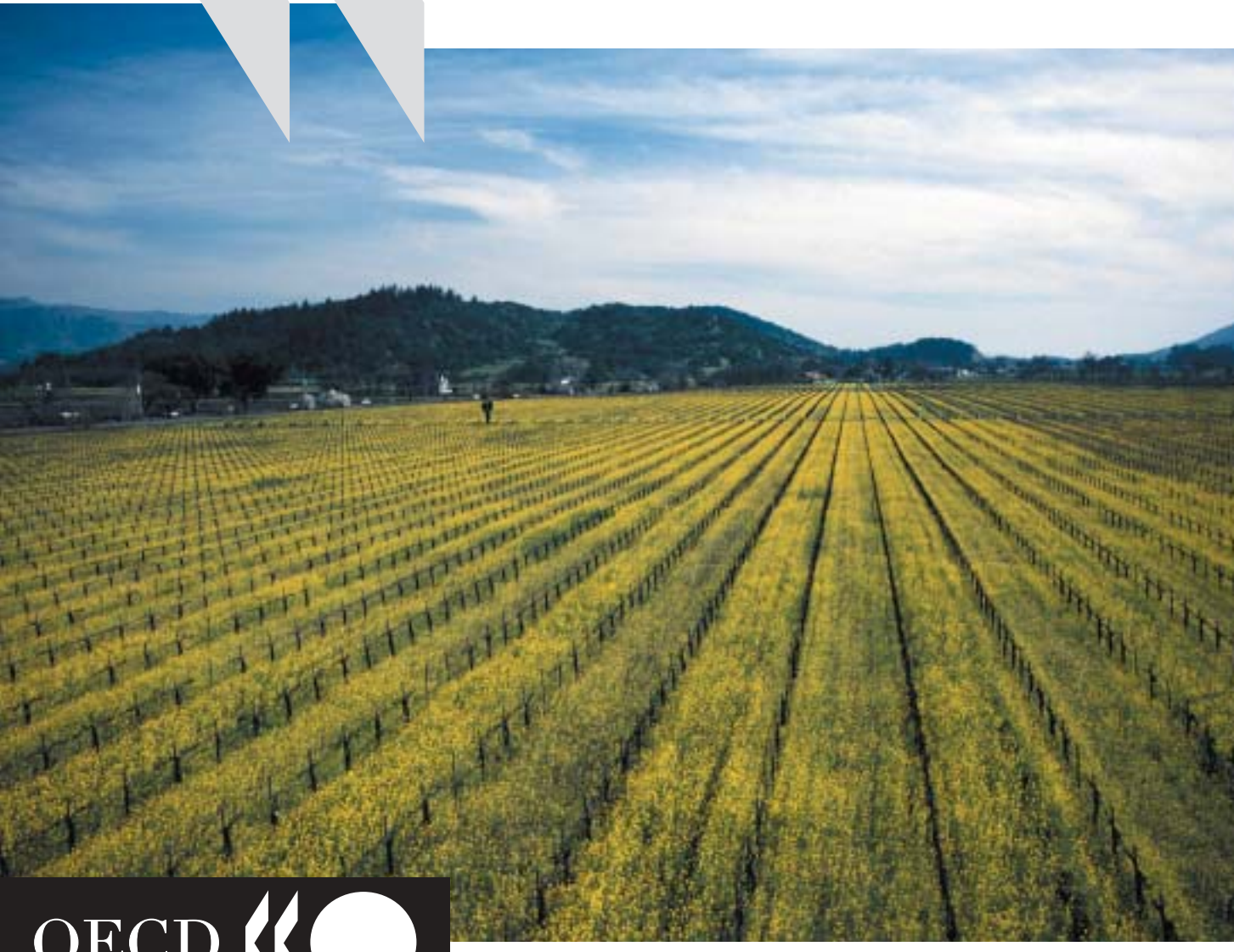
Agricultural Policies in OECD Countries

MONITORING AND EVALUATION



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Monitoring and Evaluation 2003

OECD

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Foreword

This is the 16th edition in a series on agricultural and related 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 increasingly complex policy measures.

The report consists of two parts. Part I provides a description and an overall assessment of policy developments and agricultural support in Member countries against a background of the main macroeconomic and agricultural market developments. It also includes a special section analysing the 2002 Farm Act in the United States and a section on agri-environmental policies in OECD countries. Part II presents detailed information on policy developments in individual Member countries (and for the member States of the European Union). It also contains the support estimates and other background information referred to in Part I as well as a glossary of agricultural policy terms.

The OECD's Working Party on Agricultural Policies and Markets approved the publication of Part I of the report; Part II is published under the responsibility of the Secretary-General of the OECD.

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Executive summary

The level of support to farmers in OECD as a whole has not changed since 2000. Despite some major policy initiatives in 2002 there were no notable changes in the main policy instruments in most countries. Consequently, changes in the level of country and commodity support largely reflected market developments (weakening US dollar, world prices considerably lower for livestock products and significantly higher for crops). Overall, there was neither a reduction in market protection nor an improvement in market orientation, although there has been some progress since the mid-1980s. Wide differences in support levels continued across countries and between commodities. More market orientation and policies better targeted to specific objectives are needed in many OECD countries to reduce the costs to domestic consumers and taxpayers, to further integrate domestic and world agricultural markets, to improve the prospects for developing countries, to reduce environmental pressure and to achieve various goals that governments have set for themselves. The WTO negotiations underway on agricultural trade offer an opportunity to pursue these goals.

Major changes in the United States and ongoing discussion on the European Union's reform proposals. The major policy development in 2002 was the signing of the new Farm Act in the United States, but support policies in the United States were still largely influenced by the previous legislation. The new Act will play an important role in the evolution of United States agriculture and world markets over its six year life. Compared to the previous legislation, it has, among other things, introduced country of origin labelling, expanded the coverage of some support measures to a wider group of commodities, and could increase support leading to higher production and some downward pressure on world prices. Discussion to further reform the European Union's Common Agricultural Policy started in 2002, and the process is ongoing with a decision expected in 2003.

More integrated policy framework in some countries. In a number of OECD countries more attention is being given to environmental and rural issues and to the diversification of farm and non-farm sources of income for farm households. These developments offer the opportunity for better targeted policies and further policy reform in OECD countries, as well as for exploring the creation of markets, and embracing economy-wide policies.

Support levels unchanged in recent years but down over the longer term. Compared with the 1986-88 period, 2000-02 was characterised by a lower overall level of support to producers together with movement towards policy measures that are less production and trade distorting. This progress was underpinned by the URAA, implemented since 1995. Support to farmers (PSE) reached USD 235 billion (EUR 249 billion) which is around the same level as in 2001. This support represented 31% of total farm receipts (%PSE) in the OECD area, the same as in 2001 but down from 38% in 1986-88.

A marginal increase in the overall rate of protection. Prices received by OECD farmers in 2002 were on average 31% above world prices, (30% in 2001). While this is a significant reduction from the mid-1980s when producer prices were 57% higher (with large variations in the intermediate period, and the lowest price gap being recorded in the mid-nineties),

farmers in many countries remain shielded from world market signals. Whereas prices received by farmers were, on average, the same as those at the border in Australia and New Zealand, they were 10% higher in the United States, 35% higher in the European Union, and more than 100% higher in Iceland, Japan, Korea, Norway and Switzerland.

Significant differences remain across countries and commodities. The level of support (%PSE) increased in 2002 for all countries except Japan and New Zealand where it stayed the same, and in Poland and the United States where it decreased. Support varied from 1% in New Zealand to 18% in the United States, 36% in the European Union and over 70% in Norway and Switzerland. By commodity, support ranged from an average of 6% for wool, to 48% for sugar and milk, and 80% for rice. Mainly reflecting developments in world markets, support levels fell for most cereals and sheep meat in 2002, but increased for other products. Variation in commodity support levels has decreased since 1986-88 in most OECD countries, but has increased in the European Union, Japan and Korea.

Production-linked support still dominant. The share of output-based support (market price support and output payments) and input subsidies remained at 76% of producer support, down from 90% in 1986-88. These measures are among the most production and trade distorting, and are the least effective in transferring income to farmers or in targeting the provision of environmental benefits. The share of these measures in producer support varies across countries, with sizeable progress being made in some countries to lower the reliance on such distorting measures***. Payments based on area planted or animal numbers*** increased and account for 14% of support to producers, the share doubling since 1986-88, while ***payments based on historical entitlements*** (past support, area/animal numbers and yields) have remained at around 5% of support to producers. ***Payments based on input constraints*** (for the withdrawal of inputs or to offset conditions placed on their use, such as land for environmental purposes) and ***payments based on overall farm income*** increased, although their combined share remained very low and stable at 5% of producer support. Payments based on input constraints exist only in a limited range of countries and do not exceed 4% of producer support in any one country, while payments based on farm income are significant only in Australia and Canada.

Overall, a smaller but still significant share of receipts comes from government intervention. Gross farm receipts were on average 46% higher in 2002 than they would have been at world prices without any support, up by 2 percentage points from 2001. But this is a decrease of 15 percentage points from the 1986-88 average, indicating progress towards greater ***market orientation*** in the OECD area. However, while agriculture in Australia and New Zealand is largely dependent on the market, in Iceland, Japan, Korea, Norway, and Switzerland farm receipts are more than double those generated in the market without support.

Overall costs to taxpayers and consumers increased. Although budgetary payments to producers decreased, the overall ***costs to taxpayers*** of agricultural support policies rose due to an increase in support to general services provided to agriculture and to promote consumption. This increase in support for consumers only partially offset the gap between domestic and world prices and so ***costs to consumers*** also increased. Overall, consumers were implicitly taxed at 24% (%CSE), compared with 33% in 1986-88. The %CSE varied, however, from a small consumer subsidy in the United States to an implicit consumer tax of over 60% in Korea and Switzerland.

Total support to agriculture remains high. The Total Support Estimate (TSE) amounted to USD 318 billion (Euro 338 billion) in 2002. Around three-quarters went to producers while 17% went to ***general services*** – sector-wide policies and institutional services such as research, education, inspection and control, and marketing. Total support to agriculture accounted for 1.2% of the GDP in the OECD area in 2001 and 2002, compared with 2.3% in 1986-88, but with wide variations across countries.

PART I

Monitoring and Evaluation

Abstract. *Part I of the Monitoring and Evaluation of Agricultural Policies contains the developments of agricultural policies in 2002 and the analysis of support to agriculture based on the Producers support estimates (PSE). It also contains a section analysing the Farm Security and Rural Investment Act (FSRI) of the United States, and a section on Agri-environmental policies in OECD countries.*

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PART I

Chapter 1

Main policy developments in 2002

This chapter highlights major changes or new initiatives that occurred in agricultural policy in OECD countries in 2002. Details of these may be found in the country chapters that follow. The year 2002 saw several significant policy developments, notably the United States' Farm Security and Rural Investment Act of 2002 (2002 Farm Act) and the proposals for the reform of the EU's Common Agricultural Policy (CAP). EU enlargement plans and preparations for the next WTO round saw some progress in 2002, but their potential impact on agricultural policy is uncertain. Environmental issues and organic production continued to receive increased attention by governments, which are showing an increasing desire to look at agricultural policy in a broader and more integrated context of environment, food safety, structural adjustment, rural development and other issues.

1. Developments in domestic policy

Some major policy changes were made in 2002

The signing in May 2002 of the **United States** Farm Security and Investment Act (2002 Farm Act) to be applied over six years drew world-wide attention. The provisions of this Act return to the target price based payments of the mid-1990s and increase the total budgetary commitment to agriculture. The Act brings into force a new "counter-cyclical payment" triggered by commodity price declines, and provides major increases for the Conservation Reserve Program (CRP), the Environment Quality Incentives Program (EQIP), and the Conservation Security Program (CSP). There is an 80% increase in funding of environmental programmes and a reduction in the degree of targeting of these programmes over the period of the Act. The 2002 Farm Act also contains provisions concerning country of origin labelling requirements and organic production.

... but not all announcements have been implemented yet.

Several other countries also proposed or began implementation of agricultural packages encompassing a broad range of policy issues. In the **European Union**, the European Commission's proposals for the reform of the Common Agriculture Policy ("A Long-term Perspective for Sustainable Agriculture"), previously called the "Mid-Term Review", resulted in a detailed and substantive proposal to decouple some payments from production and shift funding towards Pillar Two goals of environment and rural development. The Strategy for Sustainable Farming and Food was published in the **United Kingdom**, supported by funding to promote its aims of sustainable farming, rural promotion, "whole farm" management and regulation, improved competitiveness, training, and animal health. **Canada's** Agriculture Policy Framework (APF) was signed by Federal and Provincial agricultural ministers in 2002 and contains five pillars of environment, food safety, sector renewal, science and innovation, and business risk-management. In November 2002, **Mexico** announced a new framework entitled Actions of agro-food and fisheries policies for strengthening the sector. This package contains new crop payments, legislation on quality and labelling, inspection and certification to

strengthen food safety and health, and a restructuring of the rural financial sector. A new Agricultural Agreement was signed between the government of **Iceland** and its producers which, in addition to defining the policy parameters surrounding commodity support, aims to increase efficiency and productivity and provide financial and technical assistance to research and development. In **Switzerland**, the AP2002 agricultural policy reform programme provides the basic legislative framework governing agricultural policy for the period 1999-2003. Several countries scheduled for EU accession in 2004 took action to prepare their sectors by adjusting their agricultural policy to be more in line with that of the EU.

Changes in the levels of market price support were mixed…

There were few reforms to policies providing market price support (MPS) in 2002. Developments were mainly due to policy settings rather than programme reform. **Switzerland** reduced its budget for market support for dairy products by 23%. The **European Union** abolished intervention prices for beef and the basic price for sheepmeat, and cut sugar quotas. **Poland** implemented a milk quota system in preparation for EU accession. The **Slovak Republic** and **Iceland** increased both prices and quotas for milk. The **Czech Republic** reintroduced the guaranteed price for bread wheat and introduced a system of minimum prices for sugar and sugar beet. **Canada** increased the target price for industrial milk, and support prices for butter and skim milk powder. **Hungary** announced intervention purchases for wheat and maize, while **Norway** reduced target prices for grains but increased them for livestock.

… as were changes in budgetary support, which increased in some cases

Under the new 2002 Farm Act legislation, the **United States** introduced new direct payments to replace the production flexibility contracts of the 1996 Farm Act. These payments were extended to include soybeans, other oilseeds, and peanuts. A counter-cyclical payment was also introduced for wheat, feed grains, upland cotton, rice, oilseeds and peanuts to replace the *ad hoc* Market Loss Assistance Program payments that were provided in the previous years. **Poland** expanded its programme of storage aids, introduced in 2001, to include wheat and rye for human consumption, and began payments to domestic milk powder manufacturers. Output payments in **Hungary**, largely consisting of "quality" payments, rose significantly in 2002. Horticultural producers in **Iceland** will be given new output payments in compensation for trade liberalisation in cucumbers, tomatoes, and red pepper. Payments to compensate tea growers in **Turkey** increased by almost half, payments for mohair nearly doubled, and payments to rape seed and silk cocoon increased by a factor of four (inflation was around 35%). **Korea** introduced a Direct Payment Scheme for Rice Income Stabilisation, which covers income loss if market prices fall below the five-year average. Payments per hectare under PROCAMPO in **Mexico** increased and capitalisation of these payments is now permitted.

… and decreased in others.

Area payments for oilseeds in the **European Union** were reduced in order to align them with payments for cereals and set-aside land. A new sheepmeat and goatmeat regime also came into force in the **European Union.** This replaces variable deficiency payments with a fixed payment, including provisions for additional payments for less favoured areas and by national payments. **Norway** reduced the budget of its 2002/03 Agricultural Agreement,

largely by reducing deficiency payments for livestock, but this was offset by an increase in the target price. Area payments in the **Slovak Republic** were reduced by more than a third in 2002. Deficiency payments for olive oil, cotton and sunflower decreased significantly in **Turkey**.

Uneven progress in reforming programmes that reduce input costs.

Several countries made changes to the way programmes affecting input costs operate. Perhaps the most important change occurred in **Turkey**, which increased input subsidies in some cases and decreased them in others, but reduced overall input support by nearly three-quarters since 1999, despite high inflation. Input support was down 8% in **Hungary**, where it forms the largest component of agricultural budgetary spending, and some changes were made to conform with the EU system. Payments compensating for high seed costs in the **Czech Republic** were extended to barley, peas and beans. In **Norway**, the gap between market rates and interest rates charged for farm development loans narrowed in 2002, but a new scheme was introduced for 2003 which reduces interest rates to farmers by five percentage points. Tax rebates on agricultural fuels were replaced by a lower tax rate in the **Slovak Republic**, with the net effect of a reduction in support. However, subsidies for insurance were increased substantially. In **Mexico**, a new, common, subsidised price for electricity was set and the programme supporting investment in agriculture (ALIANZA) was restructured and its budget increased.

Bad weather brought government responses in several countries.

Weather often influences agricultural policy as extreme events can depress farm production and incomes. The year 2002 saw either severe drought or flood in several OECD countries, many of whom responded with exceptional programmes to assist producers. **France**, **Germany**, **Hungary** and the **Czech Republic** made payments to producers to compensate for losses from floods. Flooding also caused **Austria** and the **European Union** as a whole to make provisions for exceptional grazing of animals on set aside land. The European Union created a special aid fund and allowed advances on programme payments. In **Greece**, a national aid scheme was approved to restore damaged production potential and compensate for losses due to severe weather.

The **United States** made compensatory payments on an "animal consuming unit" basis to livestock producers suffering from drought in most states. These payments are in addition to the new programme funding in the 2002 Farm Act. **Australia**, which endured one of its worst droughts on record, also announced exceptional funding, mainly taking the form of interest rate subsidies and loans to help save livestock and supply feed, but also including relief payments. The worsening drought in **Canada** caused crop insurance payments to more than double compared with 2001, reaching record levels.

Farmers will receive increased funding for environmental improvements…

Several new payment schemes were made available to farmers to reduce negative impacts of farming on the environment. The focus remains on agricultural sources of pollution, nutrient runoff and pesticides. In the **United States**, the US Farm Act puts a new emphasis on environmental protection on working farmland by expanding the EQIP programme by a factor of at least six, providing the same magnitude of funding as the long established CRP land set-aside programme. **France** hopes to improve on the unsatisfactory performance of the *contrats territoriaux d'exploitation* (CTE) by replacing them with new

contrats d'agriculture durable (CAD). These new contracts include economic and social as well as environmental and land measures. Ecological payments in **Switzerland** increased significantly in 2002 due to changes in compensation levels. **Australia** took steps to improve water efficiency through water pricing reform, interstate trading and investments in development projects. The **United Kingdom** will provide schemes at two levels: "broad and shallow" to promote sustainable practices across all farms, and "narrow and deep" to concentrate on high priority areas. The **Netherlands** passed a law providing a framework for restructuring intensive livestock farming that includes "reduction zones" where production must decrease. A new law also imposes stricter requirements on ammonia emissions.

... and be asked to improve on-farm planning, management, and reporting...

Canada announced funding over the next four years in support of Environmental Farm Plans that would identify risks and benefits as well as develop mitigation action plans. To support the development and adoption of Environmental Management Systems (EMS), **Australia** has developed a National Framework for EMS that will assist producers in implementing them. **Sweden** is using revenue from taxes on farm chemicals to encourage producers to establish cropping plans. In May, **France** published a decree defining the concept of *agriculture raisonnée,* farming methods that are more respectful of the environment, safety, health, animal welfare, and efficiency. Environmental planning and documentation at the individual farm level became mandatory in **Norway** from 1 January 2003. **Australia** published a State of the Environment report that will serve as a benchmark against which to assess future performance of Australian agriculture. The Environmental Protection Agency of the **United States** established new rules requiring planning and reporting by large livestock operations, which will be required to possess and implement comprehensive nutrient management plans and submit annual reports by 2006. **Turkey** established a new regulation on conservation of wetlands that establishes principles and provides for definition of protected areas and preparation of management plans.

... and continue to encourage organic production...

To encourage organic production, governments have supported and promoted this sector in a variety of ways. However, in a majority of countries, organic production remains a small percentage of total agricultural output. In 2002, **Austria** launched its latest "organic action programme" to promote organic farming through research and development, marketing, education, extension, public relations, and inspections. The **United Kingdom** also committed money towards organic research. **Norway** increased its assistance to organic farming by 30% in 2002 and intends to increase it further in 2003 with a goal of increasing the organic area from 2% to 10% of total agriculture. **Hungary** also provided payments for conversion to organic production of up to USD 154 per hectare through its National Agri-Environmental Programme. **Germany** reoriented its central programme of structural policy to support organic farming (among other things) and raised payments to producers for the adoption and maintenance of organic production under its organic farming scheme. The **United States** created a fund to support research on advanced organic production systems, will grant payments to assist producers in obtaining organic certification, and made organically produced products eligible for value-added market development grants. The Scheme of Grant Aid for the Development of the Organic Sector

was re-launched in **Ireland** in 2002, and assisted organic operators in investments in equipment and facilities. **Sweden** committed additional funding to organic production in 2002 to carry out market promotion and analysis. Another important development in recent years has been the establishment of "equivalence" in the area of organic certification. In 2002, the European Union accepted **New Zealand** organic certification as equivalent to the EU standard.

Policies promoted biofuels

The **European Union** set a target for biofuels in fuels used for transport of nearly 6% by 2010 compared with 2.5% currently. Animal by-products were added to the list of eligible products in the **United States'** bioenergy programme. The duty rate for biodiesel was set at nearly half the rate for ultra-low-sulphur diesel in the **United Kingdom**. **Japan** announced a set of programmes to promote the utilisation of biomass energy, called the Biomass Nippon Strategy with the goal of 80% utilisation of organic waste by 2010. A major two-year study was initiated by **Australia** to identify market barriers to greater use of biofuels in transport. As part of its climate protection strategy, **Austria** provided funding to increase the share of renewable energy, notably from biomass, in total energy sources.

New measures to improve food safety…

Governments continue to make improvements in systems to ensure food safety, many of which aim to encompass the entire food supply chain. In response to its BSE crisis, **Japan** established traceability legislation which would allow beef consumers access to significant detail regarding the source animal. In addition, Japan created a Food Safety Commission and will implement a Food Safety Basic Law. **Iceland** also introduced a traceability system for livestock in 2002. All meat products from domestically produced livestock must have individual ID numbers to identify place of origin and processing plants. Structural changes are being made in **Norway** to the Norwegian Food Control Authority, the Norwegian Animal Health Authority, and the Norwegian Agricultural Inspection Service to improve food-safety co-ordination along the production chain. These organisations will be merged in 2004. **Australia**, together with **New Zealand** adopted a new food regulatory system to ensure a nationally and bi-nationally consistent approach to food safety for the entire food chain. Two new federal authorities were created in **Germany** in order to separate risk management and risk assessment, in accordance with developments at the EU level.

… and new labelling regulations were developed.

The **European Union** has committed to eliminate antibiotics in animal feed by 2006. The second phase of EU rules for labelling of livestock products was introduced in 2002, adding information on birth and rearing location to information on locations of fattening, slaughtering, and butchering, which is already required.

Spending on and planning for disease control issues increased…

The **European Union** continues to allocate considerable funding to combat animal diseases, including BSE. In 2002, a new plan to eliminate scrapie by improving the natural resistance of the herd was approved. Within the European Union, **France** and the **United Kingdom** both put forth domestic plans to eradicate scrapie. Foot and Mouth Disease (FMD) broke out in **Korea**, resulting in the government offering compensation payments and concessional financial resources for affected households. The

United Kingdom has estimated the economic costs of FMD to the agri-food chain and the tourist industry over the 2001-2005 period at up to EUR 10 billion. A national simulation exercise was held to test **Australia's** preparedness in the event of a FMD outbreak. A report was also released that assessed the potential economic, environmental and social impact of foot and mouth disease in Australia. Five BSE cases have been detected in **Japan** since 2001, provoking a number of emergency measures including surveillance and a ban on feed containing meat and bone meal. **New Zealand** decided to invest in a programme to eradicate the painted apple moth. This programme will result in comprehensive aerial survey operations covering up to 12 000 hectares.

... as did provisions for animal welfare and rural development.

A moratorium on live exports of sheep and cattle was imposed between July and November in **Australia**, followed by the implementation of new approaches to improve animal welfare outcomes. New provisions were made in **Germany** to shorten the transition period for elimination of caging of laying hens, ahead of that authorised by an EU directive. The **European Union** authorised the Special Accession Programme for Agriculture and Rural Development (SAPARD) programmes in the **Czech Republic**, **Hungary, Poland** and the **Slovak Republic**, allowing these countries to use EU matching funds allocated for this purpose. The Farmland Act was reformed in **Korea** to deregulate ownership of farmland. This is intended to improve capital flows to rural areas by increasing land used for recreation and green tourism. **Poland** launched a micro-loan programme as part of its rural development programme where rural inhabitants can borrow the equivalent of USD 5 000 for the start or continuation of off-farming operations. The Fund for Rural America was abolished in the **United States**, but producers may now obtain loans and guarantees of up to USD 40 000 to buy stock in a value-added co-operative.

2. Developments in trade policy

There were few new developments in 2002

For most OECD countries, import (tariffs and tariff quotas) and export (subsidy) commitment levels remained at the 2000 level when implementation of the Uruguay Round Agreement on Agriculture (URAA) reduction commitments was completed. Overall expenditure on export subsidies by OECD countries remained at a similar level to 2001 despite the fall in world prices for some commodities. Tariffs applying to imports from the 48 least-developed countries were removed by some OECD countries. Following the **European Union** and **New Zealand** which removed such tariffs in 2001, **Poland** and **Norway** abolished them for all but sensitive products in 2002 while **Japan** announced that it will remove tariffs in 2003 for meat, fruit, vegetables and fisheries products from least-developed countries. The status of the current WTO negotiations on agriculture are outlined in Box 1.1.

Little change in market access...

Information on tariff-rate quotas indicates that fill patterns remained fairly stable during 2001 and 2002, with very low fill rates continuing for several commodities in some Member countries. Some minor improvements in market access were made beyond URAA commitment levels. For example, **Iceland** removed tariffs on some vegetables; the **Slovak Republic** opened temporary tariff quotas for selected products; and the

Box 1.1. **Status of WTO Negotiations**

The Doha Ministerial Declaration of November 2001 set the objectives and the calendar for the WTO negotiations including the negotiations on agriculture. In March 2002 agriculture negotiations entered into their decisive third phase on "modalities". The "modalities" are targets (including numerical targets) and rules to achieve the objectives set out in the Doha Ministerial Declaration. Originally due to be established by end March 2003, they will set the parameters on the basis of which members will produce their first offers on comprehensive draft commitments. The Doha Ministerial Declaration requires this to be done by the Fifth WTO Ministerial Conference that will take place on the 10-14 September 2003 in Cancún (Mexico). The Negotiations themselves are scheduled to end by 1 January 2005.

The first draft of the "modalities" paper was circulated to WTO member governments on 12 February 2003. A revised first draft of modalities was circulated on March 18th. Both drafts were issued under the responsibility of the chairperson of the Committee on Agriculture, Stuart Harbinson. The first draft refers to "the difficulty participants have so far had in building bridges between widely divergent positions and to the consequent lack of guidance on approaches to solutions". The revised first draft states that "overall, while a number of useful suggestions emerged, positions in key areas remained far apart". The complete text of these drafts can be found on the WTO website *www.wto.org*.

The Special Session of the Committee of Agriculture on Negotiations ended 31 March without an agreement on modalities. The Chairperson noted that fundamentally, the "lack of movement reflects the fact that broadly acceptable compromises in key areas were not found". There continues to be a commitment to a successful agreement that fulfils the mandate of the Doha Ministerial Declaration, and the negotiations on agriculture will continue. Additional meetings have been scheduled to take place before the Ministerial in Cancun. The Chairperson will also hold consultations to further clarify technical issues as well as other matters.

Czech Republic opened additional tariff-quotas for wine. Perhaps the most significant development occurred in **Mexico**, where tariffs on all but four sensitive products (maize, sugar, milk powder and dried beans) from NAFTA countries were removed on 1 January 2003. For some products, such as barley, pigmeat and poultry, the tariff reduction was substantial. NAFTA border protection will remain on the four sensitive products for another five years. Market access restrictions increased in **Poland** where additional tariffs were imposed on poultry products. The **European Union** introduced a new tariff-quota regime for low and medium quality wheat in order to stem the recent surge in imports.

In addition to tariffs and tariff-quotas, sanitary and phytosanitary measures play an important role in determining market access possibilities and trade flows. New access was granted for products in a number of countries, including **Australia**, but new restrictions were imposed in others. For example, **Poland** and the **European Union** imposed additional measures on meat imports from certain countries reflecting their changing disease status. Despite a WTO ruling, the European Union maintained its ban on beef containing several hormone growth promoters.

... the use of export subsidies...

The total value of export subsidies on agricultural products in 2002 remained at the same level as in 2001, although there was variation between countries. Export subsidies are estimated to have increased by 80% in the **Czech Republic** to USD 80 million and are mainly provided on dairy, beef and malt products. In the **United States** export subsidies under the Dairy Export Incentive Program (DEIP) increased by nearly 700% to USD 55 million but no funding was provided under the Export Enhancement Program (EEP). Export subsidy expenditure was largely static in the **European Union** in 2002, estimated to be USD 3 billion. Similarly, rates of export subsidies in **Turkey** remained at 2001 levels and expenditure in the **Slovak Republic** remained at USD 11 million, with almost all the money continuing to subsidise exports of dairy products and malt. Export subsidies fell in **Switzerland** by 24% to USD 59 million, with a 50% decrease in export subsidies for cheese, and by more than 70% in **Hungary** to USD 15 million following the expiry of the waiver from the URAA export subsidy commitments for three products. The long-running WTO legal action regarding **Canadian** export pricing practices for dairy products continued in 2002 with a ruling against Canada by the Appellate Body.

... and other export related policies.

The total capital value of export credit guarantees provided by the **United States** increased by 5% to over USD 3.4 billion. The value of food aid is estimated to have increased by 10% from the **European Union** to USD 336 million but has fallen by 8% from the United States to USD 1.5 billion. New programmes to promote exports were announced by **Canada**, and additional funding to current programmes were provided as part of the 2002 Farm Act in the **United States**. As announced in 2001, the **Czech Republic** abolished all export licences in 2002. In **Australia**, quota controls on the export of beef to the United States were established to ensure that the country-specific tariff-quota was not breached. The European Union subsidised the private storage of pigmeat to assist exporters until the safeguard tariff imposed by Japan during 2002 was removed in April 2003.

New bilateral and regional trade agreements were completed.

A number of bilateral or regional trade agreements either came into force or negotiations were completed with implementation in the near future. A number of Agreements already negotiated between the **European Union** and several central European countries as part of the European Union enlargement process came into force during 2002 (*e.g.* with **Hungary**) or in January 2003 (*e.g.* with the **Czech Republic** and the **Slovak Republic**). Negotiations with others, for example **Poland**, were concluded during 2002. The European Union concluded negotiations on a bilateral farm trade agreement with Lebanon and a wider free trade deal with Chile. **Korea** also concluded a free trade agreement with Chile, with certain sensitive agricultural products excluded in both agreements with Chile. A trade agreement between **Hungary** and the **United States** was completed and entered into force during 2002. **Australia** concluded a free trade agreement with Singapore and is negotiating another such agreement with Thailand. The Pacific Agreement on Closer Economic Relations, including **Australia**, **New Zealand** and 14 Pacific Island countries, came into effect in October. A number of new negotiations were launched during 2002, including a free trade agreement between Australia and the United States, while New Zealand, Chile and Singapore announced the commencement of negotiations on a closer economic partnership.

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PART I

Chapter 2

Evaluation of policy developments

Agricultural policies in 2002 were implemented in the context of a weakening US dollar and world prices that were considerably lower for livestock products, especially for pork, poultry and milk powders, but significantly higher for crops, in particular for wheat. There were no major changes in the main policy instruments used by OECD countries with the important exception of the 2002 Farm Act in the United States. However, 2002 was a transitional year, covered by both the 1996 and 2002 Farm Acts, but still largely influenced by the 1996 legislation. The 2002 Farm Act will play a significant role in the evolution of United States agriculture and world markets over the next six years. The potential effects of the 2002 Farm Act are analysed in Chapter 3. This chapter evaluates policy developments in 2002 in the light of the principles for agricultural policy reform (Annex 1) adopted by OECD Ministers (Box 2.1).

Box 2.1. **Methodology for evaluating policy developments**

As the impacts of annual policy changes are often not immediate, policies also need to be evaluated within the longer-term context, from 1986-88. In 1987 Ministers stressed the need for a progressive reduction in agricultural support and a move towards those forms of support that are less production and trade distorting in order to let the agricultural sector respond more to market signals. Ministers also recognised that governments need flexibility in the choice of policy measures and in the pace of reform, taking into account the diverse situations in OECD countries, and the need to address a range of policy goals. In 1998 they agreed a set of operational criteria that should apply in designing and implementing policy measures (Annex 2). Part II of this report contains the country sections and statistical data on which this evaluation is based.

The Producer Support Estimate (PSE) and related indicators (Annex 3) are the principal tools used to monitor and evaluate agricultural policy developments. The levels of and trends in three main indicators evaluate progress towards the market orientation of agriculture. These are: the %PSE, which is a measure of support to producers as a share of farm receipts; the Nominal Protection Coefficient (NPC) which is a measure of market protection defined as the ratio between the average prices received by producers and border prices; and the Nominal Assistance Coefficient (NAC) which is a measure of market orientation defined as the ratio between actual farm receipts with support and farm receipts that would be generated in markets without support.

Policy measures within the PSE are classified in terms of how policies are implemented. This composition of support allows a broad ranking of categories of PSE measures according to their potential impacts on production and input use, consumption, trade, income and the environment. A full explanation of these impacts, the concepts, methodology, interpretation and guidelines for the use of the OECD support indicators in policy evaluation can be found in Methodology for the measurement of support and use in policy evaluation [*www.oecd.org/pdf/M00031000/M0003175.pdf*].

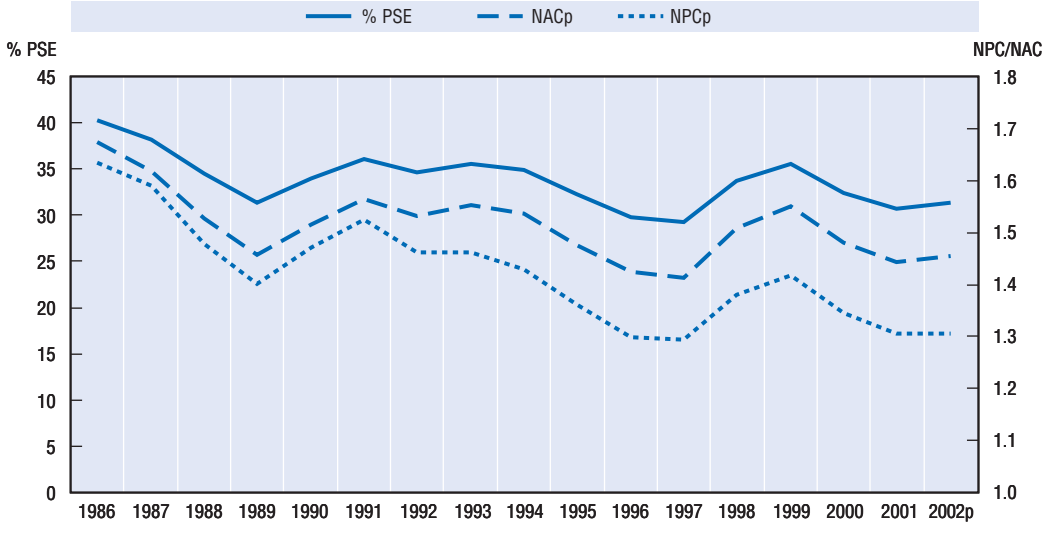
Overall, 2002 was characterised by little change in terms of the degree of market orientation, protection and support to producers, and the wide differences across countries and commodities. The level of support and degrees of market protection and market orientation have remained relatively unchanged since 2000. Compared with the 1986-88 period, by 2000-02 the overall level of support to producers has declined with some shift towards policy measures that are less production and trade distorting. This progress was underpinned by the URAA. The launch of the WTO Doha Development Agenda in 2001 and the domestic policy initiatives underway in many OECD countries indicate the need to achieve further domestic and trade policy reform. More market orientated and better targeted policies are a necessary step to further integrate domestic and world agricultural markets, with the potential for reducing environmental pressure and achieving various specific policy goals, including that of transferring income to farmers.

The level of support to producers stabilised, on average,...

Support to producers for the OECD as a whole, as measured by the %PSE, remained unchanged at 31% in 2002 compared to 2001. (Figure 2.1). For the three-year period 2000-02, the %PSE averaged 31% compared with the 1986-88 average of 38%. Between 2001 and 2002 market price support (MPS) increased due to a larger overall decline in world prices than in domestic prices denoting isolation between these markets. Payments based on output, however, decreased 50% mainly due to a significant decline of these payments in the United States as a result of higher domestic and world prices for crops. These payments together with MPS – output-linked support – continue to account for over two-thirds of overall support to OECD producers. Although partially offset by a rise in assistance to domestic consumption, the increase in MPS resulted in a rise in the implicit tax on consumption, as measured by a %CSE of 24% in 2002. This is some 9 percentage points below the average level for 1986-88.

Figure 2.1. **Evolution of Producer Support Estimate (%PSE), Producer Nominal Protection Coefficient (NPCp) and Producer Nominal Assistance Coefficient (NACp)**

1986-2002



p: provisional.
Source: OECD PSE/CSE database, 2003 (available at *www.oecd.org/agr/policy*).

... but with a slight increase in protection,...

Reflecting these developments in output-linked support, the nominal rate of protection, as measured by the producer NPC, increased slightly with average producer prices 31% above world prices in 2002 compared to 30% in 2001. Output-linked support reduces the transmission of world price changes to producers and thus dampens the influence of world market prices on domestic production decisions. Over the longer-term market protection has decreased as prices in domestic markets were, on average, 57% higher in 1986-88 (Figure 2.1). Nevertheless, the current level of market protection is still an important factor in encouraging domestic production, distorting trade and depressing world prices of agricultural commodities. These create costs not only to domestic consumers and taxpayers, but also to other countries, in particular those producing the same commodities. Increased production and protection reduce production incentives elsewhere, may effect consumption patterns and food security, and can limit growth opportunities in developing countries. Moreover, market protection is regressive as it mainly benefits large farms and impacts most strongly on low-income consumers for whom food constitutes a larger share of their total household expenditure.

... and a slight reduction in market orientation.

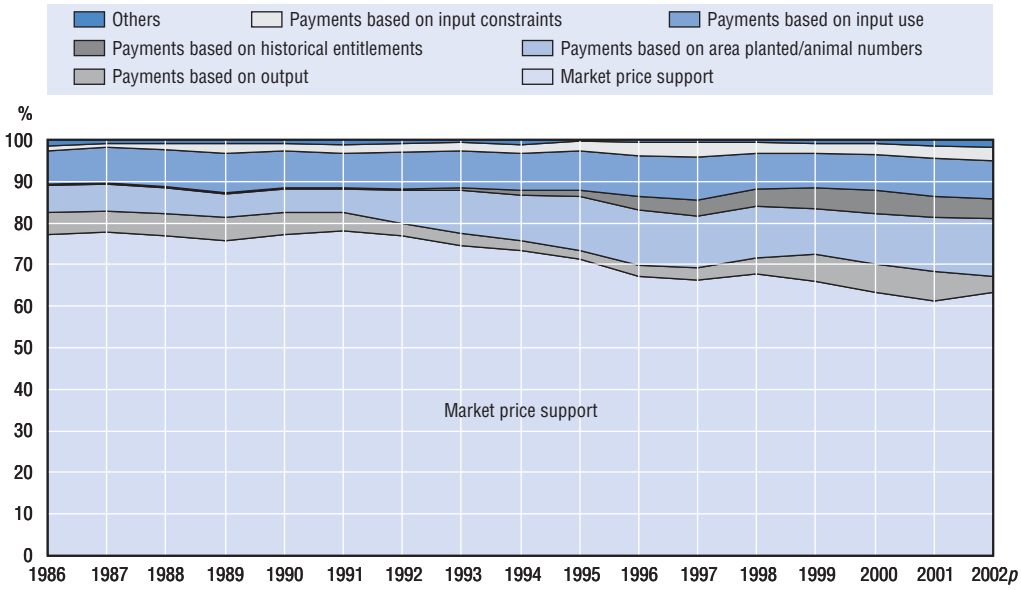
For the OECD as a whole, the nominal rate of assistance, as measured by the producer NAC, also slightly increased in 2002 compared to 2001 indicating a slight reduction in market orientation. Total farm receipts in 2000-02 were on average 46% higher than they would be if entirely generated in markets without any support, while they were 61% higher in 1986-88 (Figure 2.1). This is an indication of an improvement in market orientation in terms of a greater share of farm receipts generated in markets than created by government intervention. Moreover, there has been some move away from the more distorting forms of support, market price support, output payments and input-based payments (Figure 2.2). Nevertheless, government intervention continues to be significant, still creates important unwanted spill-over effects on production, trade and the environment, and is generally not the most effective way of transferring income to farmers.

Support and protection continue varying widely among countries,...

There are large and increasing differences in the levels of support and degrees of market protection and market orientation among OECD countries (Figure 2.3, 2.4 and 2.5), reflecting different historical uses of policy instruments, and the varying pace and degree of progress in agricultural policy reform. In 2002, support to producers as measured by the %PSE, remained unchanged for **Japan** and **New Zealand**, decreased for **Poland** and the **United States**, and increased for all other countries. The %PSE remained above the OECD average in the **European Union**, **Iceland**, **Japan**, **Korea**, **Norway** and **Switzerland**. The average %PSE in 2000-02 is lower than the 1986-88 average in all countries, except **Hungary**, **Mexico**, **Poland** and **Turkey** where support nevertheless was and continues to be relatively low.

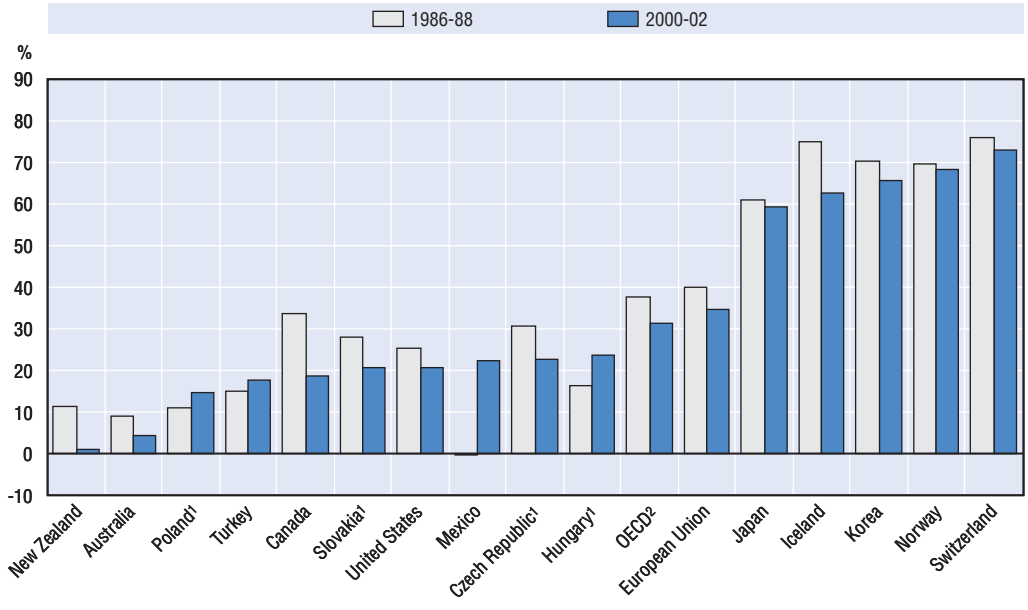
For the 2000-02 period, the average PSE was below 5% in **Australia** and **New Zealand** and below 25% in **Canada**, the **Czech Republic**, **Hungary**, **Mexico**, **Poland**, the **Slovak Republic**, **Turkey** and the **United States**. It was 35% in the **European Union** and around 60% or more in **Iceland**, **Japan**, **Korea**, **Norway** and **Switzerland**. The countries with the highest level of support have also persistently shown the highest degree of market protection, the lowest degree of market orientation, and impose the greatest implicit tax on consumers (Figure 2.6).

