn	-133	-35	-32	-35	-39
Percentage CSE	-40	-22	-19	-21	-25
Consumer NAC	1.67	1.28	1.23	1.27	1.33
Other grains					
SF mn	-255	-55	-47	-56	-62
Percentage CSE	-46	-20	-17	-19	-24
Consumer NAC	1.86	1.25	1.20	1.24	1.32
Rice					
SF mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
SF mn	-314	-251	-232	-261	-258
Percentage CSE	-83	-74	-73	-72	-78
Consumer NAC	6.02	3.90	3.68	3.55	4.47
Sugar (refined equivalent)					
SF mn	-143	-154	-170	-139	-151
Percentage CSE	-67	-64	-66	-61	-64
Consumer NAC	3.05	2.76	2.96	2.53	2.78
Milk					
SF mn	-1 482	-760	-930	-802	-549
Percentage CSE	-74	-53	-56	-57	-47
Consumer NAC	4.02	2.16	2.27	2.34	1.88
Beef and Veal					
SF mn	-1 378	-584	-514	-562	-675
Percentage CSE	-72	-57	-53	-55	-64
Consumer NAC	3.66	2.39	2.12	2.23	2.82
Sheepmeat					
SF mn	-107	-80	-81	-85	-73
Percentage CSE	-81	-61	-57	-65	-61
Consumer NAC	5.42	2.57	2.31	2.83	2.58
Wool					
SF mn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
SF mn	-831	-580	-493	-592	-655
Percentage CSE	-53	-51	-39	-50	-63
Consumer NAC	2.12	2.12	1.63	2.02	2.71
Poultry					
SF mn	-315	-287	-274	-283	-303
Percentage CSE	-87	-81	-78	-80	-84
Consumer NAC	7.87	5.32	4.57	5.13	6.28
Eggs					
SF mn	-381	-246	-285	-240	-214
Percentage CSE	-83	-79	-78	-79	-80
Consumer NAC	6.02	4.83	4.62	4.81	5.06
Other commodities					
SF mn	-1 270	-1 019	-845	-1 122	-1 091
Percentage CSE	-75	-67	-63	-67	-70
Consumer NAC	3.94	3.03	2.73	3.03	3.32
All commodities					
SF mn	-7 121	-4 430	-4 293	-4 559	-4 440
Percentage CSE	-68	-58	-54	-58	-61
Consumer NAC	3.15	2.37	2.17	2.38	2.57

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient. The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for common (PSE) commodities.

Source: OECD, PSE/CSE database.

Figure III.14. **Switzerland: Decomposition of PSE and CSE changes, 1998 to 1999.**
All commodities - total



Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed -0.3 percentage points to the 0.6 percent change in PSE. See Part II.2. for detailed explanations.

Table III.59. **Turkey: Estimates of support to agriculture**
(TL bn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	18 179	9 210 427	4 757 128	9 664 809	13 209 344
<i>of which share of common commodities (%)</i>	<i>34</i>	<i>43</i>	<i>45</i>	<i>43</i>	<i>41</i>
Total value of consumption (at farm gate)	16 751	8 200 058	4 510 568	8 095 852	11 993 756
Producer Support Estimate (PSE)	3 499	3 418 424	1 555 825	3 698 662	5 000 783
Market price support	2 584	2 960 677	1 231 278	3 195 622	4 455 132
<i>of which common commodities</i>	<i>895</i>	<i>1 241 278</i>	<i>557 824</i>	<i>1 360 903</i>	<i>1 805 107</i>
Payments based on output	12	33 027	20 291	31 505	47 285
Payments based on area planted/animal numbers	0	0	0	0	0
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	903	424 719	304 256	471 535	498 367
Payments based on input constraints	0	0	0	0	0
Payments based on overall farming income	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE	19	34	31	36	36
Producer NAC	1.24	1.53	1.44	1.57	1.57
General Services Support Estimate (GSSE)	331	1 031 482	398 439	933 666	1 762 340
Research and development	58	10 375	6 053	10 150	14 922
Agricultural schools	3	1 514	756	1 789	1 997
Inspection services	55	20 521	13 731	19 936	27 895
Infrastructure	7	2 562	1 729	2 487	3 469
Marketing and promotion	114	993 152	374 085	895 442	1 709 929
Public stockholding	..	..	..	..	..
Miscellaneous	93	3 358	2 085	3 861	4 129
GSSE as a share of TSE (%)	8.1	22.2	20.4	20.2	26.1
Consumer Support Estimate (CSE)	-2 599	-3 150 147	-1 356 197	-3 273 671	-4 820 573
Transfers to producers from consumers	-2 662	-3 169 830	-1 340 971	-3 353 252	-4 815 266
Other transfers from consumers	-58	-138 491	-79 805	-98 429	-237 238
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	121	158 174	64 580	178 010	231 931
Percentage CSE	-17	-37	-30	-40	-40
Consumer NAC	1.21	1.59	1.43	1.68	1.67
Total Support Estimate (TSE)	3 829	4 449 905	1 954 264	4 632 328	6 763 123
Transfers from consumers	2 720	3 308 320	1 420 777	3 451 680	5 052 504
Transfers from taxpayers	1 167	1 280 076	613 293	1 279 076	1 947 857
Budget revenues	-58	-138 491	-79 805	-98 429	-237 238
TSE as a share of GDP (%)	4.7	8.0	6.8	9.0	8.3

Notes: See Part II.2 for detailed explanations. p: provisional; ..: not available. NAC: Nominal Assistance Coefficient.

Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.60. Turkey: Producer Support Estimate by commodity

	1986-88	1997-99	1997	1998	1999p
Wheat					
TL bn	817	380 477	202 176	430 618	508 636
Percentage PSE	34	39	33	42	41
Producer NAC	1.57	1.64	1.49	1.72	1.71
Maize					
TL bn	58	42 419	23 979	49 260	54 019
Percentage PSE	21	39	38	44	36
Producer NAC	1.27	1.65	1.62	1.78	1.56
Other grains					
TL bn	142	152 436	66 949	188 445	201 914
Percentage PSE	28	44	32	54	45
Producer NAC	1.46	1.82	1.47	2.17	1.82
Rice					
TL bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
TL bn	45	30 988	26 825	35 100	31 040
Percentage PSE	20	33	42	34	25
Producer NAC	1.27	1.52	1.72	1.51	1.32
Sugar (refined equivalent)					
TL bn	72	245 874	105 045	211 925	420 651
Percentage PSE	23	62	56	57	72
Producer NAC	1.31	2.73	2.29	2.35	3.54
Milk					
TL bn	305	252 020	180 828	299 144	276 089
Percentage PSE	36	48	52	53	39
Producer NAC	1.63	1.95	2.08	2.13	1.65
Beef and Veal					
TL bn	-48	255 487	96 573	258 677	411 210
Percentage PSE	0	47	39	48	54
Producer NAC	1.02	1.91	1.65	1.92	2.15
Sheepmeat					
TL bn	80	38 248	9 271	49 833	55 640
Percentage PSE	12	14	6	21	16
Producer NAC	1.14	1.17	1.07	1.26	1.19
Wool					
TL bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
TL bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Poultry					
TL bn	97	58 135	4 452	77 531	92 422
Percentage PSE	26	19	3	27	26
Producer NAC	1.35	1.25	1.03	1.37	1.35
Eggs					
TL bn	49	63 684	41 487	68 900	80 664
Percentage PSE	17	31	30	33	31
Producer NAC	1.21	1.46	1.44	1.48	1.46
Other commodities					
TL bn	1 882	1 898 657	798 241	2 029 230	2 868 499
Percentage PSE	16	31	27	32	33
Producer NAC	1.19	1.44	1.38	1.47	1.48
All commodities					
TL bn	3 499	3 418 424	1 555 825	3 698 662	5 000 783
Percentage PSE	19	34	31	36	36
Producer NAC	1.24	1.53	1.44	1.57	1.57

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities.

Source: OECD, PSE/CSE database.