Figure 2.2. **Composition of Producer Support Estimate for the OECD**
1986-2002



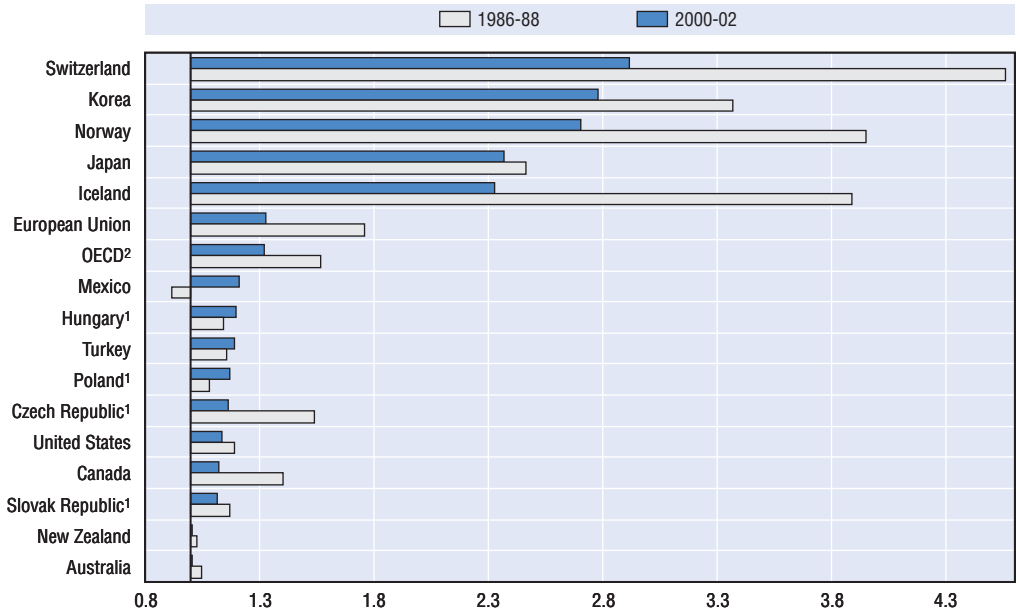
1. p: provisional.
Source: OECD PSE/CSE database, 2003 (available at *www.oecd.org/agr/policy*).

Figure 2.3. **Producer Support Estimate by country**
(Percent of value of gross farm receipts)



1. For the Czech Republic, Hungary, Poland and the Slovak Republic, the reference years are 1991-93.
2. For 1986-88, the Czech Republic, Hungary, Poland and the Slovak Republic are excluded.
Notes: Countries are ranked according to 2000-2002 levels. For more detail, see Table III.3.
Source: OECD PSE/CSE database, 2003 (available at *www.oecd.org/agr/policy*).

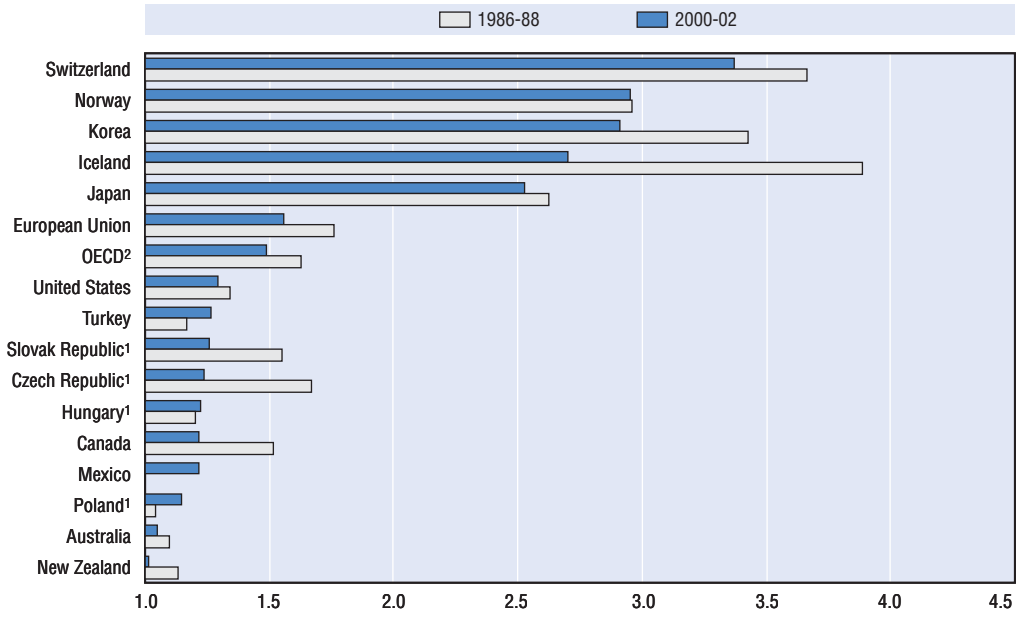
Figure 2.4. **Producer Nominal Protection Coefficient by country**



1. For the Czech Republic, Hungary, Poland and the Slovak Republic, the reference years are 1991-93.
2. For 1986-88, the Czech Republic, Hungary, Poland and the Slovak Republic are excluded.

Notes: Countries are ranked according to 2000-2002 levels. For more detail, see Table III.3.
Source: OECD PSE/CSE database, 2003 (available at *www.oecd.org/agr/policy*).

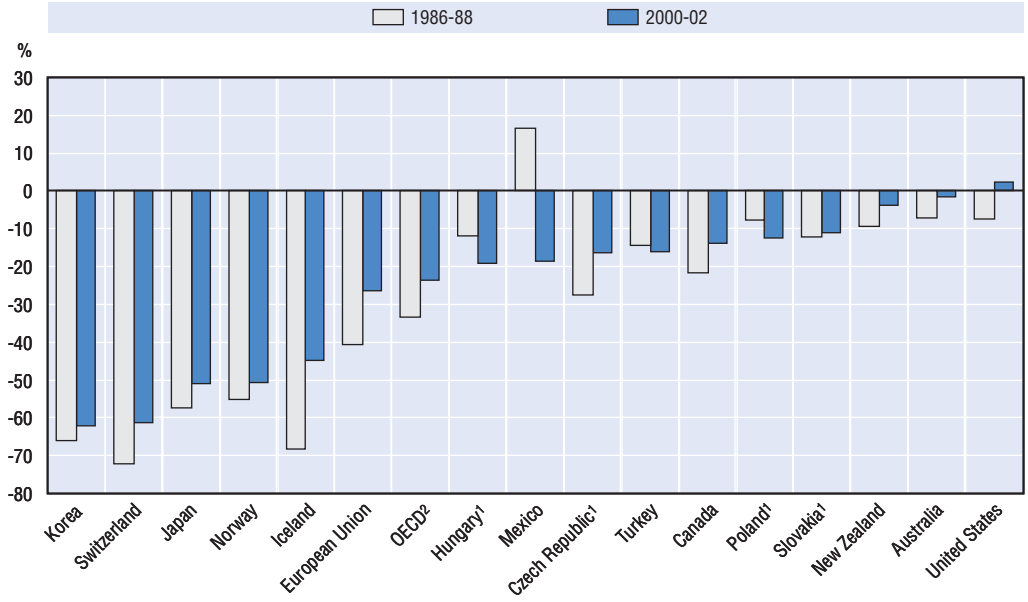
Figure 2.5. **Producer Nominal Assistance Coefficient by country**



1. For the Czech Republic, Hungary, Poland and the Slovak Republic, the reference years are 1991-93.
2. For 1986-88, the Czech Republic, Hungary, Poland and the Slovak Republic are excluded.

Notes: Countries are ranked according to 2000-2002 levels. For more detail, see Table III.3.
Source: OECD PSE/CSE database, 2003 (available at *www.oecd.org/agr/policy*).

Figure 2.6. **Consumer Support Estimate by country**
(Percentage of consumption expenditure at farm gate)



1. For the Czech Republic, Hungary, Poland and the Slovak Republic, the reference years are 1991-93.
2. For 1986-88, the Czech Republic, Hungary, Poland and the Slovak Republic are excluded.

Notes: Countries are ranked according to 2000-02 levels. For more detail, see Table III.10. A negative percentage CSE is an implicit tax on consumption.

Source: OECD PSE/CSE database, 2003 (available at *www.oecd.org/agr/policy*).

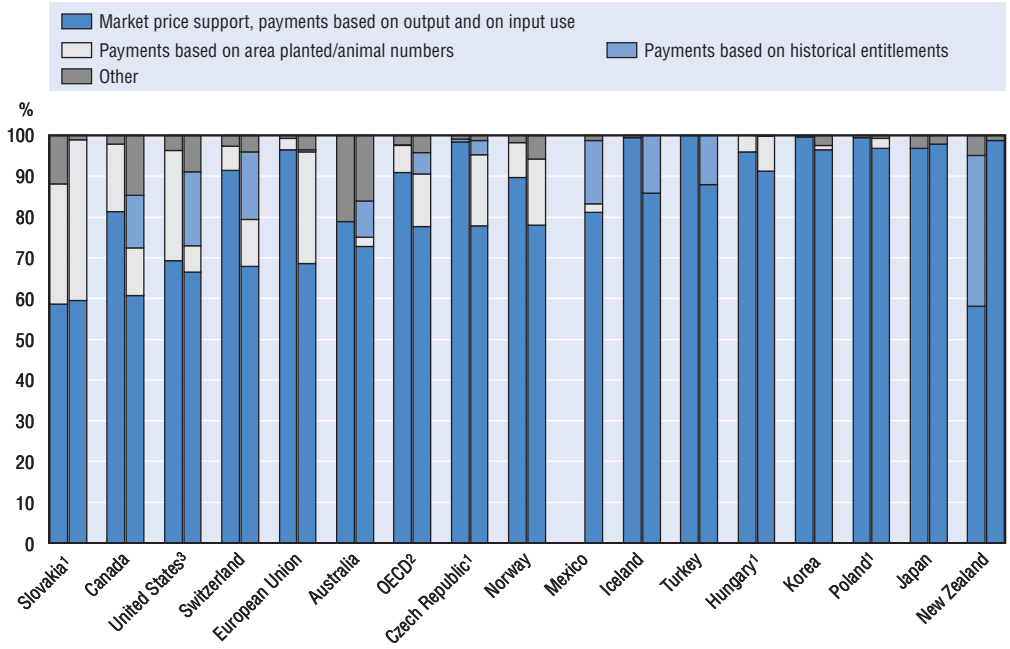
In these countries, both the prices received by producers and those paid by consumers are, on average, over twice the world prices (Figure 2.4), and farm receipts are also around three times higher than they would be if entirely generated in markets without any support (Figure 2.5). However, while the share of the most distorting forms of support is persistently high in Korea and Japan, it decreased in Iceland, Norway and Switzerland due to a shift towards less output-linked policy measures (Figure 2.7). While this shift in the composition of support is in line with the long-term reform principles, the same cannot be said in relation to the persistently low degree of market orientation associated with high levels of support and protection.

... and across commodities.

There is also wide variation in the levels of support and protection across commodities for which PSEs are calculated. Compared with 2001, support to producers in 2002 increased for sugar, milk, beef and veal, wool, pigmeat, and poultry, while it decreased for maize, rice, oilseeds, and sheepmeat. Average support levels in 2000-02 decreased compared with 1986-88 for all commodities except rice, beef and veal, and pigmeat (Figure 2.8). For 2000-02, the average producer support was less than 20% for wool, eggs and poultry, between 20% and 35% for maize, oilseeds, beef and veal, sheepmeat, and pigmeat, between 36% and 50% for wheat, sugar and milk, and over 80% for rice.

While sugar and milk benefit from high levels of support in most OECD countries, rice is produced in relatively few OECD countries but generally benefits from high support, particularly in **Japan** and **Korea**. As support for these three commodities is mainly provided

Figure 2.7. **Composition of Producer Support Estimate by country, 1986-88 and 2000-02**
(Percentage share in PSE)

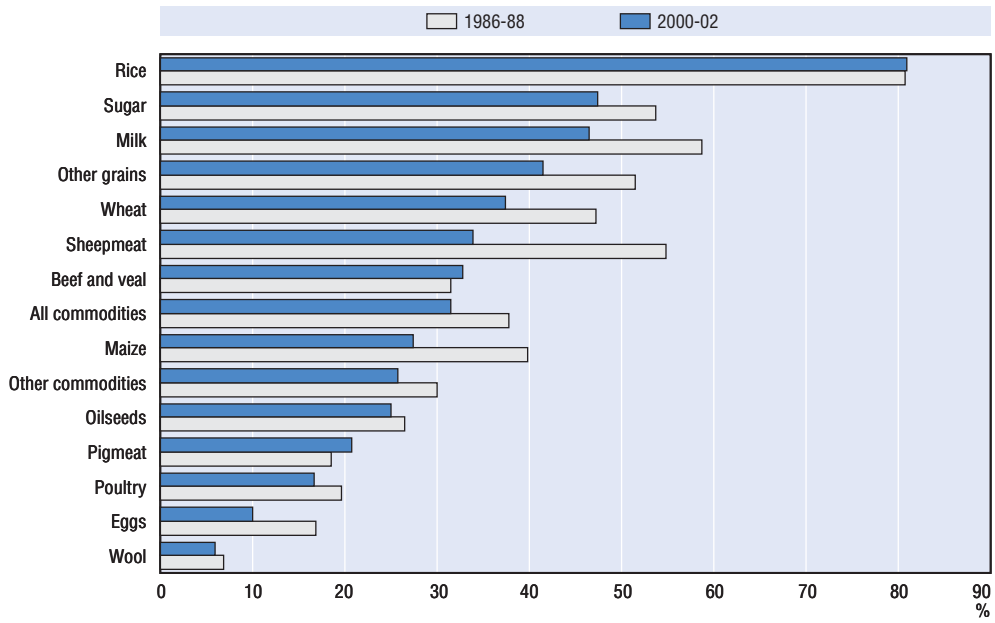


1. For the Czech Republic, Hungary, Poland and the Slovak Republic, the reference years are 1991-93.
2. For 1986-88, the Czech Republic, Hungary, Poland and the Slovak Republic are excluded.
3. Payments based on area planted for the 2000-2002 average provisionally include "Counter cyclical payments" granted in 2002.

Notes: Countries are ranked according to 2000-2002 levels of market price support and payments based on output. For more detail, see Table III.7.

Source: OECD PSE/CSE database, 2003 (available at *www.oecd.org/agr/policy*).

Figure 2.8. **Producer Support Estimate by commodity**
(OECD average as % of value of gross farm receipts)

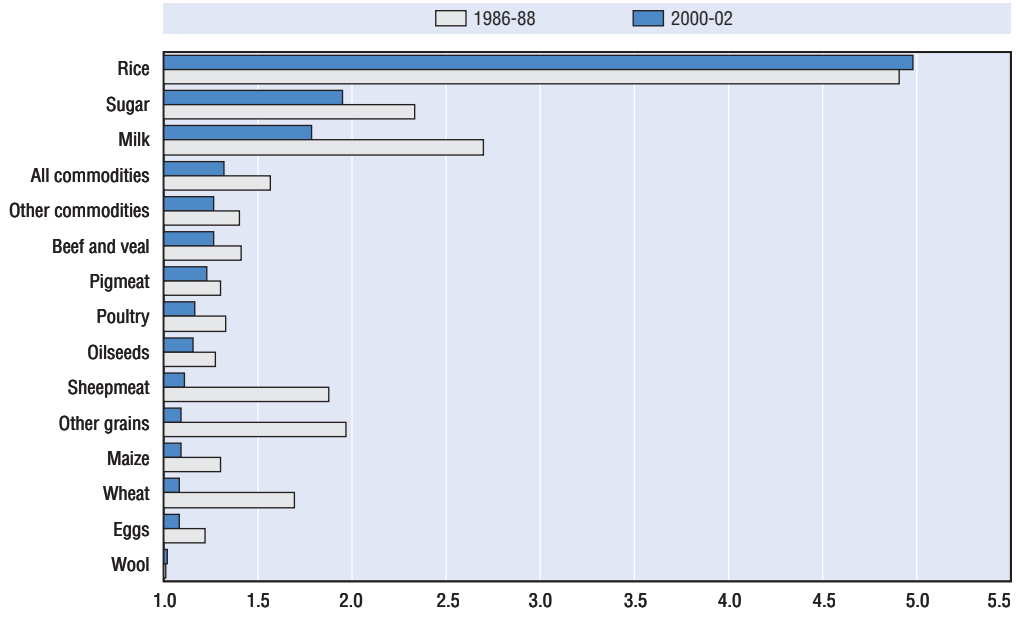


Note: Products are ranked according to 2000-2002 levels. For more detail, see Table III.4.

Source: OECD PSE/CSE database, 2003 (available at *www.oecd.org/agr/policy*).

through price support, the associated levels of market protection (NPC) are also the highest. Prices received by producers and those paid by consumers were, on average in 2000-02, around twice the level of world market prices for sugar and milk and about five times higher than the world prices for rice (Figure 2.9). Farm receipts from sugar and milk were also twice what they would be without support, while those of rice were five times higher.

Figure 2.9. **Producer Nominal Protection Coefficient by commodity**



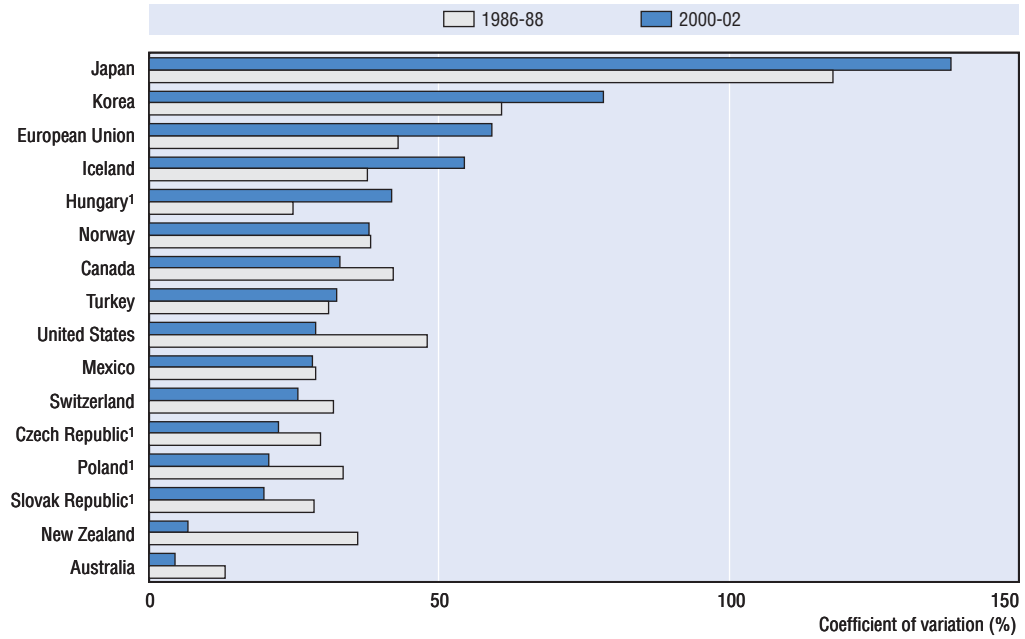
Note: Products are ranked according to 2000-2002 levels. For more detail, see Table III.4.
Source: OECD PSE/CSE database, 2003 (available at *www.oecd.org/agr/policy*).

The levels and composition of support together with variations in the rates of support and protection across commodities within the agricultural sector of a country are important causes of distortions in resource allocation between commodities. For a given country, the wider the variation in support between commodities, the greater the potential production distortions within the sector (Box 2.2). Figure 2.10 compares the coefficient of variation in commodity support within individual countries for periods 1986-88 and 2000-02. It shows that variation in commodity support in 1986-88 was highest in **Japan** and **Korea**, and lowest in **Australia**. Since then, variation has fallen in some countries, except in the **European Union**, Japan, Korea**, Hungary** and **Iceland** where it increased, while in **Mexico**, **Norway** and **Turkey** it changed very little.

The most distorting forms of support have declined, but still dominate…

The share of market price support and output payments taken together decreased from 82% of support to producers in 1986-88 to 67% in 2000-02, while the share of input payments increased from 8% to 9%. The combined share of these three forms of support decreased from 90% to 76%. This is a step in the direction of the long-term reform objective of reducing the most distorting forms of support, because these forms of support potentially have the greatest effects in stimulating production and input use, which distort

Figure 2.10. **Variation in commodity support by country**



1. For the Czech Republic, Hungary, Mexico, Poland and the Slovak Republic, the reference years are 1991-93.

Notes: Variation in support is measured by the coefficient of variation of commodity producer NACs, weighted by value of production.

Source: OECD PSE/CSE database, 2003 (available at *www.oecd.org/agr/policy*).

trade and often contribute to environmental pressure. Moreover, these measures are the least effective in targeting income to farmers or in targeting the provision of specific environmental benefits. While the combined share of the most distorting forms of support increased between 1986-88 and 2000-02 in **Japan** to 98%, it decreased to 97% in **Korea**, 85% in **Iceland**, 78% in **Norway** and 68% in **Switzerland**.

... although other forms of support have increased.

The reduction in the most distorting forms of support in some countries has been accompanied by the introduction of other forms of support, which are potentially less distorting. In 2000-02, the share of payments based on area planted or animal numbers was 13% of support to producers, compared to 7% in 1986-88. These payments were particularly important in the **Slovak Republic** (39% of PSE), the **European Union** (27% of PSE), and the **Czech Republic** (17% of PSE). Payments based on historical entitlements (area, animal numbers, yields, support or receipts) were first introduced in 1993 and represented about 5% of support to producers in 2000-02. These payments were mainly used in the **United States** (18% of PSE), **Switzerland** (17% of PSE) and **Mexico** (16% of PSE). In 2002, their second year of implementation in **Turkey**, these payments represented 20% of the Turkish PSE.

While payments based on historical entitlements depend on past support or farm receipts, and past area and yields of specific commodities and are independent of current prices, area/headage payments are based on current prices or planting, and past area and yields of specific commodities. Both forms of payments may affect current production decisions through lowering production risks in so far as they reduce the variability of revenues (Box 2.2). However, the link to current production parameters makes payments

Box 2.2. **Risk, Farm revenue variability and producer support**

Farming, as all economic activities, involves risk. Returns vary from year to year due to variability in market price conditions and yields. If farmers are risk averse they produce less. Conversely, support measures that increase returns may also reduce their variability and, therefore, create incentives to produce. These incentives are additional to the incentives created by the monetary value of the support (the relative price effects) and are generally called insurance effects as defined in OECD (2001a). In the context of the work undertaken on decoupling, an attempt has been made to quantify these risk related effects of support measures. It has been found that risk related effects can be as significant as relative price effects (OECD, 2003).

The PSE database can be used to analyse to what extent support reduces the variability of farming revenues. If a high correlation between farming revenue and farm household income is assumed, revenue variability can be used as a proxy for farming risk. That is what has been done here.

Some agricultural support measures in OECD countries explicitly aim to reduce variability in farmers' income. This is the case for counter-cyclical measures. When market returns are low, support increases and *vice versa* . Other support measures do not have this explicit objective or design, but can work *de facto* counter-cyclically because payments are increased (or introduced) in an *ad hoc* manner when market returns are low. Finally, there are measures which are not counter-cyclical but reduce the risk associated to variability of revenue by increasing total revenue. In any event, all types of measures are captured *ex post* in the PSE database and their contribution to reducing farming risk can be evaluated. This is the purpose of the analysis reported here, which follows previous work reported in the section I.5 of OECD (2001b).

The risk reduction dimension of agricultural support is relevant for the evaluation of support measures for three reasons that are strongly inter-linked:

- If mitigating risk is a policy objective, the extent to which it is achieved with current support measures can be estimated.
- Regardless of the policy objectives, the fact that farming risk is reduced creates incentives to farm. These incentives will increase the production and trade effects of policy measures and, therefore, will reduce their degree of decoupling.
- Policies reducing the risk faced by domestic producers aggravate the variability of prices on world markets.

Does support in OECD countries reduce farm revenue variability?

Production is first valued at world prices for each commodity (for a detailed explanation of the methodology and data used see Annex 4), and then the contribution of each category of support to reducing the observed variability is estimated. Although reductions were found for most PSE categories in all countries/commodities, only statistically significant reductions in variability are reported here (Box Table 2.2.1 and Table A4.1 in Annex 4). When all PSE measures are considered together, the reduction in revenue variability is significant for almost all countries and commodities, *i.e.* for 84% of country/commodity combinations.

Which types of support reduce farm revenue variability?

Market price support is the PSE category that appears most frequently as having significant variability reducing effects. This is the case for almost every country (with the exception of Switzerland) and commodity (with the exception of oilseeds). This indicates widespread lack of transmission from world prices to domestic markets. Administered prices,

Box 2.2. **Risk, Farm revenue variability and producer support** *(Cont.)*

prohibitive tariffs, tariff-quotas, and domestic market interventions are the policy instruments that can explain this phenomenon. Payments based on output, on area planted/animal numbers, or on historical entitlements reduce revenue variability only in specific countries (Switzerland and the United States) and for specific commodities (crops). Other categories of measures rarely emerge as having significant effects on revenue variability.

The average reduction due to market price support is 42% of the variability across commodities and 51% across countries (Box Table 2.2.1). The largest average reduction through market price support occurs in milk (58%) and beef (55%). The average reduction due to payments based on output is smaller than that of price support. However output payments remove 66% of rice revenue variability in Japan and an average of 49% across coarse grains, rice and oilseeds in the United States. The average reduction associated with payments based on area and historical entitlements is also lower. However, there are several cases in which the impact of the payments based on area is large, such as in the United States and Norway, with reductions of 24% and 38% in variability. Payments based on historical entitlements in the US and Switzerland reduce the revenue variability of some crops by up to 18%.

Box Table 2.2.1. **Average reduction in revenue variability (%) by type of measure**[1]

	Market Price Support	Payments on Outpu	Payments on Area planted/ Animal numbers	Payments on Historical Entitlements	Payments on Input use	Other Payments	All PSE Support
A. By commodity							
Wheat	–37	..	–24	–18	–19	–6	–41
Coarse Grain	–30	–17	–23	–20	..	..	–33
Rice	–44	–66	–22	..	..	..	–49
Oilseeds	–28	–21	–20	–17	..	–11	–26
Sugar	–48	–8	..	–13	..	..	–45
Milk	–58	–47	–27	..	–56	..	–60
Beef and Veal	–55	..	–12	–10	..	..	–40
Pigmeat	–38	..	..	–9	..	..	–27
Poultry	–38	..	..	–9	–11	..	–34
Average	–42	–32	–21	–14	–29	–9	–39
B. By country							
Australia	–50	..	..	..	..	..	–10
Canada	–49	..	..	..	..	..	–33
European Union	–57	–13	–13	..	..	..	–56
Japan	–59	–19	..	..	..	–13	–48
Korea[2]	–26	..	..	..	..	..	–31
Mexico	–43	..	..	..	..	..	–45
New Zealand	–78	..	..	..	..	..	–26
Norway	–61	–47	–38	..	–56	..	–48
Switzerland	–39	..	..	–13	–11	..	–48
Turkey	–38	..	..	..	..	..	–29
United States	–60	–49	–24	–18	..	..	–40
Average	–51	–32	–25	–16	–33	–13	–38

Note: The number of countries or commodities used to calculate the averages differs across the table. See Table A4.1 in the Annex 4.

1. Only statistically significant results are reported.
2. The average for Korea excludes rice, which is a main commodity in this country. Despite a reduction in rice revenue variability above 60%, this reduction does not pass the statistical test of significance.

Source: OECD Secretariat

Box 2.2. **Risk, Farm revenue variability and producer support** *(Cont.)*

In which countries is reduction in revenue variability most important?

There are two countries for which variability reduction occurs mainly in a single commodity: milk in Australia and poultry meat in New Zealand. In both cases, the main type of support involved is market price support. Korea and Turkey show significant reduction in risk only from market price support. In the European Union, Japan and Mexico market price support systematically mitigates revenue variability for most commodities. The average reduction is around 50% in all three countries. Additionally, there are some commodities in Japan and the EU for which the reduction in variability due to payments based on output and payments based on area is also significant. In Canada farm revenue variability is mainly reduced by market price support for selected commodities (wheat, coarse grains,[1] milk and poultry). Finally, there are three countries in which, in addition to market price support, other PSE categories reduce revenue variability: Norway (payments based on output, area and input use), Switzerland (historical entitlements) and the United States (payments based on output, area and historical entitlements).

Producer support has reduced farm revenue variability in OECD countries, creating additional inefficiencies

It is clear from the results of this analysis that PSE measures significantly reduce the revenue variability faced by farmers in OECD countries. If this was a policy objective it has been at least partially achieved. However, broad-based risk reducing support to all farmers may not be the most efficient way to proceed: it has production and trade effects, it can aggravate the variability of world prices and it could prevent farmers from using other strategies. Facilitating farmers' use of other available tools may be a better option (OECD, 2000). These tools include financial management, diversification of income sources, marketing techniques and insurance systems.

All PSE categories reduce variability in farming revenue, although market price support dominates. There are only a few countries, such as the United States, that have explicit counter-cyclical payments. However, some provide *ad hoc* counter-cyclical support. Reducing farming risk through support measures creates incentives to produce that reduce the degree of decoupling of the corresponding PSE measures (OECD, 2001a and 2002a). Therefore, reducing risk through general support measures can create additional inefficiencies.

1. Wheat and coarse grains received market price support in Canada only until 1994. Thus, these conclusions do not apply to current policies.

based on area/animal numbers potentially more production distorting than payments based on historical entitlements, although both forms of support are less distorting than output and input-linked support.

Given the size of these two forms of payments in the **European Union** and the **United States**, they may well contribute to depressing prices in world markets. Although these payments can be targeted to specific income or environmental situations, they are often sector-wide and also benefit landowners who are not always farmers. Also, they benefit large farms more than small ones. They may also encourage the use of environmentally fragile land, although payments are sometimes conditional upon farmers undertaking some type of environmental compliance.

Some countries are increasingly using payments based on input constraints for sharing the costs of reducing, replacing or withdrawing resources from production, or changing production techniques, including for environmental purposes. With an increase of 20%, these payments were the category of support showing the greatest increase in 2002, but they continued to represent only 3% of PSE. In 2000-02, the share of these payments in the PSE was 4% in the **European Union** and the **United States**, 3% in **Norway**, 2% in **Japan** and **Switzerland**, 1% in the **Czech Republic**, and effectively zero in all other countries.

Due to the constraints attached to these payments, they may reduce production or be among the categories of support having fewer impacts on the production and trade of specific commodities. However, as these payments are based on land rental costs and/or costs of adopting and maintaining good farming practices, which increase with production-linked payments, the costs of providing environmental services or reducing environmental damage are higher than they would be in the absence of production-linked support. Granting cost-sharing payments together with production-linked payments is not the most efficient or policy coherent approach. In general, the cost of improving the environmental performance of agriculture is often lower when policies in place are consistent with the Polluter Pays Principle (PPP), yet there appears to be scope for greater application of the PPP (Chapter 4).

Some countries also use payments based on overall farming income**,** which tend to be the least production and trade distorting, create less pressure on the environment, and are the most effective measures in transferring income to producers. In 2000-02 these payments represented around 14% of the PSE in **Australia** and **Canada,** and 6% in the **United States**. However, since 1986-88 the importance of these payments has remained consistently low at around 1% of the overall support to OECD producers (Figures 2.2 and 2.7).

Support for general services to agriculture remains low relative to support to producers.

For the OECD as a whole, support for general services to the agricultural sector as a whole, as measured by the %GSSE, increased from 13% of total support to agriculture (TSE) in 1986-88 to 17% in 2000-02. The average %GSSE in 2000-02 was higher than 45% in **Australia** and **New Zealand**, between 20 and 30% in **Canada**, **Turkey**, and the **United States**, and less than 15% in all other countries.

Support for general services to agriculture does not depend on any individual farmers' decisions or actions to produce goods and services, or to use factors of production, and does not affect farm receipts directly. Therefore, although it increases sector income and can, in the long run, improve or expand the sector's production capacity, distorting effects on production and trade are generally lower than most PSE measures. General services in the areas of advisory services, training, research and development, and inspection services, can improve long-term productivity and to ensure plant, animal and human health, and thereby benefit consumers and producers alike. Moreover, environmentally targeted measures implemented through GSSE measures, particularly on research, information and education, may be more effective and less costly in achieving specific environmental goals than PSE measures (Chapter 4).

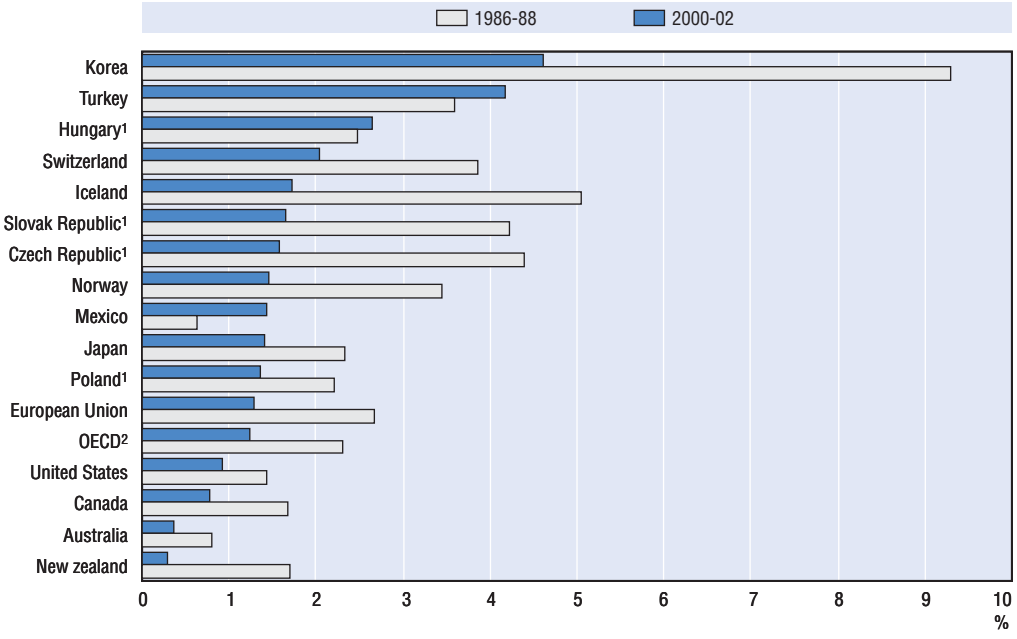
There have been some notable changes in the composition of support within the GSSE. Public stockholding cost is now a quarter of its 1986-88 level at 4% of the overall GSSE

in 2000-02, reflecting lower public stocks as a result of a combination of policy and market developments. Marketing and promotion support has increased the most since the mid-1980s, rising from 32% in 1986-88 to 41% of the overall GSSE in 2000-02. It is the most important form of GSSE support in the **European Union**, **Turkey** and the **United States**. About 30% of overall GSSE support is for infrastructure, and is particularly important in **Japan** and **Korea**. Support for research and development and education remained stable at 13% of the overall GSSE, but is 50% or more of the GSSE in **Australia**, **New Zealand** and **Norway**. While the share of inspection services in the overall GSSE remained constant at just 3%, its share rose in a significant number of countries perhaps reflecting the greater public policy focus on food safety.

Total support to agriculture decreased, but remained significant.

Overall, for the OECD as a whole, total support to agriculture as measured by the TSE (PSE+GSSE+consumer subsidies), amounted to USD 318 billion (EUR 338 billion) or 1.2% of GDP (%TSE) in 2002, compared to an average of 2.3% in the 1986-88 period. In 2000-02, the %TSE ranged from less than 0.5% in **Australia** and **New Zealand** to over 4% in **Korea** and **Turkey** (Figure 2.11). Despite the changes in the composition of support, about three-quarters of the total support to agriculture continues to go to individual producers (as measured by the PSE), and consumers continue to pay more than half (approximately over 90% in **Korea** and **Japan**) of this through higher food prices.

Figure 2.11. **Total Support Estimate by country**
(% of GDP)



1. For the Czech Republic, Hungary, Poland and the Slovak Republic, 1986-88 refers to 1991-93.
2. For 1986-88, the Czech Republic, Hungary, Poland and the Slovak Republic are excluded.

Notes: Countries are ranked according to 2000-2002 levels. For more detail, see Table III.12.
Source: OECD PSE/CSE database, 2003 (available at *www.oecd.org/agr/policy*).

Overall, some progress in reform has occurred,...

Progress towards the long-term objective of policy reform is indicated by downward trends in the level of support, the share of most production and trade distorting forms of support, and variation in commodity support (Box 2.3). For the OECD as whole, there has been some progress towards the goals of policy reform, although there have been year-on-

Box 2.3. **A graphical representation of key indicators of policy reform**

Progress towards the long-term objective of policy reform requires that policy goals be achieved with least distortion. This necessitates a combined reduction in the overall level of support and a re-instrumentation of policy measures. This second requirement involves both a shift towards less production distorting policy measures and a reduction in the variation of support levels between commodities. Variations in the level of support between commodities within a country influence farmers' decisions about the commodities they will produce with their resources – the greater the variation in support across commodities the more likely that policies are creating distortions in production patterns.

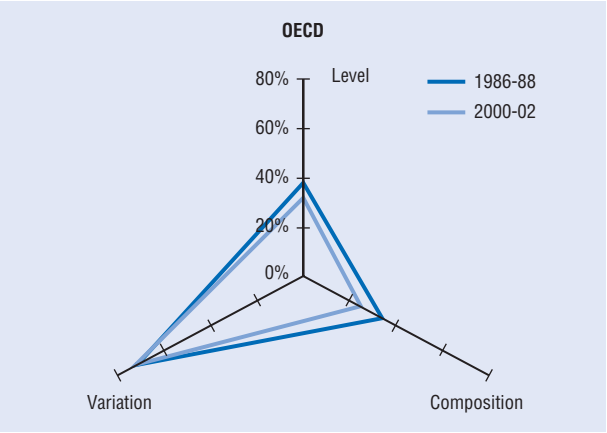
Variations in the level of support across commodities have long been a feature of agricultural policy in OECD countries. A comparison of the levels of support among commodities within a country gives an indication of the relative transfers provided to producers of different commodities. Whether additional resources are likely to flow more to one commodity than another is mainly determined by its relative level of incentive and profitability, which is influenced by levels of support relative to other commodities, rather than by absolute levels of assistance. The more uneven the levels of support across commodities, the greater the cost of any given overall level of support is likely to be to the economy. Wide and increasing differences in support across commodities can normally be regarded as increasing the potential for efficiency losses in a country. If all commodities are equally supported, in principle, there is no distortion of the underlying relative cost structure and no distortions are likely to arise in the flow of resources between different commodities. However, economy wide distortions related to the overall level and the forms in which support is provided would remain.

One way to measure progress towards agricultural policy reform in a given country is to show changes over time in these three elements together. The level of support is measured by the share of producer support in gross farm receipts, the %PSE. The composition of support is measured by the share of the most distorting forms of support – market price support, payments based on output, and payments based on input use – in gross farm receipts. The variation in support is measured by the coefficient of variation in the producer Nominal Assistance Coefficient across commodities within the country.

Figures 2.12 and 2.13 illustrate changes in these three elements for the OECD as a whole and for each OECD country. Each of the variables is measured on one of the three axes. For any particular period the points on the axes can be joined to form a triangle. Progress towards reform can be shown by changes in the position of the triangle between periods. Movement towards the origin on any of the three axis (smaller triangle) indicates a positive step towards reform – either a reduction in the level of support, a reduction in the importance of the most distorting forms of support, or a reduction in the variation in support between commodities. It is possible to make progress in one of the elements but to go backwards in another. Together, the three elements tell a story of policy developments within a country over time. The further from the centre, the greater the need for reform.

year fluctuations. There has been a reduction in the level of support and a modest improvement in the composition of support, although there was little change in the variation of support among commodities (Figure 2.12). Nevertheless, support still accounts for about one third of farm receipts, of which over three-quarters is still generated by the most distorting forms of support, and with wide variations across commodities in the levels of support.

Figure 2.12. **Changes in the level, variation and composition of support in OECD**



1. The level of support is measured by the % PSE. The composition of support is measured by the share of market price support, payments based on output and payments based on inputs in gross farm receipts. Variation in support is measured by the coefficient of variation of commodity producer NACs, weighted by value of production.
2. All the axes are on the same scale shown on the vertical axis.

Notes: See Box 2.3
Source: OECD PSE/CSE database, 2003 (available at *www.oecd.org/agr/policy*).

... but remained highly uneven across countries.

Figure 2.13 shows changes in the level, variation and composition of support by country between 1986-88 (1991-93 for the Czech Republic, Hungary, Mexico, Poland and the Slovak Republic) and 2000-02. On the basis of this graph, progress in policy reform, *i.e.* in all three elements of support, has occurred in **Australia**, **Canada**, the **Czech Republic**, **New Zealand**, the **Slovak Republic** and the **United States**. However, the extent to which further progress is necessary varies between these countries. For example, in Canada, while progress has been made in reducing the overall level and in the use of the most distorting forms of support, there has been less progress to reducing the variation in support between commodities, reflecting the continued relatively high level of support for milk production. In **New Zealand,** the overall level of support has been significantly reduced, from a relatively low base, and there has also been a marked reduction in the variation of support across commodities. Support for sheepmeat was particularly large relative to other commodities in 1986-88. Reform had a significant impact on changing the variation in support between commodities and consequently the pattern of production.