Table III.61. **Turkey: Consumer Support Estimate by commodity**

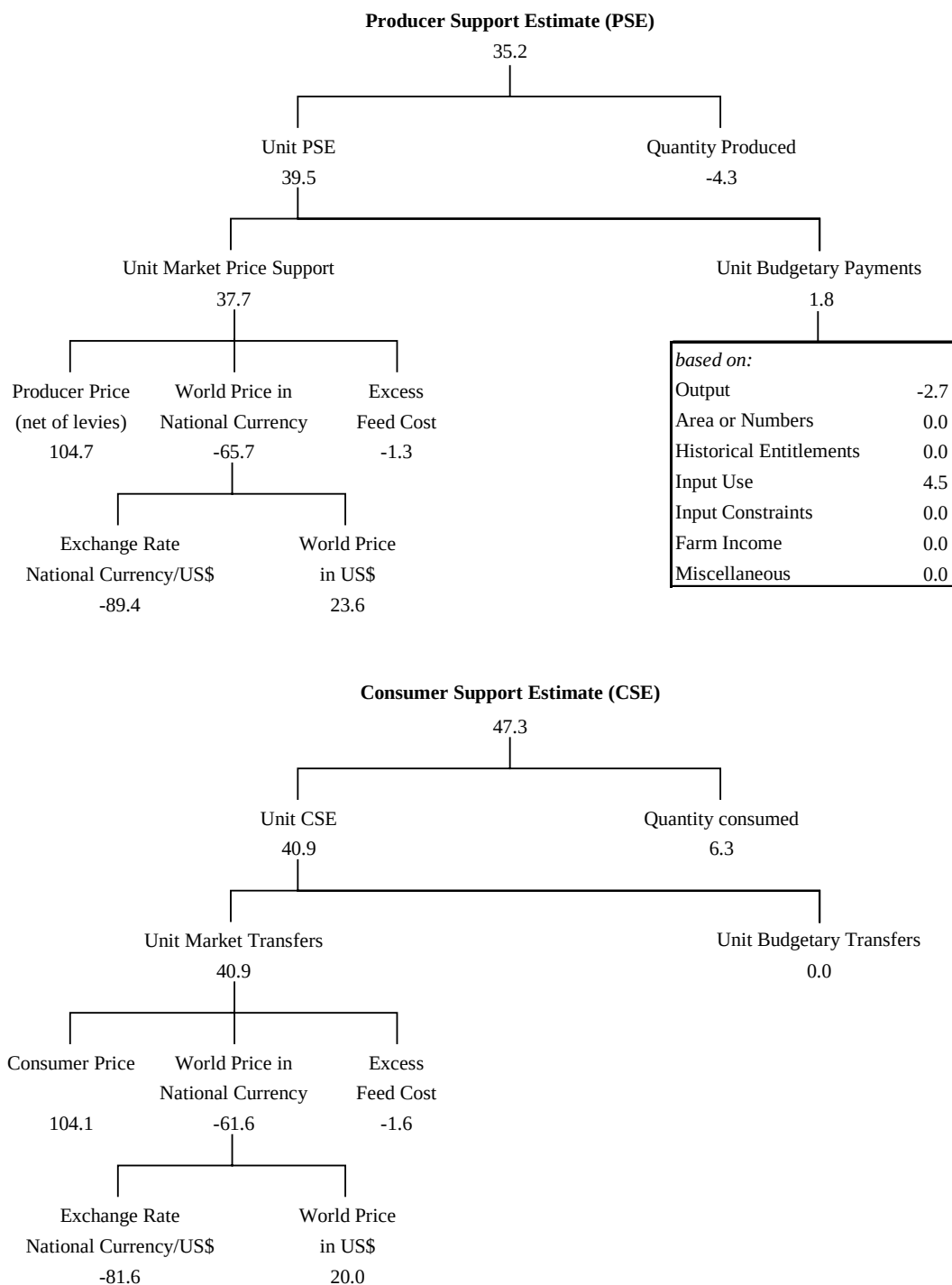
	1986-88	1997-99	1997	1998	1999p
Wheat					
TL bn	-439	-279 426	-127 579	-287 098	-423 602
Percentage CSE	-22	-29	-22	-32	-33
Consumer NAC	1.32	1.42	1.28	1.48	1.50
Maize					
TL bn	-40	-15 399	-8 154	-17 123	-20 921
Percentage CSE	-11	-12	-11	-14	-12
Consumer NAC	1.12	1.14	1.13	1.16	1.13
Other grains					
TL bn	-10	-6 851	-2 509	-6 776	-11 267
Percentage CSE	-3	-2	-1	-3	-3
Consumer NAC	1.03	1.02	1.01	1.03	1.03
Rice					
TL bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds					
TL bn	-13	-47 053	-39 458	-50 174	-51 527
Percentage CSE	-10	-29	-36	-27	-23
Consumer NAC	1.14	1.41	1.56	1.37	1.29
Sugar (refined equivalent)					
TL bn	-18	-194 612	-91 187	-146 782	-345 867
Percentage CSE	-9	-60	-54	-56	-71
Consumer NAC	1.10	2.62	2.17	2.26	3.44
Milk					
TL bn	-257	-275 218	-181 478	-329 205	-314 971
Percentage CSE	-36	-54	-54	-60	-47
Consumer NAC	1.67	2.20	2.19	2.53	1.87
Beef and Veal					
TL bn	88	-239 442	-76 208	-244 999	-397 119
Percentage CSE	4	-48	-36	-51	-57
Consumer NAC	1.00	1.98	1.57	2.03	2.33
Sheepmeat					
TL bn	-61	-30 830	-343	-43 370	-48 776
Percentage CSE	-14	-12	0	-20	-16
Consumer NAC	1.17	1.15	1.00	1.26	1.18
Wool					
TL bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat					
TL bn	n.c.	n.c.	n.c.	n.c.	n.c.
Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Poultry					
TL bn	-39	-61 174	-4 201	-81 214	-98 106
Percentage CSE	-9	-21	-3	-30	-29
Consumer NAC	1.11	1.29	1.03	1.42	1.41
Eggs					
TL bn	-28	-78 746	-47 978	-85 200	-103 060
Percentage CSE	-12	-39	-36	-41	-41
Consumer NAC	1.14	1.64	1.55	1.69	1.69
Other commodities					
TL bn	-1 781	-1 921 396	-777 101	-1 981 731	-3 005 356
Percentage CSE	-18	-39	-31	-43	-42
Consumer NAC	1.22	1.64	1.46	1.74	1.73
All commodities					
TL bn	-2 599	-3 150 147	-1 356 197	-3 273 671	-4 820 573
Percentage CSE	-17	-37	-30	-40	-40
Consumer NAC	1.21	1.59	1.43	1.68	1.67

Notes: See Part II.2 for detailed explanations. p: provisional; n.c.: not calculated; NAC: Nominal Assistance Coefficient.

The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for common (PSE) commodities.

Source: OECD, PSE/CSE database.

Figure III.15. **Turkey: Decomposition of PSE and CSE changes, 1998 to 1999.**
All commodities - total



Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed 37.7 percentage points to the 35.2 percent change in PSE. See Part II.2. for detailed explanations.