In the **United States,** the reduction in the level of support and the improvement in the composition of support were both marginal. Progress was made especially on reducing the variation in support across commodities, particularly across cereal products in the second half of the 1990s. In the **European Union**, the level of support has fallen marginally, with

Figure 2.13. **Changes in the level, variation and composition of support by country**

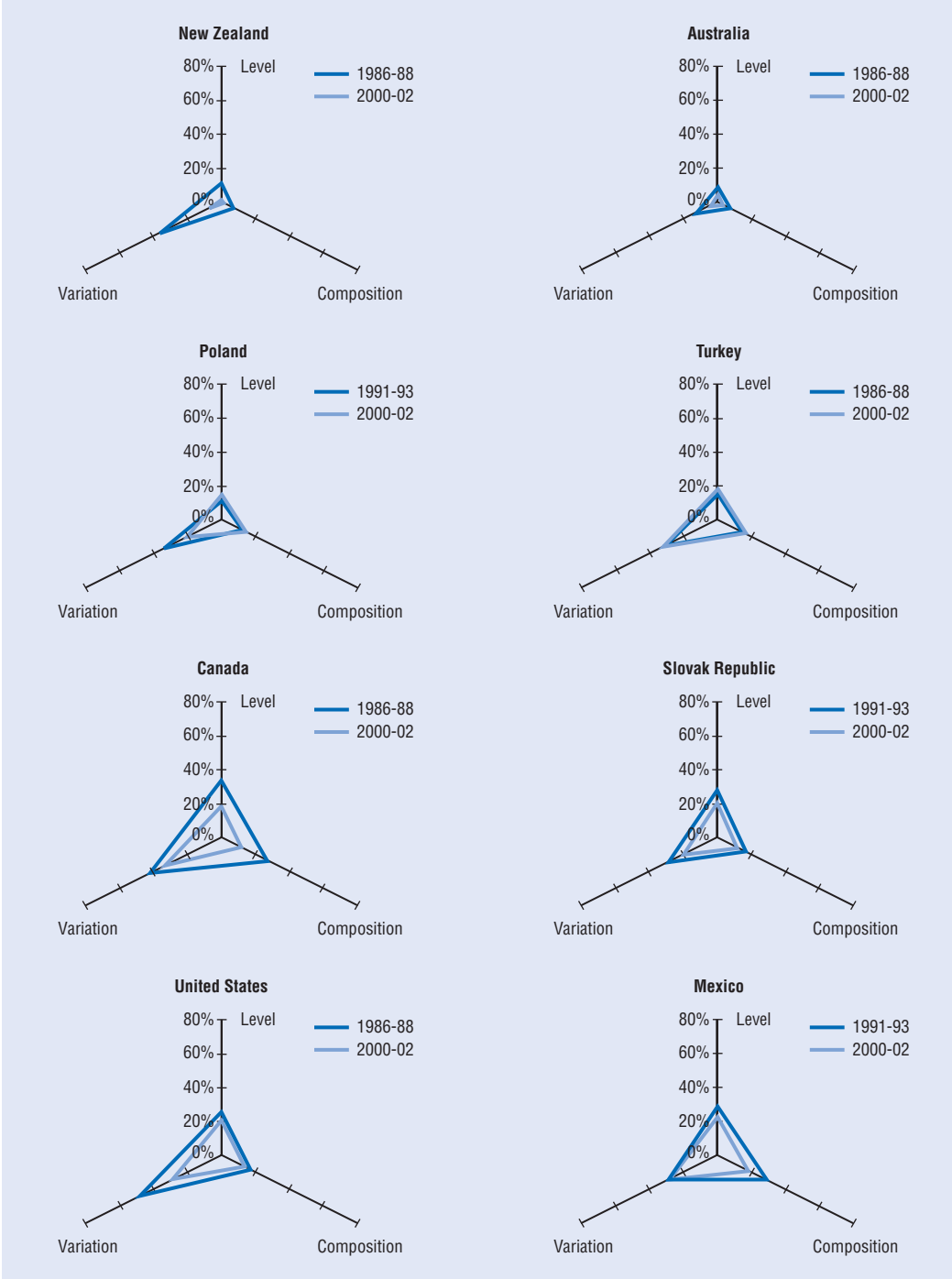
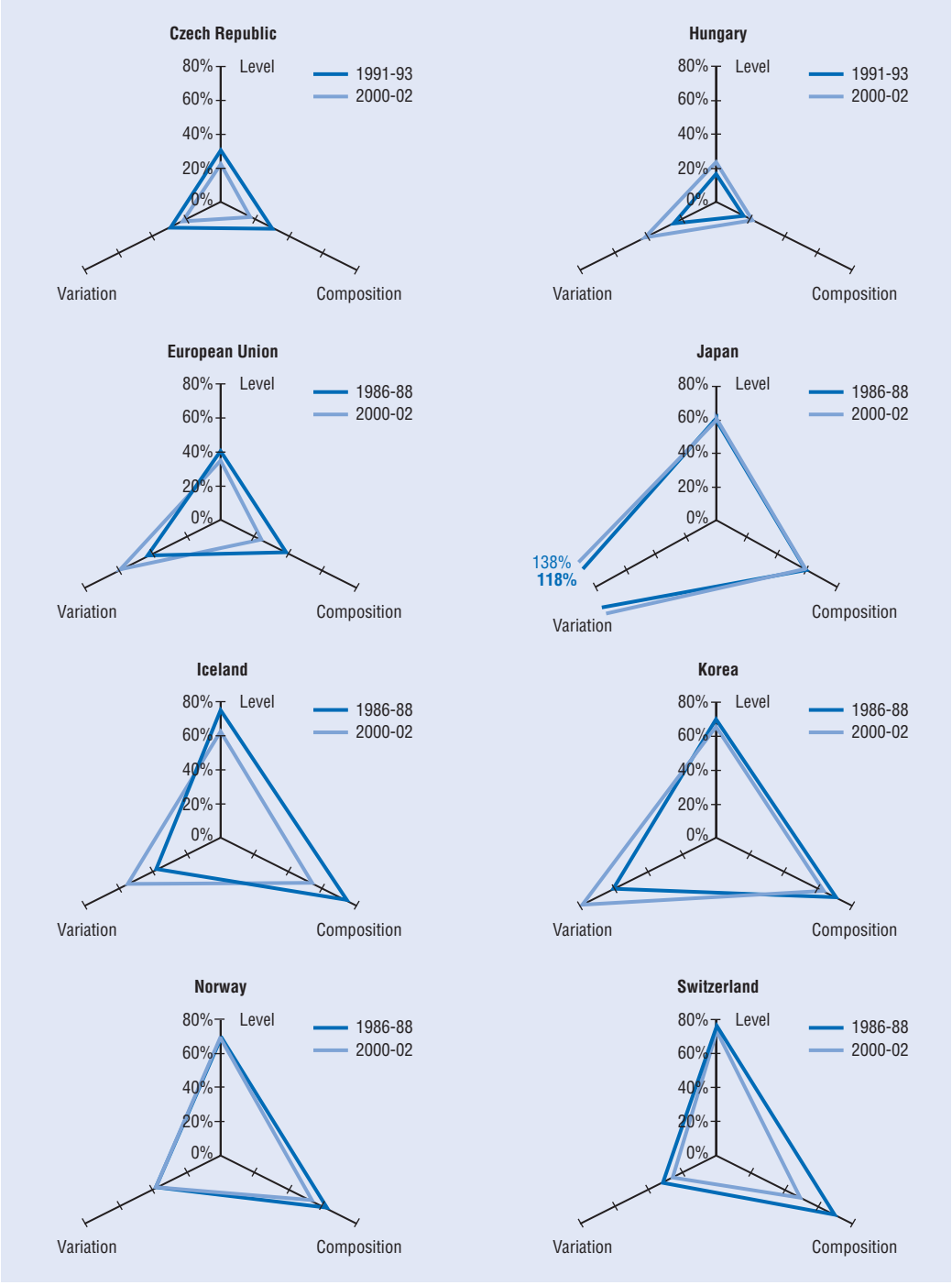


Figure 2.13. **Changes in the level, variation and composition of support by country** *(cont.)*



1. The level of support is measured by the % PSE. The composition of support is measured by the share of market price support, payments based on output and payments based on inputs in gross farm receipts. Variation in support is measured by the coefficient of variation of commodity producer NACs, weighted by value of production.
2. All the axes are on the same scale shown on the vertical axis.

Notes: See Box 2.3.

Source: OECD PSE/CSE database, 2003 (available at *www.oecd.org/agr/policy*).

greater progress made in reducing the most distorting forms of support. However, the variation in support among commodities has increased as a result of the way in which policy changes have been implemented, which create a greater reduction in support for cereals than for livestock products. **Mexico** has made efforts to reduce the level and improve the composition of support but the variation in support between commodities has not improved.

Progress towards reform in the five countries with the highest level of support has been mixed. While the level of support has remained constant in **Switzerland**, improvements have been made in shifting away from the most distorting forms of support and reducing the variation in support between commodities. Some progress in lowering the most distorting forms of support occurred in **Norway** but with no change in the other two elements. In **Iceland** and **Korea**, the level and composition of support have moved in the right direction, although marginally in the case of Korea, but the variation in support between commodities has increased. In **Japan**, no progress has been made in reducing the overall level of support or reducing the most distorting forms of support, and variation in commodity support has increased. While support decreased for some commodities, especially oilseeds, sugar and beef and veal, it increased for others, particularly rice and pork. In all five countries substantial effort is still required in reducing the overall level of support and moving away from the most distorting forms of support.

While starting from a low base, **Hungary** stands out as the one country where all three elements have increased in comparison with the reference period. **Poland** and **Turkey** have also seen the level of support and the importance of the most distorting forms of support increase, although Poland has made progress in reducing variations in support levels between commodities. All three countries are involved in a process of policy reform. However, while the 2001-04 ARIP in Turkey has the potential for reducing the level and improving the composition of support, the contrary may happen in Hungary and Poland with further policy harmonisation towards the EU's Common Agricultural Policy.

... requiring further efforts to reform agricultural policies.

Despite some progress since 1986-88, the current level, composition and variation in support across commodities among OECD countries, and the distortions associated with such policies, demands attention. Some events are providing countries with the opportunity to undertake a positive reform agenda. Individually, a number of countries have recently implemented broad range policy packages or are in the process of considering reform. These need to address the problems associated with agricultural support policies. There is also some pressure being exerted by bilateral agreements and the EU accession process. Finally, a successful conclusion to the WTO Doha Development Agenda of trade negotiations, within the established timeframe and mandate, is of utmost importance to continuing the process of policy reform.

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PART I

Chapter 3

Analysis of the 2002 Farm Act in the United States

The Farm Security and Rural Investment Act of 2002 (2002 Farm Act) was signed on 13 May 2002 and will be in effect for the period 2002-07. It includes a wide range of programmes for commodities, conservation, trade, nutrition, credit, rural development, research, forestry initiatives and energy, and replaces the Federal Agriculture Improvement and Reform Act of 1996 (1996 Farm Act), which provided the basic legislation governing farm policy during the period 1996-2002.

This section analyses the new Act in light of the OECD principles for agricultural policy reform.[1] Section 1 outlines the main provisions of the 2002 Farm Act,[2] followed by estimates of the incentive price effects (Section 2), market effects (Section 3), and implications for the level of support (Section 4). Finally, Section 5 provides an evaluation.

The impact of the 2002 Farm Act, as it is estimated in this section, strongly depends on a number of assumptions, most notably on the degree of farmers' risk aversion, and the settings on world markets as indicated by international commodity prices. It is for this reason that Section 2 and 3 include sensitivity analysis with respect to those two factors.[3]

1. Main provisions

The ***marketing loan assistance program*** (MLAP) for cereals, upland cotton and oilseeds is continued and extends the coverage to peanuts, wool, mohair, honey, dry peas, lentils and small chickpeas. Loan rates are set for the years 2002 and 2003 and then reduced slightly for the period 2004-07 for many commodities. For most products, loan rates are higher than those in 2001 throughout the entire period. Exceptions are rice, for which the loan rate is unchanged, and soybeans for which it is reduced (Table 3.1). The annual payment limit on marketing loan gains (MLG) and loan deficiency payments (LDP) is kept unchanged at USD 75 000 per person and crop year. At the same time, the optional formula to reduce a loan rate in the event of persistent price weakness is removed. A separate USD 75 000 payment limitation applies for the MLG and LDPs for peanuts, wool, mohair and honey.

Direct payments for crops (DPC) replace the pre-determined production flexibility contract payments (PFCPs) provided under the 1996 Farm Act to wheat, maize, barley, grain sorghum, oats, upland cotton and rice. In addition, the payments are extended to soybeans, other oilseeds and peanuts. Payment rates by commodity for the 2002-07 period are higher than those paid in 2001 (Table 3.1). Eligible farmers or landowners receive an annual DPC equal to the payment rate of the applicable crop multiplied by the DPC crop base yield and 85% of the crop base area for the farm. The payment limit for DPC continues to be fixed at USD 40 000 per person and crop year, with a separate payment limit of USD 40 000 for peanuts.

A new programme providing ***counter-cyclical payments*** (CCP) for wheat, feed grains, upland cotton, rice, oilseeds and peanuts is introduced to replace the *ad hoc* Market Loss Assistance Payments (MLAP) provided to farmers during the 1998-2001 period. Target

prices specific to each commodity are set initially for the years 2002 and 2003 and then increased for the period 2004-07 for most commodities (Table 3.1). CCPs are available whenever the target price of a given commodity is higher than the *trigger level*, which is the return per tonne (*i.e.* the higher of market price or loan rate) plus the DPC per tonne. The amount of the annual CCP is the payment rate (target price minus the trigger level) of the applicable crop multiplied by the CCP crop base yield and 85% of the crop base area for the farm. The annual CCP is limited to USD 65 000 per person and crop year, with a separate USD 65 000 payment limit for peanuts.

For both the DPCs and CCPs, producers may retain their 2001 PFCP contract areas from the 1996 Farm Act as ***base areas***. The 1998-2001 average oilseed area may also be added to these total base areas. Alternatively, producers have the option to update their base area to the average area planted during 1998-2001 for all eligible commodities. ***Payment yields*** for DPCs are those previously used for the PFCP. For oilseeds, the farm's DPC yield is the 1998-2001 average yield multiplied by the ratio of the national averages for 1981-85 relative to the average 1998-2001. The payment yield for peanuts is the 1998-2001 average yield. For CCPs, producers may use the same payment yields as used for DPCs. If a farmer opts to update the base area to the alternative 1998-2001 area for all eligible commodities, then the producer also may choose to update yields for the CCPs under either of two mechanisms: *i)* adding to the current DPC yields 70% of the difference between the 1998-2001 yield average and the DPC yield, or *ii)* generating entirely new CCP yields that are 93.5% of the 1998-2001 average yields.

Table 3.1. **United States: payment rates for crops and milk for crop year 2001 under the 1996 Farm Act and crop years 2002-07 under the 2002 Farm Act**

(USD/t)	Loan rate			Direct payments		Target price	
	2001	2002-2003	2004-2007	2001	2002-2007	2002-2003	2004-2007
Wheat	94.8	102.9	101.0	17.4	19.1	141.8	144.0
Maize	74.4	77.9	76.8	10.6	11.0	102.4	103.5
Grain sorghum	67.3	77.9	76.8	12.8	13.8	100.0	101.2
Barley	75.8	86.3	85.0	9.5	11.0	101.5	102.9
Oats	83.4	93.0	91.6	1.5	1.7	96.5	99.2
Upland cotton	1 144.6	1 146.4	1 146.4	132.1	147.0	1 596.1	1 596.1
Rice	143.3	143.3	143.3	46.3	51.8	231.5	231.5
Soybeans	193.3	183.7	183.7	n.a.	16.2	213.1	213.1
Other oilseeds	205.0	211.6	205.0	n.a.	17.6	216.1	222.7
Peanuts	673/146	391.4	391.4	n.a.	39.7	545.8	545.8
Milk	218.3	218.3	218.3	n.a.	n.a.	373.5	373.5

n.a.: not available.
1. Minimum price, calendar years.
Notes: Crop year periods vary between commodities. Complete documentation is provided in the OECD PSE/CSE Database 2003, available at *www.oecd.org/agr/policy*.
Source: USDA.

Planting flexibility provisions allow farmers to receive DPC and CCP on the base area of one crop while producing other crops on that area. There are some limitations on planting fruits, vegetables and wild rice. Participants receiving these payments must continue to abide by ***conservation compliance requirements*** and must use their base area for agricultural or conservation purposes. For each of these payments, a participant can receive a single full payment as one entity and up to a half payment from each of two additional entities. Thus, the ***maximum payment*** that an individual can receive is

USD 360 000 per year, excluding payments on peanuts, wool, mohair and honey. Producers with an average gross income of over USD 2.5 million over the three preceding tax years are not eligible for payments unless over 75% of their gross income is from agriculture.

A total of USD 20 million will be available from 2003 to 2005 to provide incentives to producers of ***hard white wheat***. This payment will be limited to 0.8 million hectares or the equivalent volume of production. Support to ***peanuts*** is changed from a price support programme with marketing quotas to a programme with marketing loans, DPCs, CCPs and a quota loss compensation payment. A single loan rate is set for the period 2002-07 replacing the previous rates for quota and non-quota peanuts (Table 3.1). Producer levies on peanuts are eliminated.

The two main elements of the ***sugar*** support policy – the tariff-rate quota (TRQ) import system and the price support loan programme – continue and a producer payment in kind (PIK) programme may also be employed. In operating the PIK programme, Commodity Credit Corporation (CCC)-owned sugar can now be exchanged prior to planting for reductions in the area planted. Marketing allotments are introduced in order to balance markets, avoid forfeitures and to comply with sugar import commitments under WTO and NAFTA. The marketing assessments and loan forfeiture penalties on sugar are eliminated. The cost of storing excess sugar production is shifted from the Government to the industry. However, a sugar storage facility loan program was established to assist processors who want to construct or improve storage and handling facilities. The loan rates for raw cane and refined beet sugar are frozen at their 1995 levels through 2002-07.

The ***dairy*** market price support programme and the Dairy Export Incentive Program (DEIP) has been extended, the milk marketing order system remains unchanged, and a new deficiency payment has been added. Dairy market price support was scheduled to end on 31 December 1999, but was instead extended on an *ad hoc* basis each year. Under the new Act, it will be continued over the 2002-07 period. The minimum price for milk remains at USD 218 per tonne and the CCC will continue to buy at announced prices any butter, cheddar cheese or non-fat dry milk that is offered. A new Milk Income Loss Contract Program – the National Dairy Market Loss Payment Program – is introduced for the period 2002-05 to provide a monthly payment to dairy farm operators equal to 45% of the difference between a target price fixed at USD 373.5 per tonne of milk (Table 3.1) and the monthly Class I price in Boston. This annual payment is limited to a maximum of 1 089 tonnes of milk per operation, *i.e.* the production of about 135 cows.

Concerning domestic ***credit policy***, the Farm Service Agency (FSA) farm loan eligibility rules are relaxed to make more borrowers eligible for Federal farm credit assistance. Lending rules for new farmers and ranchers are modified to increase eligibility and annual loan levels, as well as to provide more benefits. The annual amount of guaranteed operating loans on which a 4% interest rate reduction is made increased by 53% to USD 750 million, with 15% of it set aside for new farmers. FSA may guarantee owner-financed loans (loan contracts for sale) to new farmers purchasing a farm or ranch in a limited 5-state area on a pilot basis.

Overall, funding for ***environmental conservation and protection*** is increased by 80% over six-years to about USD 21 billion. Programmes for retiring environmentally sensitive land from crop production will continue to expand. However, the emphasis is shifted towards

programmes that support conservation on land in production by increasing the funding for the Environmental Quality Incentives Program (EQIP) and establishing a new Conservation Security Program (CSP), which pays producers to adopt or maintain environmentally friendly farming practices. The CSP focus on land-based practices and specifically excludes livestock waste-handling facilities. Under the CSP, producers develop conservation plans and enter into conservation security contracts that provide an annual payment up to USD 45 000 for implementing or maintaining the practices designated in the conservation plan.

Authorised funding through the CCC for the EQIP has been increased from USD 1.3 billion for 1996-2002 under the 1996 Farm Act to USD 5.8 billion for 2002-07. In addition, USD 310 million are provided for ground and surface water conservation, including cost share for more efficient irrigation systems. The share for livestock producers increases, with 60% of total funding – up from 50% in the 1996 legislation. Limits on the size of participating farms, which excluded those with over 1 000 animal units, are eliminated. The total of all EQIP payments to an individual or entity cannot exceed a total of USD 450 000 during the period 2002-07.

Farms participating in the EQIP must implement structural and land management practices, or develop a comprehensive nutrient management plan to be eligible for payments. Changes in eligibility conditions include elimination of: priority areas, the requirement to maximise environmental benefits per dollar of programme expenditure (although "optimisation of environmental benefits" is still cited as a purpose of the programme); "bidding down" (*i.e.* higher priority cannot be assigned to contract offers with comparable environmental values based only on a lower bid for cost sharing from the operator); and higher priority for producers who use cost-effective conservation practices and address national conservation priorities.

Land retirement programmes are expanded, with particular emphasis on wetlands. The maximum set-aside area under the Conservation Reserve Program (CRP) is increased to 15.9 million hectares, from 14.7 million hectares under the 1996 Act. The maximum area covered by the Wetland Reserve Program (WRP) is doubled to nearly 1 million hectares and, to the maximum extent possible, over 100 000 hectares per year must be enrolled.

While continuing and expanding programmes that retire environmentally sensitive land from crop production, the 2002 Farm Act extends funding to working land and the protection of productive farmland from non-farming development. Funding for the Farmland Protection Program (FPP) increased from USD 50 million appropriated over 1996-2001 to USD 597 million in CCC funding for the 2002-07 period. A new Grassland Reserve Program (GRP), covering up to 810 000 hectares and funded at USD 254 million for 2003-07, is created to provide annual payments to assist landowners to restore and conserve grassland.

Funding provisions for ***research*** are extended to 2007, replacing dollar amounts with "such sums as are necessary to carry out" the research. Annual funding for the Initiative for Future Agriculture and Food Systems is increased from USD 120 million in 1998-2004 to USD 200 million in 2007 and each year thereafter, for agricultural research, education, and extension, and includes funding for biosecurity, biotechnology, environment and organic agriculture.

In respect of ***domestic food assistance***, the Food Stamp Program and commodity distribution programmes are reauthorized through Financial Year (FY) 2007. The annual funding for the Emergency Food Assistance Program commodity purchases is increased by 40% to USD 140 million each year beginning in FY 2002. Some USD 10 million per year are granted for demonstration projects to promote consumption of fruits and vegetables, and at least USD 200 million per year will be used to purchase fruits, vegetables and other speciality crops for commodity distribution programmes.

The list of commodities covered by the ***Bioenergy Program*** encouraging increased purchases of eligible commodities for expanding production of bio-energy is broadened to include animal by-products and oils and fats, funded at USD 150 million annually for 2003-06. Competitive grant programmes are established to: support development of biorefineries to convert biomass into fuels, chemicals, or electricity; educate people about the benefits of biodiesel fuel use; administer energy audits and renewable energy development assessments for farmers, ranchers and rural small businesses; assist farmers, ranchers and rural small business in purchasing renewable energy systems and making energy efficiency improvements.

New provisions to assist ***organic production*** systems include USD 15 million for research and USD 5 million for the National Organic Certification Cost-Share Program to grant a payment up to USD 500 per producer or handler of agricultural products to assist them in obtaining certification. Organic producers are among those eligible to receive payments under the Conservation Security Program (see above) for adopting or maintaining organic farming practices.

Country of origin labelling guidelines will be developed, initially on a voluntary basis, for retailers for beef, lamb, pork, fish, perishable agricultural commodities and peanuts. With meat labelling, only meat from animals born, raised, and slaughtered in the US can be considered US produced. The voluntary guidelines prescribe minimum requirements for a recording system, which will be a part of a mandatory programme, to be put in place by September 2004.

Under new provisions for ***rural development***, farmers and ranchers may now obtain loans and guarantees up to USD 40 000 to buy stock in a value-added co-operative. Annual funding is authorised for a programme providing training for farm workers in new technologies and for the value-added agricultural product marketing development grants programme to assist individuals or groups of agricultural producers in developing business plans and strategies that would create viable marketing opportunities for value-added agricultural products. The Fund for Rural America, with previously authorised funding of USD 100 million per year for agricultural research and rural development, is abolished.

In respect of ***trade-related provisions***, the new act continues all trade programmes and adds new programmes designed to develop and expand commercial outlets for US commodities and food products in world market and to provide international food assistance. Funding levels for the Emerging Markets Program (EMP), the Export Credit Guarantee Program (ECGP), and the Export Enhancement Program (EEP) remain unchanged and funding increases by a quarter to USD 34.5 million for the Foreign Market Development Program (FMDP). The maximum annual appropriation for the Market Access Program (MAP) is more than doubled to USD 200 million by 2006.

The International Food for Education and Nutrition Program grants USD 100 million to provide commodities and financial and technical assistance for foreign pre-school and school feeding programmes. The Online Exporter Assistance Initiative provides comprehensive information in a USDA web site to assist exporters and potential exporters of US agricultural commodities. The Global market strategy identifies opportunities for growth in exports and removes barriers to trade in overseas markets.

Provisions on technical barriers to trade authorise annual grants up to USD 6 million for public and private-sector projects for intervention regarding non-tariff barriers to US exports involving issues of biotechnology, food safety, disease or other sanitary and phytosanitary concerns; and establishes an annual USD 2 million export assistance programme to address specific barriers that prohibit or threaten the export of US speciality crops. The Uruguay Round compliance provisions require a reduction in certain domestic support expenditures when the Government determines that total expenditures exceed or are expected to exceed allowable levels, as measured by the Aggregate Measurement of Support (AMS). The AMS ceiling for the United States is currently USD 19.1 billion.

2. Incentive price effects on crops

This section estimates the incentive price effects of the 2002 Farm Act provisions on crops, that is the effects on the economic signals that guide production decisions. Incentive price effects have two components. ***Relative price effects*** are the effects created by changes in the implicit or explicit prices paid by farmers for their inputs or received by farmers in exchange for their outputs. ***Risk effects*** are the effects created by changes in the variability of farming revenue induced by policy measures. This section estimates the corresponding risk premiums and the relative importance of these effects as compared to relative price effects. These estimations are then used, along with other characteristics of the policies involved, to simulate the market impacts of the 2002 Farm Act in the AGLINK model (Section 3).

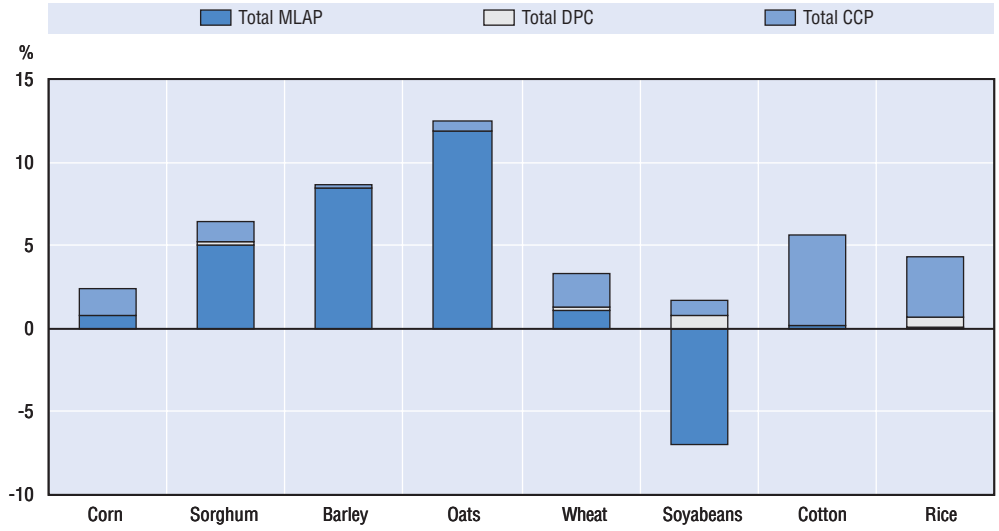
The relative price effects are estimated using results and methodologies developed by the OECD. The MLAP creates direct incentives to produce by giving payments per tonne and the corresponding price effect is estimated to be equal to the payment. The DPCs and the CCPs are paid on historical rather than current production and they may create some impacts on area allocation through the implicit price of the use of land. The relative price effects of these two payments are estimated to be smaller than those associated with the MLAP, in line with the results in the PEM crop analysis. However, the impacts of base area or yield updating and expectations assuming possible future updating opportunities have not been quantified.[4]

Two main crop programmes of the 2002 Farm Act give payments that are contingent on market prices and require risk effects to be calculated: the MLAP and CCPs. They both reduce the market risk faced by crop producers. Most empirical studies show that farmers are risk averse and therefore, reducing market risk will have an impact on production decisions: less risk associated with producing a given commodity will stimulate its production. Under certain assumptions, the risk reducing impacts can be incorporated into a price risk premium (in other words, expressed as an equivalent change in price) as shown in Annex 4. These risk premiums increase the production response of farmers whenever risk, measured as the variability of farm revenue, decreases and *vice versa*.

The risk reducing impact of the MLAP and CCPs differ for two reasons. First, the target prices of the CCPs are additional to loan rates. They supplement prices that lie between the loan rate and the target price minus the direct payment rate. Marketing loans cover only against market prices that are lower than loan rates. Second, marketing loans provide payments to current production while CCPs payments relate to historical area and yield. Their impact on risk is different. The risk related impacts of CCPs are, in general, smaller than those of marketing loans. However, if area allocated to a given crop falls far below the levels in the base period, the risk reducing impacts of CCPs become larger, which may prevent production from falling. That is, CCPs create incentives to maintain the total crop area of the base period.[5] This difference in risk effects between the two programmes is incorporated in all the calculations. This risk premium approach allows the impact on the incentive prices (net of risk premiums) of the two programmes to be compared. The calculated risk premiums are used to model the risk related effects.

Figure 3.1 shows the impacts on the incentive prices of crops of the three main commodity programmes as compared to the programmes available in the previous Farm Act. These impacts are calculated for the outlook period 2002-08 using the AGLINK baseline and presented as the average of the seven-year period. Risk and price effects of both programmes are contingent on market conditions. For most of the crops the prices in the outlook baseline 2002-08 are significantly higher than prices in the previous years 1999-2001. Both price and risk effects, but especially the former, are smaller when market prices are high.

Figure 3.1. **2002 Farm Act impacts on incentive prices**
Average 2002-08



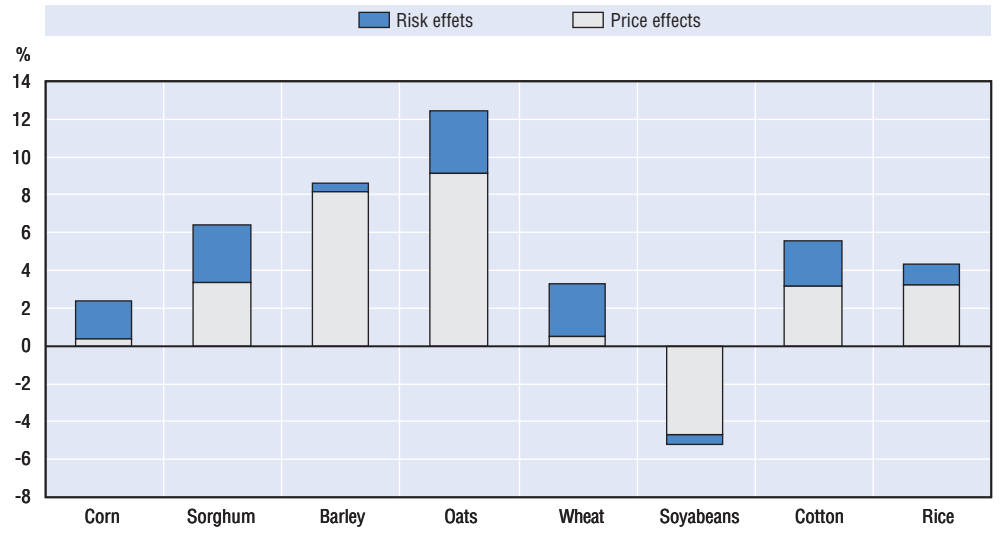
Source: OECD Secretariat

The 2002 Farm Act increases the loan rates of corn, sorghum, barley, oats and wheat, and reduces that of soybeans (Table 3.1). The average changes in incentive prices due to the new loan rates range from a reduction of 5.7% for soybeans to an increase of 10.7% for oats. Marketing loans dominate the impacts on the incentive prices of sorghum, barley, oats and soybeans. The 2002 Farm Act also increases the DPC rates of all crops. However, the DPC is

rather marginal in the total incentive price impact of the new Act. This is the case even for products such as soybeans that did not receive these payments before. Finally, the 2002 Farm Act creates a new target price that -net of DPC payments- triggers the counter-cyclical payments. The largest differences between net target prices and loan rates occur for corn, wheat and, especially, cotton and rice. That is why CCPs dominate the incentive price impact on wheat (2%), corn (1.7%), cotton (5.4%) and rice (3.6%).

Figure 3.2 divides total impacts on incentive prices into relative price effects and risk effects. Price effects are dominant except for wheat and corn, the two commodities with

Figure 3.2. **2002 Farm Act impacts: relative price *versus* risk effects**
Average 2002-08



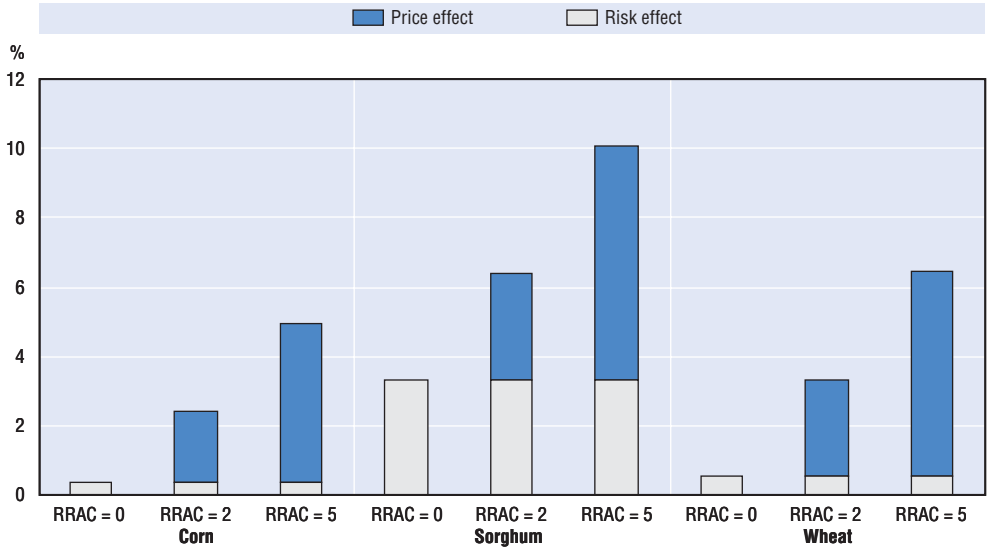
Source: OECD Secretariat.

smaller overall impacts. Incentive prices of corn and wheat are estimated to increase by 2.5% and 3.3%, of which 2% and 2.8% respectively, are due, to risk effects. These results underline the importance of the risk reducing dimension of the programmes in the 2002 Farm Act, which in turn depends on the assumptions on farmers' risk aversion.

These results depend crucially on the assumed coefficient of relative risk aversion (RRAC). The base value for this coefficient (RRAC = 2) was derived from the empirical literature as shown in the annex, but the range of empirical estimations for this coefficient is large. If farmers are risk neutral (RRAC = 0) risk effects become zero. If farmers are more risk averse, up to a still plausible value of RRAC = 5, risk effects on incentive prices due to the Act more than double, as shown in Figure 3.3 for corn, sorghum and wheat.

The estimation of risk effects is especially relevant for programmes like the CCP, given their strong counter-cyclical nature. These payments are – in principle – based on fixed area and yields, which makes their relative price effects rather marginal. Including risk related effects, through the risk premiums, allows the impacts on production of payments that are contingent on current market conditions to be estimated.

Figure 3.3. **Sensitivity analysis: Risk effects on corn, sorghum and wheat**
Averages 2002-08



Source: OECD Secretariat.

3. Market effects

This section shows the likely impacts of the 2002 Farm Act on US and world markets for crops and dairy compared to a preliminary baseline scenario presented to the Commodity Groups of the Commite of Agriculture of the OECD in April 2003. The analysis is based on AGLINK (the non-spatial, multi-region trade model developed by OECD). As this model focuses on the markets and policies particularly relevant for OECD agricultural trade, it is well suited for examining the provisions of this policy change relating to commodity production, trade and prices.[6]

The analysis depends in part on a number of assumptions, in particular the degree to which US farmers are risk averse and world agricultural market conditions (*e.g.* world prices, which may be higher or lower than projected levels). Thus, the discussion of the quantitative results is supplemented with some sensitivity analysis with respect to these two factors.

A number of limitations of this analysis should be mentioned. First, several commodities subject to the amended policy are not sufficiently represented in the model, including sugar[7] and pulses. Second, the analysis is limited to commodity programmes and the CRP. Therefore, a number of environment-related and other measures are not taken into account. Third, the impact of the CRP expansion on individual crop areas is handled by introducing exogenous shifters based on the USDA's Cost Benefit Assessment of the 2002 Farm Act; this part of the results cannot therefore be seen as an original outcome of AGLINK. Finally, marketing loan benefits are calculated in AGLINK based on expected market prices and, therefore, generally underestimate the expected marketing loan benefits.[8]

3.1. Impact on US and international crop markets

The crop market effects are presented in Tables A7.1 to A7.3 in Annex 7. They show the projections for 2002 to 2008 based on 2002 Farm Act provisions compared to the counter-factual market outcomes assuming a continuation of the 1996 Farm Act provisions. The results are subject to the caveats expressed earlier and, additionally, do not incorporate effects related to expectation concerning future programme changes. Table A7.1 shows that the shift from the 1996 Farm Act policies (*i.e.* loan rates at the maximum levels provided by the 1996 Farm Act and no further *ad hoc* market loss assistance payments) to the 2002 Farm Act results in larger total benefits for grains, as both loan rates and total direct payments (*i.e.* DPC and CCP) increase. Lower loan rate benefits for soyabeans are only partly offset by the increase in direct payments.[9]

DPCs increase compared to the former PFC payments and the new CCPs become significant from 2003 onwards. Total payments (DPCs and CCPs) are projected to increase by an average of 62% over the 2002-08 period under the new Farm Act compared to the previous act, with payments almost doubling in 2003 as price decreases trigger high CCPs, but the gap narrows towards the end of the projection period.

The higher loan rates and the counter-cyclical payments lead to a significant reduction in the risk faced by US grain producers. As explained in Section 2, average risk premiums decline by more than one third for both wheat and maize under the 2002 Farm Act, thus raising incentive prices. For soyabeans, the risk reducing effect of the counter-cyclical payments is more than offset by the increased risk exposure due to lower loan rates, resulting in a 25% increase in risk premiums for oilseed producers. As farmers are assumed to be risk averse, these changes in perceived risk result in additional changes in production.

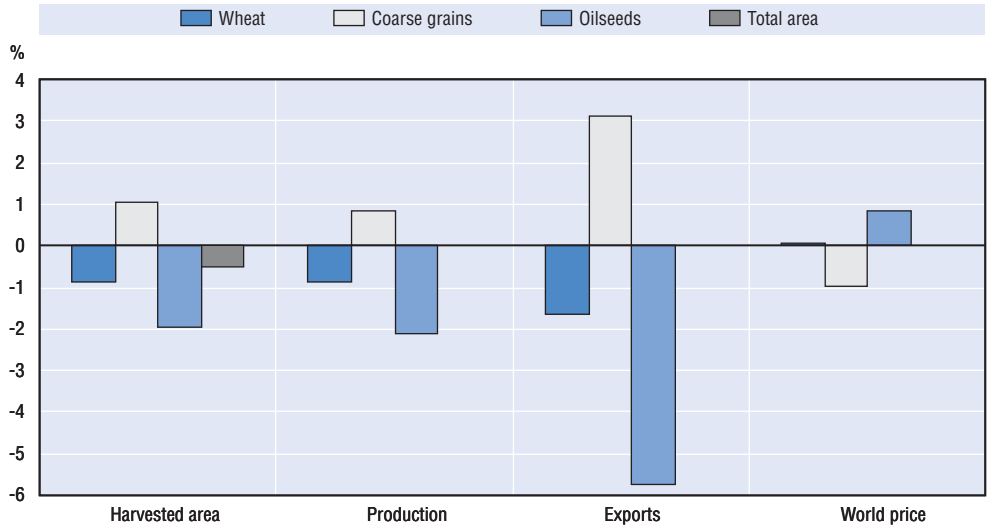
3.2. Area allocation and domestic markets

Greater support and lower risk for coarse grains, compared to lower marketing loan benefits and greater risk for oilseeds, lead to a change in the allocation of land across crops and, to some degree, to yield changes. Incentive returns per hectare (*i.e.* after taking risk into account) decrease by some 5% on average for soyabeans, but increase for coarse grains (Tables A7.1 and A7.2 of Annex 7), in particular for some minor coarse grains which go up to 11% on average. At the same time, increased direct payments encourage an expansion of total cropped area (*i.e.* the additional use of marginal land) or prevent area decreases in response to falling prices. The expansion of area allocated to the CRP influences total land allocation in the opposite direction.

The net result is that total area harvested for programme crops falls by 0.5% on average over the 2002-08 period as a result of the 2002 Farm Act. Relative to the 1996 Farm Act scenario, area declines on average by 1% for wheat and expands by 1% for coarse grains, with stronger gains for barley, oats and sorghum. At the same time, a 2% decline in the area planted to oilseeds is attributable to the new policies (Figure 3.4). Production changes reflect the changes in support over the projection period, as loan rate support drops for oilseeds and increases for minor coarse grains. The CRP also has significant effects (as shown in the later section decomposing policy effects). Differences between the 1996 Farm Act and the new Act generally peak in 2006, although they fluctuate slightly as producers react to lagged returns. Consumption effects occur exclusively in reaction to price effects and are minor as shown in Tables A7.1 and A7.2.

Figure 3.4. **Market impacts of the 2002 US Farm Act compared to the 1996 Farm Act policies**

Average 2002-08



Source: OECD Secretariat.

Overall, the net effect is higher coarse grain exports, up 3% on average, whereas wheat and oilseeds exports decline by 2% and 6% on average, compared to the 1996 Farm Act scenario.

3.3. International market prices

The world price effects are reported in Table A7.3 of Annex 7. The world wheat price is lower by less than 1% in the early years of the projection, but slightly higher towards the end of the simulation period, when the 2002 Farm Act is compared to the 1996 Farm Act scenario. World maize and barley prices average 1% lower under the new Farm Act, again with stronger price reductions in early years than in the later years. In contrast, world oilseed prices are 1% higher under the new legislation due to reduced US production and exports. In consequence, world prices for oilseed meals and, to a lesser extent, vegetable oils are higher as well.

3.4. Decomposition of the total market effects

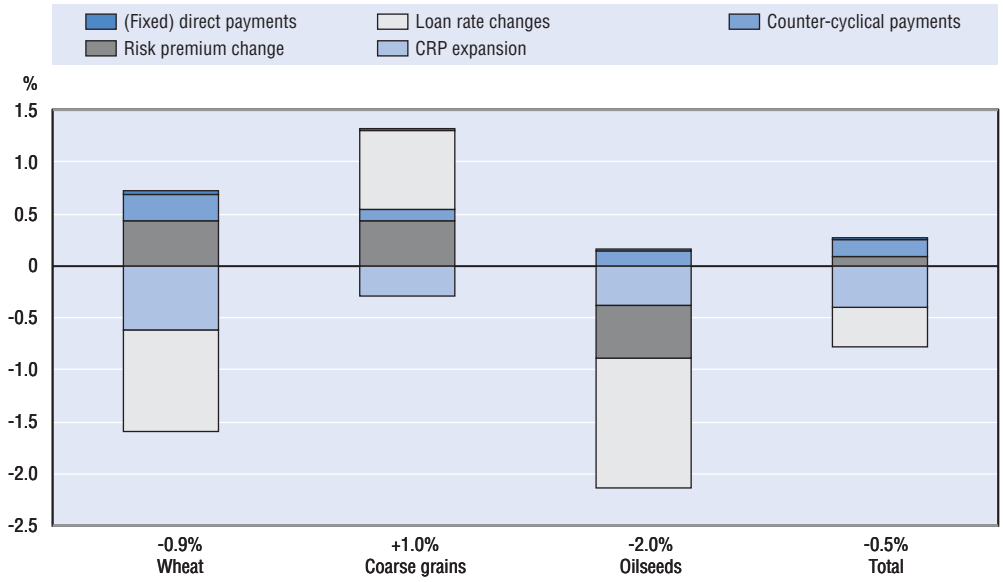
The total market impact of the new farm policy has several sources. This section aims to shed light on the relative weight of the different policy measures, and the changes in revenue risk, in the total. For an overview, see Figure 3.5.

The expansion of area allocated to the CRP is taken into account by applying area shifters obtained from the USDA's Cost Benefit Assessment of the 2002 Farm Act. These, in turn, are mostly based on historical CRP allocation. The increased CRP area reduces crop land by between 0.3% for coarse grains and 0.6% for wheat, on average for 2002-08. For oilseed area, the CRP accounts for a 0.4% reduction.

The change in risk perceived by US farmers also accounts for an important share of the total impact. As the 2002 Farm Act tends to reduce risk for farmers producing wheat and coarse grains while increasing the risk for soybean producers, the implications have

Figure 3.5. **Composition of the Total Impact of the 2002 US Farm Act on Harvested Crop Area**

Average 2002-08



Note: The composition of the total effect is path dependent. Shares presented here are calculated by consecutively adding individual elements of the 2002 Farm Act to the previous policy in the order presented in the legend. Numbers given below the bars show the total effects

Source: OECD Secretariat.

different signs. For wheat and coarse grains, the risk reduction accounts for an area expansion of 0.4% each, thereby reducing the total effect for wheat but adding to the increase for coarse grains. For soyabeans, increased risk causes an average reduction in harvested area of 0.5%.

The new CCPs are relatively small on average due to high prices, averaging some USD 1.2 billion over the projection period, compared to USD 3.7 billion in DPCs[10]. Nevertheless, all these payments tend to result in more land being used for crops. On average, the new payments account for an increase in harvested area of between 0.1% (coarse grains) and 0.25% (wheat).

With loan rates for wheat and coarse grains up, and those for soyabeans down, the new marketing loan program determines the net, total impact on land allocation. Lower rates for soyabeans account for a 1.2% decline in oilseed area, 63% of the total impact, while higher rates, particularly for minor coarse grains (barley, sorghum) account for a 0.8% increase in coarse grain area, 73% of the total impact. In spite of the increase in the loan rate for wheat, marketing loan benefits for this crop remain negligible. Therefore, the higher loan rates do not result in an increased wheat area. Instead, due to cross commodity impacts the higher marketing loan benefits for coarse grains result in a reduction of 1% on average in the land used for wheat, with a particularly strong impact in the early years 2003 and 2004.

Finally, DPCs were increased only slightly under the new 2002 Farm Act relative to the earlier PFC payments. Consequently, their contribution to the total impact is very small. It accounts for an increase in the harvested area of between 0.1% (soyabeans) and 0.3% (wheat).

The composition of relative impacts on domestic production and exports are very similar to those for harvested area because both yield changes and the impacts on domestic use of grains and oilseeds generally are comparatively small.

3.5. *Sensitivity of market impacts*

The impact of the new US policy, as analysed above, is conditional on certain critical assumptions. First, the degree of farmers' risk aversion could be lower or higher than assumed in this analysis. Second, the impact of US policy on domestic and international markets strongly depends on the market environment itself, which in turns depends on various other factors.[11] To better understand the implications of the 2002 Farm Act, it is therefore necessary to examine the sensitivity of the above results with respect to the relative risk aversion coefficient (as explained in Section 2), and to the world market price projections.

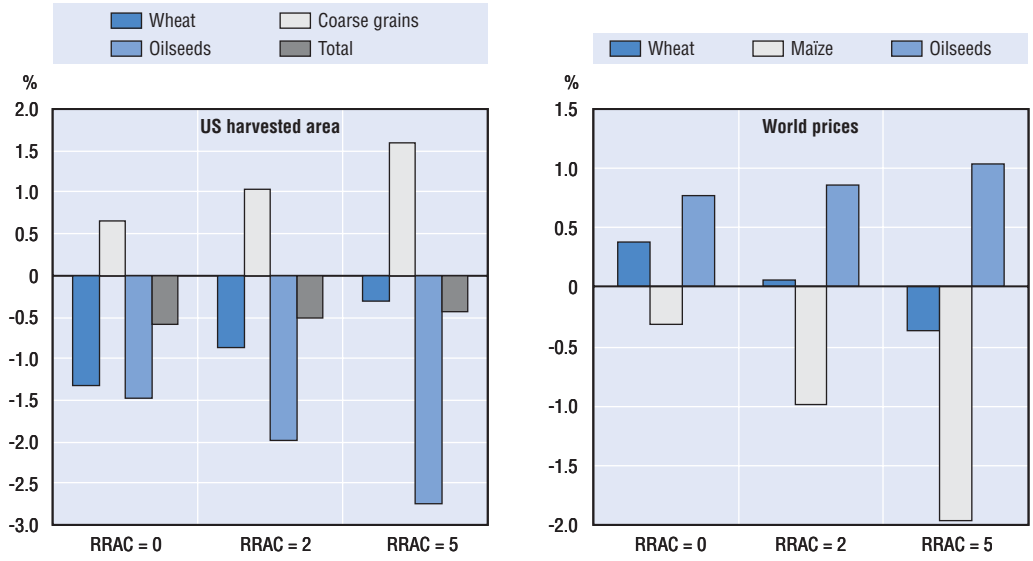
Impacts of lower or higher risk aversion

To analyse the sensitivity of the policy impacts with respect to the degree of risk aversion, the simulations were repeated assuming a relative risk aversion coefficient (RRAC) of 0 and 5 respectively (compared to 2 in the baseline and the counter-factual discussed above). To do this, the baseline built on the 2002 Farm Act policy assumptions was recalibrated to the changed risk premiums in order to obtain the same projections. This was done to avoid confusion between differences due to policy changes and those due to different risk assumptions.

Different assumptions on the RRAC substantially alter some of the results (Figure 3.6). Assuming zero risk aversion (risk neutrality) eliminates the impact the changes in risk on allocation decisions (see previous section on the decomposition of the total market

Figure 3.6. **Sensitivity of market impacts with respect to the Relative Risk Aversion Coefficient (RRAC)**

Average 2002-08



Source: OECD Secretariat.

impact), while the assumption of a stronger risk aversion would result in an increase in these impacts. For wheat, risk neutrality would lead to a stronger reduction in harvested area under the 2002 Farm Act compared to the 1996 Farm Act, with an average over the 2002-08 period of –1.3% (compared to –0.9% evaluated at a RRAC of 2). Similarly, the area expansion for coarse grains would be smaller at +0.6% compared to +1.0%. Given that the 2002 Farm Act tends to increase risk for soyabeans producers, the oilseed area reduction would be smaller at –1.5% on average if farmers are assumed to be risk neutral, compared to -2.0% in the analysis based on some amount of risk aversion. The reduction in the total harvested area would therefore be slightly stronger under risk neutrality. Stronger risk aversion with an RRAC equal to 5 would lead to the opposite effects (Figure 3.6).

The different area responses lead to corresponding differences in the impact on supply and exports, and consequently on world prices. Assuming risk neutrality, world prices for wheat would increase by 0.4% on average, rather than by 0.1% under moderate risk aversion. Price effects for maize and soyabeans would be smaller in absolute terms. On the other hand, the assumption of a RRAC equal to 5 would result in maize prices that are lower by 2%. Lower wheat exports would be overcompensated by lower world coarse grain prices, resulting in a 0.3% decline in world wheat prices on average.

Impact of different price projections

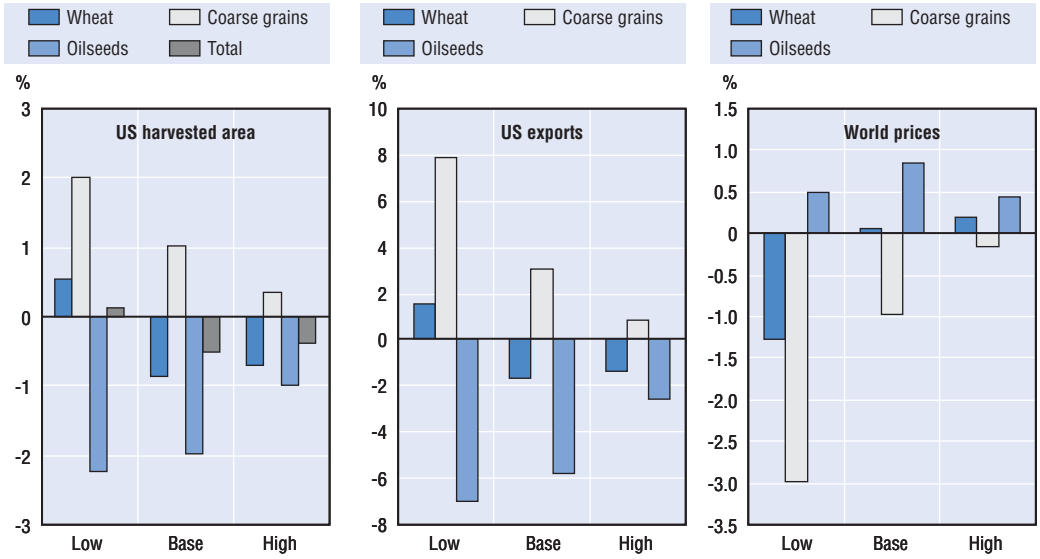
The sensitivity impact to different world price projections of the 2002 Farm Act's has also been assessed. To do this, two additional 2002 Farm Act projections were generated. This was done by shocking yields for wheat, maize and soyabeans in the Rest of World so that world wheat, maize and oilseed prices were, in turn, about 10% lower and 10% higher over the period 2003 to 2008, than in the original baseline. Results show that the impact of the new policies changes significantly if price projections are different.

Under a lower-price environment, both the marketing loan programme for grains and the counter-cyclical payments become more relevant for producers' decisions: in this situation, the 2002 Farm Act would increase marketing loan benefits for grain producers. Conversely, the role of the marketing loan programme for soyabeans does not change significantly because the programme was already triggered under baseline prices and held returns per tonne at the loan rate. As a result, there would be a significant increase in the production incentives for grains in the 2002 Farm Act compared to the 1996 Farm Act in a lower price environment whereas incentives for oilseeds do not change. Hence, coarse grain area would increase by 2% on average, *i.e.* by twice as much as under baseline conditions, and wheat area would increase by 0.5% despite the increasing CRP area. In contrast, the reduction in oilseed area would be much the same as under the baseline price environment (Figure 3.7).

With lower prices, the (increased) loan rates for grains become relevant but the impact of (lowered) rates for soyabeans does not change. A higher price environment leads to a reduced impact of soyabean loan rates while, for most cereals, loan rates remain largely irrelevant because they are below market prices. Therefore, the estimated impacts of the 2002 Farm Act are not symmetric with respect to world market conditions. In other words, the policy impacts under baseline conditions do not necessarily fall between those arising under lower and higher price conditions. Under the high price scenario, the reduction in soyabean loan rates in the 2002 Farm Act becomes much less important in determining area response than under baseline conditions. At the same time, prices for cereals remain high enough to exclude any loan benefits for grains, either under the 2002

Figure 3.7. **Sensitivity of impacts with respect to world prices (10% higher and 10% lower prices under 2002 Farm Act policies)**

Average 2002-08



Source: OECD Secretariat.

or 1996 Farm Act provisions. In addition, counter-cyclical payments remain small. In consequence, area response to the policy change would be much less pronounced when prices are high than under baseline conditions for all crops. Therefore, while under baseline conditions total harvested area for grains and oilseeds would decline by 0.5% on average due to the 2002 Farm Act, this reduction would be smaller with both 10% higher and lower prices – and in the latter case total area would actually increase slightly.

In both the high and low price scenarios, as both yields and domestic use respond only marginally, US export changes largely correspond to those in harvested area. International wheat and coarse grain prices would be significantly reduced by the 2002 Farm Act in a low price context, while the increase in oilseed prices would be smaller due to the pressure on cereal markets. On the other hand, a high price environment can be expected to generally result in smaller impacts from the 2002 Farm Act on world prices. The impact of the new policy on world oilseed prices (a smaller increase compared to the baseline) is almost the same in the two non-baseline simulations.

3.6. Impact on US and international dairy markets

The dairy market effects of the 2002 Farm Act relative to the 1996 Farm Act are presented in Table A7.3. The additional support provided in the form of new direct payments (assuming they are implemented strictly) and extended market price support has relatively small effects on US milk production. Milk production does rise by about 0.5% and the milk price falls by a little more than 1% as compared to the 1996 Farm Act levels, but this is a transitory change and by the end of the Outlook period there are indications that these differences will not be sustained.

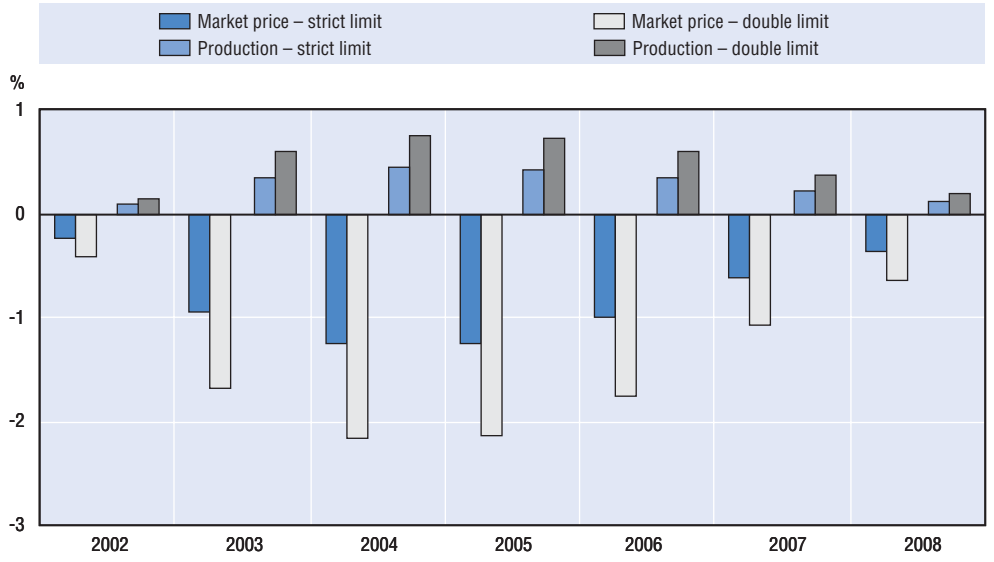
There are two factors limiting the impacts of the 2002 Farm Act on the US dairy markets relative to the 1996 Farm Act. First, despite the fact that the 1996 Farm Act does

assume an elimination of dairy price support, the policy levers that are used to implement this scheme would almost certainly remain in use. Thus, the projected quantities and prices for the US dairy markets would not change significantly on the assumption that dairy product exports would continue to be supported through the DEIP and dairy product imports prevented through existing tariffs and tariff-rate quotas.

The second factor limiting the longevity of the 2002 Farm Act impacts on dairy markets is the assumption that the new dairy payment will end in 2005 as mandated. Thus, from 2006, the effective producer price at the margin will no longer be above the market price, as shown in Table A7.3. With producers responding only to domestic price signals, and production expanding in response to the higher effective price in the early years of the 2002 Farm Act, returns to producers are expected to be lower than they would have been under the 1996 Farm Act. Allowing some time for adjustments in production, these effects may become quite small over time. The temporary nature of the dairy payments may be questioned, particularly in light of the routine continuation of market price support despite termination provisions in the 1996 Farm Act.

A sensitivity test regarding the assumption that the payment limit cannot be circumvented has been made (Figure 3.8). In the test, it is assumed that each operation is divided in two, thereby doubling the 2.4 million pound limit to 4.8 million pounds (for discussion on the marginal effects of payments, see Annex 6.e.ii). As a consequence, production increases by an estimated 0.74% relative to the 1996 Farm Act. Higher production leads to lower prices, which are shown to fall by an estimated 2.16%. Thus, payments provided to farmers above the limit might increase dairy product export subsidies or public stocks. The results here highlight the importance of decisions about implementation of the 2002 Farm Act for US dairy markets.

Figure 3.8. **US dairy market results depend on payment limit implementation**



Source: OECD Secretariat.

4. Implications for support

To estimate the implications of the new 2002 Farm Act for the level of support, as measured by the PSE, a comparison is made between an estimate of the PSE level that would have occurred in 1999-2001 if the payments for crops had been made under the provisions of the 2002 Farm Act, and the actual PSE level in 1999-2001 with and without the *ad hoc* market loss assistance (MLA) provided since 1998 (Table 3.2).

Table 3.2, column 1999-2001** shows that had crop payments in 1999-2001 been granted under the provisions of the 2002 Farm Act, rather than the 1996 Farm Act, they would have amounted to USD 19 232 million, or USD 2 150 million more than actual payments in 1999-2001 (excluding the *ad hoc* market loss assistance the difference increases to USD 7 340 million). The new crop payments would have increased the US percentage PSE – the amount of support relative to gross farm receipts – to 24.9%. This is an increase from the 23.4% (including *ad hoc* support), and a much larger increase from the 21.6% (excluding *ad hoc* support) than would have occurred under the original terms of the 1996 Farm Act.

Table 3.2. **US crop payments and total support in 1999-2001: under the 1996 Farm Act and hypothetical under the 2002 Farm Act**

USD million

1996 Farm Act / 2002 Farm Act	1996 Farm Act		2002 Farm Act
	1999-2001	1999-2001*	1999-2001**
	with MLA	without MLA	hypothetical
Production Flexibility Contract payments/Direct payments	4 879	4 879	5 402
Market loss assistance/Counter-cyclical payments	5 190	–	5 956
Marketing loan benefits	7 013	7 013	7 874
Total	17 082	11 892	19 232
US total PSE	52 429	47 239	56 888
US percentage PSE	23.4%	21.6%	24.9%

Definitions: 1999-2001** – crop payment rates for 2002-03 applied to 1999-2001 conditions. It is considered under the 1999-2001** hypothesis that all crop producers would be eligible and take their 1998-2000 averages of total area planted and yields as the basis for the payment.

Source: OECD Secretariat.

5. Evaluation

Although all programmes in the 2002 Farm Act will affect US agriculture in one way or another, the most important programmes are those affecting agricultural production, consumption, trade, income and environment. Like the 1996 Farm Act, changes introduced by the 2002 Farm Act in the commodity programmes mainly concern arable crops (wheat, feed grains, upland cotton, rice, and oilseeds). Although sugar and milk have traditionally had high support levels, as measured by the %PSE (and highest among the US commodities), their support systems remain essentially unchanged.

5.1. *Commodity programmes*

Marketing loan rates for 2002-07 increase for most ***arable crops***, so marketing loan gains and loan deficiency payments may increase. Consisting of payments per tonne produced, these are among the forms of support that potentially have the greatest effects in stimulating production and input use, distorting trade and raising pressure on the

environment, while having the lowest effectiveness in transferring income to farmers.[12] As quantities exported benefit from such payments, the higher the payments the less the need for export subsidies.

The rates for ***direct payments for crops*** (DPC) are higher than those they have replaced (Producer Flexibility Contract (PFC) payments). While the DPC rate is constant over 2002-07 period, PFCP rates had been scheduled to fall between 1996 and 2002. Higher payment rates and the update of base area and yields have increased the potential production impact of these payments in addition to increasing participants' wealth.

Counter-cyclical payments (CCP) may affect current production decisions because of their link to current market prices, which can lower risk to producers by reducing the variability of revenue in periods of low market prices. Thus, CCPs are expected to have risk-reducing effects – in line with the explicit aim of the programme – and, consequently, to impact on crop planting decisions. Although CCP payments are based on past production, they may also affect current production decisions through expectations that benefits in the future will be linked to recent production. Farmers will thus have an incentive to maintain or increase current area and yields. In these circumstances, farmers will be responding to policy rather than market signals, and land eligible for a CCP may be planted with programme crops despite the fact that there is no requirement to do so.

While farmers will receive CCPs only when market prices are low, fixed DPCs will be paid every year even when market prices are high. ***Planting flexibility*** (giving farmers the choice of producing any or no programme commodities on their base area) continues to cover 100% of base area, but now also covers oilseeds. Since a significant shift into oilseeds has already occurred under the 1996 Farm Act (Annex 8), the vast majority of the land receiving DPCs and CCPs may, in fact, continue to produce the same commodities. Thus, flexibility provisions that offer the possibility of producing other commodities may have, in practice, little effect.

As around 60%[13] of the land used for programme crops is rented, most of these payments will continue going to non-farming landowners and not to farmers. The latter may face reduced returns in periods of low prices notwithstanding the programmes in place. The opportunity given in the 2002 Farm Act to update base area and yields means that producers may be interested in maintaining or even expanding area and yields in the future in the expectation of new update opportunities. If this occurs there could also be negative impacts on the environment, both through encroachment on fragile land and intensification in order to increase yields.

The introduction of a payment per tonne of ***milk*** produced – added to an unchanged market price support system, will increase support, but continue low efficiency in transferring income to producers. Although limited to the production of 1.09 million kg of milk per farm, the new payment can be seen as an incentive to increase production per cow or the number of cows on farms producing below the quantity limit, which may increase environmental pressure on the farms concerned.

The elimination of the loan forfeiture penalty and marketing assessments, and the reduction of the tariff-rate quota (TRQ) for ***sugar*** will increase prices received by producers, which is an incentive to increase production and keep environmentally sensitive wetlands under production. With these policy changes support will be paid through higher consumer prices, which will tend to reduce demand. The rise in domestic prices and

production together with the reduction in demand and in the TRQ (to the WTO commitment level) will reduce imports and increase the risk of trade distortions.

5.2. Conservation and environmental programmes

Increased funding to retire more environmentally sensitive land from production and for the adoption and maintenance of environmentally friendly farming practices cover a larger number of producers as well as a wider range of environmental benefits. As the payment rates associated with these programmes are based on land rental costs, which may rise with commodity payments, at least some of the increase in the funding of conservation programmes may be absorbed, and the cost of achieving specific environmental goals is higher than it would otherwise have been.

The elimination of some requirements in the EQIP eligibility conditions for payments encouraging the use of environmentally friendly farming practices may reduce the overall level of environmental benefit provided by the programme. The increased focus on livestock production and the removal of limits on the size of farms eligible for payments will help larger farms to comply with the stricter new rules aimed at curbing the excessive manure run-off that causes water pollution. These new rules will contribute to reducing pollution, but are not consistent with the Polluter Pays Principle generally applied to other sectors.

5.3. Bioenergy program

Encouraging purchases of agricultural commodities to expand production of Bioenergy will contribute to an increase in arable crops production, particularly in the case of ethanol production, which has, in recent years, led to the increase in maize area.[14] Provisions under the 2002 Energy Policy Act and 2002 Farm Act may further increase domestic supply and demand of ethanol leading to increases in maize production, which would not otherwise be economically feasible. If this increased production were to take place on environmentally sensitive land, pressure on the environment will increase.

5.4. Country of Origin labelling

According to the country of origin labelling (COOL) requirements in the 2002 Farm Act, for a product to be labelled "product of the US", it must come from an animal that was exclusively born, raised and slaughtered in the US. The COOL requirements will impose a cost on US industry as it will need to implement and maintain a verifiable record-keeping system in order to trace information on origin. The USDA's Agricultural Marketing Service estimated that the cost to US industry to develop and administer such a system would be USD 1.97 billion.

The effects of COOL requirements cannot be determined at this time. Exporters of meat and live animals to the United States are concerned that the COOL requirements could affect live animal and meat trade. The requirements for US origin will change the requirements for some products. Under current US customs regulations, products that are substantially transformed (*i.e.* slaughtering, cutting or processing) can bear a US origin label; in contrast, under the COOL requirements those same products cannot bear the US origin label. Under COOL, US producers, processors and retailers will need to segregate foreign animals and meat which could potentially add cost to importing products into the US.

While COOL requirements are not scheduled to become mandatory until 30 September 2004, meat available for retail sale after that date will come from animals born as early as spring 2003. Therefore, in order to comply with the scheduled implementation of the mandatory COOL provisions, all US producers, processors and retailers will need to implement a record-keeping system well in advance of that date.

5.5. *Trade measures*

Trade measures and funding for export subsidies and export credits are largely unchanged, but in a context of higher production will continue to have the potential to enhance exports and lower world prices. With increased loan rates, EEP may not need to be applied for crops continuing the situation that occurred under the 1996 Farm Act. The introduction of a deficiency payment for milk also benefits exports and may reduce the need for export subsidies under the DEIP. The creation of new export promotion programmes together with a rise in funding for export development programmes (FMDP and MAP) and international food assistance, may contribute to increase exports. While the Uruguay Round compliance provision of the 2002 Farm Act will place a ceiling on the most trade-distorting forms of support, the analysis reported in the earlier sections shows that other forms of support not included in the AMS, but that also have production and trade impacts, are likely to increase.

5.6. *Overall evaluation*

The 2002 Farm Act does not contain explicit policy objectives, but the implicit aims of the legislation are to support farm incomes by shielding US producers of major commodities from downward fluctuations in world prices, and to ensure land conservation and encourage environmentally friendly farm practices. The 1996 Farm Act expired in 2002, which was a transitional year as both the 1996 and 2002 Farm Acts were applied and thus determined production, trade and support outcomes in 2002. The impacts of the 2002 Farm Act will largely be seen in the coming years.

Overall, the new farm legislation increases support, extends coverage to a greater number of commodities, accentuates the link between payments and production parameters, and provides an income safety net which together, compared to the earlier legislation, may result in reduced price risk to farmers, increased production, and lower world prices. The analysis undertaken in this section does not include any quantification of the effect of expectations of future policy changes arising from the update of base areas and yields that was permitted under the provisions of the 2002 Farm Act.

The size of the actual impacts depends significantly on how market conditions evolve: higher commodity prices will mean lower counter-cyclical payments, for example, and less direct effect on production and prices. But lower commodity prices would be offset by higher counter-cyclical payments to US producers, to some extent insulating them from the market and requiring supply adjustments to be borne by producers in other countries. Because production-linked support will increase output and environmental pressure, the increased expenditure on conservation and environmental protection is less efficient and effective than would be the case in the absence of production-linked support.

The new US farm legislation institutionalises the Market Loss Assistance Payments that had been provided on an *ad hoc* basis since 1998, reduces risk for farmers and demonstrates a marked shift away from the goal of greater market orientation embodied in the 1996 legislation. The Act perpetuates the cycle of "low market revenues/high

support", imposing higher costs not only on domestic taxpayers, but also on other countries, in particular those producing competitive commodities, including many produced in developing countries. Although the impacts of the 2002 Farm Act simulated in this section are small, the new Farm Act risks accentuating production distortions and trade tensions and is not in line with the long-term OECD policy reform objectives.

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AGRICULTURAL POLICIES IN OECD COUNTRIES
Monitoring and Evaluation 2003

PART I

Chapter 4

Agri-environmental policies in OECD countries

1. Agriculture and the environment

Agriculture has a major impact on the environment in OECD countries. It accounts for around 40% of total OECD land use and nearly 45% of water use, and, in many countries, dominates and shapes the landscape.[15] Agricultural activities have both beneficial and harmful effects on the environment through changing the quality or quantity of soil, water, air, natural habitats, biodiversity and landscapes. The relative importance of different environmental issues depends on the effects of farming practices at the local, regional, national and international levels, which in turn reflects variations in ecological and climatic factors. The scope and priority accorded to different environmental issues can also vary across countries and regions, depending on such factors as population density, income levels and the value attached to cultural heritage.

The structural transformation of agriculture in the past few decades has, on balance, contributed to environmental problems. Technological and economic changes have resulted in a marked intensification of agriculture (more output per unit of land or labour), which in some cases has led to growing problems of water and air pollution, as well as the loss of wildlife, habitats and landscape features. Soil degradation and water depletion are also serious concerns in some areas.[16]

The environmental problems associated with farming have often been exacerbated by government intervention. The predominant forms of agricultural assistance in OECD countries in the past few decades have been production and input-linked support. These policies provide incentives to farmers to increase the intensity of production and also to expand farm production on environmentally sensitive land, thereby aggravating many of the environmental problems described above. Reform of agricultural policies in some OECD countries since the early 1990s has, in certain cases, reduced pressures on the environment; for example, by lowering the demand for chemical and mechanical inputs on cropland and grazing pressures in the livestock sector.[17] Overall, however, progress has been mixed.[18] Some studies suggest that the external environmental costs of agriculture – especially those related to soil erosion, water and air pollution – continue to run into many billions of dollars annually across OECD countries.[19]

2. Agri-environmental policy measures

Growing public awareness, together with the availability of more research and information, increasing wealth, mobility and leisure time has heightened the demand to improve the environmental performance of agriculture in OECD countries. In response, policy measures addressing environmental issues in agriculture – agri-environmental measures – are assuming a more prominent role in agricultural policy in OECD countries. It should be stressed that other policies that may affect environmental outcomes but which are introduced primarily for other reasons – including supply control measures – are not considered here.

Overall, payments to farmers for addressing environmental issues in agriculture have increased since the mid 1980s from 1% to 3% of OECD support to producers (Chapter 2).

These figures do not include agri-environmental spending in other areas, such as research, training, advice or costs associated with regulatory measures. Moreover, support to producers is also becoming increasingly tied to environmental 'cross compliance' conditions in some countries, while voluntary and market-based agri-environmental initiatives are also becoming more important. The following sections outline developments since the mid-1980s in the use of agri-environmental policy instruments, grouped under the following three over-arching headings – economic instruments; command-and-control measures; and information and advisory measures (Box 4.1).

Box 4.1. **Categories of agri-environmental policy measures**

Economic instruments: affect costs and benefits of alternative actions open to farmers, with the intended effect of influencing behaviour in a way that improves environmental outcomes. They include monetary transfers –payments and charges/taxes – and the creation of new markets – *i.e.* tradable rights relating to the use of natural resources or pollution.

Command-and-control measures: impose requirements on producers to achieve specific levels of environmental performance, and primarily consist of mandatory regulatory requirements, such as environmental restrictions, permit requirements, and maximum rights or minimum obligations, which are enforced through the legal system. Cross-compliance mechanisms require farmers to meet specific environmental conditions in order to be eligible for agricultural support programmes. In cases where support payments are relatively high, cross-compliance measures effectively serve as *de facto* regulations for most farms that are eligible for payments, as the potential sanction of losing that support provides strong incentives for farmers to meet the specified environmental conditions.

Information and advisory measures: include measures to improve information flows to promote environmental objectives, from the creation of knowledge to its application – for example research, extension services and product information.

In relation to the policy measures outlined above, the "***polluter-pays-principle***" (PPP), as endorsed by OECD member countries, requires polluters to bear the expenses of carrying out pollution prevention measures or the costs of the damage caused by pollution.[1] The PPP can be implemented by various means. These include requiring resource users to bear the costs of meeting environmental regulatory requirements, or the imposition of environmental taxes/charges.

1. The 1974 OECD Council Act on the Implementation of the Polluter-Pays-Principle

2.1. Economic instruments

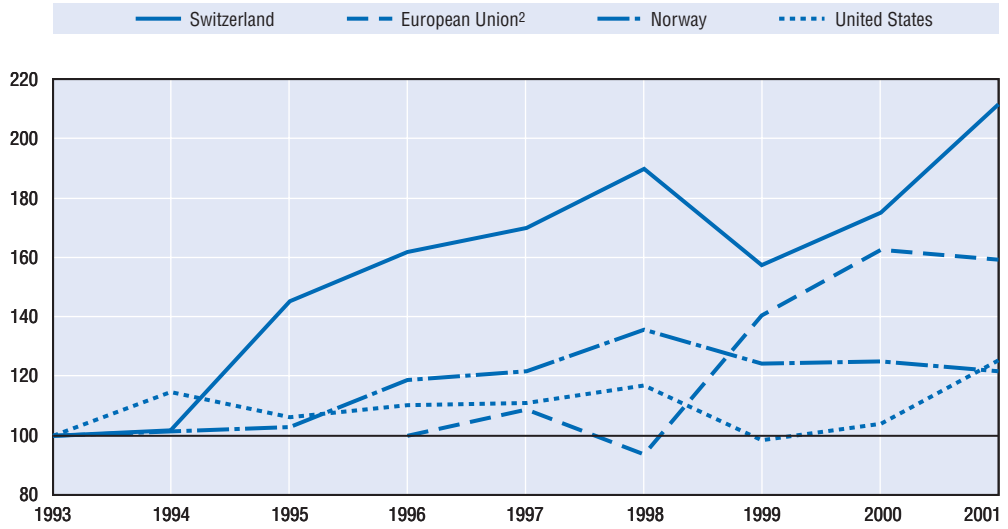
Agri-environmental payments

Many OECD countries have made payments available to farmers, on a voluntary basis, to encourage them to implement more environmentally-friendly farming practices. The **European Union**, **Norway**, **Switzerland** and the **United States** in particular, have substantially increased the use of agri-environmental payments. An expansion in these measures started in the mid-1980s and continued through the 1990s (Figure 4.1). More recently, other countries, including **Korea** and **Japan**, have also begun to make greater use of these measures.

Agri-environmental payments typically represent a modest, albeit rising, share of overall budgetary support to agriculture in these countries. For example, it is estimated

Figure 4.1. **Public expenditure on agri-environmental payments: 1993 to 2001**[1]

Index 1993 = 100



1. Figures for 2001 for Switzerland, European Union and United States are estimates.
2. 1996 = 100. EU funding (not including EU Member state funding) of agri-environmental payments under Regulations 2078/92 and 1257/99.

Source: OECD Secretariat; European Commission; USDA; Norwegian Ministry of Agriculture; Swiss Federal Office for Agriculture.

that total **European Union** expenditure on agri-environmental payments (not including member state contributions) averaged EUR 2.2 billion per year over the 2000-02 period, representing some 5% of the EU CAP budget.[20] In the **United States**, expenditure on agri-environmental payments averaged an estimated USD 2.0 billion annually over 2000-02, comprising about 8% of total budgetary spending on agriculture.[21]

The diversity of programmes across OECD countries and regions is vast. Some notable trends include payments to support the adoption and maintenance of low-intensity farming systems, particularly organic farming (Box 4.2). Also common are land retirement payments to promote environmental objectives; payments linked to specific habitat or landscape management requirements; and transitional payments to assist farmers meeting the structural costs of complying with new environmental regulations. Recently, a newer range of payment programmes has also emerged in some countries to address issues of climate change; for example, promoting the planting of shelterbelts for the sequestration of greenhouse gas emissions and biomass crops for bioenergy production.

Payments are typically provided annually to farmers under fixed-term management agreements, with the amount paid being linked to the area of farmland covered, rather than specific environmental outcomes. The intention is generally to reimburse farmer compliance costs on the principle of profit forgone, sometimes with the addition of an incentive element. Some programmes also include the provision of training and technical advice to assist farmers in carrying out the targeted activities.

Many programmes have attracted high rates of participation. For example, coverage under agri-environmental payment contracts reached almost 20% of **European Union** farmland by the end of the 1990s.[22] The growing prominence of these measures has invited increasing

Box 4.2. **Organic agriculture**

Organic agriculture is expanding in all OECD countries to meet increasing consumer demand, although it still only accounts for a relatively small share of agricultural production and food consumption. Organic agricultural practices are generally more environmentally friendly than conventional agriculture, particularly with regard to lower pesticide residues, a richer biodiversity and greater resilience to drought. Organic farming systems also hold the potential to lower nutrient run-off and reduce greenhouse gas emissions. However, there are situations where intensive management within organic farming regimes can impoverish biodiversity and animal manure can be applied in excess of requirements. More land may also be needed in some countries to produce a given level of output, which has an alternative value in terms of its potential use as, for example, nature areas, depending on its current and historical use.

In many OECD countries, financial support is specifically provided to organic farmers, usually on a per hectare basis. This support is provided on short-term basis to help offset the costs of conversion or on a continual basis as payment for the provision of environmental benefits. Over recent years, the number of countries introducing such measures has been increasing, particularly in Europe. While such payments may mean the difference between converting or not, there is a risk that such payments will increase production of some organic foods above the level of demand, leading to surpluses and a reduction in the market premium. Several governments have undertaken information campaigns and promotional activities to encourage consumption of organic products.

Certification and labelling schemes are now in place in virtually all OECD countries. In some countries, standards are established to inform domestic consumers, while in others they are in place so that exporters can satisfy the import requirements of other countries.

There is a need for governments to co-ordinate their policy approach to organic agriculture, particularly when a number of different measures are being used. This is reflected, for example, in the development of integrated action plans for organic farming incorporating a number of different policy measures. While organic producers can benefit from traditional agricultural support policies such as price support, such policies are likely to impede the development of the organic sector. This is because such policies provide incentives to adopt farming practices that increase production (quantity) rather than those, like organics, which stress quality. Moves to reduce the dominance of these forms of support will be of benefit to organic producers.

Source: OECD (2003), Organic Agriculture: Sustainability, Markets and Policies.

scrutiny. A number of studies point to evidence of environmental improvements generated by these programmes – for example, they have been variously credited in **Europe** and the **United States** with reducing soil erosion, limiting pressures from input use, constraining pollution and overgrazing, and contributing to maintaining valued cultural landscapes and habitats.[23]

Yet in certain cases significant shortcomings have also been identified in their design and implementation. For example, some payments have not been well targeted and have been implemented without an overall evaluation of the associated costs in relation to the environmental benefits; *e.g.* payments have been made available to farmers uniformly at a national level, yet the benefits have been concentrated locally or have been site-specific.[24] The effectiveness of payments has been compromised where they have been implemented together with more production-linked support policies associated with environmental problems.[25]

It has also been observed that some payments have ended up subsidising basic environmental maintenance activities which, consistent with the polluter-pays-principle, should properly be carried out by farmers at their own expense.[26] Payments in such cases tend to bestow a competitive advantage on the farmers who receive them, and thereby risk distorting agricultural production and trade.[27]

A number of agri-environmental payment programmes have been improved over time in the light of experience and improved information. For example, since 1990 enrolments in the major environmental land retirement payment programme in the **United States** – the Conservation Reserve Programme (CRP) – have been targeted according to the Environmental Benefits Index (EBI), which scores estimated environmental benefits relative to costs. Further improvements were made to this system in 1996.[28] The **European Union**'s agri-environmental direct payment policy was reorganised with other rural development policies as part of the new 'Second Pillar' of the CAP under the Agenda 2000 CAP reforms, with members states required to undertake comprehensive monitoring and evaluation procedures for programmes over the 2000-06 period.[29]

Charges and taxes

There still appears to be only limited application of charges or taxes based on the environmental damage caused by agriculture, notwithstanding the endorsement by OECD countries of the polluter-pays- principle. This is in contrast to other sectors, where environmental taxes and charges are more common. The relatively rare application of pollution taxes in agriculture is commonly attributed to identification and measurement problems. Unlike a factory where pollution can normally be monitored at "point", pollution from agriculture is often much more dispersed, originating from many different farms and in varying intensities.

Nonetheless, some examples of these policy measures do exist. Since 1998 the **Netherlands** has tackled the measurement problem by introducing a range of levies on estimated off-farm emissions of nutrients above set limits, based on a minerals accounting system (MINAS). More commonly, environmental taxes are applied on farm inputs. For example, various taxes are currently levied on pesticides in **Belgium, Denmark**, **Finland**, **Norway** and **Sweden**, while fertiliser taxes are now applied in some OECD countries, including **Sweden**. Input-based taxes are generally inexpensive to administer, but may be less effective than a tax on pollution itself, as they do not discriminate on the basis of actual loading on the environment.[30]

Tradable rights

Tradable rights based on environmental quotas, permits and restrictions also do not appear to play a significant role in agri-environmental policy, despite the growing use of such measures for environmental policy in other sectors.[31] However, in the past decade the **Netherlands** has implemented systems of tradable permits in relation to the volume of manure produced by farms.

There are also examples of tradable schemes that are applied across a number of sectors, including agriculture. These include tradable rights for the development of wetlands ("Wetland Mitigation Banks") in the United States, and tradable water extraction rights, which have been implemented on a state/regional basis in the **United States** and **Australia**. Australia has also announced an intention to develop a more market-based

system for water use by 2005, including the introduction of the trading of water across State boundaries.

2.2. Command-and-control measures

Regulatory requirements

Regulatory requirements play a role in addressing environmental issues in agriculture in all OECD countries. Some of these requirements are specific only to agriculture, while others are part of broader national environmental legislation affecting many sectors, including agriculture. Regulatory requirements tend to be less flexible than economic instruments, as they do not allow producers the freedom to determine for themselves the most appropriate way of meeting environmental objectives. However, they also tend to minimise risk and uncertainty, and therefore constitute a vital element of environmental policy in most OECD countries, particularly with respect to *acute* environmental problems.

All OECD countries have applied legislative requirements to deal with problems relating to pollution, and the degradation and depletion of natural resources. The main categories include requirements relating to the availability of certain products to farmers; for example, through the registration of pesticides and other agrochemicals; farm practices; for example, the setting of limits on the spreading of manure and stocking limits; and the application of mandatory procedures; for example, planning or consent processes relating to land use, water extraction and the construction of livestock facilities. Regulatory requirements are also common to protect specific valuable wildlife and habitats, and to protect agriculture and the environment from damage from invasive species and new organisms.

Over the past two decades, the trend has been towards more regulation and binding constraints, but not always uniformly across the whole sector – such as for large animal units in the **United States**, but not for small ones.[32] A significant proportion of requirements imposed in OECD countries derive from local and regional measures. For example, in the **European Union**, standards are developed at a range of levels, stretching from the Union itself down to individual regions in member states. Regulatory requirements are often applied under the framework of over-arching legislation at the national, federal (or EU-wide) level; for example, **New Zealand**'s Resource Management Act (1991) tasks Regional Councils with responsibility for environmental resource use policy, while the EU Nitrate Directive, which sets a benchmark limit on nitrate levels associated with the application of manure in the **European Union**, leaves member states free to determine their own action programmes with respect to designated Nitrate Vulnerable Zones.

Overall, the degree of restrictiveness of environmental regulations varies substantially among OECD countries and regions. It is difficult to quantify whether differences in compliance costs have had a significant impact on farm competitiveness and the pattern of trade and location of agricultural production. Nevertheless, a recent OECD study into linkages between environment and trade in the pig sector concluded that differences in compliance costs arising from the regulation of manure use tended to have much less of an effect on the international competitiveness of pig farms than other factors, including producer support, wage levels, land rents, and capital costs.[33] Moreover, while most new regulatory requirements are perceived to increase costs, this is not always the case. In particular, there is evidence that the introduction of tougher environmental standards can sometimes improve on-farm efficiency; for example, through better use of nutrients on the farm, which can cut costs and increase gross margins.[34]

Cross-compliance

In the past two decades, many OECD countries have made general support programmes providing payments to agriculture conditional on the respect of certain environmental constraints or the achievement of a particular environmental outcome. Such cross-compliance measures are a significant part of agri-environmental policy in the **United States**, where an estimated 44 million hectares of highly erodible cropland and 31 million hectares of wetlands are subject to cross-compliance provisions, reflecting the high participation rate in general farmer support programmes.[35]

Since the late 1990s, most general direct payments offered to farmers in **Switzerland**, including area and headage payments, and payments based on historical entitlements, have also been made conditional on farmer compliance with environmental standards and farm-management practice requirements. **Norway** offers various forms of area-based payments and headage support for livestock on the condition that farmers meet environmental requirements. Environmental cross-compliance conditions have also become important in some **European Union** member states, following the inclusion of such conditions as an option in the implementation of direct payments, as part of the Agenda 2000 CAP reform package.

While cross-compliance measures are seen in some countries as an important means to integrate environmental objectives into general support measures, a note of caution is warranted. In particular, the effectiveness of such measures may be limited where they are tied to production-linked forms of support that continue to provide farmers with incentives to engage in environmentally damaging activities. Moreover, farmers will only participate where the benefits are sufficiently large that they still have a financial incentive to comply with the restrictions; this can make the attainment of environmental objectives effectively a hostage to ongoing support. Cross-compliance may not be best suited to addressing environmental issues that are of a more local nature.[36]

2.3. Information and advisory measures

Research

Many OECD countries have directed greater attention towards improving the knowledge-base relating to environmental issues in agriculture in the past two decades, through increased spending on agri-environmental research, often undertaken in co-operation with private sector interests.[37] One notable trend in the past decade has been the development of agri-environmental indicators to improve the monitoring of the environmental performance of agriculture in countries such as **Australia**, **Canada**, **Denmark**, **Finland**, **France**, **New Zealand**, the **Netherlands**, **Switzerland**, the **United Kingdom** and the **United States**, as well as regional initiatives carried out by **EU** institutions and under the North American Free Trade Agreement (NAFTA).

Enhanced agri-environmental monitoring is now beginning to be utilised in the development and evaluation of policy. For example, in the **United States**, agri-environmental indicators have been used in the design of the Environmental Benefits Index (EBI) for targeting payments under the CRP, while agri-environmental indicators are also to be used to evaluate the implementation of environmental policies under **Canada**'s Agriculture Policy Framework, which is to be implemented in 2003.