Table III.62. **United States: Estimates of support to agriculture**
(US\$ mn)

	1986-88	1997-99	1997	1998	1999p
Total value of production (at farm gate)	143 624	197 364	208 673	194 174	189 245
<i>of which share of common commodities (%)</i>	69	66	66	66	66
Total value of consumption (at farm gate)	134 644	173 479	181 842	170 604	167 989
Producer Support Estimate (PSE)	41 890	44 303	30 459	48 441	54 009
Market price support	19 584	19 979	14 807	23 530	21 599
<i>of which common commodities</i>	13 508	13 194	9 796	15 510	14 277
Payments based on output	2 919	4 714	250	4 058	9 834
Payments based on area planted/animal numbers	11 313	1 892	169	3 123	2 385
Payments based on historical entitlements	0	8 608	6 286	8 517	11 020
Payments based on input use	6 526	6 069	6 053	6 096	6 059
Payments based on input constraints	637	1 825	1 869	1 866	1 741
Payments based on overall farming income	912	1 216	1 026	1 252	1 371
Miscellaneous payments	0	0	0	0	0
Percentage PSE	25	20	14	22	24
Producer NAC	1.34	1.25	1.16	1.28	1.32
General Services Support Estimate (GSSE)	15 233	20 598	20 490	19 727	21 579
Research and development	1 457	2 138	2 031	2 097	2 287
Agricultural schools	..	..	..	..	..
Inspection services	384	622	596	623	648
Infrastructure	3 027	437	396	657	258
Marketing and promotion	9 266	15 827	15 900	14 778	16 802
Public stockholding	..	41	33	38	51
Miscellaneous	1 098	1 533	1 533	1 533	1 533
GSSE as a share of TSE (%)	22.4	24.4	28.6	22.4	22.4
Consumer Support Estimate (CSE)	-9 194	-1 297	4 654	-5 551	-2 994
Transfers to producers from consumers	-19 099	-19 956	-14 772	-23 499	-21 598
Other transfers from consumers	-1 520	-1 877	-1 252	-2 041	-2 339
Transfers to consumers from taxpayers	11 131	20 534	20 679	19 982	20 942
Excess feed cost	294	2	0	7	0
Percentage CSE	-8	-1	3	-4	-2
Consumer NAC	1.09	1.01	0.97	1.04	1.02
Total Support Estimate (TSE)	68 254	85 436	71 628	88 150	96 530
Transfers from consumers	20 619	21 833	16 024	25 540	23 937
Transfers from taxpayers	49 155	65 480	56 855	64 651	74 933
Budget revenues	-1 520	-1 877	-1 252	-2 041	-2 339
TSE as a share of GDP (%)	1.4	1.0	0.9	1.0	1.0

Notes: See Part II.2 for detailed explanations. p: provisional; ..: not available. NAC: Nominal Assistance Coefficient.

Market price support is net of producer levies and excess feed costs.

Source: OECD, PSE/CSE database.

Table III.63. **United States: Producer Support Estimate by commodity**

	1986-88	1997-99	1997	1998	1999p
Wheat					
US\$ mn	4 800	3 989	2 862	4 243	4 861
Percentage PSE	49	37	25	39	46
Producer NAC	2.06	1.60	1.34	1.63	1.84
Maize					
US\$ mn	8 238	6 061	3 753	6 958	7 473
Percentage PSE	38	24	14	27	30
Producer NAC	1.64	1.32	1.17	1.37	1.44
Other grains					
US\$ mn	1 307	907	678	1 033	1 010
Percentage PSE	40	34	23	40	40
Producer NAC	1.73	1.55	1.30	1.66	1.68
Rice					
US\$ mn	867	310	202	298	428
Percentage PSE	52	17	10	15	26
Producer NAC	2.21	1.22	1.11	1.18	1.35
Oilseeds					
US\$ mn	891	2 453	816	2 299	4 244
Percentage PSE	8	15	4	15	25
Producer NAC	1.08	1.18	1.05	1.17	1.33
Sugar (refined equivalent)					
US\$ mn	1 152	1 235	940	1 223	1 542
Percentage PSE	58	56	44	56	68
Producer NAC	2.46	2.39	1.77	2.26	3.14
Milk					
US\$ mn	11 657	13 008	9 687	15 290	14 048
Percentage PSE	60	54	45	61	57
Producer NAC	2.67	2.23	1.82	2.55	2.33
Beef and Veal					
US\$ mn	1 455	1 080	1 018	985	1 236
Percentage PSE	6	4	3	4	4
Producer NAC	1.06	1.04	1.04	1.04	1.04
Sheepmeat					
US\$ mn	27	27	21	17	45
Percentage PSE	6	7	4	4	13
Producer NAC	1.06	1.08	1.04	1.05	1.15
Wool					
US\$ mn	82	1	1	1	1
Percentage PSE	49	3	3	4	4
Producer NAC	2.16	1.04	1.03	1.04	1.04
Pigmeat					
US\$ mn	400	383	399	305	444
Percentage PSE	4	4	3	3	5
Producer NAC	1.04	1.04	1.03	1.04	1.05
Poultry					
US\$ mn	1 159	604	542	633	639
Percentage PSE	13	3	3	3	4
Producer NAC	1.16	1.03	1.03	1.04	1.04
Eggs					
US\$ mn	294	148	144	154	145
Percentage PSE	9	3	3	3	3
Producer NAC	1.10	1.03	1.03	1.04	1.04
Other commodities					
US\$ mn	9 559	14 098	9 396	15 004	17 893
Percentage PSE	20	19	13	20	23
Producer NAC	1.25	1.23	1.14	1.25	1.30
All commodities					
US\$ mn	41 890	44 303	30 459	48 441	54 009
Percentage PSE	25	20	14	22	24
Producer NAC	1.34	1.25	1.16	1.28	1.32

Notes: See Part II.2 for detailed explanations. p: provisional; NAC: Nominal Assistance Coefficient.

The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for common commodities.

Source: OECD, PSE/CSE database.

Table III.64. **United States: Consumer Support Estimate by commodity**

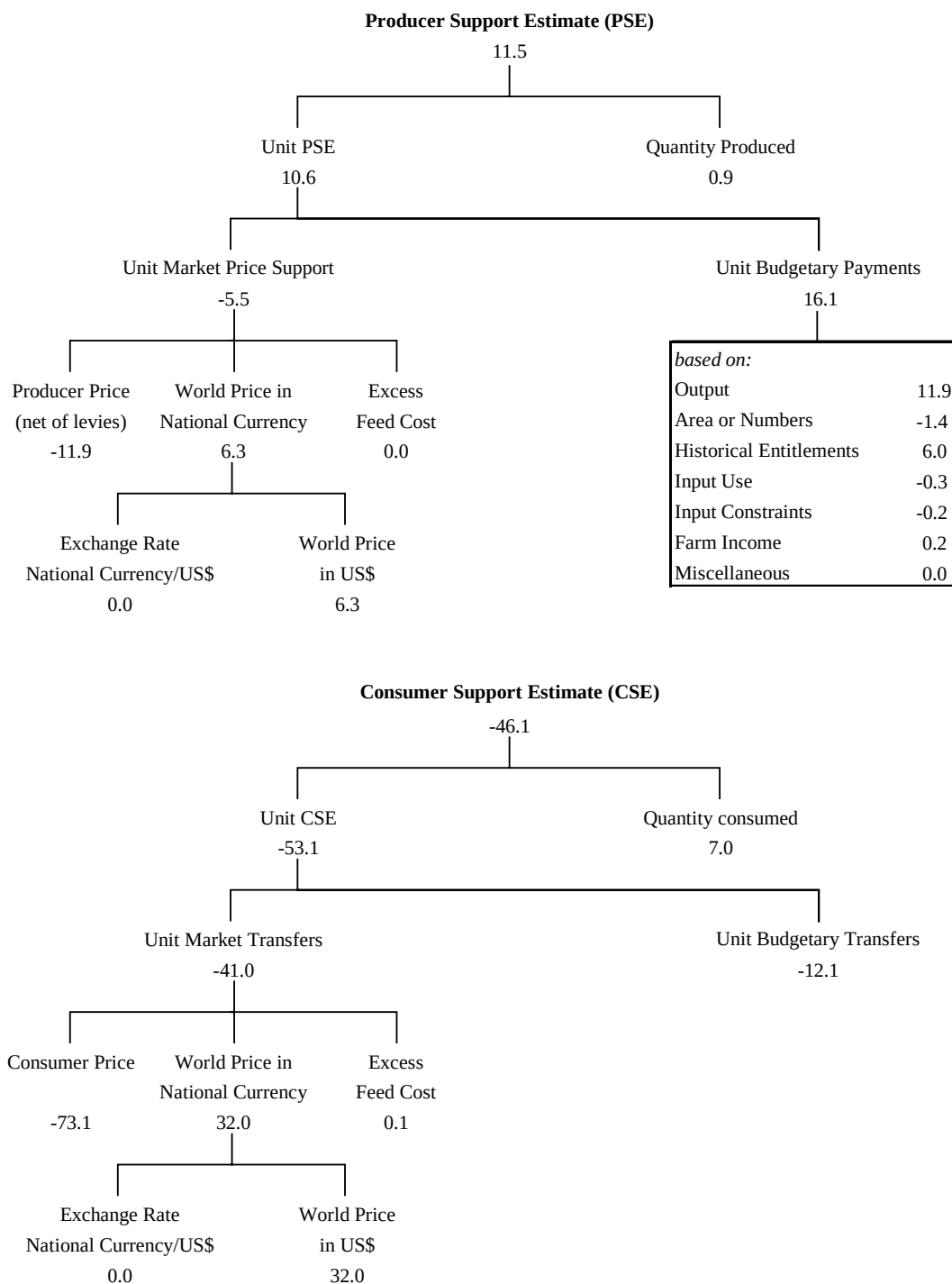
	1986-88	1997-99	1997	1998	1999p
Wheat					
US\$ mn	81	739	748	718	752
Percentage CSE	3	26	21	24	31
Consumer NAC	0.98	0.80	0.82	0.80	0.76
Maize					
US\$ mn	989	2 022	2 018	1 976	2 071
Percentage CSE	10	16	13	16	18
Consumer NAC	0.91	0.86	0.89	0.86	0.84
Other grains					
US\$ mn	53	180	205	161	175
Percentage CSE	3	16	14	16	17
Consumer NAC	0.97	0.86	0.88	0.86	0.85
Rice					
US\$ mn	60	167	159	167	176
Percentage CSE	15	25	18	19	37
Consumer NAC	0.87	0.81	0.84	0.84	0.73
Oilseeds					
US\$ mn	178	329	331	320	335
Percentage CSE	2	4	3	4	4
Consumer NAC	0.98	0.97	0.97	0.96	0.96
Sugar (refined equivalent)					
US\$ mn	-1 813	-1 855	-1 293	-1 839	-2 434
Percentage CSE	-65	-60	-47	-61	-74
Consumer NAC	2.96	2.75	1.87	2.53	3.85
Milk					
US\$ mn	-8 617	-9 295	-6 041	-11 826	-10 017
Percentage CSE	-54	-45	-34	-54	-48
Consumer NAC	2.40	1.88	1.51	2.18	1.94
Beef and Veal					
US\$ mn	1 149	2 815	2 835	2 739	2 871
Percentage CSE	5	11	11	11	10
Consumer NAC	0.96	0.90	0.90	0.90	0.91
Sheepmeat					
US\$ mn	-6	-17	-4	-5	-44
Percentage CSE	-1	-4	-1	-1	-9
Consumer NAC	1.01	1.04	1.01	1.01	1.10
Wool					
US\$ mn	-2	-1	-1	-1	-1
Percentage CSE	-1	-1	-1	-1	-1
Consumer NAC	1.01	1.01	1.01	1.01	1.01
Pigmeat					
US\$ mn	947	1 750	1 762	1 702	1 784
Percentage CSE	10	24	17	26	29
Consumer NAC	0.91	0.81	0.86	0.80	0.78
Poultry					
US\$ mn	-13	1 340	1 352	1 306	1 363
Percentage CSE	-1	10	11	10	10
Consumer NAC	1.01	0.91	0.90	0.91	0.91
Eggs					
US\$ mn	31	316	318	308	323
Percentage CSE	1	10	9	9	11
Consumer NAC	0.99	0.91	0.92	0.91	0.90
Other commodities					
US\$ mn	-2 231	212	2 265	-1 279	-349
Percentage CSE	-6	0	4	-3	-1
Consumer NAC	1.07	1.00	0.96	1.03	1.01
All commodities					
US\$ mn	-9 194	-1 297	4 654	-5 551	-2 994
Percentage CSE	-8	-1	3	-4	-2
Consumer NAC	1.09	1.01	0.97	1.04	1.02

Notes: See Part II.2 for detailed explanations. p: provisional; NAC: Nominal Assistance Coefficient.

The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for common (PSE) commodities.

Source: OECD, PSE/CSE database.

Figure III.16. **United States: Decomposition of PSE and CSE changes, 1998 to 1999.**
All commodities - total



Notes: The number shown under each PSE/CSE component is the contribution in the overall change. For example, the change in Unit Market Price Support contributed -5.5 percentage points to the 11.5 percent change in PSE. See Part II.2. for detailed explanations.

GLOSSARY OF AGRICULTURAL POLICY TERMS

This glossary provides definitions of policy measures and PSE/CSE terms. The list is not exhaustive. The terms defined here are mainly generic or refer to general categories of policy measures (for example, area payments or supply control) that may be defined independently of any country-specific policy setting. In order to encompass the complexity of agricultural policies, as implemented in the different OECD Member countries, the definitions reflect the scope of the terms as they are used in the *Monitoring and Evaluation* report. Some country-specific terms are included (for example, “agri-monetary system” in the EU or “Contract crops” in the United States), however, especially those that appear repeatedly in the text.

Terms that are defined elsewhere in the glossary appear in italics. Terms preceded by an asterisk are defined in the context of the PSE/CSE and total support methodology, and are explained in further detail in Part II.4 of this volume.

*
* *

Administered price: A price fixed by policy makers in order to determine, directly or indirectly, domestic market or producer prices. All administered price schemes set a minimum guaranteed support price or a target price for a commodity, which is maintained by associated policy measures, such as quantitative restrictions on production and imports; taxes, levies and tariffs on imports; export subsidies; and public stockholding.

Ad valorem tariff: A charge levied on imports, defined in terms of a fixed percentage of value (see also *Specific-rate tariff*).

Aggregate Measurement of Support, AMS: The indicator on which the domestic support discipline for the Uruguay Round Agreement on Agriculture is based. It differs from the Producer Support Estimate (see *Producer Support Estimate*) in many respects. The most important difference is that price gaps in the AMS calculation are estimated by reference to domestic administered prices and not to actual producer prices, and that external reference prices are fixed at the average levels of the 1986-1988 base period. In addition, many budgetary transfers included in PSEs are excluded from the AMS.

Agri-environmental indicator: A summary measure, combining raw data, used to describe the state of the environment, a risk to the environment, a change in the environment, or a driving force behind such a change, that can be attributed wholly or in part to an agricultural activity or activities.

Agri-monetary system (EU): Until the introduction of the single currency on 1 January 1999, intervention support prices and payments under the CAP were set in ECUs and then converted into each country's currency using special conversion rates called “green” rates. These rates were usually different from those established under the *European Monetary System (EMS)* and from those of EU member States which are not members of the EMS. (See also *euro*.)

Agrochemical: A commercially produced, usually synthetic, chemical compound used in farming – such as a fertiliser, pesticide or soil conditioner.

Anti-dumping duty: A duty levied on imported commodities. Article VI of the GATT permits special anti-dumping duties that are equal to the difference between the import price and the normal value of the product in the exporting country (the “dumping margin”).

Asia-Pacific Economic Co-operation forum, APEC: A forum of 21 countries formed in 1989 to promote free trade and investment flows, economic growth and stability in the Asia-Pacific region.

Applicant country (EU): A country that is being considered for membership of the European Union. Negotiations are currently being held between the EU and the following twelve applicants: Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia.

Area payments: Budgetary payments made to individual producers on the basis of area (acres or hectares) of eligible land. Under some programmes, payments are made per hectare of land planted to a specific crop in order to supplement producer returns earned through market price. When used as part of a *supply control* measure, acreage payments are made per hectare of land fallowed or withdrawn from agricultural use, or for non-production of specific commodities. In some cases, an upper limit is set on the number of hectares or the percentage of total farm area eligible for acreage payments. In the EU, area payments are made to individual producers per hectare of eligible land planted to cereals, oilseeds and protein crops as compensation for decreases in administered prices. The number of hectares eligible is the base area. These payments are conditional on the implementation of a *set-aside* programme, referred to as mandatory set-aside.