Technical assistance/extension

Increased agri-environmental research has often been complemented by greater emphasis on communicating advice directly to farmers on environmental issues, in order to induce voluntary changes in farming practices to improve environmental outcomes. Most governments have general advisory services and employ extension agents to work with farmers on technology development and transfer. Advice is commonly in the form of codes of good agricultural practice, such as recommended maximum rates of application of pesticides and fertiliser.

In the past decade new communication tools have been introduced, including the internet and the use of demonstration or 'model' farms. Over time, the provision of information has also tended to encompass an increasingly comprehensive range of information; for example, Environmental Farm Plans in **Canada**, which focus on developing risk-management strategies for farmers, or **Australia**'s Environmental Management Systems, which integrate individual environmental farm objectives with regional targets.

In some countries, such as **Australia**, **Canada** and **New Zealand**, government-led information policies are supplemented by the growing use of community based approaches promoting the exchange and transfer of information, variously known as landcare groups or conservation clubs. These approaches make use of local expertise in solving environmental problems, and rely upon farmers' self interest in environmental conservation. Such groups seem especially well suited to addressing issues that are local in nature, but which extend beyond the borders of a single farm. Some of these groups receive administrative or financial support from central or regional authorities, while others are entirely independent.

Product information

In the past decade, greater attention has also been directed at providing information on the environmental attributes of products, in order to meet the demands of an increasingly well-informed and discriminating public. In particular, standards for "ecolabels" have been established in many OECD countries, backed-up by certification processes to verify their authenticity, in order to assist customers in distinguishing products grown without chemical fertilisers or pesticides from conventionally produced agricultural products. Such products tend to command discernible price premiums in many markets.

Some of these labelling schemes are entirely market-based, often introduced by producer groups at the behest of supermarkets or other retailers. Others are government-backed. For example, a large number of OECD countries – including **Australia**, the **European Union**, **Canada**, **Norway**, the **United States** and **Switzerland** – have introduced government-enforced national organic labelling standards in the past decade.

3. Future development of agri-environmental policies

There seems to be little doubt that agri-environmental policy will continue to increase in importance in many OECD countries in the future. For example, in the **United States,** the *2002 Farm* Security and Rural Investment (FSRI) Act provides for an 80% increase in funding for agri-environmental purposes over six years, while a feature of the European Commission reform proposals for the **European Union**'s Common Agricultural Policy is the strengthening of funding for rural development measures – including agri-environmental

programmes – over the 2006-2012 period. In 2002, **Australia** launched a number of new agri-environmental strategies, including a National Market-Based Instruments Pilot Programme to investigate the application of market-based instruments in addressing environmental issues, while **Canada**'s recently agreed Agriculture Policy Framework features a range of new environmental policy initiatives.

Many of the agri-environmental policy measures described in the preceding sections have been introduced in response to domestic, regional or local environmental issues. However, international pressures also look likely to exert a growing influence over agri-environmental policy in the future. These pressures include commitments relating to a range of international environmental agreements to address trans-boundary environmental issues, such the 1997 Kyoto Protocol, which specifies greenhouse gas (GHG) emission targets for 2008 to 2012, and the International Convention on Biological Diversity (CBD), which requires signatory countries to develop national strategies for the conservation and sustainable use of biological diversity.

4. Emerging policy issues

Compared to more conventional agricultural policies characterised by production and input-linked support, many agri-environmental policies in OECD countries are at a relatively early stage in their development, and there is often a lack of qualitative and quantitative data available to assess them. Accordingly, although policy evaluations have been undertaken in some countries, they remain largely *ad hoc* and partial.

Comprehensive evaluation of agri-environmental policies presents significant challenges, not least because of the complexities of the interactions between policies, and the wide range of non-policy factors that influence environmental outcomes. Prudent evaluation centres on assessing not only the environmental effectiveness but also the economic efficiency of measures, including such factors as administrative, compliance and opportunity costs, together with impacts on production and trade.

The issues associated with the evaluation of agri-environmental policy measures are currently the focus of ongoing work within the OECD. This work has highlighted several major issues in the light of policy experiences to date.

- Foremost is the need for policy coherence. In a number of OECD countries agri-environmental policies and agricultural policies can be found to be pulling in opposite directions. Policies to redress environmental damage are sometimes implemented in the context of production and input-linked support measures that contribute to environmental damage. It is notable, for example, that many of the countries that make the most pronounced use of agri-environmental payments also tend to have relatively high levels of market price support. The coexistence of such policies can make the attainment of environmental objectives less certain and more costly than would otherwise be the case. It follows that the reform of agricultural policies would assist the achievement of environmental objectives by correcting the government failures that can complicate agri-environmental management. Another key element of improving policy coherence is the need for appropriate co-ordination within and between government authorities and other institutions involved in agri-environmental policy, in order to ensure a comprehensive response to environmental needs, and to avoid the duplication of effort and waste of resources.

- There appears to be scope for greater application of the polluter-pays-principle in agriculture. Full cost internalisation under the PPP stimulates incentives to correct significant damage, and encourages innovation in pollution treatment, thus minimising long-term compliance costs. While it is recognised that there may be technical problems in applying the PPP in agriculture, the relative absence of certain environmental policy measures in OECD countries, such as environmental taxes and charges, and the dominance of others, particularly payments, suggests that farmers in some countries may have retained broad implicit or "presumptive" rights in the use of natural resources and that they have come to expect compensation for any diminution of those rights.[38] In some cases, there may therefore be a need for the application of more clearly defined boundaries ("property rights") in agriculture, indicating where farmers should be liable at their own cost for environmental damage.
- The dependence of farmers on the integrity of eco-system services draws particular attention to the on-going importance of information, advice and training in improving environmental outcomes. Most farmers well understand how to manage the soil, water and biological resources at their disposal to maximise commodity output, at least in the short-term, but they can often be unaware of the long-run consequences of current farming practices on these resources, or of the alternatives available. Building on farmers' self-interest in environmental stewardship through sound advice can help overcome resistance to needed changes, and in the end minimise the need for more costly agri-environmental policy measures. A further benefit of information provision can be in assisting farmers in identifying emerging trends in the consumer concerns relating to the environment, thus encouraging them in developing new market opportunities.
- Effective agri-environmental policies tend to the ones that target concerns directly and affect production to the least possible extent. Some OECD countries consider that there are environmental benefits associated with supporting the production of certain commodities; the challenge in this context is to find better targeted ways to deliver those benefits. Effective targeting means that if there are multiple environmental objectives then the same number of policy instruments may be needed to deal efficiently with the issues. It also means that policy measures should be tailored, as far as possible, to the environmental situation prevailing in a given area. Effectiveness is also enhanced when farmer compliance is closely monitored and the effects on farming practices and the environment are regularly assessed against the stated goals. This means that specific frameworks and procedures may need to be set up to generate a combination of data collection and evaluation processes.
- There can be a role for government payments to farmers where there is insufficient provision of environmental services demanded by society and it is evident that markets for those services are absent or poorly functioning. In order to minimise distortions to agricultural markets, payments should be linked as closely as possible to environmental outcomes or farming practices that lead to these outcomes.

Agricultural policy reform – in particular, the reduction or elimination of output-linked support and input subsidies – should help improve environmental outcomes by lessening production pressures and enabling market signals to determine a more efficient use of scarce resources. For example, reform could be expected in many cases to reduce incentives for fertiliser and pesticide use, pressures to convert environmentally-vulnerable land to farm production, and other stresses such as irrigation water withdrawals.

It is important to stress, however, that the effects of reform on the environment in a given country will vary depending on a wide range of factors, such as the overall policy framework (including environmental policy measures), the international competitiveness of its agricultural sector, production alternatives, technological change and the nature of factor and product markets. For example, "pockets" of environmental stress may occur where agricultural production increases in the more competitive countries/regions, or where the removal of support jeopardises farming systems that support valued wildlife and scenic landscapes.

Moreover, reform itself cannot be expected to stimulate all the environmental amenities demanded by society or sufficiently reduce environmental harm, where agricultural producers do not have appropriate incentives to take all the environmental costs and benefits to society of on-farm activities into account in their decisions. Thus, there will be an ongoing role for policies addressing environmental issues in agriculture, including an appropriate regulatory framework, information-based strategies and economic instruments. In justifying policy intervention it will always be prudent to establish both that markets alone would fail to deliver the environmental outcomes required, and that intervention would promote rather hinder their achievement, while enhancing economic welfare as a whole.

Notes

1. See Annex 1.
2. More information is available on the US Department of Agriculture website: *www.ers.usda.gov/features/farmbill*.
3. Note that the analysis discussed in this section is based on a preliminary medium term outlook. Recent market evaluations have lead to some revisions for the OECD *Agricultural Outlook 2003-2008*, with projected prices slightly lower than assumed here. In general, this would result in somewhat stronger price-depressing effects of the 2002 Farm Act, particularly for coarse grains. Actual market conditions over the next six years will undoubtedly differ from those currently forecast and, as already emphasised, the actual impacts of the 2002 Farm Act depend importantly on the evolving market situation.
4. The estimate of the impact of payments based on historical entitlements was applied to estimate the price effects of both CCPs and DPCs, despite the differentiated characteristics of the CCPs. The estimated impact was taken from the simulation analysis carried out with the PEM crop model, as described in OECD (2001) *Market Effect of crop Support Measures*. The specific number used is the average impact across a set of 100 simulations with plausible random parameter values carried out as part of the PEM sensitivity analysis in Dewbre J., J. Antón and W. Thompson (2001), "The Transfer Efficiency and Trade Effects of Direct Payments", *American Journal of Agricultural Economics*, Vol. 83(2001), pp. 1204-1214.
5. The analysis in this section does not account for the risk reducing effects of CCPs for one crop on other crops whose prices are correlated with the prices of the former.
6. The way in which the various policy measures have been represented in the AGLINK model is described in detail in Annex 6. Estimates of the risk effects of the various direct payments (DPCs, CCPs and the MLAP) in terms of the producer incentive price, as discussed in the previous section, are added to the existing representation in AGLINK (Annex 6).
7. A sugar module is currently being developed and will be incorporated in the formal AGLINK model in the near future.
8. Expected benefits, *i.e.* average benefits taking into account prices according to their respective distributions, are always above benefits at expected prices, *i.e.* ignoring their stochastic distribution as they are represented in the deterministic AGLINK model. This difference comes from the fact that with lower prices (which are still possible within the price distribution) benefits would increase while benefits cannot fall below zero at higher prices in the distribution. In particular, this bias implies that the impact of loan rate increases for wheat and maize is likely to be underestimated,

whereas that of the declining rates for soyabeans is likely to be overestimated. At the same time, the impacts of increased loan rates for minor coarse grains are likely to be overestimated.

9. Note that in the discussion of individual policy measures, the description of partial impacts generally excludes the respective risk effects, the total of which in turn is discussed separately.
10. Note that these numbers exclude payments for commodities not covered by AGLINK.
11. Note that OECD *Agricultural Outlook 2003-2008* projects slightly lower world prices for grains and oilseeds than the preliminary baseline on which the analysis presented here is based. Actual market conditions over the next six years will undoubtedly differ from those currently forecast and, as already emphasised, the actual impacts of the 2002 Farm Act depend importantly on the evolving market situation.
12. See OECD (2002), *Methodology for the measurement of support use in policy evaluation, www.oecd.org*, and OECD (2001), *Market Effects of Crop Support Measures*.
13. See USDA (2003). *Decoupled payments: Income Transfers in Contemporary US Agriculture*. ERS – AER No. 822.
14. In the last decade the quantity of maize processed into fuel ethanol doubled to about 22 million tonnes, *i.e.* nearly 10% of total maize production in 2002.
15. OECD (2001), *Environmental indicators for agriculture: Volume 3, Methods and results*.
16. *Ibid*.
17. See, for example, OECD (2001), *Improving the Environmental Performance of Agriculture*.
18. OECD (2001), *Environmental indicators for agriculture: Volume 3, Methods and results*.
19. See, for example, Pretty, J.N. *et al.* (2000), "An assessment of the total external costs of UK agriculture," *Agricultural Systems*, Vol. 65, pp. 113-136, and OECD (2001), *Environmental indicators for agriculture: Volume 3, Methods and results*.
20. Figures comprise EU spending on agri-environmental payments, not including member state contributions, under Regulations 2078/92 and 1257/99. The figure for the total CAP Budget from average Total FEOGA Guarantee over 2000-02 of EUR 43.7 billion per year. *Source*: European Commission.
21. Spending on agri-environment payments as a percentage of the average total Commodity Credit Corporation outlays over 2000-02, which averaged USD 24.4 billion per year. *Source*: USDA.
22. European Commission (1998), *State of Application of Regulation (EEC) No. 2078/92: Evaluation of Agri-environment Programmes*.
23. See, for example, Baldock, D. *et al.* (2002), Institute for European Environmental Policy: *Environmental Integration and the CAP: A Report to the European Commission, DG Agriculture* and Feather, P. *et al.* (1999), *Economic Valuation of Environmental Benefits and the Targeting of Conservation Programs: The Case of the CRP*, Agricultural Economics Report, No. 778.
24. . See, for example, OECD (1997), *Environmental benefits from agriculture: issues and policies: the Helsinki Seminar* and European Community Court of Auditors (2000), *Greening the CAP*, Special Report No. 14/2000, *www.eca.eu.int/EN/reports_opinions.htm*.
25. *Ibid* and Hanley, N. (1998), *Assessing the success of agri-environmental policy in the UK*, paper for Resources Policy Consortium Sessions, EAERE/AERE World Congress, Venice.
26. See, for example, European Community Court of Auditors (2000), *Greening the CAP*, Special Report No 14/2000, *www.eca.eu.int/EN/reports_opinions.htm*.
27. See, for example, OECD (2000), "A policy decision-making framework for devising optimal implementation strategies for good agricultural and environmental policy practices," COM/AGR/CA/ENV/EPOC(2000)56/FINAL.
28. Feather, P. *et al.* (1999), *Economic Valuation of Environmental Benefits and the Targeting of Conservation Programs: The Case of the CRP*, Agricultural Economics Report, No. 778.
29. European Commission: *www.europa.eu.int/comm/agriculture/rur/eval/index_en.htm*
30. Some studies suggest that *suppliers* of agri-chemicals in certain cases have taken action to reduce their margins following the imposition of eco-taxes in order to minimise changes in user costs, thereby limiting the effectiveness of these measures. See, for example, Institut National de la Recherche Agronomique France (2002), *Agriculture, territoire et environnement dans les politiques européennes*.

31. Making environmental quotas, permits and restrictions tradable allows such rights to be transferred to those who value them most highly, which can encourage economically beneficial outcomes. See, for example, OECD (2000), *Implementing domestic tradable permits for environmental protection*.

32. Brouwer, F. *et al.* (2000), *Comparison of environmental and health-related standards influencing the relative competitiveness of EU agriculture vis-á-vis main competitors in the world market*, Agricultural Economics Research Institute (LEI), Report 5.00.07, The Hague.

33. OECD (2003), *Agriculture, trade and the environment: linkages in the pig sector*.

34. Brouwer, F. *et al.* (2000), *Comparison of environmental and health-related standards influencing the relative competitiveness of EU agriculture vis-á-vis main competitors in the world market*, Agricultural Economics Research Institute (LEI), Report 5.00.07, The Hague.

35. Economic Research Service (ERS), USDA.

36. Incentives to meet cross-compliance requirements tend to be greater for farmers who receive the highest level of support relative to compliance costs, which may not necessarily be in areas with the most serious environmental problems.

37. See, for example, OECD (2001), *Environmental indicators for agriculture: Volume 3, Methods and results*.

38. See, for example, D. Bromley in OECD (1997), *Environmental benefits from agriculture: issues and policies. The Helsinki Seminar* and OECD (2001), *Improving the environmental performance of agriculture*.

ANNEX 1

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 structures 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 can be found in *www.oecd.org//agr/ministerial/commune.htm*.

ANNEX 2

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;
- ***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.

* The full text from the Ministerial Communiqués can be found at *www.oecd.org//agr/ministerial/commune.htm*.

ANNEX 3

Definitions of the OECD indicators of support[*]

Producer Support Estimate (PSE): 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. It includes market price support and budgetary payments, *i.e.* gross transfers from taxpayers to agricultural producers arising from policy measures based on: current output, area planted/animal numbers, historical entitlements, input use, input constraints, and overall farming income. The %PSE measures the transfers as a share of gross farm receipts.

Market Price Support (MPS): the annual monetary value of gross transfers from consumers and taxpayers 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.

Producer Nominal Protection Coefficient (NPCp): the ratio between the average price received by producers (at farm gate), including payments per tonne of current output, and the border price (measured at farm gate).

Producer Nominal Assistance Coefficient (NACp): the ratio between the value of gross farm receipts including support and gross farm receipts valued at border prices.

Consumer Support Estimate (CSE): the annual monetary value of gross transfers to (from) consumers of agricultural commodities, measured at the farm-gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on consumption of farm products. If negative, the CSE measures the burden 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 as a share of consumption expenditure at the farm gate.

Consumer Nominal Protection Coefficient (NPCc): the ratio between the average price paid by consumers (at farm gate) and the border price (measured at farm gate).

Consumer Nominal Assistance Coefficient (NACc): the ratio between the value of consumption expenditure on agricultural commodities (at farm gate) and that valued at border prices.

[*] *Source:* OECD (2002), Methodology for Measurement of Support and Use in Policy Evaluation. *www.oecd.org/agr/policy*

General Services Support Estimate (GSSE): the annual monetary value of gross transfers to general services provided to agriculture collectively, arising from policy measures that support agriculture regardless of their nature, objectives and impacts on farm production, income, or consumption of farm products.

Total Support Estimate (TSE) 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. The %TSE measures the overall transfers from agricultural policy as a percentage of GDP.

ANNEX 4

Risk, Farm Revenue Variability and Producer Support – Technical Aspects

This annex presents the technical aspects of the methodology used in this section for the *ex post* analysis of the impacts of different PSE measures for crops on the risk faced by producers. The information available in the PSE database for the period 1986-2001 (OECD, 2002) is used to measure the revenue variability across these years. The variability of revenue is used as an objective measurement of farming risk and the reduction in variability when adding each category of support is used as a measurement of the implied reduction in risk. The method used consists of a statistical analysis of a group of time series related to the revenue received by producers of each commodity in each country. Since the PSE database has no information about costs or non-farm income, the analysis is limited to farm receipts. The extent to which the results can be extrapolated to income depends on the correlation between farm revenue and farm income.

The eight series used for each commodity and country are calculated farm revenue from different sources as classified in the PSE database and are defined as follows: 1) The revenue that farmers would have obtained if they had sold their crop at prevailing world prices (revenue from world prices); 2) The revenue that the farmer actually earns from selling the crop at the domestic producer price (revenue from world prices plus revenue from market price support); 3) The revenue from world prices plus payments based on output; 4) The revenue from world prices plus payments based on area; 5) The revenue from world prices plus payments based on historical entitlements; 6) The revenue from world price plus payments based on inputs; 7) The revenue from world prices plus payments based on input constraints, payments based on overall farm income and miscellaneous payments; 8) The total revenue from the market and from government support: revenue from world prices plus total PSE. All the series are expressed in national currency and deflated to represent farm revenue in real terms.

The methodology consists on calculating an index of variability of each deflated series and compare the corresponding indexes. The index is conceptually equivalent to Pearson's Coefficient of Variation* for a trended (non-constant mean). Using a standard deviation or a coefficient of variation to estimate the variability across years in a trended series would lead to an overestimation of such variability. Cuddy and Della Valle (1978) developed a

* The Coefficient of Variation is a measure of variability that is independent of the units in the series. It is equal to standard deviation over the mean.

general technique to better calculate this variability that has been adopted in this study. Their index of variation (CCV) responds to the following expression:

$$CCV \quad CV\sqrt{1 \quad \overline{R}^2}$$

Where CV is the coefficient of variation of the original trended series and $\overline{R}^2$ is the adjusted coefficient of multiple correlation of a log linear estimation of the trend. If the trend is able to predict exactly all the values in the series, then $\overline{R}^2$ will be equal to one and the index of variation CCV will take a value of zero. Additionally under the assumption of normality, a chi-squared test for the significance of the reduction in variance was developed and applied to all the series. A reduction in variability is considered to be significant in terms of Table A4.1 if it passes the 10% significance test. Table A4.1 shows the number of countries and commodities with significant reduction in revenue variability.

The analysis in this section has three main limitations. First, the methodology requires a long time series and therefore measures reduction variability in the past as opposed to current reduction of variability by current policy measures. Second, the methodology captures farm revenue variability, which is not equivalent to farm household income variability, but just a proxy. Third, given that world prices of some commodities often have similar fluctuations, risk reducing payments provided to one commodity may be able to reduce variability of receipts of other commodities (especially if payments do not require the production of a specific crop). However, the present analysis does not incorporate these later risk-cross effects of policies.

Table A4.1. **Do PSE measures significantly reduce farm revenue variability?**

	Number of countries (A)/ commodities (B) studied	Market Price Support	Payments on Output	Payments on Area planted/ Animal numbers	Payments on Historical Entitle-ments.	Payments on Input use	Other Payments	All PSE support
A. Number of selected OECD countries for which the corresponding PSE measure significantly reduces revenue variability for a given commodity:								
Wheat	10	7	0	3	2	2	1	8
Coarse Grains	11	8	2	4	2	0	0	10
Rice	6	3	1	1	0	0	0	6
Oilseeds	9	2	3	1	1	0	2	6
Sugar	7	4	1	0	1	0	0	4
Milk	11	9	1	1	0	1	0	10
Beef and Veal	11	7	0	2	1	0	0	10
Pigmeat	10	6	0	0	1	0	0	9
Poultry	11	8	0	0	1	1	0	9
Total	86	54	8	12	9	4	3	72
B. Number of selected commodities for which the corresponding PSE measure significantly reduces revenue variability in a given country:								
Australia	9	1	0	0	0	0	0	8
Canada	7	4	0	1	0	0	0	6
European Union	9	8	1	4	0	0	1	8
Japan	9	7	2	0	0	1	2	9
Korea	7	4	0	0	0	0	0	6
Mexico	9	8	0	0	0	0	0	8
New Zealand	6	1	0	0	0	0	0	2
Norway	6	5	2	1	0	2	0	5
Switzerland	8	6	0	3	7	1	0	5
Turkey	7	6	0	0	0	0	0	6
United States	9	4	3	3	2	0	0	9
Total	86	54	8	12	9	4	3	72

1. Only statistically significant results are reported.

Source: OECD Secretariat.

References

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Risk related non-price effects of the CAP arable crop regime: results from a FADN sample, AGR/CA/APM(2002)14/FINAL, Paris.

ANNEX 5

Measuring the impact of 2002 Farm Act on crop incentive prices

This annex explains the sources of some of the parameters used in the estimation of the impact on incentive prices of crops and how risk premiums were calculated and calibrated. DPCs have only a relative price effect while the MLAP and CCPs have both a price effect and a risk effect. This latter is estimated through a risk premium.

Relative price effects of payments

It is assumed that the production impact of payments based on historical entitlements is a portion of the corresponding impact of price support. This portion is estimated using the production impact ratios calculated from the PEM model as developed in OECD (2001b). The actual figure used for this estimation is 0.09, taken from the systematic sensitivity analysis carried out in Dewbre *et al.* (2001). The effects on incentive prices of the payments under the MLAP are calculated from the payment triggered by the baseline price, including the above-loan-rate marketing loan benefits.

How to calculate risk premiums?

A methodology has been developed to calculate risk premiums under price uncertainty. The MLAP payments and the CCP for a given commodity are expressed as:

[1] $MLAP \quad Q * Max(P_L, \tilde{P}) \quad \tilde{P}$

[2] $CCP \quad * \overline{Q} * Max(P_T, \tilde{P}) \quad Max(P_L, \tilde{P})$

The following notation is used:

- Net Target price*: P_T Target Price - Direct payment rate
- Loan rate: P_L
- Output price (stochastic): $\tilde{P}$
- $\overline{Q}$ = Base area * Base yield is the base production of the representative producer

* In the 2002 Farm Act, the price used to calculate the CCP rate is not the target price but the target price minus the corresponding direct payment rate.

- $\alpha = 0.85$ is the share of the base area used to calculate the CCP.

The income of a farmer producing a given base commodity would be:

[3] $\tilde{Y} \quad * \overline{Q} * Max(P_T, \tilde{P}) \quad Q \quad * \overline{Q} * Max(P_L, \tilde{P}) \quad TC(Q) \quad W$

Where:

- TC is the total cost function of the farm with marginal cost C'.
- W is the sum of direct payments plus off-farm income.

The mean-variance approach for the expected utility of the farmer gives a certainty equivalent income that depends on expected income and its variance:

[4] $\hat{Y} \quad E\tilde{Y} \quad \frac{1}{2} * R * \frac{V\tilde{Y}}{E\tilde{Y}}$

"R" in the formulas is the Arrow-Pratt relative risk aversion coefficient (RRAC), a key parameter representing the farmer's risk behaviour. We assume R is constant and, therefore, risk preferences are DARA*. The farmer will produce a quantity Q that maximises this certainty equivalent. Hence, the first order condition of this farmer's maximisation programme can be derived as:

[5] $E\,Max(P_L, \tilde{P}) * 1 \qquad C'$

The risk premium θ responds to the following expression:

[6] $$\frac{2 * Q * V\,Max(P_L, \tilde{P}) \quad 2 * \quad * \overline{Q} * Cov\,Max(P_T, \tilde{P}), Max(P_L, \tilde{P}) \quad V\,Max(P_L, \tilde{P})}{E\,Max(P_L, \tilde{P}) * \frac{2 * E\tilde{Y}}{R} \quad \frac{V\tilde{Y}}{E\tilde{Y}}}$$

It can be shown that the contribution to this risk premium of CCP is higher for low levels of production.

Calibrating risk premiums

The calibration of risk premium [6] requires an estimation of the relative risk aversion coefficient RRAC for US crop farmers. Following a review of the empirical literature, a base value of RRAC = 2 was decided with a plausible range for sensitivity analysis between RRAC = 0 and RRAC = 5. Additionally off-farm income was calibrated using data from the OECD structural database. A more detailed explanation of this selection of parameters can be found in Annex 2 of OECD (2003).

The calibration of the risk premiums was made in interaction with baseline calculations made with the AGLINK model. Baseline prices in the outlook period are adopted as the expected market prices. A fifteen years "moving variance" of prices was used so that the variance of prices also adjusts over time.

* Analogous developments were tried using a CARA assumption. However, the quantitative simulation results differed only marginally for comparable levels of parameters of absolute and relative risk aversion. This is due to the small size of the "wealth effects" as compared to the "insurance effects". Hennessy (1998) also finds relatively small "wealth effects".

Sensitivity analysis of incentive price impacts

Sensitivity analysis of the impact on incentive prices was carried out and used for the sensitivity analysis of market effects with the AGLINK model. Table A5.1 displays the details of the incentive price impacts of the three main crop programmes of the 2002 Farm Act for the base value of the risk aversion parameter RRAC = 2. The same table shows also the magnitudes of those impacts when the relative risk aversion coefficient is set to 0 and 5. Linearly extrapolating these results for any value of RRAC in this interval is a good approximation of the corresponding results.

Table A5.1. **Estimated impacts on incentive prices of the FRSI crop programmes as compared to the FAIR act policies**

% change with respect to baseline prices, averages 2002-08

Results with base value of risk aversion: (R = 2)	Corn	Sorghum	Barley	Oats	Wheat	Soyabeans	Cotton	Rice
Marketing Loan Assistance Programme (MLAP)								
Price effects	0.22	2.95	8.14	8.80	0.08	–5.80	0.16	0.11
Risk effects	0.54	2.10	0.29	3.06	1.02	–1.16	0.03	0.00
Total MLAP	0.76	5.05	8.42	11.86	1.10	–6.96	0.20	0.11
Direct Payments for Crops (DPC)								
Price effects	0.00	0.17	0.04	0.03	0.16	0.78	0.00	0.55
Risk effects	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total DPC	0.00	0.17	0.04	0.03	0.16	0.78	0.00	0.55
Counter-Cyclical Payments (CCP)								
Price effects	0.15	0.23	0.00	0.32	0.27	0.35	3.00	2.59
Risk effects	1.51	0.95	0.16	0.25	1.77	0.60	2.40	1.05
Total CCP	1.65	1.18	0.16	0.56	2.04	0.96	5.39	3.64
Total (MLAP + DPC + CCP)								
Price effects	0.37	3.34	8.17	9.14	0.52	–4.67	3.16	3.25
Risk effects	2.04	3.05	0.45	3.31	2.79	–0.55	2.43	1.05
TOTAL	2.41	6.39	8.62	12.45	3.31	–5.22	5.59	4.30
Sensitivity Analysis								
Risk neutrality: R = 0	Corn	Sorghum	Barley	Oats	Wheat	Soyabeans	Cotton	Rice
TOTAL	0.37	3.34	8.17	9.14	0.52	–4.67	3.16	3.25
Total by type of effect								
Price effects	0.37	3.34	8.17	9.14	0.52	–4.67	3.16	3.25
Risk Effects	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total by programme								
Total MLAP	0.22	2.95	8.14	8.80	0.08	–5.80	0.16	0.11
Total DPC	0.00	0.17	0.04	0.03	0.16	0.78	0.00	0.55
Total CCP	0.15	0.23	0.00	0.32	0.27	0.35	3.00	2.59
High risk aversion: R = 5	Corn	Sorghum	Barley	Oats	Wheat	Soyabeans	Cotton	Rice
TOTAL	4.92	10.09	9.17	15.96	6.46	–6.01	8.80	5.76
Total by type of effect								
Price effects	0.37	3.34	8.17	9.14	0.52	–4.67	3.16	3.25
Risk Effects	4.55	6.75	1.00	6.82	5.94	–1.34	5.64	2.51
Total by programme								
Total MLAP	1.42	7.58	8.78	15.13	2.26	–8.52	0.24	0.12
Total DPC	0.00	0.17	0.04	0.03	0.16	0.78	0.00	0.55
Total CCP	3.50	2.34	0.35	0.80	4.04	1.73	8.56	5.09

Source: OECD Secretariat.

ANNEX 6

Technical notes on Aglink implementation

This annex provides a description of the analytical methods employed, in terms of model changes and assumptions, in conducting the crop and dairy market analysis of the FSRI Act. These methods and assumptions are described below in the following order:*

a) Marketing loans
  i) Rates
  ii) Benefits
b) Crop payments
  i) Base area
  ii) Program yield
    1) Fixed payments
    2) Counter-cyclical payments
  iii) Payment rates
    1) Fixed payments
    2) Counter-cyclical payments
  iv) Direct effects on producer decision making
c) Conservation Reserve Program (CRP)
d) Representation of risk effects
e) Dairy policies
  i) Price support
  ii) Direct payments

a i) Marketing loans: rates

The previous representation of the marketing loan rates in AGLINK allowed for three possibilities. First, the level of loan rates included in the US medium term questionnaire reply could be imposed. This option is selected in the current baseline projections as these are the marketing loan rates included in USDA's Long-Term Baseline projections. As a

* Note that the discussion on both marketing loans and direct payments, consistent with their representation in the AGLINK model, excludes the associated risk effects. These are treated separately.

second option, a five-year (olympic) average of the market price for the main commodities could be used. This calculation would approximate the formula whereby the loan rate can be decreased below the maximum level if market prices are relatively low. The Secretariat chose an approximation of the formula approach for a counterfactual scenario because the available software (simpc) does not provide for any mechanisms that would be useful in representing the actual Olympic average as specified in the 1996 Farm Act (*e.g.* an average of the previous five years' prices, excluding the highest and lowest observations). In the case of oilseeds, a lower bound was placed on this formula, the minimum loan rate mandated under the 1996 Farm Act. The third option would be to set the loan rates at the maximum loan rates allowed under the 1996 Farm Act. This option, which corresponds to actual practice in recent years, is investigated in a box in the oilseed chapter of the OECD *Agricultural Outlook, 2002-07* report.

The 2002 Farm Act changes the loan rates in two ways: (1) the discretion available to the Secretary of Agriculture to apply either a formula or the maximum rates is replaced by predetermined levels which can only be changed through new legislation and (2) the levels of the loan rates themselves have been changed relative to the maximum rates established under the 1996 Farm Act (higher for wheat and coarse grains, lower for soyabeans). The new loan rates are fixed for any given year, but are not constant for the duration of the 2002 Farm Act; the loan rates are fixed at initial levels from 2002 to 2003 and then adjusted to new fixed levels, sometimes slightly lower than in the first period for 2004-07.

These changes are implemented in AGLINK in a straightforward manner. The loan rates are fixed at the levels set under the 2002 Farm Act, the marketing loan rate equations are set equal to the new loan rate levels for each period (2002-03 and 2004-08*). In effect the existing loan rate equations in AGLINK are replaced with fixed predetermined values. For the counter-factual 1996 Farm Act scenario, loan rates are assumed to be fixed at their respective maximum levels, ignoring the discretion provided by the 1996 Farm Act legislation to lower loan rates as described above. Imposing the maximum loan rates is consistent with actual policy implementation during the 1996 Farm Act period.

a ii) Marketing loans: benefits

The new legislation does not contain any substantive change to the administration of the marketing loan program. First, the marketing loan benefits can still be delivered either through loan deficiency payments (direct payments per unit of output based on the difference between the loan rate and the commodity market price at county level) or through marketing loan gains (these gains are implicit if the commodity is forfeit at a price less than the loan rate). Moreover, it is understood that existing payment limits will not become more stringent in practice. As prices relevant to individual farmers when claiming marketing loan benefits are not necessarily equal to the national and annual averages (due to regional and temporal disparities of market prices), farmers on average receive loan benefits that are higher than the difference between loan rates and average market price (above loan rate benefits). This is taken into account by adjusting market prices in the loan benefit calculation according to historical observations on prices and loan benefits.

* Note that for the final projection year 2008, a continuation of all existing policies is assumed.

The equations representing marketing loan benefits in AGLINK are not changed. The marketing loan benefits continue to be added to the price to determine crop yields and market returns, which in turn drive area allocation in the model.

b i) Crop payments: base area

Farmers may update their base area under the 2002 Farm Act. In principle, the new Act allows for two options for those farmers who choose to update their base area. Either (1) the current base area plus the 1998-2001 average area planted to oilseeds; or (2) update to the average area of 1998-2001, including all programme crops (to which oilseeds have been added). The second option has been adopted for this analysis; all crop base area is presumed to be updated to the more recent planting period, *i.e.* base area including oilseed base is determined by the average of recent area planted to each crop.

The US farm legislation required that producers make their selections before April 2003. As the USDA could not provide any updated data on actual base areas, the Secretariat assumes that all farmers updated their base area to the 1998-2001 average of planted (for rice: harvested) areas, as data on area not planted are not available in the AGLINK database.

b ii 1) Crop payments: programme yield: direct payments (DPC)

Programme yields for Direct Payments for Crops (DPC) are unchanged for those commodities for which base yields are available. Programme yields for pre-existing commodity programme crops (*e.g.* wheat, coarse grains) were determined in the 1981-85 period, updated for any subsequent changes in base area through 1995, but held constant (along with base area) in the 1996 Farm Act (except for the entry/exit of CRP land). For oilseeds, the programme yield for a farm is based on the 1998-2001 average of planted area, but adjusted based on the national average oilseed yield of 1981-85 divided by the national average oilseed yield per planted area of 1998-2001. When this formula is applied on a national basis, the programme yields for oilseeds are defined as the average 1981-85 yield per planted area.

It is not entirely clear how the programme yield will be established in those cases where a farmer updates base area for a crop that already has a programme yield. For example, if a farmer has been planting maize on wheat base area and chooses to update base area from wheat to maize (which may pay better), a programme yield must be established for his new maize base. It is assumed that such programme yields are created in order to be comparable to other programme yields.

The Secretariat is currently using the national average programme yields for cereals without any update (as provided by ERS/USDA). These averages will change as base area is updated. For oilseeds, the average 1981-85 yield per planted area is applied.

b ii 2) Crop payments: programme yield: counter-cyclical payments (CCP)

Programme yields will be the same as under the former 1996 Farm Act regime except where base area has been updated or oilseed area added, in which case programme yields may be revised. For oilseed area, the programme yield is the same as defined above for DPC. For other program crops under the 2002 Farm Act, a farmer may choose either of two options: (1) add an amount based on 70% of the improvement in yield per planted area to the existing programme yield or (2) take 93.5% of the 1998-2001 average yields per planted

area (adjusted in either case for non-planting years and a county-wide minimum). For the purpose of this analysis, it was assumed that farmers take the second option, with the obvious exception of oilseed-producing land which must follow the rules laid out separately for oilseeds.

b iii 1) Crop payments: payment rates: direct payments (DPC)

The DPC can be considered as an extension of the production flexibility contract (PFC) payments (sometimes referred to as AMTA payments) of the 1996 Farm Act. The 2002 Farm Act sets new payment rates that are higher than the 2001 and 2002 PFC rates and holds these constant for 2002-07. However, the mechanisms are not fundamentally changed: each acre of base area is multiplied by the programme yield of that acre and this product is in turn multiplied by a set payment rate per bushel. The 2002 Farm Act sets the level of payment acres at less than the base areas, however, so the product of the base area, program yield and payment rate must then be multiplied by 85%. The base area can be updated, but programme yield may not be changed except to add oilseeds or to create a programme yield where there is none (as discussed above).

In AGLINK, the weighted average payment per hectare continues to be applied to all crop area equations (*i.e.* all crops receive equal payments per hectare). The 2002 Farm Act continues to rely on base area and yields, so the link to current production is weak. The total level of payments is distributed proportionally across all crop land as it is exogenous to the model solution.

b iii 2) Crop payments: payment rates: counter-cyclical payments (CCP)

The counter-cyclical payment rates vary depending upon market prices and certain policy parameters. As such, the payment rate should be endogenous and is treated this way in the AGLINK model (represented in AGLINK by USA_CO_CCP..TN). The equation reflects the US farm legislation by setting the counter-cyclical payment rate per unit (*e.g.* per tonne) for each type of base area as follows:

If (market price) > (target price) – (DPC rate),

Then (CCP rate) = 0

If (market price) < (target price) – (DPC rate) and (market price) > (loan rate),

Then (CCP rate) = (target price) – (DPC rate) – (market price)

If (market price) < (target price) – (DPC rate) and (market price) < (loan rate),

Then (CCP rate) = (target price) – (DPC rate) – (loan rate)

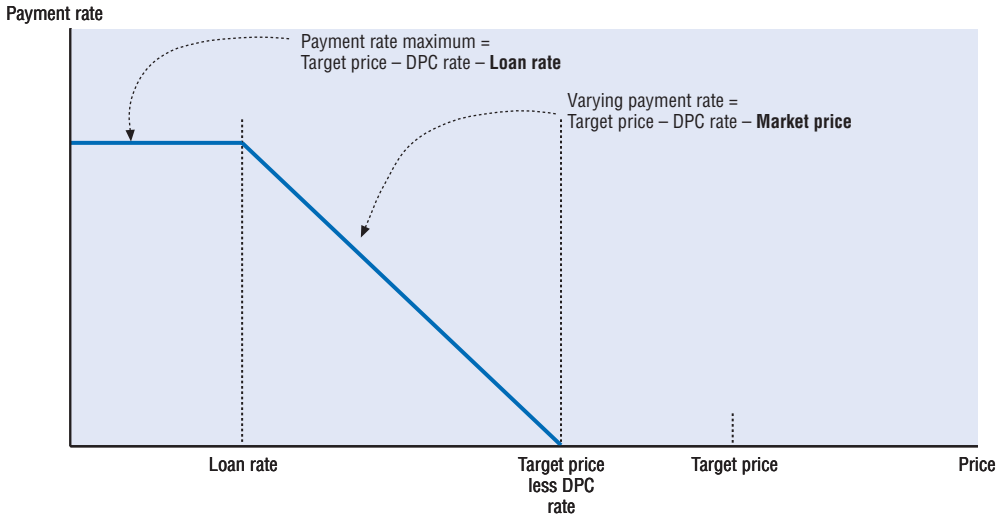
This can be represented through a mapping from the price (x-axis) to the payment rate (y-axis), depending on the target price, fixed payment rate and market price where all three of these determining factors are expressed on a per tonne basis (Figure A6.1).

As these payments are provided on the basis of area and yields in the base period, the counter-cyclical payments are treated in the same manner as the MLA, PFC or new fixed payments as regards price effects. As outlined below, CCP additionally have risk effects that are considered separately.

b iv) Crop payments: price effects

The direct payments affect the model results through the impact of the average payment per hectare on the total area planted. In the original work for the 2002 baseline,

Figure A6.1. **Counter-cyclical payment rate relative to market price and loan rate**



Source: OECD Secretariat.

the parameter governing the effect of this type of payment was drawn from preliminary FAPRI-UMC regression estimates of the effects of total PFC and MLA payments on total area (the effect was linear in AGLINK, not constant, but was calibrated to a 0.03 elasticity in the base period).

The work on the new US farm legislation has revealed, however, that this representation of payments based on historical entitlements seems inappropriate for the simulation of large payment changes, such as those that occur when comparing the OECD baseline assumptions (*i.e.* 1996 Farm Act without prolongation of Marketing Loss Assistance Payments) with the 2002 Farm Act. Another representation, which includes area payments in the area response functions side by side with market returns, proves more meaningful. To represent the lower impact of payment changes on crop area relative to the effect of changes in market returns, the impact ratio of 0.09 obtained from recent findings* is applied. All payments based on historical entitlements result in equal payments per hectare across crops.

The new counter-cyclical payments are sometimes referred to as "institutionalised Market Loss Assistance payments". Although based on a "target price", these payments have far more in common with the MLA payments provided on an *ad hoc* basis during 1998-2001 than with the marketing loan benefits program. As a result, the price effect of these payments is treated in AGLINK in the same manner as the MLA payments were treated. That is to say, they are considered a part of the total direct payments that are not determined by current production.

For the counter-factual 1996 Farm Act scenario, marketing loss assistance payments are assumed not to be continued after 2003, as is consistent with the 1996 Farm Act legislation itself and with previous treatment in OECD and USDA Outlooks.

* Dewbre, J., J. Antón and W. Thompson (2001), "The Transfer Efficiency and Trade effects of Direct Payments". *American Journal of Agricultural Economics*, Vol. 83, pp. 1204-1214

c) Conservation Reserve Program (CRP)

The 2002 Farm Act extends the target area allocated to the Conservation Reserve Program (CRP) by another 2.8 million acres (1.133 million hectares). This increase can be expected to reduce land used for cereals and oilseeds to a certain extent, but data on land going to the CRP expansion is not available yet. The analysis therefore relies on data taken from the USDA's Cost Benefit Assessment of the 2002 Farm Act and assumes that some 0.64 million hectares would come from wheat, coarse grains and soyabeans and would therefore reduce the respective areas. The area reduction is implemented by exogenously modifying the adjustment factors for harvested area (*i.e.* R.USA_<crop code>_AH) accordingly. Table A6.1 presents the area shifts assumed for the simulation. As the increased CRP is implicitly incorporated in the 2002 Farm Act baseline, the respective areas are added for the counter-factual 1996 Farm Act scenario.

Table A6.1. **CRP assumptions – area assumed to be moved from individual crops to expanded CRP due to the 2002 Farm Act, 1000 ha**

Crop	Marketing year						
	2002	2003	2004	2005	2006	2007	2007
Corn	0.0	0.0	39.9	144.2	165.1	165.1	165.1
Sorghum	0.0	0.0	8.3	29.9	34.2	34.2	34.2
Barley	0.0	0.0	6.6	27.3	27.2	27.2	27.2
Oats	0.0	0.0	3.4	12.2	14.0	14.0	14.0
Wheat	0.0	0.0	59.0	213.1	244.0	244.0	244.0
Soybeans	0.0	0.0	38.3	138.4	158.5	158.5	158.5

Source: USDA's Cost Benefit Analysis of the 2002 Farm Act.

d) Representation of risk

Recent work undertaken by the Secretariat offers some estimates of how changes in loan rates and: counter-cyclical payments can have an impact on production through risk reduction. This addition would not have been appropriate for direct payments under the preceding mechanism for incorporating the payments because, in principle, the FAPRI-UMC parameter estimates should have incorporated all possible effects. However, the new source for the area payment effect deals only with the direct effects relating to total returns, so the an additional term to represent the risk effect can be included without double-counting these factors.