ASEAN Free Trade Area, AFTA: A multilateral agreement on trade, including agricultural trade, between ASEAN Member countries, phasing out tariffs and revising other trade rules between the nine countries over the 15-year period of implementation of the Common Effective Preferential Tariff (CEPT) Scheme. The agreement was signed in January 1992.

Association of Southeast Asian Nations, ASEAN: An organisation established in 1967 by Indonesia, Malaysia, Philippines, Singapore, and Thailand to promote the economic, social and cultural development of the region through co-operative programmes, to safeguard the political and economic stability of the region, and to serve as a forum for the resolution of intra-regional differences. Brunei Darussalam (1984), Vietnam (1995), Laos (1997) and Myanmar (1997) have since joined the Association.

Aujeszky's disease: A disease caused by an alpha-herpes virus that infects the central nervous system and other organs, such as the respiratory tract, in virtually all mammals except humans and the tailless apes. It is associated primarily with pigs. Also known as *pseudorabies*.

Baltic Free Trade Agreement, BFTA: A trilateral agreement on trade between Estonia, Latvia and Lithuania signed in 1994. In June 1996, the BFTA was extended to include agricultural trade, with effect from 1 January 1997. The agreement permits the removal of tariffs on all agricultural and food products of Baltic origin.

Base area (EU): National base areas are defined on the basis of the average of areas planted to cereals, oilseeds and protein crops between 1989 and 1991. The sum of individual areas claimed for payments – areas under set-aside and areas planted in cereals, oilseeds and protein crops – cannot exceed the national base area. If exceeded, there is a reduction in *area payments* and a penalty *set-aside* which increases the level of mandatory set-aside during the following year.

Border price: See *Reference price*.

Bovine somatotropin, BST: A naturally occurring hormone that stimulates milk production.

Bovine Spongiform Encephalopathy, BSE: A fatal disease of the central nervous system of cattle, first identified in the United Kingdom in 1986. On 20 March 1996 the UK Spongiform Encephalopathy Advisory Committee (SEAC) announced the discovery of a new variant of Creutzfeldt-Jacob Disease (CJD), a fatal disease of the central nervous system in humans, which might be linked to consumption of beef affected by exposure to BSE.

Broadacre: A term used, mainly in Australia, to describe farms or industries engaged in the production of grains, oilseeds and other crops (especially wheat, barley, peas, sorghum, maize, hemp, safflower, and sunflower), or the grazing of livestock for meat or wool, on a large scale (*i.e.*, using extensive parcels of land).

Buying-in price (EU): The percentage of the *intervention price* at which purchases into intervention are actually accepted.

Buy-out schemes: Supply control measures, in which participation is usually voluntary, under which producers receive compensatory payments for reducing output or productive capacity by a specified amount for a given period.

Central and Eastern European Countries, CEECs: An OECD term for the group of countries comprising Albania, Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, the Slovak Republic, Slovenia, and the three Baltic States: Estonia, Latvia and Lithuania.

Central European Free Trade Agreement, CEFTA: An agreement originally signed by the countries of the Visegrad group (the Czech Republic, Hungary, Poland and the Slovak Republic), on 21 December 1992 and effective since July 1994. Slovenia (1996), Romania (1997) and Bulgaria (1999) have since joined CEFTA. Moreover, Lithuania, Latvia, Croatia, Macedonia and Ukraine have announced their intention to join. The agreement provides for the gradual establishment of a free trade area for industrial goods and a gradual reduction of certain, but not all, barriers to trade in agro-food products.

***Coarse grains:** Generally refers to cereal grains other than wheat and rice – in the OECD countries, those used primarily for animal feed or brewing. When used as a collective term in the context of PSE and CSE estimates, the composition will vary by country and may include any or all of the following: barley, oats and sorghum. Rye and triticale, the production of which is minor in the OECD, are not included in PSE composites relating to coarse grains, except in a few cases where statistical difficulties prevent the separation of data on rye from those for other coarse grains. Maize (corn in the United States) is a coarse grain but is reported separately from all other coarse grains in the PSE/CSE tables. In Mexico, most maize is produced for human consumption rather than animal feed.

Codex Alimentarius: An international code for food developed and administered by the United Nations' *Codex Alimentarius Commission*. Sometimes simply referred to as "the Codex".

Codex Alimentarius Commission: An international body charged with developing the standards, guidelines and recommendations that comprise the *Codex Alimentarius*. Created in 1963 by two agencies of the United Nations – the Food and Agriculture Organization (FAO) and the World Health Organization (WHO) – the Commission concerns itself with all important aspects of food pertaining to the protection of consumer health, as well as to fair practices in the international food trade. The Commission also encourages food-related scientific debate and technological research.

Committee on Surplus Disposal, CSD: A subcommittee of the *Food and Agriculture Organisation's* Committee on Commodity Problems that monitors food aid flows to ensure that surplus disposal does not interfere with normal production and trade patterns, in compliance with the FAO Principles of Surplus Disposal (1954).

Common Agricultural Policy, CAP (EU): The EU's agricultural policy. Its objectives were set forth in Article 39 of the Treaty of Rome (1957). Financing of the CAP is provided through the Guarantee and Guidance sections of the European Agricultural Guarantee and Guidance Fund (EAGGF) (see *European Agricultural Guidance and Guarantee Fund*, EAGGF).

Common Market of the South, MERCOSUR: A multilateral agreement on trade, including agricultural trade, between Argentina, Brazil, Paraguay and Uruguay. The agreement was signed in 1991 and came into effect on 1 January 1995. Its main goal is to create a customs union between the four countries by 2006.

Commonwealth of Independent States, CIS: A formal association of states comprising most of the republics of the former Soviet Union, with the exception of Estonia, Latvia and Lithuania.

***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 impact 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 (transfers to producers from consumers); transfers to the budget and/or importers on the share of consumption that is imported (other transfers from consumers). It is net of any payment to consumers to compensate them for their contribution to market price support of a specific commodity (consumer subsidy from taxpayers); and the producer contribution (as consumers

of domestically produced crops) to the market price support on crops used in animal feed (*excess 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/subsidy, this indicator is not in itself an estimate of the impacts on consumption expenditure. The percentage CSE is the ratio of the CSE 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 (consumer subsidies). The nomenclature and definitions of this indicator replaced the former Consumer Subsidy Equivalent as from 1999.

Contract crops (United States): Crops eligible for *Production Flexibility Contract Payments*: wheat, maize, sorghum, barley, oats, rice, and upland cotton.

Countervailing duty: An additional levy imposed on imported goods to offset subsidies provided to producers or exporters by the government of the exporting country. Countervailing duties are permitted under Article VI of the GATT.

Crop year: A twelve-month period used for collecting data on a particular crop – generally corresponding to the natural planting and marketing cycle for that crop. Usually, a crop year begins in a month other than January.

Decoupled payment: A budgetary payment made to eligible recipients that is not linked to the production of specific commodities or to the use of specific factors of production.

Deficiency payment: An output subsidy in which the rate per unit of output of a commodity is the difference between an *administered price* and the market price.

Environmentally sustainable: See *Sustainable agriculture*.

Euro: The single currency of the eleven EU countries participating in the European Economic and Monetary Union introduced on 1 January 1999. Euro-denominated bank notes and coins will come into circulation from 1 January 2002.

European Agricultural Guidance and Guarantee Fund, EAGGF (EU): A fund within the overall EU budget for the financing of the CAP. Spending under the EAGGF Guarantee covers direct subsidies to farmers, market intervention measures, export refunds, as well as co-financing for the agri-environment (Reg. 2078/92), afforestation and early retirement schemes. The EAGGF Guidance Section, which forms one of the EU's four Structural Funds, co-finances measures to assist structural change in the agricultural sector and to promote rural development. Specific measures include investment aid, schemes to help young farmers set up for the first time, training activities, support for processing and marketing of agricultural and forestry products, compensatory allowances for areas with natural handicaps and rural infrastructure projects. The EAGGF Guarantee Section provides the financing for most of the CAP. The EAGGF fund is often referred to by its French abbreviation FEOGA.

European Currency Unit, ECU (EU): The unit of account used in the European Monetary System until 31 December 1998. The ECU is a weighted average of the national currencies of EU member countries. With the creation of the *euro* on 1 January 1999, the ECU was abolished. (See *euro*.)

European Economic Area (EEA), Agreement on the: An international agreement which entered into force on 1 January 1994 that links Iceland, Norway and Liechtenstein to the EU Internal Market through the creation of a "European Economic Area". Within the EEA, uniform rules regarding the four freedoms, competition, state-aid and public procurement apply. The relevant Community legislation for the Internal Market and the EEA-specific adaptations are integrated into the 22 Annexes and 48 Protocols to the EEA Agreement and subsequently transposed into national legislation of the three EFTA States. These Annexes and Protocols are constantly updated as relevant new or amended EU legislation is adopted.

European Free Trade Association, EFTA: A free-trade area established in 1958 with a view to eliminating tariffs on goods produced in and traded among member states. Most agricultural products are not subject to EFTA schedule tariff reductions. Current members: Iceland, Liechtenstein, Norway, Switzerland.

***Excess feed cost:** A supplementary cost resulting from *Market Price Support* on quantities of crops domestically produced and consumed as feed by livestock producers. It is deducted from the PSE for livestock and the CSE for crops. This avoids double-counting when aggregating the PSE and CSE for crops and livestock.

Export credit guarantee: Generally, an assurance provided by a government to protect its exporters against loss due to non-payment by a foreign buyer.

Export restitutions (EU): Variable export subsidies given to traders to cover the difference between the internal EU price of a commodity and its world market price.

Export subsidies: Subsidies given to traders to cover the difference between internal market prices and world market prices, such as through the EU *export restitutions* and the US Export Enhancement Program. Export subsidies are now subject to value and volume restrictions under the *Uruguay Round Agreement on Agriculture*.

Farm-gate price: See *producer price*.

FEOGA (EU): See *European Agricultural Guidance and Guarantee Fund*.

Food and Agriculture Organisation, FAO: A United Nations agency, founded in 1945, whose remit is to monitor and improve the distribution and production of food and agricultural products throughout the world.

General Agreement on Tariffs and Trade, GATT: A multilateral agreement, originally negotiated in 1947 in Geneva among 23 countries, to reduce *tariffs* and other trade barriers. It provides a framework for periodic multilateral negotiations on trade liberalisation. The most recent round of such negotiations was the *Uruguay Round*. Part of the final agreement of the *Uruguay Round*, concluded in December 1993, led to the establishment of the *World Trade Organisation* to replace the GATT; it commenced operation on 1 January 1995.

Generalised System of Preferences, GSP: An autonomous, country-specific policy that permits tariff reductions or possibly duty-free entry of certain imports from designated developing countries.

***General Services Support Estimate, GSSE:** An indicator of the annual monetary value of gross transfers to services provided collectively to agriculture and arising from policy measures which support agriculture, regardless of their nature, objectives and impacts on farm production, income, or consumption of farm products. It includes taxpayer transfers to: improve agricultural production (research and development); agricultural training and education (agricultural schools); control of quality and safety of food, agricultural inputs, and the environment (inspection services); improving off-farm collective infrastructures, including downstream and upstream industry (infrastructures); assist marketing and promotion (marketing and promotion); meet the costs of depreciation and disposal of public storage of agricultural products (public stockholding); and other general services that cannot be disaggregated and allocated to the above categories due, for example, to a lack of information (miscellaneous). 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. The percentage GSSE is the ratio of the GSSE to the *Total Support Estimate*.

Genetically Modified Organisms, GMO: Plant and animal organisms whose genetic make-up has been modified through the application of biotechnology.

Greenhouse gas, GHG: A gas such as carbon dioxide or methane that reflects infra-red radiation emitted by the earth, thereby heating the earth's atmosphere and contributing to global climate change.

Guaranteed export credits: Measures to promote agricultural exports. Under the United States' *Export Credit Guarantee Program* (GSM-102), for example, repayment of private, short-term credit is guaranteed for up to three years. The *Intermediate Export Credit Guarantee Program* (GSM-103), established in 1985, guarantees repayment of private credit for three to ten years.

Guaranteed quantities: Aggregate production limits beyond which volumes produced are not eligible for price support. This measure is applied to bread grains in Switzerland.

Hazard Analysis and Critical Control Points, HACCP: A set of procedures intended to predict and prevent food safety risks. It entails identifying and checking those points where food quality can be altered during food processing and distribution (*e.g.* through improper temperature or handling).

Headage payments: Budgetary payments made to individual producers on the basis of the number of head of a specific type of livestock, to supplement producer returns earned through sales at market

prices. Headage payments are sometimes subject to an upper limit on the number of livestock eligible per holding, or constraints on stocking densities.

Import quota: A quantitative restriction on the level of imports imposed by a country.

Integrated pest management, IPM: An approach to the management and control of agricultural pests which relies on site- and condition-specific information to manage pest populations below a level that causes economic injury and that minimises risks to humans and the natural environment. Although any among a wide range of pest control agents may be used (including chemical sprays), IPM generally stresses the use of alternatives, such as crop rotations, mechanical cultivation, and biological agents, where such methods are deemed to be effective.

Interest concession: A reduction, compared with commercial interest rates on the interest rate charged on a loan taken out by a farmer, typically provided directly by a government agency or by a government grant to the lending bank (in the case of a commercial loan).

International Dairy Arrangement, IDA: An arrangement under the GATT (and later the WTO) between major dairy producing and exporting countries. Its objective is to expand and liberalise world trade in dairy products through international co-operation.

Intervention price: A form of *administered price*; the price at which national intervention agencies are obliged to purchase any amount of a commodity offered to them regardless of the level of market price (assuming that the commodities meet designated specifications and quality standards). Thus, the intervention price serves as a floor for market prices. In the EU, intervention purchases constitute one of the principal policy mechanisms regulating the markets in cereals, butter and skimmed milk powder, and beef. The Council of Ministers sets intervention prices every year on the basis of proposals by the Commission.

Intervention purchase: The act of purchasing a commodity once its market price drops below a set administered price (the *intervention price*) so as to raise its market price to at least the level of the intervention price. See also *Intervention stocks*.

Intervention stocks: Stocks held by national intervention agencies as a result of *intervention buying* of commodities subject to market price support. Intervention stocks may be released onto internal markets if internal prices exceed *intervention prices*; otherwise, they may be sold on the world market with the aid of *export restitutions*, under the regulation of commodity-specific Management Committees.

Land set-aside, or land diversion: The removal of land from production, usually for supply control, regional development or environmental purposes. Set-aside is sometimes required as a condition for farmers to receive support payments.

Less-favoured area, LFA: In the EU, a term used to describe an area with natural handicaps (lack of water, climate, short crop season and tendencies of depopulation), or that is mountainous or hilly, as defined by its altitude and slope. LFAs benefit from area and headage compensatory allowances, and from a number of payments for structural adjustment. National governments designate their respective LFAs. In the Czech Republic, these are areas with less favoured conditions for agricultural production. These areas benefit from specific area and headage payments, and additional interest rate subsidies to support investment. In Hungary, these are areas with less favoured conditions for agricultural production (low quality land), which are defined in terms of the "Golden Crown Standard", reflecting its productive potential.

***Levies on output:** Taxes on farm output which reduce the price received by producers.

Loan deficiency payments (United States): In the United States, these are a type of *non-recourse* loan whereby, for wheat, feed grain, upland cotton, rice and oilseeds, a producer may agree to forgo loan eligibility and receive an output subsidy, the rate of payment of which is the amount by which the applicable county's loan rate exceeds the *marketing loan* repayment rate. Producers may elect to apply for this payment during the loan availability period on a quantity of the programme crop not exceeding their loan-eligible production.