As described in Annex 5, risk premiums represent the degree to which incentive prices are lower than expected receipts due to the variability of prices (and thus revenues) creating a disincentive to produce for risk-averse farmers. An increase in revenue risk leads to a decrease in incentive prices for risk-averse farmers and vice versa. As the change in perceived risk is a major implication of the 2002 Farm Act, equations in AGLINK were modified to take the risk premiums into account. Risk premiums, represented in AGLINK by USA_<crop code>_PP..RS, are defined as a per cent change in producer prices and are multiplied by price in the equations for returns per hectare (represented in AGLINK by USA_<crop code>_RH). At present, this factor is not added to yield equations.

As described in Annex 5, the risk premiums depend both on expected market prices and production areas and quantities. Therefore, an iterative procedure in the simulations is required to ensure consistency. In line with the model assumption on producer's area allocation decisions, prices are assumed to be equal to expected prices in the assessment of risk premiums, so their effect on area allocation occurs with a one-year lag.

e i) Dairy policies: price support

The 2002 Farm Act extended the Milk Price Support Program to 31 December 2007, at a support price of USD 9.90 per hundredweight (3.67% milkfat). There are no important changes in terms of mechanisms of the support program. However, to help the Commodity Credit Corporation (CCC) manage accumulated inventories and control costs from support purchases, the Department of Agriculture (USDA) is permitted to apply price tilt a maximum of twice each calendar year. Tilt is defined as the relative support prices of butter and SMP that are chosen by the USDA to administer the milk price support arrangements. By changing the tilt, the USDA may implement the price supports in such a way as to raise or lower the price floors of milkfats or non-fat solids so long as the milk price is unchanged.

e ii) Dairy policies: direct payments

The 2002 Farm Act has abolished the so-called Northeast Dairy Compact but introduced a new, national level payment called the Dairy Market Loss Payment (DMLP). The amount of this payment is determined by taking 45% of the difference between a fixed value (USD 16.94/cwt ~ USD 37.346/100 kg) and the Boston class I price. This formula is represented in a single equation in AGLINK via two steps: (1) the link between the Boston class I price and the average milk price in AGLINK is estimated in the form of a fixed mark-up per unit and (2) the payment amount is set at 45% of the difference between the fixed value and this estimated Boston class I price.

The DMPL payments are paid monthly from December 2001 through September 2005, and are capped at 2.4 million pounds (1.09 million kg.) Thus, a dairy farm can receive these payments only up to a specified limit per farm operation. It may be possible for farmers to define multiple operations where there was only one before and consequently exceed the limit. The stringency of the payment limit depends on effective administration by the USDA. In this analysis, it is assumed that the payment limit will be effectively enforced.

However, alternate assumptions on the payment limit stringency have implications for how these payments affect producer decision-making. For example, if the payment limit is strictly enforced (*i.e.* producers cannot be paid for any production in excess of the 2.4 million pound limit), then it is appropriate to add the payment to the output price only for those farms that produce less than the limit. For farmers whose production exceeds this payment limit, the payment should not be added to the price to determine the effective price because they do not receive (or stand to lose) the direct payment for changes in production quantity and thus the payment does not increase the incentive to produce at the margin. Of course, the direct payment will have some effect even on those farmers whose production is superior to the limit, by lowering capital costs somewhat, but such effects would be overstated if the payment were directly added to the milk price as though the marginal value of the output had increased.

The effective producer price in AGLINK is set equal to the milk price per 100 kg plus the product of the payment per 100 kg and the marginal effect rate. The marginal effect rate

parameter accounts for the proportion of the milk production for which the payments increase the marginal production incentive. This parameter is currently set at 32% which is the share of milk production attributable to dairy farms whose size is below the payment limit. The parameter was calculated by converting the payment limit into a 132 cow equivalent based on national average yields for comparison with cow per farm survey data. (based on USDA's regional data on dairy farm, cow and production numbers by size group in 2001).

A sensitivity test regarding the assumption that farmers will not be able to circumvent the payment limit by creating multiple operations has been made. In this case, it is assumed instead that each farmer can divide his operation in two, thereby doubling the 2.4 million pound limit to 4.8 million pounds. The share of milk production from farms whose size is below this higher limit (58%) can then be computed from survey data in a similar manner as before. It follows that the marginal effect rate parameter in the sensitivity analysis is set at 58%.

ANNEX 7

Quantitative comparison of 2002 Farm Act and 1996 Farm Act

This annex provides a quantitative comparison of the 2002 farm Act and the 1996 Farm Act based on the 'benchmark' provided by the OECD *Agricultural Outlook 2003-08* report baseline projections. That is to say, for each of the variables represented, there are two simulation values shown. First, what would have occurred under a counter-factual medium-term future in which the 1996 Farm Act, labelled 'FAIR Act' provisions remain in place. Second, labelled 'FSRI Act', shows the OECD baseline which does, in fact, incorporate provisions of the new US agricultural policies. The difference between these two series is provided in relative terms to show the effect of implementing the 2002 Farm Act relative to the counter-factual case in which the 1996 Farm Act is extended.

Table A7.1. **Implications of the 2002 Farm Act for US and world commodity markets: policy assumptions and US wheat markets**

		2002	2003	2004	2005	2006	2007	2008
Policy assumptions								
Loan rates in USD *per tonne*								
Wheat	FAIR Act	95	95	95	95	95	95	95
	FSRI Act	103	103	101	101	101	101	101
	Difference	8.5%	8.5%	6.6%	6.6%	6.6%	6.6%	6.6%
Maize	FAIR Act	74	74	74	74	74	74	74
	FSRI Act	78	78	77	77	77	77	77
	Difference	4.8%	4.8%	3.2%	3.2%	3.2%	3.2%	3.2%
Soybeans	FAIR Act	193	193	193	193	193	193	193
	FSRI Act	184	184	184	184	184	184	184
	Difference	–4.9%	–4.9%	–4.9%	–4.9%	–4.9%	–4.9%	–4.9%
Total direct and counter-cyclical *payments per hectare*	FAIR Act	37	37	37	37	37	37	37
	FSRI Act	48	73	70	64	59	56	52
	Difference	29.9%	96.8%	88.1%	72.4%	58.1%	50.9%	39.3%
Dairy direct payments *per tonne*	FAIR Act	0	0	0	0	0	0	0
	FSRI Act	3	2	1	1	0	0	0
US Wheat market								
Producer returns USD *per hectare*	FAIR Act	338	283	286	301	306	307	314
	FSRI Act	342	293	295	313	318	318	325
	Difference	1.2%	3.5%	2.9%	3.8%	3.8%	3.6%	3.4%
Area harvested *million hectares*	FAIR Act	18.5	21.8	21.0	20.9	20.9	20.8	21.0
	FSRI Act	18.5	21.9	20.8	20.6	20.6	20.5	20.7
	Difference	0.2%	0.2%	–0.7%	–1.2%	–1.7%	–1.2%	–1.6%
Production *million tonnes*	FAIR Act	43.9	59.4	57.7	57.7	58.3	58.3	59.4
	FSRI Act	44.0	59.5	57.2	57.0	57.3	57.7	58.4
	Difference	0.2%	0.2%	–0.7%	–1.2%	–1.7%	–1.2%	–1.6%
Domestic use *million tonnes*	FAIR Act	30.7	33.7	33.2	33.5	34.2	34.1	34.4
	FSRI Act	30.7	33.6	33.1	33.5	34.0	34.1	34.4
	Difference	0.0%	–0.2%	–0.2%	0.0%	–0.3%	0.0%	–0.2%
Exports *million tonnes*	FAIR Act	24.9	23.6	25.4	25.6	25.7	26.9	27.7
	FSRI Act	25.0	23.7	25.3	25.2	24.8	26.1	26.9
	Difference	0.2%	0.4%	–0.4%	–1.8%	–3.4%	–3.1%	–3.0%
Producer price USD *per tonne*	FAIR Act	138	118	119	119	120	120	122
	FSRI Act	138	117	118	120	121	120	122
	Difference	–0.1%	–0.7%	–0.5%	0.5%	0.6%	0.3%	0.3%

Source: OECD Secretariat.

Table A7.2. **Implications of the 2002 Farm Act for US and world commodity markets: US coarse grain and oilseed markets**

		2002	2003	2004	2005	2006	2007	2008
US Coarse grain market								
Maize producer returns *USD per hectare*	FAIR Act	752	707	724	748	781	780	817
	FSRI Act	764	720	725	768	788	798	824
	Difference	1.6%	1.8%	0.1%	2.7%	0.9%	2.3%	0.8%
Area harvested *million hectares*	FAIR Act	34.2	35.4	34.8	35.0	35.1	35.5	35.4
	FSRI Act	34.2	35.8	35.5	35.3	35.6	35.8	35.8
	Difference	0.1%	1.2%	1.9%	0.7%	1.4%	0.7%	1.2%
Production *million tonnes*	FAIR Act	244.9	279.2	280.1	284.6	288.5	295.7	297.6
	FSRI Act	245.1	282.4	284.1	285.7	291.8	297.1	300.4
	Difference	0.1%	1.1%	1.4%	0.4%	1.2%	0.5%	1.0%
Domestic use *million tonnes*	FAIR Act	213.8	220.4	222.5	225.2	226.3	228.9	231.6
	FSRI Act	213.8	221.2	223.4	225.3	226.8	229.0	232.0
	Difference	0.0%	0.4%	0.4%	0.0%	0.2%	0.0%	0.2%
Exports *million tonnes*	FAIR Act	52.1	53.3	57.2	60.2	65.2	68.2	69.8
	FSRI Act	52.2	54.8	60.9	62.8	67.0	70.4	71.4
	Difference	0.2%	2.7%	6.3%	4.3%	2.7%	3.1%	2.3%
Maize producer price *USD per tonne*	FAIR Act	95	88	90	89	92	91	94
	FSRI Act	94	86	88	90	91	91	93
	Difference	–0.1%	–2.5%	–2.3%	0.6%	–1.2%	0.3%	–1.1%
US Oilseeds market								
Soybean producer returns *USD per hectare*	FAIR Act	506	520	524	539	542	546	550
	FSRI Act	493	493	496	510	513	516	521
	Difference	–2.6%	–5.2%	–5.3%	–5.2%	–5.4%	–5.5%	–5.4%
Area harvested *million hectares*	FAIR Act	31.1	31.0	31.1	30.9	31.2	31.3	31.6
	FSRI Act	31.1	30.7	30.4	30.2	30.3	30.5	30.7
	Difference	0.1%	–1.0%	–2.2%	–2.3%	–2.9%	–2.6%	–2.9%
Production *million tonnes*	FAIR Act	76.7	80.9	81.8	82.2	83.9	85.0	86.6
	FSRI Act	76.7	80.0	79.9	80.2	81.3	82.7	83.9
	Difference	0.0%	–1.1%	–2.4%	–2.5%	–3.0%	–2.7%	–3.0%
Domestic use *million tonnes*	FAIR Act	52.2	53.7	54.9	56.4	57.4	58.4	59.7
	FSRI Act	52.2	53.5	54.6	56.3	57.1	58.1	59.3
	Difference	0.0%	–0.3%	–0.5%	–0.3%	–0.5%	–0.5%	–0.6%
Exports *million tonnes*	FAIR Act	26.0	26.1	27.4	26.0	27.3	27.2	27.3
	FSRI Act	26.0	25.5	25.7	24.0	25.1	25.1	25.1
	Difference	0.0%	–2.4%	–6.1%	–7.6%	–7.9%	–7.6%	–8.3%
Soybean producer price *USD per tonne*	FAIR Act	200	176	180	176	183	188	191
	FSRI Act	200	179	182	177	186	191	194
	Difference	–0.1%	1.2%	1.4%	0.4%	1.5%	1.3%	1.5%

Source: OECD Secretariat.

Table A7.3. **Implications of the 2002 Farm Act for US and world comodity markets: world crop markets and dairy markets**

		2002	2003	2004	2005	2006	2007	2008
World crop prices *USD per tonne*								
Wheat	FAIR Act	168	141	142	143	144	143	146
	FSRI Act	168	140	142	143	145	144	146
	Difference	–0.1%	–0.7%	–0.5%	0.5%	0.7%	0.3%	0.3%
Maize	FAIR Act	114	105	107	107	110	109	113
	FSRI Act	114	102	104	107	109	109	112
	Difference	–0.1%	–2.8%	–2.5%	0.6%	–1.3%	0.3%	–1.2%
Barley	FAIR Act	144	128	130	130	131	131	135
	FSRI Act	144	126	127	130	130	131	134
	Difference	–0.1%	–1.8%	–1.7%	0.4%	–0.9%	0.2%	–0.8%
Oilseeds	FAIR Act	254	228	232	228	236	241	245
	FSRI Act	253	231	234	229	239	244	248
	Difference	0.0%	1.0%	1.2%	0.3%	1.2%	1.1%	1.3%
Oilseed meal	FAIR Act	164	145	150	153	159	162	167
	FSRI Act	164	146	151	154	161	164	169
	Difference	–0.1%	0.3%	0.8%	0.7%	0.9%	1.2%	1.0%
Vegetable oil	FAIR Act	545	572	569	543	553	575	582
	FSRI Act	545	575	572	543	556	577	585
	Difference	0.0%	0.6%	0.7%	0.1%	0.4%	0.4%	0.4%
US Dairy markets								
Milk production *million tonnes*	FAIR Act	76.0	76.4	77.0	77.7	78.6	80.0	81.2
	FSRI Act	76.1	76.7	77.3	78.1	78.9	80.2	81.3
	Difference	0.1%	0.3%	0.4%	0.4%	0.3%	0.2%	0.1%
Milk price *USD per 100 kg*	FAIR Act	26.3	28.5	29.7	30.1	30.6	31.5	32.3
	FSRI Act	26.3	28.2	29.3	29.7	30.3	31.3	32.2
	Difference	–0.2%	–0.9%	–1.3%	–1.3%	–1.0%	–0.6%	–0.4%
Effective milk price *USD per 100 kg*	FAIR Act	26.3	28.5	29.7	30.1	30.6	31.5	32.3
	FSRI Act	27.2	28.9	29.8	30.1	30.3	31.3	32.2
	Difference	3.2%	1.3%	0.3%	0.1%	–1.0%	–0.6%	–0.4%
World dairy prices *USD per 100 kg*								
World butter price	FAIR Act	113.4	122.3	126.1	130.7	133.1	134.4	135.4
	FSRI Act	113.4	122.6	126.2	130.7	133.5	134.7	135.6
	Difference	0.0%	0.2%	0.1%	0.0%	0.2%	0.2%	0.2%
World cheese price	FAIR Act	171.8	183.2	186.7	191.4	195.7	197.5	199.0
	FSRI Act	171.8	183.1	186.5	191.2	195.7	197.6	199.1
	Difference	0.0%	–0.1%	–0.1%	–0.1%	0.0%	0.0%	0.0%
World SMP price	FAIR Act	132.8	157.0	162.4	168.1	170.2	171.5	171.6
	FSRI Act	132.8	156.8	162.1	167.8	170.0	171.4	171.6
	Difference	0.0%	–0.1%	–0.2%	–0.1%	–0.1%	0.0%	0.0%

Source: OECD Secretariat.

ANNEX 8

Crop planting flexibility provisions under successive US farm acts

Under the 1990 Farm Act, planting of any crop except fruits and vegetables was permitted on up to 25% of any participating programme crop's base area. Planting of other crops was credited as planted to the programme crop base area. Under the 1996 and 2002 Farm Acts programme participants can plant 100% of their total contract area to any crop, except for limitations on fruits and vegetables. In both cases land must be maintained in agricultural use. Contract crops under the 1990 and 1996 Farm Acts were wheat, feed grains, cotton and rice, while the 2002 Farm Act also covers oilseeds.

Some shifting among commodities, especially towards oilseeds, occurred with the introduction of the full planting flexibility under the 1996 Farm Act. Oilseeds average area in 1999-2001 (at the end of the 1996 Farm Act) was 21% higher than in 1993-1995 (at the end the 1990 Farm Act), while the area of cereals (excluding rice) was 6% lower despite a 4% increase in maize area. Total area covered by cereals, oilseeds and cotton increased by 2% over the same period (Table A8.1). Area planted with rice and cotton also increased, but these commodities were covered by the programmes. Therefore, although producers could shift area to almost any commodity, oilseeds was the option chosen most widely. Since oilseeds are now also covered by DPC and CCP under the 2002 Farm Act, main adjustments using full planting flexibility have already occurred. Consequently, the vast majority of the land receiving these payments may, in fact, will continue to be planted to the same commodities, although almost any commodity could be produced.

Table A8.1. **United States: Area planted with crops, 1993-2002**

	1993-95 average	1996-98 average	1999-2001 average	2002	% change 93/95 to 99/01
Maize	29 819	31 857	31 030	31 579	4
Sorghum	3 880	4 370	3 831	3 716	–1
Barley	2 885	2 685	2 138	2 019	–26
Oats	2 773	1 946	1 807	2 034	–35
Wheat	28 206	28 178	24 661	24 034	–13
Cereals	67 562	69 037	63 468	63 382	–6
Rice	1 253	1 239	1 330	1 300	6
Soybeans	24 560	27 497	29 651	29 197	21
Sunflower	1 307	1 199	1 200	994	–8
Flaxseed	73	78	201	338	175
Canola	133	287	552	605	314
Rapeseed	2	1	2	1	–28
Safflower	121	100	90	83	–25
Mustard seed	7	26	20	62	179
Oilseeds	26 204	29 188	31 716	31 280	21
Cotton	5 879	5 592	6 155	5 766	5
Total	**100 897**	**105 057**	**102 668**	**101 729**	**2**

Source: USDA, NASS, Acreage, several issues.

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ANNEX 9

Annex Tables

Table A9.1. **Main agricultural indicators**

	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 consummer expenditure[f]
Australia[g]									
Latest year available	3.3	..	4.5	2.1	11.6	3.2	1.1	2.8	14.9
1986-88 average[g]	4.3	2.2	5.9	2.4	18.4	2.0	1.2	2.7	15.2
Canada									
Latest year available	2.2	2.2	2.8	1.6	4.4	1.9	2.8	2.4	10.2
1986-88 average	2.8	1.7	5.2	1.9	5.9	1.3	3.1	2.2	12.1
Czech Republic[g]									
Latest year available	3.6	3.5	4.8	2.6	1.8	1.6	2.1	2.1	23.5
1989-91 average	6.5	3.5	11.4	3.0	3.8	3.2	3.8	3.4	27.0
European Union[h]									
Latest year available	2.1	2.6	4.4	2.4	3.7	3.3	4.1	2.9	11.4
1986-88 average	2.5	2.1[i]	7.6	2.7[j]	5.7	3.5	6.7	3.6	19.0
Hungary[g]									
Latest year available	3.7	3.2	6.3	3.3	5.5	2.4	1.6	1.3	n.a.
1989-91 average[g]	n.a.	2.9	n.a.	4.3	13.7	7.5	3.1	2.5	n.a.
Iceland									
Latest year available	9.6	..	4.4	7.8	0.6	0.2	2.1	5.0	15.1
1986-88 average	10.5	6.1	10.5	10.8	1.3	0.1	2.6	5.1	31.3
Japan									
Latest year available	1.1	2.5	4.7	2.8	0.3	0.2	5.8	2.6	n.a.
1986-88 average	2.8	2.8	8.2	2.6	0.1	0.2	7.9	2.9	n.a.
Korea									
Latest year available	4.9	2.7	9.8	1.4	0.3	0.5	3.1	1.2	13.9
1986-88 average	10.4	2.1	22.1	1.3	0.5	0.5	3.6	1.2	25.7
Mexico[g]									
Latest year available	5.5	5.0	20.2	4.1	2.6	2.0	4.4	1.4	21.3
1989-91 average	6.1	4.7	26.8	..	3.8	2.4	6.0	2.2	25.1
New Zealand									
Latest year available	7.2	..	8.9	3.8	39.3	4.9	3.3	4.5	10.0
1986-88 average	7.0	4.0	10.4	4.7	37.9	2.8	3.1	3.3	12.4
Norway									
Latest year available	1.5	1.5	3.9	2.4	0.3	0.2	2.3	2.6	n.a.
1986-88 average	3.3	1.5	6.8	2.5	0.7	0.4	2.6	2.6	15.3
Poland[g]									
Latest year available	4.1	3.6	19.4	3.4	3.7	3.5	2.9	2.4	21.3
1989-91 average	9.9	9.6	26.5	2.5	6.9	4.3	5.4	4.3	32.7
Slovak Republic									
Latest year available	3.6	4.0	6.3	..	1.6	1.8	2.6	2.4	..
1991-93 average	..	..	..	..	2.3	1.5	2.7	2.9	..

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Table A9.1. **Main agricultural indicators** *(Cont.)*

	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 consummer expenditure[f]
Switzerland[g]									
Latest year available	1.2	..	4.1	1.6	0.6	1.5	2.2	2.6	15.6
1986-88 average	2.1	..	5.3	..	1.2	1.4	3.3	3.0	..
Turkey[g]									
Latest year available	14.1	4.8	45.1	..	6.8	4.6	1.4	1.4	n.a.
1986-88 average	18.2	4.6	47.3	..	15.7	6.4	1.8	1.7	n.a.
United States									
Latest year available	1.4	1.2	2.5	1.2	4.8	1.6	1.5	1.8	6.1
1986-88 average	1.8	1.4	3.0	1.4	8.6	1.5	2.0	3.0	8.7
OECD average[j]									
Latest year available	..	1.7	7.9	1.7	3.6	2.4	3.3	2.4	10.7
1986-88 average	..	2.0	9.6	2.2[k]	5.6	2.5	5.2	3.3	14.9

..: not available. The first row of data for each country provides the latest available year.

Definitions and sources for the country key indicator Table A9.1**.**

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. Fisheries are included for Iceland. 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. Latest year is 1999.

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. Latest year is 2000.

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 is 2002.
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 2000. 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 2001, 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 Agriculural raw materials: 261 + 263 + 268 + 232 + 264 + 265 + 12 + 21 + 29. Latest year is 2001 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. Latest year is 2001.

g) OECD Secretariat estimates based on national sources.

h) EU-15.

i) Excluding Ireland, Italy and Luxembourg.

j) Excluding Luxembourg, Portugal, Sweden, United Kingdom.

k) Excluding Switzerland.

Table A9.2. **Structure of agriculture**

	Change in final agricultural output[1]	Share of farm income in total income per householders		Share of farm income	New farmers[2]		Educational level of farmers[3]		Share of agricultural land area in total land area[4]	Change in agricultural land area[4]	Change in the number of farms[5]
	%	%	Year	%	% under 35 years	% over 35 years	% basic training	% full training	%	%	%
	1985-87 to 999-01			2000 to 2001	late 1990s		mid / late 1990s		1998-00	1986-88 to 1998-00	1985-87 to 1995-97
Australia	61	59.0	1999/2000		32	68	40	20	60	–3	–19
Austria	32	61.0	2001	8.5	..	..	21	16	41	–3	–19
Belgium	22	72.0	1999	6.2	..	..	24	13	46	3	–25
Canada	79	14.0	1999	20.3	..	..	..	8	8	0	..
Czech Republic	–	..	..	..	..	..	..	..	55	0	..
Denmark	41	48.0	2001	12.5	..	..	10	3	63	–5	–26
Finland	16	31.0	1999	3.0	44	56	..	..	7	–6	–23
France	38	75.0	1997	0.8	..	..	15	26	54	–4	–28
Germany	68	87.0	1999/2000	5.7	..	..	48	12	48	–5	–24
Greece	36	60.0	1998	1.4	..	..	<1	<1	67	–6	–16
Hungary	–	44.0	1996	..	..	..	..	..	66	–7	..
Iceland	–2	..	..	..	..	..	31	30	23	0	..
Ireland	43	39.0	1999/2000	7	..	..	9	9	64	–22	–30
Italy	32	64.0	1995	–0.8	..	..	3	2	53	–9	–15
Japan	–5	13.0	2001	–0.7	12	88	..	..	14	–10	–22
Korea	19	47.0	2001	..	..	..	1	2	20	–11	–33
Luxembourg	72	70.0	1989	–2.4	..	..	..	..	..	..	–28
Mexico	–	..	..	..	59	41	..	..	56	6	..
Netherlands	39	64.0	1999	..	..	..	40	25	58	–2	–15
New Zealand	83	..	..	41.0	..	..	..	..	62	–6	–15
Norway	3	49.0	1999	–10.2	51	49	33	..	3	7	–24
Poland	–	72.0	2000	..	..	..	..	..	61	–2	..
Portugal	17	57.0	1989	9.5	..	..	3	<1	44	0	–25
Slovakia	55	..	..	..	..	..	..	..	50	0	
Spain	–2	60.0	1990	2.7	..	..	1	<1	60	–3	–29
Sweden	–2	26.0	1997	2.8	32	68	..	..	8	–8	–17
Switzerland	42	73.0	2000	..	58	42	..	..	40	–22	–20
Turkey	–13	77.0	1995	..	..	..	..	..	51	0	..
United Kingdom	46	41.0	1999/2000	4.3	24	76	12	14	72	–5	–10
United States	29	4.0	2002	..	24	76	23	19	46	–2	–9
EU-15	29	..	..	2.7	..	..	..	..	45	–5	..
OECD	38	..	..	..	..	..	..	..	39	–2	..

..: not available.

1. Agricultural output in million US dollars converted using constant 1990 Purchasing Power Parities (PPPs). For Japan, the change refers to the period 1985-87 to 1997-99. For Korea, the change refers to the period 1990-92 to 1999-01. For New Zealand and Australia, the change refers to the period 1985-87 to 1998-00. For Iceland, the change refers to the period 1990 to 1997-99. For Switzerland the change refers to the period 1995-97 to 1995-97.
2. For the United Kingdom, the categories refer to under 45 years old and over 45 years old.
3. Basic training includes any training course completed after school at an agricultural college, such as an agricultural apprenticeship; Full training includes any training course for at least two years after school at an agricultural college, such as that completed at a university.
4. Belgium: including Luxembourg; Czech Republic: national data for 1986-88 refer to 1993; Germany: data cover western and eastern part.
5. For Austria and Korea, data for the period 1985-87 refer to the year 1980. For Finland, the percentage covers the period 1990-95. For the United-States, data for the period 1995-97 refer to the year 1994. For Portugal, data for the period 1985-87 refer to the year 1989 (new statistical methodology) and data for the period 1995-97 refer to the year 1995.

Source: OECD Secretariat; FAO Database; National Agencies.

Table A9.3. **Agriculture and the environment**

	Change in the nitrogen balance[1] (kg/ha of total agricultural land)	Change in pesticide use[2] (tonnes of active ingredients)	Share of agriculture water use in total use[3]	Share of greenhouse gas emissions from agriculture	Semi-natural habitat	
	%	%	%	%	Share of pasture in total land area[4] %	Change in pasture area[4] %
	1985-87 to 1995-97	1985-87 to 1998-00	mid / late 1990s	mid/late 1990s	1998-00	1986-88 to 1998-00
Australia	9	..	..	19.4	53	–4
Austria	–21	–38	..	6.4	23	–3
Belgium	–4	8	0	7.3	21	–5
Canada	111	–17	8	10.4	3	0
Czech Republic	–45	–65	1	5.6	12	9
Denmark	–23	–49	37	15.4	8	55
Finland	–18	–41	..	9.1	0	–11
France	–10	11	12	16.0	19	–14
Germany	–31	16	..	5.7	14	–10
Greece	–34	43	..	10.3	37	–9
Hungary	–131	–78	8	7.8	12	–9
Iceland	–2	..	..	11.2	23	0
Ireland	27	2	15	31.5	48	–28
Italy	–30	–9	..	8.2	15	–11
Japan	–7	–13	65	1.5	1	–19
Korea	47	14	63	–	1	–27
Luxembourg	..	56	..	4.5	..	..
Mexico	–28	..	79	–	42	5
Netherlands	–17	–50	..	7.7	30	–9
New Zealand	31	16	73	55.2	50	–4
Norway	1	–34	7	9.4	0	49
Poland	–39	–28	9	5.2	13	0
Portugal	7	14	..	11.2	15	60
Slovakia	..	–73	..	8.1	17	3
Spain	1	–16	..	16.3	23	12
Sweden	–28	–42	6	11.6	1	–21
Switzerland	–24	–20	..	10.7	29	–29
Turkey	–29	–5	..	7.6	16	9
United Kingdom	–19	–13	1	8.2	46	–1
United States	23	6	40	8.9	26	0
EU-15	–15	..	32	9.6	18	–5
OECD	–1	..	44	8.9	25	–2

..: not available.

Notes: Figures are at a national aggregate level – indicator levels can vary widely between different agricultural sectors. Some caution is required comparing trends across countries because of differences in data definitions and coverage.

1. While these calculations have been derived from using an internationally harmonised methodology, nitrogen conversion coefficients can differ between countries, which may be due to a variety of reasons. For example, differing agro-ecological conditions, varying livestock weights/yield, and differences in the methods used to estimate these coefficients. Also, one part of the calculation is the atmospheric deposition of nitrogen which is mostly independent from agricultural activities. Czech Republic: data for the period 1985-92 refer to the Czech part of the former Czechoslovakia. Germany: data include eastern and western parts for the whole period 1985-97. Iceland: the 1995-97 average refer to 1995. EU-15: data exclude Luxembourg. OECD: data exclude Luxembourg.
2. Some caution is required in comparing trends across countries because of differences in data definitions and coverage. Data for 1985-87 average cover: 1986-87 average for Greece, Korea, and Spain; 1985 for New Zealand; 1985-86 average for Austria; 1988 for Ireland and Switzerland; 1989 for the Czech Republic; 1991 for Portugal. Data for 1998-00 average cover: 1996-98 average for the Czech Republic, Greece, Spain; 1995-96 average for New Zealand. 1995-97 average for Italy, Japan, Korea, United States. 1994 for Canada; 1997-99 the Slovak Republic and Sweden. Belgium: data include Luxembourg.
3. Agricultural water use includes water abstracted from surface and groundwater, and return flows (withdrawals) from irrigation for some countries, but excludes precipitation directly onto agricultural land. Belgium: data include Luxembourg. EU-15: Austria and the Netherlands are excluded from the calculation of the share of agriculture water use in total use. Irrigation water use data were used as proxy OECD: Austria, Iceland, the Netherlands and Switzerland are excluded from the calculation of the share of agriculture water use.
4. Belgium: data include Luxembourg; Czech Republic: national data for 1985-87 refer to 1980-82 and cover the Czech part of the former Czechoslovakia; Germany: the data covers western and eastern parts.

Sources: OECD Secretariat; FAO Database; UNFCCC Database.

PART II

Country Chapters

Abstract. *This part of the report provides detailed background information on agricultural policies of each OECD country using a standard format. The main policy instruments are described, followed by developments in domestic agricultural policies during 2002. For the EU, additional information is provided on policy developments in each Member State, concentrating on those implemented by the national authorities. Developments in trade policy are described under a separate heading. An overall evaluation, which includes a summary of changes in the level and composition of support, concludes each country chapter.*

PART II

Chapter 5

Country Chapters

1. Australia

1.1. *Main policy instruments*

Support to the Australian agricultural sector is mainly provided through budget-financed programmes, regulatory arrangements and tax concessions. Budgetary financed programmes, such as the Agriculture – Advancing Australia and Natural Heritage Trust, are mainly used for structural adjustment and for natural resource and environmental management. State (sub-national) level statutory and regulatory arrangements enable pooling of returns for some commodities. Statutory marketing arrangements are in place for wheat, barley, rice and sugar in some States. Commonwealth (national) tax concessions aim to smooth annual taxable income flows. Consumers of diesel fuel, including farmers and other primary producers, receive grants and rebates on excise taxes on fuel used in off-road vehicles and machinery. Landholders can claim a tax deduction for expenditure relating to landcare operations and water storage. Expenditure on research and development is financed from Commonwealth and State budgets, supplementing funds collected through special industry levies. In exceptional circumstances (*e.g.* droughts, floods) disaster relief payments are provided to producers. Tariffs protect producers of certain types of cheese, unprocessed tobacco, and processed fruit and vegetables, while agricultural imports are subject to non-tariff measures in the form of quarantine requirements, and sanitary and phyto-sanitary measures.

1.2. *Developments in domestic policies*

Recent changes to State legislation in Western Australia, affecting ***barley, lupins*** and ***canola***, resulted in the Grain Pool from 1 November 2002 becoming a private company, which is a subsidiary of Co-operative Bulk Handling Ltd (CBH). The State government has also established the Grain Licensing Authority (GLA), which will monitor the Grain Pool's export monopoly. While the Grain Pool will remain the major exporter and marketer of barley, lupins and canola grown in Western Australia, the GLA will be able to approve exports of these commodities by other exporters, providing it does not negatively impact on Grain Pool returns. Sales of grains, oilseeds and pulses are deregulated on the domestic market, such that growers can sell to any domestic trader or end user.

Grainco, primarily Queensland based, is a grower-owned unlisted public company which developed in the 1990s from the merger of three statutory marketing boards with two associated co-operatives and one major grain-handling authority. The vesting power which provided Grainco with single desk selling arrangements for barley in Queensland, expired in June 2002, and as a result the barley market in the State is now completely deregulated.

Under the Sugar Industry Reform Program (SIRP), up to AUD 150 million (USD 81 million) in assistance will be provided to the ***sugar*** industry, with the Commonwealth Government contributing AUD 120 million (USD 65 million), and the

remainder provided by the Queensland Government. The package provides immediate support through welfare payments to both cane growers and harvesters, and interest rate subsidies for replanting the 2002/03 and 2003/04 crops. One-off exit assistance of AUD 45 000 (USD 24 443) is available to eligible cane farmers who choose to leave the industry. Funding will also be provided for regional adjustment, diversification and industry rationalisation. The program will be funded by a levy on domestic sugar sales of AUD 3 cents (USD 1.6 cents) per kilogram, and was in response to the recommendations of the Commonwealth government *Report of the Independent Assessment of the Sugar Industry* (*www.affa.gov.au/content/output.cfm?ObjectID=CE264379-360F-47F2-9120DDA17BC39936*). The Commonwealth previously provided AUD 60 million (USD 33 million) in assistance under the last Sugar Industry Assistance Package during 2000/01 and 2001/02. This package included support payments, interest rate subsidies on both new loans for replanting and general purpose loans and financial counselling.

The Australian Productivity Commission published a report, *Citrus Growing and Processing* (*www.pc.gov.au/inquiry/citrus/index.html*) requested by the Commonwealth government, examining the competitiveness and outlook for the ***citrus*** growing and processing industry. The Commonwealth government has endorsed the main recommendations of the report, including agreement to the continuation of export controls, which are to be reviewed annually.

On 24 April 2002 shareholders of Woolstock Australia, a public company responsible for selling the ***wool*** stockpile, voted to enter into a voluntary liquidation. It is expected that the organisation will be formally liquidated and deregistered in 2003. The wool sector was also affected by amendments to the Wool Services Privatisation Act 2000, which were introduced into Parliament to allow Australian Wool Innovation (the research and development body for the wool industry) to carry forward unmatched eligible research and development expenditure from one financial year to the next. A similar amendment was introduced for the ***pigmeat*** industry.

The ***Diesel Fuel Rebate Scheme*** and the ***Diesel and Alternative Fuels Grants Scheme***, which were to have ceased operation in June 2002 were extended to mid-2003. These schemes offer rebates and grants that reduce the cost of both off- and on-road transport to regional and rural areas across all agricultural sectors and industries, with the intention to replace them in mid-2003 with an Energy Grants (Credits) Scheme.

During 2002 and continuing into 2003 Australia has been experiencing one of the worst droughts on record, affecting five states, and impacting on farmers and small businesses in rural areas which depend on agriculture. In response the Commonwealth and State governments provided a ***drought assistance package*** amounting to payments of AUD 728 million (USD 395 million) in 2002 (Box 5.1).

A national simulation exercise (Exercise Minotaur) was held in September to test Australia's preparedness in the event of a ***foot and mouth disease*** outbreak. The Productivity Commission also released a report in June that assessed the potential economic, environmental and social Impact of Foot and Mouth Disease in Australia (*www.pc.gov.au/study/footandmouth/finalreport/index.html*).

As part of its long term objective to improve the environmental performance of agriculture, a number of new ***agri-environmental measures*** were introduced in 2002. The Federal government has allocated up to AUD 10 million (USD 5.4 million) to the National Market-Based Instruments Pilot Program. In particular, the Program will use pilot schemes

Box 5.1. **Australian Drought Policy**

Three principles underpin the current Australian Commonwealth and State governments drought policy: first, while encouraging farmers to be self reliant, relieving financial stress for farm families suffering events beyond normal risk management capacity; second, protecting the resource base (agricultural and environmental) during drought; and third, assisting rural industries to an early recovery from the drought.

The drought assistance package consists mainly of providing interest rate subsidies and loans to help save livestock and supply feed, with AUD 360 million (USD 196 million) provided in 2002 under the existing (1997) Exceptional Circumstances Relief Payment Scheme (ECRP) and a one-off additional drought assistance payment of AUD 368 million (USD 200 million), announced in December 2002.

Under the ECRP (see also the 1999 Monitoring and Evaluation report), in declared areas eligible farmers receive payments and interest rate subsidies from the farm business support arrangements of up to AUD 100 000 (USD 54 300) per year, to a total of AUD 300 000 (USD 163 000) over five years. The Commonwealth meets the full cost of the ECRP (welfare component), and 90% of the interest rate subsidies (business support component). In addition, modifications in 2002 were to:

- allow eligible farm families to receive interim support payments from the date a *prima facie* case is established and the Exceptional Circumstances (EC) application is referred to the National Rural Advisory Council (NRAC) for formal assessment;
- provide predictive modelling of likely losses due to exceptional circumstances to enable faster assessment of EC applications (a *prima facie* case for EC is not a firm guarantee of a final EC declaration from the NRAC); and the,
- relax the conditions of the Farm Management Deposits (FMDs) for farmers in EC areas.

FMDs, introduced by the Commonwealth government in 1999, enable primary producers to set aside income in good years for use in bad years as a tax-linked, financial risk management tool for primary producers. Currently, farmers have invested more than AUD 2.07 billion (USD 1.47 billion) for use in circumstances such as the current drought. The government recently announced that the 12 month period for access to FMDs for farmers in an EC declared area may be waived for the current drought, a measure intended to help farmers manage the cash flow impact.

Concerning the one-off additional drought assistance payment, announced in December, the package includes new measures to assist farmers in the most severely affected drought areas to maintain their core breeding stock, and allows access to Commonwealth Interim Income Support (IIS) in advance of a State government lodging an application for EC. IIS is provided immediately for six months (subject to specific eligibility conditions), in areas where farmers are suffering from a 1 in 20-year rainfall deficiency over the nine months from March 2002 to November 2002, and is a grant of approximately AUD 600 (USD 326) per fortnight per family.

Under this one-off package, Interest Rate Relief (IRR) for new and additional borrowings is available, particularly designed to assist farmers in difficulty due to the high cost of livestock feed. IRR is equivalent to five percentage points or 50% of the prevailing interest rate, whichever is lower, on new and additional commercial loans of up to AUD 100 000 (USD 54 300) from a bank or other commercial institution for up to two years. The IRR is also extended to eligible small businesses in both EC-declared areas and non-EC-declared areas, in the latter case where the firm can demonstrate an overwhelming reliance on such areas for their business and under the same conditions described for farmers.

Box 5.1. **Australian Drought Policy** *(cont.)*

Since 1997 the Commonwealth Government has allocated over AUD 800 million (USD 435 million) through the Agriculture – Advancing Australia package to help farmers improve their financial self-reliance and business and risk management in times of drought and prepare for the inevitable droughts of the future (see the 1998 and 1999 Monitoring and Evaluation Reports). For further details of the drought policy see *www.affa.gov.au/*

to fill gaps in knowledge about the design, application and evaluation of market based instruments (MBIs) addressing salinity, water quality and biodiversity issues, and test measures to overcome impediments to the practical application of MBIs at farm level. Most pilots will test the performance of an MBI in a limited field-based application, others will utilise 'experimental economics' rather than field-testing in situations where field-testing would require changes to legislation or property rights. Pilots for round one are expected to start by June 2003 and run for up to two years and a second round of pilots are proposed to commence in 2004.

The adoption of Environmental Management Systems was also encouraged as a tool that agricultural enterprises can use to improve their business management to achieve efficiencies and better environmental outcomes. To ensure a consistent approach to the voluntary adoption of EMS in the agricultural sector the Commonwealth Government has developed a National Framework for EMS in Agriculture as a guide for co-ordinating and supporting activities. The Framework identifies roles and responsibilities, and potential partnerships for all participants in EMS, including individual landholders, industry, regional community groups and government. It also provides the links between on-farm EMS and environmental objectives for agriculture at the regional scale and is intended to help individual efforts to align with regional targets and contribute to larger scale environmental outcomes. A Commonwealth and State Government Working Group and a community and industry steering committee have been established to work with stakeholders in the development of an Action Plan to implement the Framework.

The Commonwealth Government has developed three key initiatives to support a consistent approach to EMS in Australia:

- National EMS Pilot Program, aims to test and enhance the potential of EMS as a business management tool for primary producers, and to understand and address any limitations to this approach. Pilots will be selected to cover a range of industries, regions, partnerships and natural resource management issues. In addition, pilots will also be selected to examine cross-industry linkages, for example, from primary producers to finance suppliers. The pilots are expected to commence by June 2003, and will run over a three year period.
- EMS Incentives Program, seeks to assist primary producers to implement EMS through the reimbursement of costs associated with developing and implementing EMS. The Program provides a reimbursement of 50% of expenditure in developing and implementing an EMS on-farm to a limit of AUD 3 000 (USD 1 630), and the government will allocate support up to AUD 25 million (USD 13.6 million) for eligible producers over the life of the Program.

- National EMS Training Package helps to ensure a consistent approach to EMS by offering training to producers to provide a common understanding of EMS for all farmers.

The Australian Government is committed to develop a ***biofuels*** (ethanol and biodiesel) industry in Australia, in recognition of its potential to provide economic, environmental and social benefits, particularly to agricultural producers and associated rural and regional communities. In 2001, the Government announced that it would seek to increase biofuels production from the current 40 million litres annually to 350 million litres by 2010. Measures to achieve this objective will be designed after the Government considers the findings of a major two year study, initiated in May 2002, on market barriers to greater use of biofuels in transport.

In 1994 the Council of Australian Governments (CoAG) decided to introduce a fundamental reform of ***water policies*** leading to a market based system in 2005. While in urban areas nearly all States have moved to full cost pricing of water, progress in rural water use reform has been slower although limited water trading is taking place in the Murray-Darling Basin. CoAG intends to further discuss the principles and guidelines for water entitlements in 2003, especially trading of water across State boundaries. The Commonwealth and State governments of Victoria and New South Wales plan to spend AUD 75 million (USD 41 million) to achieve water savings by promoting water use efficiency projects and purchasing water entitlements. Projects could include increasing the efficiency of irrigation systems, replacing open channels with piping and providing water for environmental flows in the Murray-Darling Basin.

As part of the Natural Heritage Trust programme, the major and overarching environmental programme in Australia, the National Land and Water Resources Audit published a number of reports in 2002 that will provide the benchmark against which to assess future ***environmental performance*** of Australian agriculture (*http://audit.ea.gov.au/ANRA/atlas_home.cfm*). In March, Environment Australia also published the *Australian State of the Environment 2001 Report* (*www.ea.gov.au/soe/2001/*), which found that the nation's ***biodiversity*** was better protected than previously but that nearly 6 million hectares of land were currently at risk from ***salinity***, with 17 million hectares that might potentially be impacted by 2050. About two-thirds of this potentially affected land (about 11 million hectares) is currently under agricultural use.