Loan rate (United States): The commodity price at which the Commodity Credit Corporation (CCC) offers *non-recourse* loans to participating farmers. The crops covered by the programme are used as collateral for these loans. The loan rate serves as a floor price for participating farmers in the sense that they

can default on their loan and forfeit their crop to the CCC rather than sell it in the open market at a lower price.

Local-content scheme: A government policy that requires manufacturers of a particular product (e.g. cigarettes or fruit juice) to obtain domestically a specified minimum percentage of their basic agricultural input (e.g. tobacco or fruit from domestic producers).

Maastricht Treaty (EU): A treaty ratified by all member states in 1993 and implemented by means of extensive amendment to the Treaty of Rome, including the change from the name European Economic Community to European Union. The Maastricht Treaty includes sections on political union and on economic and monetary union, as well as a redefinition of the role of legislative and executive bodies. It establishes the principle of subsidiarity, by which any action by the Union shall not go beyond what is necessary to achieve the objectives of the treaty.

Manufacturing or industrial milk (Australia, Canada): Milk used for producing products such as casein, butter, cheese and milk powder. Generally the term excludes milk transformed into “fresh” products, such as yoghurt and cream.

Market access: A provision of the *Uruguay Round Agreement on Agriculture* that refers to concessions contained in the country schedules with respect to bindings and reduction of tariffs, and to other market access commitments, such as *tariffication*. The only allowable exceptions to the process are those described under the Special Safeguard Provisions and the Special Treatment.

***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 for total production (for domestic use and exports), and is measured by the price gap applied to current production. 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 (*Price levies*); in the case of livestock production, it is net of the market price support on domestically produced coarse grains and oilseeds used as animal feed (*Excess feed cost*).

***Market transfers:** Transfers to (when positive) or from (when negative) consumers due to *market price support* policies.

Marketing agency (or board): Generally, a statutory body possessing certain legislated regulatory powers over prices, quality standards, foreign trade, etc.

Marketing loan (United States): A variation of the *non-recourse loan* whereby, for specified commodities, a producer may repay a loan at a lower rate than the loan rate, equivalent to the prevailing world market price. Under the 1985 Food Security Act, marketing loans were implemented for cotton, rice and honey; under the Farm Act of 1990, they were implemented for soybeans and other oilseeds, some cotton and rice, and are now mandatory for wheat and feed grains; the 1996 FAIR Act retained the provisions for some commodities.

Marketing orders (United States): Measures intended to stabilise markets, standardise quality and packaging, regulate flows to the market and authorise research and development for certain farm commodities. They are used especially for fruits, vegetables and nuts. Marketing orders do not control pricing or production directly, but are binding on the entire industry in the area regulated. A marketing order is requested by a group of producers and must be approved by the Secretary of Agriculture and a required number of the commodity's producers (usually two-thirds) in the area regulated. Orders are financed by production levies.

MERCOSUR: see *Common Market of the South*.

Milk quota scheme: A supply control measure to limit the volume of milk produced or supplied. Quantities up to a specified quota benefit from full *market price support*. Over-quota volumes may be penalised by a levy (as in the EU, where the “superlevy” is 115 per cent of the target price) or may receive a lower price. Allocations are usually fixed at individual producer level. Other features, including arrangements for quota reallocation, differ according to scheme. See also *Supply quotas*.

Modulation (EU): A term that refers to a provision of the EU's Agenda 2000 package of measures (ref: Regulation (EC) No. 1259/99) which allows EU Member States to decide criteria for, and rates of, reduction in the size of payments granted to individual farmers under CAP-financed direct support schemes. The reduction in support to any individual farmer may not exceed 20 per cent of the total amount of the payments for which he or she would otherwise be entitled. Member States can *modulate* payments – i.e., use the funds made available from reducing the amounts paid to some farmers by re-channelling them into other programme areas – to help finance agri-environmental measures, early retirement schemes, less favoured areas and areas with environmental restrictions, and forestry.

Multifunctionality, or multifunctional agriculture: Terms used to indicate generally that agriculture can produce various non-commodity outputs in addition to food. The working definition of multifunctionality used by the OECD associates multifunctionality with particular characteristics of the agricultural production process and its outputs: i) the existence of multiple commodity and non-commodity outputs that are jointly produced by agriculture; and that ii) some of the non-commodity outputs may exhibit the characteristics of externalities or public goods, such that markets for these goods function poorly or are non-existent.

Net Income Stabilization Account, NISA (Canada): A voluntary farm income safety-net programme under which farmers set aside money in individual interest bearing accounts; this is matched by federal and provincial treasuries. Farmers can make withdrawals from the account when their income falls below their five-year average returns after costs or when their taxable income falls below a fixed level.

New Independent States of the former Soviet Union, NIS: An OECD term denoting the group of states that formerly made up the Soviet Union, with the exception of Estonia, Latvia and Lithuania.

***Nominal assistance coefficient, NAC:** The producer NAC is the ratio of the PSE and the value of total gross farm receipts valued at world market prices, excluding budgetary support. The consumer NAC is the ratio of the CSE and the total value of consumption expenditure on commodities domestically produced valued at world market prices, excluding budgetary support to consumers.

Non-recourse loan (United States): The major instrument used by the Commodity Credit Corporation to support the price of a number of crop products. The loan is “non-recourse” because the Government has no option but to accept forfeiture of the crop in full satisfaction of the loan obligation, even when the market price of the commodity is below the *loan rate*.

North American Free Trade Agreement, NAFTA: A trilateral agreement on trade, including agricultural trade, between Canada, Mexico and the United States, phasing out tariffs and revising other trade rules between the three countries over a 15-year period. The agreement was signed in December 1992 and came into effect on 1 January 1994.

Objectives 1, 5a, 5b and 6 (EU): Priority objectives for allocating structural funds for rural development and agricultural adjustment for the 1994-99 period. Objective 1: structural adjustment of regions whose development is lagging behind (defined as those areas with a GDP of less than 75 per cent of the EU average) including all of Greece, Ireland and Portugal. Objective 5a: structural adaptation of agriculture and fisheries. Objective 5b: economic diversification of vulnerable rural areas (defined as those rural areas with a low level of socio-economic development, a high dependency on agricultural employment, low agricultural incomes, low population density and declining population). Objective 6 (Finland and Sweden): structural adjustment of sparsely populated regions (defined as the regions north of the 62nd parallel with population density less than 8 inhabitants per km²). Objectives 1, 5b and 6 are limited to designated areas (nearly three-quarters of the EU area and about 35 per cent of the EU population), while objective 5a may be implemented throughout the EU. Appropriations for objective 1 account for almost 70 per cent of all appropriations under the structural funds.

***Oilseeds:** Generally, seeds grown primarily for the production of edible (i.e. cooking) oils. When used as a collective term in the context of PSE and CSE estimates, the composition varies by country and may include any or all of the following: rape seed (colza), soybeans and sunflower seed. Linseed and safflower seed are not included in the definition of oilseeds used for PSE/CSE purposes, except in a few cases where statistical difficulties prevent the separating of data on these crops from those for other

oilseeds. Cotton seed, grape seed, olives and groundnuts (peanuts), from which edible oils are produced as by-products, are excluded from the PSE and CSE composites.

Organic farming: A variously defined term generally describing agricultural production methods that avoid the use of synthetic *agrochemicals* and plant and animal protection products. The fertility and biological activity of the soil can be maintained either by cultivation techniques and crop rotation or by incorporating organic material into the soil. Pests, diseases and weeds can be controlled by (among other methods) encouraging natural predators to flourish and through the use of disease-resistant crop varieties and mechanical weeding.

Phytosanitary regulations: Government regulations that restrict or prohibit the importation and marketing of certain plant species, or products of these plants, so as to prevent the introduction or spread of plant pests or pathogens that these plants may be carrying. See also *Sanitary regulations*.

***Producer price:** The average price or unit value received by farmers in the domestic market for a specific agricultural commodity produced within a specified 12 month period. This price is measured at the farm gate – that is, at the point where the commodity leaves the farm – and therefore does not incorporate the costs of transport and processing.