In response to ***animal welfare*** concerns, following the death of live sheep and cattle exported from southern Australia in winter to the Middle East in summer, the Australian Quarantine and Inspection Service (AQIS) imposed a moratorium on exports from July to November 2002. An Independent Reference Group (IRG) completed its report in October and implementation of the IRG recommendations to improve animal welfare outcomes in the live trade commenced immediately.

The Commonwealth Government introduced a AUD 102 million (USD 55 million), five year ***National Food Industry Strategy*** (NFIS) with effect from 1 July 2002, covering processed food and beverages, processed ingredients, horticultural products and food supply industries. The funding for the New Industries Development Program (NIDP), that aims to improve agribusiness performance, was reduced by AUD 1.2 million (USD 0.7 million) to AUD 20.5 million (USD 11.1 million), reflecting the transfer of funds from NIDP to the NFIS. Also AUD 14.7 million (USD 8.0 million) has been allocated to establish and operate the new National Food Industry Council and to fund other tasks to support its work to manage NFIS initiatives. The NFIS includes funding for the following measures:

- Food Innovation, that involves a AUD 47.1 million (USD 25.6 million) package aimed at enabling superior innovation performance by Australian based firms, including a AUD 12.4 million (USD 6.7 million) centres of excellence initiative and a AUD 34.7 million (USD 18.8 million) innovation grants program.
- International Market Entry Strategy, with funding of AUD 24.9 million (USD 13.5 million) that includes AUD 17.1 million (USD 9.3 million) to continue and expand the Technical Market Access Program, AUD 5.3 million (USD 2.9 million) to establish a Food Industry Market Development Program, and AUD 2.5 million (USD 1.4 million) to increase Australia's capacity to pursue its objectives in international standard-setting bodies, such as Codex Alimentarius Commission.
- Supply Chains and Food Product Integrity, a AUD 15.6 million (USD 8.5 million) initiative to boost the competitive performance of supply chains for Australian food products.

In July 2002 Australia, together with New Zealand, adopted a new food regulatory system to ensure a nationally and bi-nationally consistent approach to ***food safety*** for the entire food chain. The new system expands on the previous one, and includes representation from agriculture, industry development, health and consumer affairs portfolios. The new food regulatory system consists of the Australia New Zealand Food Regulation Ministerial Council, the Food Regulation Standing Committee and Food Standards Australia New Zealand (FSANZ), which has replaced the Australia New Zealand Food Authority, as the standard setting body. Under the new arrangements, the Ministerial Council is responsible for the development of domestic food regulation policy and policy guidelines which must be taken into account by FSANZ in the standard setting process.

1.3. Developments in trade policy

Australia is subject to ***tariff rate quota (TRQ) controls*** for the export of red meat to a number of countries, including the European Union, Canada and the United States. Most of these quotas flowed from the Uruguay Round Agricultural Agreement. Previous levels of Australia exports to the US have meant that the annual quota of nearly 380 000 tonnes has not required controls to be applied. However, with increased exports to the US in 2001, the beef import quota limit was reached. After consultation the Australian Government applied quota controls to the export of beef to the US from July 2002. Controls will continue in 2003 with a review of the quota allocation measures in 2005.

In 2002 ***import arrangements*** were changed, permitting imports of pineapples from all sources, table grapes from California (US), and maize from the US. In addition existing import arrangements were broadened to permit imports of citrus from Egypt and papaya fruit from Fiji. Biosecurity Australia undertook a number of import risk assessments of agricultural products in 2002, including an assessment of the conditions under which apples from New Zealand and the US could be imported (apple imports from these countries are prohibited because of possible fire blight infection of Australian orchards).

Australia concluded a ***free trade agreement*** with Singapore in November, which will have only a small impact on agricultural trade as virtually all Australian exports to Singapore already enter the state duty free. The Australian and US governments announced in November that they would begin negotiations on a free trade agreement. These negotiations follow those already under way with Thailand.

1.4. Overall evaluation

Support to Australian agriculture is extremely low and domestic producer prices, which were on average 5% higher than world prices in the mid-1980s, have been broadly aligned with world prices since 2001 (Tables III.14 and III.15). Producer support is the second lowest in the OECD, as measured by the %PSE, declining from 9% in the mid-1980s to 4% in 2002, compared to the decline in the OECD average over the same period from 38% to 31% (Table III.3). The combined share of market price support and payments based on output has shown a sharp reduction from nearly half of producer support in the mid-1980s to 3% by 2002, while the share of payments based on inputs, mainly diesel fuel rebates and grants, has more than doubled over the same period, accounting for over 70% of producer support in 2002 (Table III.7).

General services account for nearly 50% of total support (TSE) to Australian agriculture, with its share doubling since the mid-1980s (Table III.8), mainly due to a doubling of the share of expenditure on infrastructure, and a smaller increase for research and development, while the share of expenditure on inspection services almost halved (Table III.9). Total support to Australian agriculture as a share of GDP has decreased from 0.8% in the mid-1980s to 0.3% in 2002, about a third of the OECD average (Tables III.1 and III.14). The implicit tax on consumers from agricultural policies (%CSE) has declined from 7% in the mid-1980s to 2% in 2002, mainly due to dairy policy reforms, compared with the OECD average of 24% in 2002 (Table III.10).

Payments under the Exceptional Circumstances Relief Payment Scheme (ECRP) have been made every year since the early 1990s and while the drought of 2001/02 was one of the worst on record, predictions by some Australian scientist suggest that the incidence of droughts (and floods) may become more common and of greater severity due to climate change. If these predictions are correct the Australian government may need to consider an alternative strategy to address drought/flood. The Government's Agriculture-Advancing Australia package and measures such as the newly implemented National Environmental Management Systems should help to improve farmers self-reliance and risk management in times of drought and floods.

While progress is being made in reforming the water market, the process has been more rapid in urban than rural areas, and barriers to trading water between districts remain. Australia's new agri-environmental initiatives, especially the measures under the Environment Management Systems, should provide a solid basis to enhance environmental performance as they minimise production distortions by targeting improvements in management practices and systems. Even so, Australian agriculture continues to impose a considerable cost on the environment, particularly the increase in the amount of land, rivers and coastal areas impacted by salinity and the acceleration of agricultural pollutants into Great Barrier Reef, a UNESCO World Heritage Site.

The newly introduced National Food Industry Strategy by increasing research funding, developing information flows and reducing costs associated with food safety and food quality arrangements, has the potential to improve domestic efficiency across the Australian agri-food sector.

While protection offered to the Australian agricultural sector through tariffs applies to only a limited number of products and is amongst the lowest across OECD countries, its quarantine requirements, sanitary and phyto-sanitary measures, restrict some potential imports.

Overall the Australian agricultural sector is market oriented and the evolution of polices over the past 15 years have led to a reduction in production and trade distortions, while market based instruments are increasingly being used to address environmental issues.

2. Canada

2.1. Main policy instruments

The 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. Under the three-year safety net Framework Agreement on Agricultural Risk Management signed in 2000, risk management programmes – Crop Insurance, the Net Income Stabilisation Account (NISA), the Canadian Farm Income Program (CFIP) and province-based companion programmes – involve funding from both federal and provincial governments and producers. These programmes apply to a wide range of commodities, but all, except CFIP, exclude supply-managed commodities.

In 2002, the Federal, Provincial and Territorial Ministers of Agriculture signed a framework agreement for a new Agricultural Policy Framework (APF) (for more detail see Box 5.2). The five pillars of this agreement are food safety and quality, environment, science and research, sector renewal and skills development, and risk management. The APF and programs agreed to under its framework will replace other policies and programs over time, including those under the safety net framework agreement which expires at the end of March 2003.

2.2. Developments in domestic policies

The ***dairy*** sector continues to be the most heavily supported agricultural sector in Canada, accounting for over 33% of Canada's total producer support and close to two-thirds 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. In August 2002, the Market Sharing Quota for milk was decreased to 45.6 million hectolitres, down 1.2% from August 2001. The phasing out of the federal dairy subsidy of CAD 0.76 per hectolitre (CAD 7.82 or USD 5.05 per tonne) was completed in February 2002. The target price for industrial milk increased by 3.9%; support prices for butter and skimmed milk powder were raised by 3.6% and 4.2% respectively in February 2002.

No policy changes were implemented in the ***poultry*** sector. The commercial quota for turkey in 2002/2003 was set at 133 million kg, a decrease of 4.3% compared to the previous year. The quota for chicken increased by 0.7% in 2002.

The ***Spring Credit Advance Program (SCAP)***, introduced in 2000, was continued into 2002 and extended to crops, maple syrup, and honey producers to help them deal with drought and other business challenges. This program provides producers with interest-free, government guaranteed loans to assist them in planting their crops. The maximum limit for these loans remains CAD 50 000 (USD 32 078) with a total program limit of CAD 700 million (USD 449 million) available for loans.

Because of ongoing drought in western Canada, record payments have been made under the ***Crop Insurance*** program. The forecast indemnities in the 2002 crop year are CAD 2.08 billion, up from CAD 970 million (USD 622 million) in 2001. As a result, crop insurance indemnities surpassed the government contributions to NISA in 2002.

The ***Canada-Manitoba Adjustment Program (CMAP)*** and ***Canada-Saskatchewan Adjustment Program (CSAP)*** were not renewed for 2002. Originally announced in 2000 and

Box 5.2. **Canada: The New Agricultural Policy Framework**

In June 2002, the Federal, Provincial and Territorial Ministers of Agriculture signed a framework agreement for a new Agricultural Policy Framework (APF). This agreements represents a comprehensive, long-term commitment to sectoral profitability and includes a comprehensive action plan covering five areas: *a)* food safety and quality; *b)* the environment; *c)* science and innovation; *d)* business risk management, and; *d)* renewal.

The plan is focussed on outcomes, with specific targets for results in each activity area, and a commitment by governments to report on progress. The APF and programs agreed to under it will replace other policies and programs over time, including the three-year Framework Agreement on Agricultural Risk Management (which expires in March 2003).

The APF represents a significant overhaul of Canadian agricultural safety nets, placing even greater emphasis on an integrated "Whole Farm" approach and encouraging market-oriented, proactive business risk management. The Canadian Farm Income Program (CFIP) and the Canadian Rural Partnership initiative are now being wound down while new comprehensive features will be incorporated into the design and delivery of Crop Insurance and Net Income Stabilization Accounts (NISA).

Federal and Provincial Governments intend to finalise the details of transition to new risk management programming for 2003, so as to have federal-provincial implementation agreements which, when signed, will take effect April 1, 2003, and will cover all five elements of the Agricultural Policy Framework.

New spending over next five years related to this agreement will include:

CAD 3.4 billion Federal share of the resources over five years to accelerate and implement the Agricultural Policy Framework, a federal-provincial-territorial initiative to secure profitability for Canadian agriculture in the 21st century.

CAD 1.2 billion CAD 600 million in direct assistance over each of the next two years to help farmers make the transition to a new and more effective generation of programs dealing with risks, including drought. Provincial cost-sharing will be on top of this. The CAD 1.2 billion is in addition to existing federal income support.

CAD 589.5 million Federal investment to assist in the transition to the new Agricultural Policy Framework, including:

- **CAD 264.5 million** For environmental action, including improving access to newer and more environmentally friendly pesticides, increasing the number of farms with environmental plans, and taking environmentally fragile land out of production.
- **CAD 150 million** To improve global market access for Canadian products.
- **CAD 80 million** For additional measures to deal with drought, including measures to increase water supplies.
- **CAD 75 million** For the development of rural communities and co-operatives.
- **CAD 20 million** To encourage investment in agricultural innovation.

renewed in 2001 as CMAP II and CSAP II, these programs payments were made to assist grain, oilseed and special crops producers complete their adjustment to the elimination of the transportation subsidies during a period of low commodity prices. These one-time payments were cost-shared by the federal and provincial governments of Manitoba and Saskatchewan and amounted to CAD 360 million (USD 231 million) in 2000 and CAD 292 million (USD 187 million) in 2001.

As indicated earlier, this is the final year of the three-year ***Framework Agreement on Agricultural Risk Management*** signed in July 2000. This agreement will be replaced by the Agricultural Policy Framework, which was signed by the federal and provincial governments in June 2002. As part of the shift to the new risk management programs envisioned under the APF, producers received CAD 600 million (USD 385 million) in "***bridge financing***" payments into their NISA accounts in 2002, and will receive a like amount in 2003. This assistance is to help deal with challenges such as drought and to help the transition to new risk management programs under the APF. Payments to producers are based on 4.25% of their average eligible net sales over the past five years (1997-2001).

Canadian Farm Income Program (CFIP) money paid to farmers for the 2002 stabilisation year totalled CAD 505 million (USD 304 million). Payments into ***Net Income Stabilisation Account (NISA)*** accounts, excepting the bridge financing payment, totalled CAD 538 million (USD 345 million).

Producers of breeding ***livestock*** in designated areas of Canada (Alberta, most of Saskatchewan, and parts of Manitoba), who had to sell all or part of their herds in 2002 due to drought, remain eligible for a one-year tax deferral on income from these sales.

A new initiative, aimed at reducing the risks of pesticides, introducing safer products and improving the competitiveness of producers was announced in 2002. The intent of this initiative is to increase the availability of ***reduced-risk and more environmentally friendly pesticides*** for Canadian farmers. As part of this initiative, Health Canada's Pest Management Regulatory Agency (PMRA) will be developing and implementing strategies for reducing risks to both health and the environment and encouraging reduction in the use of pesticides. The PMRA is also introducing a program to make reduced-risk products, including 'minor use' products, available for essential uses. Spending under this initiative is to be CAD 7.4 million (USD 4.7 million). This announcement was followed by a further announcement of CAD 54.5 million (USD 35 million) to be spent over the next six years to provide faster registration of a broader range of ***minor-use pesticides***. This is aimed at ensuring Canadian growers, particularly in the horticultural sector, will be in a better competitive position with US growers, who have access to many more registered pesticides, especially those that are safer and more environmentally friendly.

CAD 968 000 (USD 621 000), will be provided under the Canadian Adaptation and Rural Development (CARD) fund to help ensure the long-term competitiveness and vitality of Canada's ***agriculture co-operative*** sector.

The Government of Canada announced CAD 190 million (USD 122 million) of investments to take place over the next five years to improve environmental sustainability in farm operations and help farmers deal with drought. CAD 110 million (USD 70.5 million) of this is for a ***Greencover initiative*** to enhance sustainable land use through the planting and management of forage and trees. The Greencover initiative will assist farmers in converting economically marginal farmland to alternative uses and improve the management of forage, rangeland and critical habitat areas. It would also assist farmers in

planting shelterbelts – rows of trees on agricultural lands – to meet environmental objectives regarding climate change, biodiversity, and land management. The ***Prairie Water Development Program*** will receive CAD 60 million (USD 38 million) over four years for prairie water supply expansion. This funding will be used to invest in additional small-scale pipelines and associated studies. As well, it will assist producers who submit eligible projects that address long-term water supply issues under the Rural Water Development Program (RWDP). CAD 20 million (USD 13 million) was announced for the acceleration of a ***National Land and Water Information Service*** to provide information, analysis and interpretation of land and water data required by farmers, industry and governments to make improved agricultural land and water management decisions.

CAD 100 million (USD 64 million) will be provided to farmers over a four-year period beginning in 2003 to help increase implementation of ***environmental farm plans***. These plans are designed to help producers identify all actual and potential environmental risks and benefits from farm operations, and then develop a plan of action to mitigate the risks. The goal is to increase the level of environmental awareness of farmers and to assess both the risks and benefits involved in agricultural practices and operations.

2.3. Developments in trade policy

CAD 150 million (USD 96 million) was announced as part of the APF package to improve global market access for Canadian products. This funding will be used to promote Canadian products based on improvements brought about by APF programs.

Canada was a party to several WTO ***dispute settlement procedures*** involving agricultural commodities. Following a 1999 decision of the WTO Appellate Body that ruled that certain Canadian dairy export pricing practices conferred export subsidies, federal and provincial governments in Canada deregulated milk for export, subject to commercial contracts freely negotiated between individual producers and processors. In 2001, this approach was subject to further review by a WTO compliance panel, which concluded there was insufficient evidence to determine whether Canada was violating its WTO obligations (see previous Monitoring reports). In 2002 the complainants launched a third challenge leading to another WTO Compliance Panel ruling against Canada in July. On 23 September Canada appealed this ruling and on 20 December the Appellate Body ruled against Canada in concluding that Canada's approach to the export of products made from commercial export milk constitutes an export subsidy. The Appellate Body's report was adopted by the WTO Dispute Settlement Body in January 2003.

On 17 December, the United States announced it would file a case against Canada in the WTO over the wheat trading practices of the ***Canadian Wheat Board (CWB)***. In addition, the United States is challenging as unfair and burdensome Canada's requirements that imported grain be segregated in the Canadian grain handling system, and alleges that Canadian policy affects the access of US grain to Canada's rail transportation system. The United States has instigated investigations into the operations of the CWB nine times since 1990. None of these investigations concluded that any practices of the CWB constitute unfair subsidies or violate international trade agreements.

With respect to URAA commitments, most of the 21 tariff-rate-quotas (TRQs) were filled during the calendar year 2001 and the marketing year 2001/02. Quotas for margarine, wheat, barley and barley products were significantly under-utilised.

2.4. Overall Evaluation

Support to producers, as measured by the %PSE, is about half the OECD average and producer prices for most commodities, with the exception of milk, are aligned with those on the world market. Producer support as a share of farm receipts decreased from 34% in 1986-88 to 19% in 2000-02. This is one of the largest reductions among OECD countries, but most of the progress occurred during the mid-nineties. From an historic low of 14.5% in 1997 the %PSE has been rising since, due mainly to increases in ad-hoc and disaster payments, beginning significantly with the Agricultural Income Disaster Program (AIDA) in 1998 and occurring every year since. Core program spending has stayed relatively flat over this period (but AIDA was institutionalised as the Canadian Farm Income Program (CFIP) as part of the 2000 federal-provincial safety-net agreement). The milk sector stands out as receiving the highest support, remaining above the OECD average. In 2002, producer support increased to 20%, an increase mainly resulting from crop insurance mechanisms, the "transition" payment connected to the APF, and increases in market price support resulting from lower world prices for poultry and milk. This increase in the differential between domestic and world prices increased the implicit tax on consumers from agricultural policies (%CSE) to 14%. Gross farm receipts were on average 25% higher than what it would have been without any support in 2000-02, a sharp reduction from 51% in 1986-88 but again up from its nadir of 17% in 1997. At 0.8% of GDP, total support to agriculture is about two-thirds the OECD average, down from 1.7% in 1986-88 (Tables III.16-17).

The combined share of market price support and output payments gradually decreased from about two thirds of producer support in 1986-88 to just over half of support in 2000-02, while the share of payments based on input use halved to under 8% over the same period. These forms of support are among those that are most production and trade distorting and least efficient at transferring income to producers. In 2002, the share of market price support and output payments fell to 49% of producer support. As a result of these changes, domestic producer prices were on average only 12% higher than those at the world market price in 2000-02, significantly lower than the 40% price gap in 1986-88. However, milk, the main beneficiary of market price support, is an exception and in 2002 the producer price was close to double the world price. At over 27% in 2000-02, the share of payments based on farm income or historical entitlements is one of the highest among OECD countries, and these payments are among the measures that are the most effective in transferring income to farmers with the least impact on production decisions.

In 2002 no major reform of the supply-management system, the main source of market price support in Canada, was undertaken or foreshadowed. Agricultural commodities outside of this system have seen significant reform with the elimination of commodity-specific programs and substantial reductions in support compared with the 1986-88 period. Part of the difference may be explained by the budgetary nature of support to non-supply-managed commodities. As the Federal and Provincial governments typically share in the funding of these programs, they must be provided through formal inter-governmental agreements of definite time span. This requirement to periodically renew program agreements creates a natural path for reform to take place. Further, as consumer-financed programs such as supply-management do not enter the fiscal frame, they are invisible to policy-makers who face little domestic pressure for reform.

Outside of the supply-managed commodities, the trend towards greater market orientation is expected to continue under the APF, the latest of these federal-provincial agreements. The focus for support under the APF has turned towards business risk management through changes made to the Crop Insurance and NISA programs intended to improve the way these programs influence producers' incentives. However, program parameters under the APF have not yet been finalised, so it remains to be seen if current objectives for the framework will be realised. Canada's commitment to market-oriented programs will continue to be tested by pressure for ad-hoc payments, as can be seen in the "bridge" payment made as part of the APF agreement.

A number of important program announcements were made in 2002, and while most of these programs will not commence until 2003, they point to a significant shift in program expenditure towards a broader set of sectoral issues, the so-called five APF "pillars": food safety, environment, science, sector renewal, and risk management. Of these, the environment seems poised for the largest increase in program spending. Federal program spending on the environment was CAD 8 million (USD 5.1 million) in 2002. The announcements made in 2002 indicate that this will increase by a large multiple over the next five years. While much of this spending will be made in support of the APF goals, significant spending will also be made as part of Canada's commitment to reduce net emissions of greenhouse gasses.

Overall, Canada has shown significant movement towards market orientation, the notable exception being the dairy sector, where no progress has been made. The new Agricultural Policy Framework has the potential to continue to improve market orientation, but reform of the dairy sector and avoidance of supplementary payments are required if substantial gains are to be made.

3. Czech Republic

3.1. Main policy instruments

Border measures, market regulations and, increasingly, budgetary payments are the main instruments to support Czech agriculture. New legislation gives to the State Agricultural Intervention Fund (SAIF) extended powers to regulate markets, including the introduction of production quotas, set-aside schemes and the provision of set-aside payments to producers. Market regulation of bread-wheat operates through intervention purchases after harvest, while in the dairy sector, processors are required to pay farmers a minimum price for all milk deliveries[1] and in 2001 a milk quota regime was introduced. From 2001 intervention was extended to beef, sugar and rapeseed for methyl-ester production. Export subsidies are granted for dairy surpluses. In addition to export subsidies for milk, they are also used for malt from barley, potato starch and on an *ad hoc* basis for other commodities. The prices of other products – notably, pigmeat, poultry, sugar and other oilseeds – are supported mainly through border measures.

Under the "Landscape care" (*Údrzba Krajiny*) programme, area payments are provided to permanent grassland in less favoured areas (mountainous and hilly areas), in areas with specific production restrictions, and in National Parks and Protected Landscape Zones. In less favoured areas (LFAs), headage payments are available for beef cattle and sheep. Area payments provide support to extensive livestock breeding on permanent pastures and have partly replaced the headage payments for beef cattle and sheep. Area-based payments support organic agriculture. Charges are levied per head of ruminant animals to

reduce ammonia emissions. Credit subsidies and guarantees on loans from commercial banks provide support to investment in agriculture. Tax refunds and concessions are accorded to farmers and the processing industry, the most important being the refund of the fuel tax. The Plan for Rural Development is the main programme implementing the Special Accession Programme for Agriculture and Rural Development (SAPARD) co-financed by EU funds. The government also supports agricultural training and education, research and extension, inspection and control, and plant and animal breeding. On 13 December 2002, provisions for extending membership of the EU to ten new Member States were agreed at the Copenhagen Summit. In consequence, the Czech Republic will join the EU on 1 May 2004 (Box 5.4).

3.2. Developments in domestic policies

For ***bread-wheat,*** the SAIF reintroduced the guarantee price at CZK 3 500 (USD 107) per tonne and operated state intervention purchases in the marketing year 2002/2003. The SAIF estimated that it would purchase into intervention around 0.8 million tonnes (0.7 million tonnes were purchased before end 2002) with the total costs for intervention (including storage and handling costs etc.) estimated at CZK 3 226 million (USD 99 million). This is much higher than the expenditures in 2001 which were to repay credits that financed interventions in previous years and to finance the storage costs of accumulated intervention stocks. In March 2001 the Government fixed the sugar production quota at 505 000 tonnes for the years 2001/2002 to 2004/2005 and introduced a system of quotas and administered prices for ***sugar*** and ***sugar beet***, similar to that in the EU. However, the Constitutional court abolished the system of quotas so the government introduced a system of minimum prices for sugar (CZK 17 300 or USD 528 per tonne) and sugarbeet (CZK 980 or USD 30 per tonne) for 2003. For starch from potatoes and wheat the government provides payments to starch producers for a limited amount of production. For potato starch the payment is fixed at CZK 1 500 (USD 46) per tonne for a volume of 30 000 tonnes and for wheat starch the payment is CZK 1 000 (USD 31) per tonne for 15 000 tonnes.

In 2001 (April 1), the SAIF introduced a system of ***milk*** production quotas and related compensation payments. The quota allocated to producers in 2001 and 2002 was 2 798 million litres. The minimum price for milk remained fixed at CZK 7.60 (USD 0.23) per litre in 2002. In 2001 the surplus production of milk to be exported with subsidies was 658 million litres (almost one quarter of production). For 2002 the estimate of the surplus production was set at 620 million litres (23% of total production). Due to lower prices on world market and the strengthening of the CZK export subsidies for dairy products increased by 118% over 2001 (Table 5.1).

Table 5.1. **Czech Republic: Minimum prices and export subsidies for milk**

	2001		2002p		Change in CZK2001 to 2002 %
	CZK	USD[2]	CZK	USD[2]	
Minimum price/litre[1]	7.6	0.19	7.6	0.23	0.0
Export subsidy (mn)	967	25	2 111	64	118.3

1. Minimum price compulsory for all milk deliveries.
2. Conversion uses OECD annual exchange rates (January to December).

Source: State Agricultural Intervention Fund, Prague, 2002.

Payments based on output were introduced in 2001 for milk produced within the milk production quota. For 2002 these payments are estimated at CZK 84.6 million (USD 2.6 million) which is 11% greater than in 2001. Most of the ***area payments*** were provided under two main programmes: Landscape Maintenance, and set-aside on arable land. The Landscape maintenance payments increased by 10.5% over 2001 while the payments for set-aside arable land remained around the 2001 level (Table 5.2). Overall area

Table 5.2. **Czech Republic: Area and headage payments**

	2001		2002p		Change in CZK 2001 to 2002 %
	CZK	USD[7]	CZK	USD[7]	
Area payments-landscape maintenance[1]	1 748	46	1 932	59	10.5
Area payments – set aside[2]	1 709	45	1 748	53	2.3
Total area payments	3 457	91	3 680	112	6.5
Headage payments beef cattle (mn)	379	10	430	13	13.5
Payment / head[3]	3 000 – 6 500	79 – 171	4 000 – 7 500	121 – 228	n.c.
Headage payments dairy cows[4] (mn)	181	5	n.a.	n.a.	n.c.
Payment / dairy cow	2 500	66	n.a.	n.a.	n.c.
Headage payments sheep and goats[5] (mn)	90	2	120	4	33.3
Payment / sheep and goats	1 500 – 2 000	39 – 53	1 500 – 2 000	46 – 61	n.c.
Payments for animals on pasture[6] (mn)	761	20	829	25	8.9
Payment / livestock unit	1 100 – 1 700	29 – 45	1 100 – 1 700	33 – 52	n.c.
Total headage payments (mn)	1 411	37	1 379	42	–2.3
Total area and headage payments	4 868	128	5 059	154	3.9

n.a.: not applicable; n.c.: not calculated.

1. Payments per hectare of permanent grassland in LFAs, areas with specific limitations, National Parks and Protected Landscape zones.
2. Payments of CZK 5 500 (CZK 7 000 for flax production) per hectare of set aside arable land (5-10% of farm arable land have to be set-side; flax hemp, rape seed for methyl-ester production, plants for green fertilisation, energy crops can be produced on this set-aside land), and a compensation payment of CZK 600 in 2001 and CZK 500 in 2002 per hectare of remaining arable land on farms with set-asides.
3. Payments per head of calves with higher rates in LFAs.
4. Payments for dairy cow with milk yield over 7 000 kg/year in 2000 and over 7 500 kg/year in 2001, abolished in 2002.
5. In 2001 payments available for sheep in LFAs, in 2002 payments extended to goats.
6. Payments for extensive breeding of cattle, sheep, goats and horses on permanent pasture land (max. 1.4 cattle units per hectare of pasture land at least 4 months a year on pasture). The eligibility for payments is for stocking rates between 0.4 to 1.5 cattle units.
7. Conversion uses OECD annual exchange rates (January to December).

Source: Research Institute of Agricultural Economics, Prague, 2002.

payments increased by 6.5% to reach CZK 3.7 billion (USD 113 million) in 2002. In 2002 ***headage payments*** were provided to beef cattle and sheep, and to animals raised on pastures that are used extensively. Headage payments for high yielding dairy cows were abolished in 2002. Overall total headage payments were 2.3% lower than in 2001, and total expenditures on area and headage payments increased by 4% (Table 5.2). Area payments to promote ***organic farming,*** after doubling in 2001, increased by another 25% to reach CZK 211 million (USD 6.4 million) in 2002. To compensate for damage resulting from severe floods in summer 2002 the government approved a disaster payment of CZK 950 million (USD 29 million) to farms in damaged areas in compensation for production and assets losses.

Payments based on input use are mainly 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. Overall, the support provided to agriculture through the SGFFF is diminishing. The value of credit subsidies declined by 6.5% compared with 2001, with the amount of new subsidised credits granted in 2002 at CZK 6.6 billion (USD 202 million). One-off area-based payments for the restoration of vineyards, hop-gardens and orchards increased by 27% in 2002 to CZK 289 million (USD 8.8 million). Payments to partly compensate for the costs of high quality wheat, rapeseed and soya seeds introduced in 2001 were extended to barley, peas and beans. Overall these payments increased by 54% to CZK 284 million (USD 8.7 million) in 2002. The total amount of the 60% refund of fuel tax was CZK 1.3 billion (USD 40 million) in 2002, which is around the 2001 level. Investment grants up to 50% of the value of investment are granted to young farmers for modernisation and development of their farms.

The Plan for ***Rural Development*** has been developed as a project to be implemented through the Special Accession Programme for Agriculture and Rural Development (SAPARD) to be co-financed by EU funds. In April 2002, SAPARD became operational as the Czech SAPARD Agency has been accredited by the Commission. This gives to the Czech Republic the possibility to use the sum of EUR 23 million (CZK 680 million) per year for the period 2000-06 (approximately two thirds are allocated to agriculture and one third to rural development). The funds allocated for 2000 and 2001 have to be spent before end 2003. With accession to the EU in mind, the Czech authorities adopted a number of regulations in the agro-food sector bringing Czech legislation in line with EU standards. Consequently in more recent years public expenditure to finance monitoring and control activities and food safety programmes has risen significantly in order to comply with EU regulation.

3.3. Developments in trade policy

In 2002, the Czech Republic applied custom tariffs in conformity with its URAA commitments, remaining at the 2000 level. To enable minimum and current ***market access*** of the URAA commitments, 27 tariff-rate quotas (TRQ) have been opened. As in 2001 five additional quotas were opened. The government continued to apply automatic ***import licences***, covering the same commodities as in 2001. Non-automatic import licences for sugar and sacharose from Slovakia were maintained. For other imports of sugar and sacharose the government increased the tariff rate by 80 percentage points (from 23 April 2002 to 11 March 2003) for imports above the quarterly fixed quotas (EU 3 900 tonnes; Poland 1 625 tonnes; other countries 325 tonnes – total annual quota for all countries 23 400 tonnes). From 2001, the Government set quantity based trigger levels of imports for Special Safeguard measures in accordance with the URAA. Such import activated measures were applied in 2002 for poultry, butter, flour, selected varieties of pasta, and pigmeat.

The estimated amount of ***export subsidies*** increased by 87% over 2001 and reached CZK 2.6 billion (USD 80 million). Most of these subsidies are allocated to milk products (CZK 2.1 billion or USD 65 million), beef (CZK 295 million or USD 9 million), barley malt (CZK 148 million or USD 4.5 million), and potato starch (CZK 30 million or USD 0.9 million). For all commodities, export subsidies remained within the limits of the WTO URAA commitments, although dairy products are close to the limits. In order to control the exports of some agro-food products, the government applied a system of non-automatic ***export licences.*** From October 2001, the government cancelled the non-automatic export licences for crops and crop products, and for 2002 all export licences were abolished.

3.4. *Overall evaluation*

Agricultural policies in the Czech Republic have developed in the context of a transition towards a market economy and in preparation for entry into the EU. There was a sharp decline in support to agriculture in the period 1986-97, but since 1998 support has been increasing, reflecting a rise (although fluctuating) in market price support (MPS) and increasing budgetary payments. While market liberalisation reforms dominated the first half of the 90s, the second half of the 90s was characterised by increasing market regulation in domestic markets, as well as increasing budgetary payments to agriculture.

In 2002, the percentage PSE is estimated to have increased by 5 percentage points over 2001 to 28%, which is only slightly lower than the in the early 90s, the start of the economic reforms. The increase in 2002 is due to a rise in market price support, which was only partially offset by a reduction of payments (Table III.46). The rise in MPS in 2002 occurred despite the reduction in domestic prices because of the larger reduction of world market prices expressed in CZK (due to lower world prices in USD and particularly the strengthening of the CZK against the USD in 2002). (Table III.47) The level of support varies considerably across commodities, from close to zero for grains and oilseeds to over 30% for sugar and livestock commodities. The increase in market price support in 2002 resulted in consumers at the farm gate paying 27% more than world market prices, compared to 18% more in 2001 (NPC). An increase in the implicit taxation of consumers is particularly burdensome for a transition economy where the share of household expenditure on food is relatively high (around 25%). Total farm receipts were 39% higher than they would have been if generated entirely in the market at world prices, while prices received by farmers were on average 28% above the world market level in 2002. Total support to agriculture remained at the 2001 level at around 1.7% of GDP, which is above the OECD average. (Tables III.18 and III.19)

While the share of support related to output and based on inputs increased from 73% in 2001 to 86% of producer support in 2002, this is below the 1991-93 level of 98%. Nevertheless, support to farmers remains largely based on measures that have potentially the largest effects in terms of stimulating production and input use, reducing trade and raising pressure on the environment, while having the lowest effectiveness in transferring incomes to farmers. There are no agri-environmental measures, but payments to support extensive forms of farming have the potential to reduce environmental pressure in specific areas.

Overall, the recent evolution of agricultural policies indicates a move away from the previous trend towards market orientation. This is partly due to the introduction of CAP type policies as the country moves closer to joining the EU, but also to not sufficiently addressing impediments in responding to world price and exchange rate developments. Continuing reforms are necessary to improve the functioning of markets and enhance the market orientation of the agricultural sector.

4. European Union

4.1. *Main policy instruments*

Market price support, and area and headage payments are the main policy instruments. The *Agenda 2000* Common Agricultural Policy (CAP) reform package provides the basic legislative framework governing agricultural policy for the period 2000-06. This reform package entails a gradual reduction of administered prices for cereals, and for beef

and veal, which is partially compensated by budgetary payments. Market price support, where applied, is provided through institutional prices, export subsidies, tariffs and tariff-rate quotas (TRQs) and is often combined with production quotas or land set-aside. Area payments for arable crops are based on historic, regional yields and are conditional on planting and on a set aside requirement. 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 intervention prices for oilseeds and protein crops (peas, beans and sweet lupins). The sugar support regime comprises intervention prices and production quotas, while producers (growers and processors) jointly pay the cost of disposing of production in excess of the quota through producer levies. The support regime for cereals and sugar also comprises trade protection through tariffs, TRQs and export subsidies.

Intervention prices and production quotas are used for milk in conjunction with import protection and export subsidies. Beef is supported by basic prices, headage payments based on fixed, reference livestock numbers subject to limits on stocking density, tariffs, TRQs and export subsidies. Support for pigmeat is provided by basic prices, import protection and export subsidies. For sheepmeat, the support regime comprises a premium granted to sheep and goat producers, tariffs and TRQs, with most country-specific TRQs subject to a zero customs duty. For poultry and eggs, there are no intervention prices, although there are TRQs and export subsidies.

The EU rural development regulation of Agenda 2000 or "second pillar" of the CAP includes accompanying measures such as agri-environmental measures, early retirement schemes, afforestation, and payments to assist farmers in Least Favoured Areas (LFAs). These measures are co-financed by EU member States, which can draw from the list of available measures to design programmes that can be tailored to the specific conditions facing their rural areas. Only agri-environmental measures are compulsory and therefore account for the highest share of expenditures. They allow payments to be made in return for agri-environmental commitments entered into by farmers, which go beyond good agricultural practice. Other measures such as farm investment, the installation of young farmers, training, investment aid for processing and marketing facilities, additional assistance for forestry, promotion and conversion of agriculture, are also either co-financed or entirely financed by EU member States.

In July the Commission put forward proposals for CAP reform in a communication to the Council and the European Parliament. A legal text containing revised proposals on "A long-term perspective for sustainable agriculture" (previously called "Mid-Term Review") was released at the end of January 2003. They are summarised in Box 5.3.

4.2. Developments in domestic policies

In the marketing year 2003/02, ***intervention prices*** for cereals, rice, sugarbeet, milk and pigmeat remained unchanged. The intervention prices for beef and the basic price for sheepmeat were abolished. However, in the case of beef, a basic price for storage was set 26% below the intervention price in 2001/02 (Table 5.3). In 2002, 70% of budgetary expenditures went to arable crops (cereals and oilseeds), beef, dairy and olive oil. Total budgetary expenditures for 2002 amounted to EUR 43 billion (USD 40.5 billion), 2% higher than 2001 actual expenditures.

As the cereals intervention price remained unchanged in 2002/03, the rate of ***area payments*** for cereals, the ***set-aside*** rate and the rate of area payment for ***grass silage*** and

Box 5.3. **Proposals for CAP reform**

On 22 January 2003, the Commission submitted proposals for CAP reform to the Council. They are presented in COM(2003)23 final, "A long-term policy perspective for sustainable agriculture" (previously called "Mid-Term Review"). The Council will discuss them in the course of 2003.

Adjustments to common market organisations

- Implementation of the final 5% cut in intervention price for **cereals** first proposed by the Commission in Agenda 2000, and compensation for this reduction at a rate of 50% by increasing the payment rate per hectare (ha) by EUR 3/tonne, to EUR 66/tonne. Monthly increments to intervention prices to be abolished.
- Abolition of intervention for **rye**.
- For **durum wheat**, reduction of the supplementary payment to EUR 250/ha in "traditional areas", phased in over three years; phasing out of the special supplementary payment in "established areas"; and introduction of a high quality premium of EUR 40/ha.
- No changes for **oilseeds**.
- A one step reduction of the intervention price for **rice,** by 50%, compensated at a rate of 88% through higher payments per hectare. As a result, existing payments would increase from EUR 52/tonne to EUR 177/tonne of the reference yield. Of this, EUR 105/tonne multiplied by the 1995 reform yield would become a single payment per farm (see below). The remaining EUR 75/tonne multiplied by the 1995 reform yield would remain crop specific.
- Introduction of a new maximum guaranteed area of 1.4 million ha for **protein crops** and conversion of the current payment per tonne into a crop-specific area payment of EUR 55.57/ha.
- Abolition of the minimum price for starch potatoes.
- Current arrangements for **dried fodder** would be replaced with an income support envelope for farmers of EUR 133 million (USD 125 million) to be distributed between Member States and paid to producers based on historical deliveries. A degressive payment starting from EUR 33/tonne for the processing industry would be maintained for four years.
- Current arrangements for **nuts** would be replaced by a flat rate payment of EUR 100/ha that could be topped up by a maximum of EUR 109/ha by the Member states, for a maximum guaranteed area of 800 000 ha.
- For **beef**, it is proposed to transfer current headage payments into a new single farm payment based on historical entitlements.
- For **milk and dairy products**, it is proposed to start reform one year ahead of the Agenda 2000 schedule (2007). A 1% additional increase in the quota for 2007 and 2008 (from the 1999 level) is suggested. The foreseen uniform reduction of 5% per year will be replaced by asymmetric annual cuts in intervention prices of 7% for butter and 3.5% for skimmed milk powder over a five-year period. Overall, this 35% reduction in butter prices and 17.5% reduction in skimmed milk powder prices would correspond to a reduction of 28% in EU target prices for milk over 5 years. The quota system would be prolonged until 2014.
- Common market organisations for **other commodities** such as sugar, olive oil, wine, tobacco, etc., were not reviewed and no changes are therefore proposed in the Commission paper, though reference is made to possible future reform initiatives in some of these sectors.

Box 5.3. **Proposals for CAP reform** *(cont.)*

Simplification and decoupling of payments

- Introduction of a single decoupled farm payment (based on historical entitlements for the period 2000-02) to replace most of the existing area and livestock payments. Initially, the payment would incorporate previously existing payments for cereals, oilseeds, grain legumes, seeds, milk and dairy products, beef, sheep and goats, part of the payment for rice, half of the payment for starch potatoes and producer support to dried fodder. Other sectors could follow later. However, some payments would be excluded, in particular the specific quality premia for durum wheat, a new stand-alone protein crop supplement, the crop-specific payment for rice and the area payment for nuts. Farmers receiving the new single farm payment would have the flexibility to farm all products on their land, including those receiving coupled support. There are some explicit exceptions such as permanent crops. The payment will be established at the farm level but to facilitate land transfers, it is proposed to divide the total amount by the number of eligible hectares on the farm. However, it would be possible to transfer entitlements by sale with or without land.

Strengthening sustainable agriculture and rural development

- At the whole farm level, payments would be conditional on a certain number of EU **statutory** environmental, food safety, animal health and welfare and occupational safety **standards,** which would effectively become mandatory. The standards would be defined by Member States following a common framework.
- From 2007, establishment of a Community wide **farm advisory system** to apply to all farmers receiving over EUR 15 000 (USD 14 136) in payments per year, or with an annual turnover topping EUR 100 000 (USD 94 240).
- Introduction of compulsory **long-term set-aside** (10 years) on arable land, as part of the cross-compliance requirements to receive direct payments, equivalent to 10% of cereals, oilseeds and protein crops area.
- Replacement of existing arrangements for non-food crops with a **carbon credit**, *i.e.* a non-crop specific aid of EUR 45/ha for energy crops with a maximum guaranteed area of 1.5 million hectares.
- Introduction of gradual reductions in the single farm payment (called "degression") for the period 2006-12 (Box Table 5.3.1). Starting in 2006, the overall reduction would reach 12% in 2008 and 19% in 2012, at the end of the implementation period. The modulation part of degression, starting at 1% in 2006 rising to 6% in 2011, would be made available to the Member States as additional Community support for measures to be included in their rural development programmes. These amounts would be allocated between Member States according to agricultural area, agricultural employment and GDP per capita defined in purchasing power parity terms. The remaining amounts would be available for additional financing needs for new market reforms. Degression and modulation would not apply in the new Member States until direct payments reach the EU-15 level.
- **New rural development measures** to promote environment, animal welfare, food quality and safety are proposed to strengthen the "second pillar" of the CAP as follows:
  - Farmers would be offered incentives to participate in quality assurance and certification schemes, including geographical indications, designation of origin and organic farming. There would also be support for producer groups to promote these agricultural products. From 2007 Member States would have the option to grant additional payments of EUR 1 500 (USD 1 414) a year, for a period of five years, to farmers who meet high food quality standards.

Box 5.3. **Proposals for CAP reform** *(cont.)*

- Financial assistance would be introduced to help farmers to adapt to demanding standards based on EU legislation in the field of the environment, food safety and animal welfare. Payments would be granted for a maximum of five years. Annual payments would be degressive and a maximum of EUR 10 000 (USD 9 424) per farm would be set. Support would also be available for the implementation of farm audits.
- Within the agri-environment chapter, animal welfare payments could be offered for efforts that go beyond a mandatory reference level in line with agri-environment schemes. In addition, it is proposed to increase the fixed co-financing rate for these measures by a further 10 points, to 85% in areas covered by Objective 1 and to 60% in other areas.
- The scope of assistance to marketing activities and setting-up of farm relief and management services would be widened to include the above new measures.