***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, 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. 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 transfers. The percentage PSE is the ratio of the PSE to the value of total gross farm receipts, measured by the value of total production (at farm gate prices), plus budgetary support. The nomenclature and definitions of this indicator replaced the former Producer Subsidy Equivalent in 1999.

Programme crop (United States): A crop covered by federal support programmes. These crops are wheat, corn (maize), barley, grain sorghum, oats, rye, extra-long staple and upland cotton, rice, soybeans, tobacco, peanuts (groundnuts) and sugar.

Pseudorabies: See *Aujeszky's disease*.

Quantitative restriction: A limit on the quantity or value of a product permitted to enter or leave a country. Examples are *import quotas* and *voluntary export restraint arrangements*.

Quota: See *Import quota*, *Milk quota scheme*, *Supply quota*, *Tariff quota*.

Recombinant bovine somatotropin, rBST: A genetically engineered version of a naturally occurring hormone that stimulates milk production.

***Reference (border) price:** The import (c.i.f.) or export (f.o.b.) price of a commodity. An implicit border price may be calculated as, for example, the unit value of imports or exports.

Sanitary regulations: Government regulations that restrict or prohibit the importation and marketing of certain animal species, or products thereof, to prevent the introduction or spread of pests or diseases that these animals may be carrying. See also *Phytosanitary regulations*.

Special [Agricultural] Safeguard: A provision in Article 5 of the *Uruguay Round Agreement on Agriculture* that may be invoked by a WTO Member for a product subject to *tariffication* and for which application of the special safeguard is designated in the Member's Schedule (listing of commitments). It is designed to prevent disruption on domestic markets due to import surges or abnormally low import prices, and can apply only to imports that exceed *tariff-quota* volumes. It permits additional duties to be imposed in situations where the volume of imports increases beyond a specified trigger level (which varies according to the share of the market that is supplied by imports) or in situations where prices fall below some specified trigger level. The special agricultural safeguard clause is an alternative to the general safeguard provisions in the GATT, and is much easier to invoke because it does not require a test of injury.

Specific-rate tariff: A charge levied on imports, defined in terms of a specific charge per unit (*e.g.*, \$100 per tonne). Contrast with *Ad valorem tariff*.

Stabilisation funds (Canada): Commodity-specific or multi-commodity funds into which producers and federal and, for some programmes, provincial governments pay premiums for the various Canadian stabilisation programmes and from which payments are made. If one of these funds runs a deficit, the Ministry of Finance may lend money at market interest rates to cover the deficit.

Stabilisation payment: A budgetary payment made to compensate farmers for falling farm prices incomes, or both. Stabilisation programmes include insurance or safety nets or *underwriting schemes* intended to compensate farmers for decreases in price, income or cash flow due to disturbances to yields (from drought, for example) or instability in factor and commodity markets.

State trading enterprise (or body), STE: An enterprise authorised to engage in trade that is owned, sanctioned, or otherwise supported by the government. Many STEs enjoy monopoly control over imports or exports.

Structural funds (EU): Funds intended to facilitate structural adjustment of specific sectors, regions, or combinations of both, in the EU. They include the European Regional Development Fund (ERDF), the European Social Fund (ESF), the Guidance Section of *European Agricultural Guidance and Guarantee Fund* (EAGGF) and the Financial Instrument for Fisheries Guidance (FIFG). Assistance is concentrated on six priority objectives (see *Objectives 1, 5a, 5b and 6*). These objectives are implemented through programmes proposed by the appropriate authorities of the member states (National Initiative programmes). The EC also co-finances other programmes on subjects proposed by the EC (Community Initiatives).

Substantial equivalence: A concept, first described in an OECD publication in 1993, which stresses than an assessment of a novel food, in particular one that is genetically modified, should demonstrate that the food is as safe as its traditional counterpart.

Supply control: Any among a wide range of measures designed to affect the level of production or supply, including measures that restrict output directly (such as milk quotas) and those that restrict the use of an input. See also *Acreage Reduction Programs, buy-out schemes, set-aside*.

Supply quotas: Limits on acreage, production or marketed quantities of a particular commodity in the context of a supply control programme.

Support price: See *Administered price*.

Sustainable agriculture: Agricultural production that is economically viable and does not degrade the environment over the long run. Definitions differ as to the period over which sustainability is intended to be achieved; whether sustainability should relate only to localised effects on the environment or also to effects on the environment caused by the production of farm inputs; and whether the environment in this context should be defined only to include the physical environment (soil, water, plants and animals) or also the environment created by agriculture, such as landscape amenities.

Target price (EU, Switzerland, United States): In the EU, a price fixed annually by the Council of Ministers for products of standard quality. It is not a guaranteed price but rather serves as a policy guideline. In Switzerland, an administered price from which a price range is derived for most livestock products. Domestic prices are determined by the internal supply/demand situation, within the limits of the range. If prices reach the upper or the lower limit of the range, the Government intervenes by importing or stocking livestock products. In the United States, *target prices* for wheat, corn (maize), sorghum, barley, oats, rice and cotton were abolished with the introduction of the 1996 FAIR Act.

Tariff: A tax imposed on imports. A tariff may be either a *specific tariff* (fixed charge per unit of product imported) or an *ad valorem tariff* (a fixed percentage of value). See also *Variable Import Levy*.

Tariffication: The conversion of non-tariff barriers to tariffs that took place in the *Uruguay Round Agreement on Agriculture*.

Tariff quota: A term used interchangeably with the term *tariff rate quota*.

Tariff-rate quota, TRQ: A trade restriction involving a lower (in-quota) tariff rate for a specified volume of imports and a higher (over-quota) tariff rate for imports above the concessionary access level.

Under the *Uruguay Round Agreement on Agriculture*, most countries have agreed to progressive reductions in the over-quota tariff rates. Some countries have also agreed to lower the in-quota tariff rates, raise the concessionary access level, or both.

***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 impact 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 transfers associated with agricultural support, financed by consumers (transfers from consumers) and taxpayers (transfers from taxpayers) net of import receipts (budget revenues). The percentage TSE is the ratio of the TSE to the GDP. The nomenclature and definitions of this indicator replaced the former Total Transfers as from 1999.

Uruguay Round: The eighth round of multilateral trade negotiations conducted within the framework of the GATT. Launched in Punta del Este, Uruguay, in 1986 and concluded in December 1993, the final Uruguay Round agreement, signed in Marrakech in April 1994, embraces 136 participating countries ("contracting partners") and came into effect in 1995. It is being implemented gradually up to 2000 (2004 for developing countries).

Uruguay Round Agreement on Agriculture, URAA: The terms of the URAA are contained in the section entitled the "Agreement on Agriculture" of the Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations. This text contains commitments in the areas of *market access*, domestic support (see AMS) and *export subsidies*, and general provisions concerning monitoring and continuation. In addition, each country's schedule is an integral part of its contractual commitment under the URAA. There is a separate agreement entitled the Agreement on the Application of Sanitary and Phytosanitary Measures. This latter agreement seeks to establish a multilateral framework of rules and disciplines to guide the adoption, development and the enforcement of sanitary and phytosanitary measures in order to minimise their negative effects on trade. See also *Phytosanitary regulations* and *Sanitary regulations*.

Variable import levy: A charge levied on imports that raises their price to a level at least as high as the domestic price. Such levies are adjusted frequently (hence "variable") in response to changes in world prices and are imposed to defend *administered prices* that are set above world market prices. The Uruguay Round agreement resulted in the replacement of variable levies by tariffs.

***World price:** See *Reference price*.

World Trade Organisation, WTO: The successor body to the *General Agreement on Tariffs and Trade* (GATT), established formally on 1 January 1995 as part of the final agreement of the *Uruguay Round* of multilateral trade negotiations. The main duties of the WTO are to: i) administer trade agreements; ii) act as a forum for trade negotiations; iii) settle trade disputes; iv) review national trade policies; and v) assist developing countries in trade policy issues.

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