Box Table 5.3.1. **Degression and modulation**

% reduction in single farm payments

		2006	2007	2008	2009	2010	2011	2012
A	% General reduction in direct payments	1	4	12	14	16	18	19
	% Total reduction applying successively to the different tranches of direct payments							
B	From 1 to 5 000 EUR	0	0	0	0	0	0	0
C = (A + E)/2	From 5 001 to 50 000 EUR	1	3	7.5	9	10.5	12	12.5
D = A	Above 50 000 EUR	1	4	12	14	16	18	19
E	Of which % of the direct payments destined for the Rural Development budget							
	From 5 001 to 50 000 EUR	1	2	3	4	5	6	6
	Above 50 000 EUR	1	2	3	4	5	6	6
F	Of which % of the direct payments destined for financing proposed market reforms							
	From 5 001 to 50 000 EUR	0	1	4.5	5	5.5	6	6.5
	Above 50 000 EUR	0	2	9	10	11	12	13

A: Degression; B to D: By tranche of direct payment; E: Modulation – Destined for the rural development budget; F: Destined for financing future market needs.
Source: Commission of the European Communities, COM(2003)23 final, Brussels, 21 January 2003.

protein crops were also maintained at their 2001/02 level (Table 5.4). For ***oilseeds***, including ***non -textile linseed***, the area payment rate was reduced to EUR 63 (USD 59) per tonne from 2002/2003 onwards to align it with the area payment for cereals and the payment for set-aside land. The payment for ***potato starch*** was maintained at EUR 110.54 (USD 104.17) per tonne in 2002. Potato starch manufacturers are to be paid a starch premium of EUR 22.25 (USD 20.97) per tonne, provided that producers are paid a minimum price for potatoes intended for starch production. The potato starch quota was prolonged for three years at its 2001/02 level (1 762 148 tonnes). The support system is maintained and the budget is unchanged in real terms, starting at EUR 234 million (USD 220 million) in 2003.

EU ***sugar*** quotas were cut by 862 475 tonnes to 13.6 million tonnes in the 2002/03 marketing year in order to comply with the restrictions on export subsidies contained in the Uruguay Round Agreement on Agriculture of the WTO.

Table 5.3. **European Union: selected institutional prices**

Product	2001/02		2002/03		Change in EUR price 2001/02 to 2002/03
	EUR/t	USD/t	EUR/t	USD/t	%
Cereals[1]	101	95	101	95	0.0
Rice	298	281	298	281	0.0
Sugarbeet[2]	48	45	48	45	0.0
Milk[1]					
Skimmed milk powder	2 055	1 937	2 055	1 937	0.0
Butter	3 282	3 093	3 282	3 093	0.0
Beef and veal[3]	3 013	2 840	2 224	2 096	–26.2
Pigmeat[2]	1 509	1 422	1 509	1 422	0.0
Sheepmeat[2]	5 041	4 750	n.a.	n.a.	n.c.

n.a.: not applicable; n.c.: not computable.
Notes: 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. Intervention prices.
2. Basic price.
3. For 2001/02, intervention price for R3 grade beef carcass and for 2002/03, basic price for storage.
Source: European Commission.

Support to ***hops, flax, hemp, cotton, tobacco and olive oil*** is mainly production-related. The area payment for ***hops*** will be EUR 480 (USD 452) per hectare in 2002/03. Payments for ***seeds*** are to be kept unchanged for the 2002/03 and 2003/04 harvests. The ***tobacco*** regime was extended for three years, with a 10% reduction in payments for low-grade tobacco. It was also decided that 3% of the funds allocated to tobacco payments in 2003 would be used to finance re-conversion measures for tobacco growers as well as campaigns against tobacco consumption. From November, Members States can finance producer groups among ***olive oil*** producers by means of a deduction from the production aid. The regime for ***nuts*** was rolled-over for one year on the condition that this will be the last time it is renewed as such.

The new ***sheepmeat*** and ***goatmeat*** regime came into force in January 2002. The most notable change is the replacement of the existing variable deficiency payments by a fixed premium. The level of the premium is EUR 21 (USD 19.8) per ewe, based on the average premiums paid from 1993 to 2000, with a reduced amount of EUR 16.8 (USD 15.8) for sheep and goat milk producers. For producers in LFAs, a single rate of EUR 7 (USD 6.6) per animal for the supplementary premium was established (the so-called "rural world premium"). Individual limits on producers' premium rights were retained. Further a total of EUR 72 million (USD 68 million) was granted allowing EU member States to make additional payments, such as headage payments, payments for specific types of production, support for restructuring, improvements of processing or marketing. They can also opt for a simple across-the-board top-up to the per head premium for all sheep farmers. In addition to budgetary payments, aid to private storage is also available.

For 2002/03, the ***dairy*** quota was unchanged at 119 million tonnes. For the period 2001/02, nine Member States had overrun their quota for a total of 775 579 tonnes. Consequently, the levy amounts to EUR 276 million (USD 260 million).

EU member countries agreed to cut down the number of checks on CAP payments. The minimum amount over which 50% of transactions should be audited was raised from EUR 100 000 to EUR 150 000 (USD 141 400).

Table 5.4. **European Union: area and headage payment rates**

	2001/02		2002/03		Change in EUR price 2001/02 to 2002/03 %
	EUR/t	USD/t	EUR/t	USD/t	
Cereals	63.0	59.4	63.0	59.4	0.0
Oilseeds (cereal equivalent)	72.4	68.2	63.0	59.4	–12.9
Grass silage[1]	63.0	59.4	63.0	59.4	0.0
Protein crops	72.5	68.3	72.5	68.3	0.0
Non-textile linseed	75.6	71.3	63.0	59.4	–16.7
Set aside payment	63.0	59.4	63.0	59.4	0.0
	EUR/head	USD/head	EUR/head	USD/head	
Beef					
Suckler cow premium	182.0	171.5	200.0	188.5	9.9
Special beef premium					
Bull[2]	185.0	174.3	210.0	197.9	13.5
Steer[3]	136.0	128.2	150.0	141.4	10.3
Deseasonalisation premium					
Extensification premium[4]	–	–	–	–	–
Stocking density=>1.6<2 LU/ha[5]	33.0	31.1	40.0	37.7	21.2
Stocking density<1.6 LU/ha[5]	66.0	62.2	80.0	75.4	21.2
Slaughter premium					
Adult bovines	53.0	49.9	80	75.4	50.9
Calves	33.0	31.1	50	47.1	51.5
Sheepmeat					
Ewe premium[6, 7]	Basic price minus market price		21	19.8	n.c.
Additional ewe premium/LFAs	5.9 – 6.6	5.6 – 6.2	7	6.6	n.c.

n.c.: not computable.

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

1. Eligible for payments only in Sweden and Finland.
2. Claimable once in the lifetime of the younger bull.
3. Claimable twice in the lifetime of the steer.
4. Available in addition to the suckler cow and special beef premium. Member States have the option of introducing either a single rate or a two-tier system with differentiated rates of compensation depending on stocking densities. If stocking density is less than 1.4 livestock unit per hectare, the premium increases to EUR 100 per head.
5. From 2002 onward, stocking density limits are 1.4 and 1.8 instead of 1.6 and 2 LU/ha.
6. The basic price is adjusted for the budget stabiliser which since 1993 has been fixed at 7% of the basic price. The market price is the arithmetic mean of the weekly average weighted prices on the representative EU market. As the difference is per 100 kg carcass weight, a technical coefficient is used to convert the premium to a per ewe basis.
7. EUR 16.8 per head for ewe milk producers.

Source: European Commission.

Funding for the "second pillar" (***Rural Development Regulation***) of the CAP for the period 2000-06 amounts to EUR 105 billion (USD 99 billion), excluding payments for the Leader+ programme. This is being co-financed by the EU member States, with almost half coming from the EU budget. At the EU level, over three-quarters of expenditure has been allocated to the four "accompanying measures", the rest being used for structural measures. At EUR 4.6 billion (USD 4.33 billion), EU funds available for 2002 were 5% higher than actual expenditures for 2001. At the beginning of 2002, two countries, France and the United Kingdom were using modulation to redirect part of the EU payments from the first pillar into the second pillar, but France abandoned modulation in May (see section on French policy changes) and Germany decided to apply it in December.

The EU also provides finance for ***Leader+***, an initiative, which aims to encourage and support a series of small-scale pilot approaches to integrated rural development at local level in selected rural areas of the EU. The total EU contribution over the 2000-06 period is

over EUR 2 billion (USD 1.88 billion), financed by the European Union agriculture budget under the EAGGF-Guidance Section. Some 73 programmes have been submitted, of which 72 have now been adopted by the European Commission.

The Multi-annual and Annual Financing Agreements (***SAPARD*** programmes) with the ten Central and Eastern European applicant countries outline EU management and control rules for agriculture and rural development programmes in the candidate countries. The overall budget in each year of the programme's seven-year operation (2000-06) amounts to EUR 529 million (USD 496 million). Additional funds were adopted for 2002 (EUR 554 billion or USD 520 billion) allocated to the ten accession countries. The deal includes special provisions for natural disasters such as the floods that devastated much of Central Europe during the summer of 2002 (see below).

For the third consecutive year, an aid totalling EUR 485 million (USD 455 million) per year will be available for the ***restructuring and conversion of vineyards*** for the 2002/03 marketing year. The main recipients are Spain, Italy and France, with Portugal and Austria getting the remainder.

An evaluation of the "***Nitrate***" ***Directive*** [COM(2002)407] was released in September. It calls for a cost-efficiency evaluation of measures prior to their implementation, a reinforcement of surveys and controls and the introduction of dissuasive penalties to improve the application of the Directive.

Targets for the use of ***biofuels*** were set in November. The minimum proportion of biofuel in all fuels used for transport purposes (on the basis of energy content) should increase from 2% to 5.75% by December 2010.

The Commission announced the creation of a special aid fund of between EUR 500 million (USD 469 million) and EUR 1 billion (USD 0.9 billion), in the event of natural, technological or environmental ***disasters***, available to both Member States and applicant countries. As a response to flooding, new measures concerning agriculture were made available: derogations to allow grazing on set-aside land, advances on direct payments, cereals from intervention stocks sold at a discounted price to farmers for animal feed, and derogations and faster procedures for decisions on rural development assistance. Grazing on set-aside was allowed in Austria, Germany, Ireland and the United Kingdom. Farmers in flooded regions of Germany received advances of 50% of arable payments, with EUR 516 million (USD 486 million) being brought forward from the 2003 budget. Discounts on feed cereals sold to farmers in flooded areas of Austria should cost EUR 1.5 million (USD 1.4 million). Farmers in Southern parts of Italy affected by persistent drought received advances on 50% of arable payments at a total cost of some EUR 300 million (USD 283 million). The Commission proposed to increase support to help restore rural areas in the Czech Republic and the Slovak Republic, which have been heavily affected by floods. To this end, the ceiling of public aid in agriculture SAPARD will be increased from 50% to 70% and the EU contribution from 75% to 85%.

The Commission approved funding of EUR 132 million (USD 124 million) of EU assistance to combat ***animal disease*** during 2003. Some EUR 94 million (USD 89 million) will be available to subsidise BSE test kits, EUR 38 million (USD 36 million) to tackle diseases that affect humans in general and EUR 10 million (USD 9 million) to combat bovine brucellosis, mainly in Spain. New measures to combat Classical Swine Fever were adopted, including a ban on exports of live pigs, semen and embryos from affected regions, and restrictions on movements of pigs from these regions within the EU. In January 2002,

the International Animal Health Office FMD and Other Epizootics Commission recognised that the UK has regained its FMD-free status without vaccination and thereby declared the EU as again FMD free. Plans to eliminate scrapies were approved. The scheme focuses primarily on increasing the number of scrapie-resistant animals in the EU sheep and goat flock, by slaughtering non-resistant animals and restricting imports to resistant animals. It would build on national systems already functioning in the Netherlands, the UK and France (see section on Member States)

The new EU ***food*** law agreed in 2001 came into force. It combines and clarifies existing requirements set out in seventeen separate Directives. The new law will be directly binding on EU citizens. The "rapid alert system" for notification of food risks was revised and now includes contamination in animal feed. In particular, the Commission will have new powers to impose restrictions or emergency measures on its own authority, although Member States will then have to give their agreement. A new European Food Safety Authority was created. A Hazard Analysis Critical Control Point (HACCP) system was adopted as a means to identify points in the production chain where control is critical to ***food safety***. An agreement was found in December to harmonise and simplify EU hygiene rules for food of animal origin. All food of animal origin would bear an identification mark of approval from an identified food business operator and all meat carcasses would bear a mark confirming the approval of official veterinary services. Exemptions are provided for to the extent that they do not compromise food hygiene objectives.

In March, the EU Commission announced plans to end the use of ***antibiotics*** in animal feed as of 2006. As part of this process, an agreement was reached in December. It was decided to add four substances to the existing list of banned products; to restrict authorisation of new feed additives on the market to specific animal species; to limit marketing licences to a duration of 10 years; to request firms to re-evaluate additives within seven years of their release on the market; and to establish maximum residue limits for some additives. As part of a plan to re-evaluate ***pesticide use***, 320 pesticides used in plant protection products are to be withdrawn from the market by mid-2003.

On ***animal welfare***, the Commission negotiated the ongoing review of the European Convention of the Council of Europe for the protection of animals during international transport. The new Convention was adopted and is now legally binding.

The second phase of rules for compulsory beef ***labelling*** was introduced as from January 2002. Compared to the existing legislation, beef labels will now have to include, in addition to the place of fattening, slaughtering and butchering of the beef, precise information about where the animal was born and reared. New rules on the labelling of meat based on a strict definition of meat as muscle attached to bone also came into force in January 2003.

The EU commission adopted clearer rules on labelling of wine in May. They will come into force in January 2003 and will provide more information to consumers about the alcohol content, the registration number, the name of the bottler, the commercial denomination and volume. Olive oil marketing standards were modified to clarify the labelling of olive oil and related products. Feta cheese became a Protected Designated Origin name. It can only be produced in certain regions of Greece with strict control on the production method.

At the end of the year EU environment Ministers agreed the text of a draft regulation for the labelling and tracing of ***GMOs*** and products produced from GMOs, which will

complement the regulation adopted by Agriculture Ministers for GM food and feed. To ensure traceability, all products made from or containing living GMOs must be labelled as such, and this information must accompany products throughout the entire production chain. In practice, a code system will be used to identify every GMO, at every stage of the production chain except the final retail stage. The labelling of GMOs will become compulsory for all products containing a percentage of GMO material higher than 0.9%. The moratorium on the approval of GM products is, however, still in place.

Forty programmes to provide ***information*** on quality and to ***promote*** agricultural products within the EU market have been approved by the EC covering wine, fruit and vegetables, cheese, dairy products, flowers, green plants, pigmeat and organic products. The estimated total cost of the measures is EUR 64 million (USD 60 million), half of which is financed by the EU.

The EU signed a UN ***biodiversity*** Treaty on Plant Genetic Resources for Food and Agriculture, under which countries commit to share knowledge on plant and animal varieties used in farming.

4.3. Developments in trade policy

In 2002, the total amount spent on export subsidies is estimated to have been close to EUR 3 billion (USD 2.8 billion). In 2001/02 subsidised exports were well below WTO limits, although for cheese and "other milk products" around 90% of the allowable subsidised quantities were used. According to the most recent EU ***notifications to the WTO*** on export subsidies, in the marketing year 2000/01, the EU resorted to the roll-over of export subsidies for a number of products including wheat, coarse grains, sugar, processed fruit and vegetables, wine, beef meat, pigmeat, skimmed milk powder and butter.

On market access, tariff-quotas were significantly under-utilised for a number of products including sheep meat, manioc, sweet potatoes, common and durum wheat, maize, oats, sorghum, broken rice, citrus, lemons, oranges, fresh apricots, mushrooms, orange juice, grape juice, pigmeat, some cuts of bovine meat, chicken meat, eggs in shell, skimmed milk powder, Emmenthal and pizza cheese in 2000/01. As in 1999/2000, the share of the EU's individual tariff-quotas that were fully filled was one-third, while ten of the 84 individual TRQ registered a fill rate of zero in 2000/01 compared to three in the previous period.

Concerning the use of special safeguard provisions (SSG), the EU notified the WTO that, for the marketing year 2000/01, the price-based SSG was invoked for sugar, molasses and a number of poultry products, whilst the volume-based SSG was made operational for some fruit and vegetable products. EU expenditure on international ***food aid*** increased by 10%, to EUR 357 million (USD 336 million) in 2002.

Following a legal challenge at the WTO won by the United States, the EU however confirmed the ban on a growth hormone used in meat production (17 beta oestradiol) was permanent and the provisional ban on five others was maintained.

The new ***banana*** import regime came into force (see the 2002 *Monitoring and Evaluation Report*). A tariff-only system is due to start on 1 January 2006 at the latest. As from 1 January 2002, 100 000 tonnes of banana imports are transferred from the C quota to the B quota (*i.e.* available to all suppliers), and the remaining 750 000 tonnes of the C quota are reserved for bananas of ACP origin.

A new import quota regime for wheat of low and medium quality was introduced in January 2003. The level of the import quota was set at 2.981 million tonnes of wheat comprising 572 000 tonnes from the United-States (subquota I), 38 000 tonnes from Canada (subquota II) and 2.371 million tonnes from other countries (subquota 3). The in-quota tariff is set at EUR 12/tonne (USD 11/tonne), while a tariff of EUR 95/tonne (USD 90/tonne) will apply to imports above the quota. An agreement was made in November with the US and Canada but discussions are still on-going with Russia and Ukraine. A global import quota of 300 000 tonnes (with a tariff of EUR 16/tonne, USD 15/tonne) has also been set for barley, plus an extra 50 000 tonne (with a tariff of EUR 8/tonne, USD 7.5/tonne) for malting barley. Above quota tariff was set at EUR 93/tonne (USD 88/tonne).

In the context of the European Agreements with ten Central and Eastern European countries (see Box 5.4), agricultural trade deal agreements (called the "double profit" pre-accession trade scheme) came into force between the EU and a number of accession countries (Hungary, Estonia, Latvia and Lithuania in July; Slovenia, Slovakia, the Czech Republic and maybe Bulgaria in January 2003). Preferential trade between the parties is expected to increase with a number of products benefiting from total mutual liberalisation, new duty-free concessions being granted (either within quotas or for unlimited quantities) and tariffs being reduced. Slovenia, Hungary and Estonia completed negotiations with the EU on Sanitary and Phytosanitary aspects of EU accession.

The EU and Lebanon reached a farm trade agreement under which the EU will abolish duties and quotas for almost all farm and agro-food imports from Lebanon from 2002. However, the EU set zero tariff quotas that will gradually increase for a list of Southern European products, and kept a low duty on some processed products. Lebanon has undertaken to dismantle its import tariffs on EU agricultural products in five years time and will reduce duties for agro-food products from the EU over six years, starting in six years time. A new free trade deal between the EU and Chile was struck. It will fully liberalise 90% of trade in farm products between the two parties within 10 to 12 years following the ratification of the deal. The EU and Norway agreed further liberalisation of trade in farm goods that should come into force in July 2003. The agreement extends existing duty-free arrangements and adds new lines, notably for cheeses, meats, fruits, vegetables, flowers and ornamental plants.

A number of other trade measures were taken or implemented in 2002:

- Meat imports from Paraguay and neighbouring parts of Brazil were suspended following an outbreak of FMD in Paraguay. The EU imposed an import ban on a range of agricultural products originating from China (Honey, rabbitmeat, poultry, petfood and seafood) because of fears of contamination after EU food inspectors found traces of dangerous chemicals, including antibiotics (chloramphenicol), in Chinese products. It was relaxed in May.
- The EU granted pigmeat exporters private storage aid from December, for three to five months. The payment, ranging between EUR 164 (USD 155) and EUR 421 (USD 397) per tonne, depending on the type of cut and the requested storage period, is meant to help exporters accumulate stock for shipments to Japan, which should resume in April 2003, after the 24% tariff imposed August 2002, will have been eliminated.
- The ban on imports of fresh meat from all susceptible species from Argentina, imposed following the outbreak of FMD in that country in 2001, was lifted in January 2002. Imports from parts of Brazil affected by FMD were banned in November.

Box 5.4. **EU enlargement and agriculture**

On 13 December 2002, provisions for extending membership of the EU to ten new Member States were agreed at the Copenhagen Summit. In consequence, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, the Slovak Republic and Slovenia will join the EU on 1 May 2004. Accession treaties are to be signed in Athens on 16 April 2003. National referenda on accession will be organised in each of the ten applicant countries from March to November and ratification will take place in new and current Member States.

The provisions are as follows. Farmers from new Member States will have immediate access to CAP market measures, such as export refunds, and intervention mechanisms. Production quotas, reference yields and base areas have been set for new Member States, based on recent historical reference periods for which data were available (Box Table 5.4.1). Direct aids will be phased in over ten years as shown in Box Table 5.4.2. New Member States will first receive 25% of the full EU-15 payment rate from the EU budget, rising gradually to 100% by 2013. During the phase-in period, the new Member States may complement EU funds for direct payments by national contributions up to 55% in 2004, 60% in 2005 and 65% in 2006 of the full EU-15 payment rate, and, from 2007, up to 30% above the applicable phasing-in level for direct payments for the relevant year. Until 2006, the national supplementary payments can be co-financed up to 40% of payment level from rural development (RDR) funds. Special provisions have been agreed for Cyprus and Slovenia to take account of their internal support systems prior to accession. During the first three years, new Member States will have the option to grant direct payments in the form of a simplified, decoupled, area payment applied to the whole agricultural area.

The new Member States will receive a rural development package worth EUR 5.1 billion (USD 4.8 billion) in 1999 prices (EUR 5.7 billion in current prices) for the years 2004-06. Its scope is broader to suit their specific requirements. A wide range of measure, co-financed at a maximum rate of 80% will be available:

- early retirement of farmers;
- support to less favoured areas or areas with environmental restrictions;
- agri-environmental programmes;
- afforestation of agricultural land;
- specific measures for semi-subsistence farms;
- setting up of producer groups;
- technical assistance;
- special aid to meet EU standards.

Additional rural development measures will be financed from the Structural Funds (EAGGF Guidance Sector).

The overall cost of such programmes will be EUR 9.8 billion (USD 9.2 billion) over the period 2004-06 (Box Table 5.4.3).

Seven new Member States from Central and Eastern Europe have been granted a seven-year transitional period regarding the acquisition of agricultural land and forests by EU citizens with a safeguard clause under which the transitional period may be extended for a maximum of three years. This transition period does not apply to Slovenia and Poland has been granted a 12-year transitional period.

The Summit reiterated its support for the accession of Romania and Bulgaria to the EU in 2007. The EU also agreed a formula for the commencement of accession negotiations with Turkey. The European Council will decide in December 2004, whether negotiations with Turkey can commence in 2005.

Box Table 5.4.1. **Final quotas, reference yields and base areas**

	Unit	Cyprus	Czech Rep.	Estonia	Hungary	Latvia	Lithuania	Malta	Poland	Slovakia	Slovenia
Arable area	ha	79 000	2 253 600	362 827	3 487 792	443 580	1 146 633	4 600	9 454 671	1 003 500	125 200
Arable yield	t/ha	2.3	4.2	2.4	4.73	2.5	2.7	2.02	3	4.06	5.27
Potato starch quota	tonne	0	33 660	250	0	5 778	1 211	0	144 985	700	0
Sugar quota[1]	tonne	0	454 862	0	401 684	66 505	103 010	0	1 671 927	207 432	52 973
A quota		–	441 209	–	400 454	66 400	103 010	–	1 580 000	189 760	48 157
B quota		–	13 653	–	1 230	105	0	–	91 926	17 672	4 816
Isoglucose	tonne	0	0	0	137 627	0	0	0	26 781	42 547	0
A quota		–	–	–	127 627	–	–	–	24 911	37 522	–
B quota		–	–	–	10 000	–	–	–	1 870	5 025	–
Milk quota - total		145 200	2 682 143	624 483	1 947 280	695 395	1 646 939	48 698	8 964 017	1 013 316	560 424
deliveries	tonne	141 337	2 613 239	537 118	1 782 650	468 943	1 256 440	48 698	8 500 000	990 810	467 063
direct sales	tonne	3 863	68 904	87 365	164 630	226 452	390 499	0	464 017	22 506	93 361
Milk quota - 2006 reserve[2]	tonne	–	55 788	21 885	42 780	33 253	57 900	–	416 126	27 472	16 214
Beef national envelopes	EUR	308 900	8 776 000	1 134 500	2 936 100	1 330 680	4 942 300	n.a.	27 300 000	4 500 535	2 959 970
Beef slaughter premia adult	head	19 300	483 400	107 813	141 600	124 300	367 484	6 000	1 815 400	204 062	161 137
Beef slaughter premia calves	head	0	27 400	30 000	94 400	53 280	244 200	20	839 500	62 841	35 852
Beef special premia	head	11 300	244 349	13 600	81 620	70 200	150 000	3 200	926 000	78 348	92 300
Suckler cow premia	head	500	90 300	13 416	117 000	19 368	47 232	450	325 600	28 080	86 384
Ewe premium rights	head	472 400	66 733	27 501	1 026 910	18 437	17 304	8 500	335 900	305 756	84 900
Sheep national envelopes	EUR	441 000	71 000	29 000	1 086 000	19 000	18 000	–	355 000	323 000	86 000

n.a.: not available.

1. Slovenia also has a sugar refining quota of 19 585 tonnes.
2. Reserve to provide quota for expected reduction in on-farm consumption (and hence increased demand for direct sales and/or delivery quotas.

Source: European Commission.

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Box 5.4. **EU enlargement and agriculture** *(cont.)*

Box Table 5.4.2. **CAP direct payments as a % of full EU rate**

Years	EU contribution	National supplement	Overall maximum payment rate
2004	25	30	55
2005	30	30	60
2006	35	30	65
2007	40	30	70
2008	50	30	80
2009	60	30	90
2010	70	30	100
2011	80	20	100
2012	90	10	100
2013	100	0	100

Source: European Commission.

Box Table 5.4.3. **Maximum enlargement related commitment appropriations for agriculture, 2004-06**

EUR million, 1999 prices	2004	2005	2006	Total 2004-06
Heading 1. Agriculture	1 897	3 747	4 147	9 791
of which:.				
1a - Common Agricultural Policy	327	2 032	2 322	4 681
1b - Rural development	1 570	1 715	1 825	5 110

Source: European Commission.

- The EU imposed anti-dumping duties on urea-based fertilisers from seven Central and Eastern European Countries plus Libya for a duration of five years.
- The trade agreement on wines and spirits between the EU and South Africa came into force in January. It includes the protection of geographical indications, the mutual recognition of production practices, import certificates, an increase in the South Africa import quota from 32 to 42 million litres and a EU EUR 15 million (USD 14 million) assistance to the South African wine sector for restructuring.
- A new Generalised Scheme of Tariff Preferences (GSP) for the years 2002-04 entered into force on 1 January 2002. Currently 142 countries are eligible for the GSP.
- EU accepted New Zealand's official organic assurance programme, recognising its equivalence to the EU system for a range of New Zealand organic products including dairy, fruit, honey and meat.
- The EU adopted the Cartagena Protocol on trade in Living Modified Organisms (LMOs) in June 2002. In doing so, it agrees to offer information on handling, transport, packaging and identification on any shipment of LMO products and seeds. The Protocol will come into force when 50 signatory countries have notified ratification. The issue of adventitious presence of LMOs in conventional products and seeds is still being discussed.

4.4. Overall evaluation

Long run agricultural policy developments in the EU are characterised by a steady, but modest decline in support, with some improvement in market orientation and a significant reduction in market protection. Support to producers, as measured by the %PSE, declined from an average of 40% in 1986-88 to 35% in 2000-02. However, in 2002, support to producers increased by two percentage point to 36% of farm receipts, compared with the OECD average of 31%. The decline in world prices and to a lesser extent an increase in payments based on input constraints, were the main factors explaining the increase in support. World prices in EUR decreased as a result of lower world prices in USD and a strengthening of the EUR against the USD (Tables III.46-III.47). Reflecting the evolution of world prices, the implicit tax on consumers, as measured by the %CSE, increased from 24 to 28% in 2002, and remained above the OECD average. Farm receipts were 57% above what they would have been without any support in 2002, compared with 51% in 2001, which suggests some deterioration in market orientation, but this ratio remains lower than the 1986-88 level of 67%. Over the period, the share of payments for general services to the sector in total support to agriculture remained below 10%. Overall, total support as a share of GDP decreased from 2.7% in 1986-88 to 1.3% in 2000-02, close to the OECD average (Tables III.20-21).

The combined share of market price support and output payments fell substantially from 91% of producer support in 1986-88 to 61% in 2000-02. The change in the composition of support, involving some move from market price support towards area and headage payments, has increased the exposure of farmers to world market signals. The prices received by farmers were, on average, 33% above those on the world market in 2000-02 compared with 76% in 1986-88. The level of protection in the EU is now close to the OECD average. Nevertheless, market price support, output payments and input subsidies, which are the forms of support that potentially have the greatest effects in stimulating production and input use, and which distort trade, still account for over two-thirds of support to producers. Moreover, these measures are the least effective in transferring income to farmers or targeting the provision of environmental benefits. They also play a role in depressing world prices, and often raise environmental pressure. The share of area and headage payments is slightly less than 30%, and the share of payments based on historical entitlements and overall farm income, which are potentially among the least production and trade distorting forms of support and which transfer income more efficiently to farmers, is less than 4%.

In the sugar and milk sectors, despite the decline in support over the last decade, the large gap between producer and world prices continues to impose a heavy burden on consumers and insulates producers from the world market. As the reform of the sheep support regime removes the link between the ewe premium and market prices, it should enable producers to respond more readily to market signals. Due to successive crises in the beef sector, payments and market interventions have increased and resulted in significantly higher producer support (significantly above support for any of the other PSE commodities) and in a wider gap between domestic and world beef prices compared to mid-90s levels. This has insulated the EU market from world market signals and has contributed to increasing beef stocks.

Measures under the rural development regulation (RDR) benefit almost exclusively the agricultural sector, and it is agricultural producers who receive over 95% of EU expenditures

under this programme as only few measures aim at alternative non-farm developments in rural areas. RDR measures account for only 10% of CAP expenditures. Since some of these measures offset the damaging environmental effects of production-linked policies, such as excess livestock waste, the costs of improving environmental quality are higher than what they would be in the absence of such policies. Further, the failure of some EU member States to fully implement the Nitrate Directive raises concerns as to compatibility of agri-environmental measures with the Polluter Pays Principle. Although RDR measures provide for more flexibility and targeting of programmes, a significant share of expenditures for these measures is still of the most distorting type such as payments based on variable inputs (almost 20% of expenditures). Modulation of direct payments, despite its potential to raise funds for measures under the rural development regulation, remains voluntary and has been used in only three EU member States, one having abandoned it and another adopted it in the course of 2002.

Trade agreements with a number of countries, notably accession countries, lower mutual trade barriers for a number of commodities and food products and are expected to facilitate trade among signatory countries. On the other hand, the establishment of an import quota regime for wheat and barley to limit imports into the EU is likely to reduce the market orientation of EU producers.

Overall, the long-term reduction in support and protection is a step in the right direction, but a number of major sectors are still heavily insulated from world market signals and producer support remains very high for beef, sugar, dairy, barley and wheat. However, the shift from market price support measures towards area and headage payments contributed to a reduction in production and trade distortions. In this context, the proposals for a long-term reform perspective for sustainable agriculture represent an opportunity for increasing further the market orientation of the CAP and reducing the production and trade distortions for a number of commodity sectors.

4.5. *Developments in European Union member State policies*

Austria

The national agricultural budget (excluding European Union payments) increased by 2% to EUR 0.9 billion in 2002. A further EUR 1.1 billion is provided by the European Union. Austria received around 10% of EU rural development funds and rural development programmes accounted for 60% of government payments to Austrian farmers. Agri-environmental programmes account for close to 40% of total national expenditures to the agricultural sector and payments to less favoured areas account for around 20%.

The ministry, in co-operation with organic farming associations, launched an "organic action programme". Measures were taken to promote the adoption of ***organic farming***. These measures focus on education, schools, extension services, research and development, marketing, public relations, inspection and quality assurance. As a result, the area farmed organically increased from 66 000 hectares in 2001 to approximately 80 000 hectares in 2002. Some 10% of farmers in Austria now farm organically.

Farmers affected by ***floods*** were allowed to let animals graze on set-aside land. They could also purchase feed cereals from intervention stocks at a discounted price. This latter measure is expected to cost EUR 1.5 million.

The ***Wine*** Law now offers the possibility to market certified wine with the label "Districtus Austria Controllatus" (DAC). The EU allowance for the adjustment of wine production to market requirements, granted for the first time in 2000/2001, is expected to continue until 2004/2005. Austria's share amounts to approximately EUR 7.57 million annually.

From December 2001, a 0.1% limit for ***GMO*** impurity in seeds was set. This limit is close to what can be scientifically established. It creates legal certainty for seed producers, farmers and consumers who reject genetic engineering in food production.

In summer 2002, the Austrian Agency for Health and Food Safety was established with the objective to improve food safety from stable to table. Nineteen institutes from the Ministry of Agriculture and the Ministry of Social Security and Generations were brought under its umbrella. Their original tasks have been supplemented with scientific risk analysis, co-operation with the European Food Safety Authority and prevention in the framework of the European Rapid Alert System. In addition, new regulations for animal health services are going to further improve food security and quality. The federal government contribution to the annual budget is EUR 62.3 million. Eighteen technical ***inspection*** services were integrated into Agricultural Market Austria in order to avoid multiple controls on farm businesses. These services reported to Agricultural Market Austria, the Chambers of Agriculture and the Länder governments, and performed 30 000 on-site controls with farmers annually.

Austria ratified the climate protection protocol of Kyoto in spring 2002 in conjunction with the European Community. The protocol is generally expected to become binding international law in the course of 2003 (pending Russian ratification). To achieve its commitments, the Austrian federal government adopted an "Austrian ***climate protection*** strategy" in June. The strategy highlights, among other points, the use of renewable energy sources for heating and electricity, an ecological tax reform, environmental support for enterprises and an increase in support for agricultural biomass in future years. The Federal Environment Fund and Agricultural Biomass Fund will receive more than EUR 40 million per year for the promotion of renewable energy sources and improvements in energy efficiency. In Autumn 2002 these funds already received an additional EUR 15 million as part of the government's economic stimulation. The measures implemented are expected to reduce greenhouse gas emissions and to increase the share of ***renewable energy***, notably from biomass, in total energy sources.

The government signed the "International Convention on Plant-Genetic Resources for Food and Agriculture". The goal of this agreement under the auspices of the FAO is the conservation of ***biological diversity*** of agriculturally useful plants as well as their "fair utilisation".

Based on deliberations of the Federal ministries, Länder, cities and communities, social partners, interest groups, NGO's, scientists and experts, the government issued a "national strategy for ***sustainable development***" with a list of 20 goals and policies, in particular, no environmental degradation and resource depletion; protection of soil, water and air; protection of human life and social security; social security and fairness for all generations; and steering the economy with incentives, less taxation of labour and the utilisation of renewable raw materials and energy sources. The "Committee on Sustainable Austria" was set up to develop an implementation programme by January 2003. It will produce annual status reports. An expert panel with 37 members was established in order

to critically monitor and guide the implementation of the Austrian strategy for sustainability through assessments, and to secure its quality and transparency.

Belgium

In 2002, the agricultural budget of the Federal government, excluding the contribution from the EU, rose slightly to EUR 1.27 billion.

2002 brought to a close the period during which responsibilities were transferred from the Federal Ministry of Agriculture to various federal and regional bodies. As a result, Belgium no longer has a Federal Ministry of Agriculture, and responsibility for defining and implementing agricultural policy and all agricultural research activities have been transferred to the Regions (Flanders, Wallonia and Brussels). A Federal Minister is designated to be the spokesman for Belgium's positions on agriculture at the Community and international level. The Regions set policies regarding the EU's Common Agricultural Policy, and the Regions and competent Federal authorities jointly set all Belgian policies at the international level. All responsibilities in the field of safety in agri-food chains – which cover agricultural inputs (seeds, livestock feed and plant health products) and all stages from production, processing and marketing to retailing for consumption – have been transferred to the Federal Public Health Service for the regulatory aspect and to the Federal Agency for Food Safety for monitoring and supervision.

Because of the level of its GDP, the Province of Hainaut was no longer recognised as an area eligible for Objective 1 of European ***Structural Funds*** for the 2000-06 period, but it qualifies for a transition programme for phasing out Objective 1, which will enable it to consolidate the results achieved during the preceding period. EUR 41.57 million of EAGGF funds have been budgeted for this programme for the 2000-06 period. The initiatives funded in this programme are similar to those of the Walloon Rural Development Programme.

In the Flemish Region, two ***research*** facilities have been created to develop sustainable agricultural policies: the Sustainable Agriculture Support Centre and the Flemish Research Unit for Agriculture and Horticulture (*Vlaamse Onderzoekseenheil voor Land en Tuinbouweconomie,* VOLT). As part of this policy, the Flemish Government is implementing a programme over a three-year period (2001-03) with a budget of EUR 100 million to control farm animal waste production by reducing the animal population. The first instalment of EUR 50 million was devoted exclusively to pig farming. In 2001-02, 1 020 livestock farmers permanently stopped production on a voluntary basis and received compensation. This programme made it possible to reduce the pig population in Flanders by 1 million units over three years, bringing it to the current total of 6.4 million pigs. This reduced the amounts of nitrogen and phosphorus deposited in the soil in Flanders by 3 300 tonnes and 1 400 tonnes respectively. The Flemish Minister of Agriculture has already approved similar programmes for the beef and poultry sectors, with the objective of reducing the amounts of nitrogen and phosphorus by 5 500 tonnes and 2 500 tonnes by the end of 2003, or a 12.5% reduction in farm animal waste.

Furthermore, in order to improve the relation between agriculture and the ***environment***, which is a particularly sensitive issue in a heavily populated area such as Flanders, the Flemish Ecological Network (*Vlaams Ecologisch Netwerk*, VEN), was defined provisionally in July 2002. The VEN selects natural entities of special value that, in exchange for financial support to owners and managers, receive additional special

protection. As the final boundaries of the areas concerned are determined, farmers will be given legal guarantees ensuring that their income and future livelihood will be preserved.

Denmark

The total agricultural budget for 2002 (including European Union payments) was DKK 10.3 billion (EUR 1.38 billion), which has decreased by 4.6% compared with 2001. EU payments accounted for approximately 87% of the total budget. The total payments for rural development measures amounted to DKK 871 million (EUR 116.7 million) in 2002 (including European Union payments).

The government continues to encourage the development of ***organic farming*** and to stimulate trade in organic products. Various support measures facilitating the transition from conventional agriculture to organic agriculture are provided, including payments based on area and subsidies to research projects related to organic farming. The budget for these measures was DKK 220 million (EUR 29.6 million) in 2002, including the EU contribution. The government also provides information about organic markets in Denmark and other countries, including import regulations, inspection measures, and import/export opportunities.

Animal welfare is a high priority issue in Denmark. The government continued to help farmers to improve their equipment to increase the level of animal welfare on farms. DKK 200 million (EUR 26.9 million) was allocated for this measure, including the EU contribution, in 2002. In May 2002, the Danish Parliament adopted a resolution to change national legislation as well as EU legislation governing animal welfare. The resolution concerns the improvement of welfare of animals during transport, *e.g.* by restricting loading densities and increasing the number of inspections during transport.

Salmonella Dublin – one of the most dangerous types of salmonella for humans – was detected in several cattle raised in Denmark. The government launched an action plan for Salmonella Dublin in cattle in October 2002. Based on the plan, all cattle raised in Denmark have been tested and the results of the tests for individual cattle are publicised in the Central Livestock Register. In the infected areas, a number of emergency measures have been taken, including random testing at farms and slaughterhouses, and the eradication of the salmonella by means of steam disinfection. The total budget for the action plan was DKK 4.4 million (EUR 0.6 million) in 2002.

In response to recent significant increases in obesity, the government began a project called "All about food – taste for life" in May 2002. The project is designed to help Danish people shift towards the right balance of nutrients with less fat. Under the project, a website was launched and a task force set up in order to provide information and advice regarding a healthy diet, emphasising the need to spread the messages among school children.

Finland

In 2002, national payments to agriculture represented EUR 1 013 million (around the same level as in 2001), which was 58% of total payments to agriculture. National payments to agriculture were in three main categories: the National Aid for Agriculture, the co-financing of compensatory allowances to LFAs, and co-financing of Environmental support. The programmes under which these payments were provided and their implementation criteria remained generally the same as in 2001.

National aid is fully financed by domestic taxation and consists of three main parts: Northern Aid, National Aid for Southern Finland, and National Aid for Crop Production. Support under National Aid amounted to EUR 588 million in 2002, which is slightly above the 2001 level. Northern Aid consists of milk production aid, aid based on the number of animals, and aid based on the cultivated area. In 2002, the payments for Northern Aid represented EUR 353 million (slightly lower than in 2001). About 75% of these payments went to milk production (payments based on output) and headage payments. The payments under the National Aid for Southern Finland are provided under a similar scheme but at lower (and declining) rates. Payments under this programme were EUR 132 million in 2002 (again slightly lower than in 2001). The aid for crop production provide area based payments to the most important arable crops and forage grass, provided that the farmer fulfils the criteria for environmental support. Since its introduction the aid for crop production grew from EUR 21 million in 1997 to EUR 81 million in 2001. For 2002, the amount of this aid is estimated at EUR 87 million. About 70% of national support goes to livestock producers, but the level and distribution of this support varies among regions.

Compensatory **payments to *LFAs*** were unchanged from the 2001 level. At EUR 294 million, national payments account for 70% of the total. ***Agri-environmental*** payments are on average financed by 45% from the national budget which represented EUR 135 million in 2002 and a 7% increase over 2001.

Funding for farmer ***retirement schemes*** were applied for a three-year period from 2000 to 2002. A Bill extending the system into 2003-06 was agreed by the Parliament, approved by the EU Commission, and will be implemented.

France

The budget of the Ministry of Agriculture and Fisheries excluding transfers to the agricultural social security system and transfers from the EU, rose by 6% in 2002 – account taken of the revision made to the initial plan in August – to about EUR 5.3 billion. Support to agricultural production activities accounted for 43% of the total budget, research, extension and training accounted for 22%, and food safety and quality for 17%. Remaining expenditures were on administration, forestry and fisheries.

As most funds collected from the modulation of EU payments during the last two years (EUR 215 million) had remained unused, a temporary moratorium on ***modulation*** was decided in May to examine how the funds already collected could be used. Following an audit of the running of the territorial management contracts (*contrats territoriaux d'exploitation, CTE*), the processing of applications was suspended in August, pending a financial review of the system. The audit report found the contracts complex, difficult to manage, not very effective for the environment and lacking in budgetary control. Contracts already signed will be honoured. In February, 25 000 contracts had been validated, covering 1.6 million hectares. It was in December announced that CTEs will be replaced by ***contracts for sustainable agriculture*** (*contrats d'agriculture durable, CAD*). Regulations governing the new contracts are to be published in the first half of 2003. They will consist of two parts: economic and social measures, and land and environment measures. They will be implemented by *départemental* and regional authorities and local community participation will be strengthened. An average payment of EUR 27 000 per five-year contract will be offered.

From 2003, the ***Grass premium*** (*prime à l'herbe ou prime au maintien des systèmes d'élevage extensifs*) was replaced by an agri-environmental grass premium (*prime herbagère agro-environnementale, PHAE*). The premium will be raised by 70% and should reach a national average of EUR 68 per hectare. It will be granted for two measures: the maintenance of extensively managed open spaces and the extensive management of pastures through haymaking or grazing. This measure will receive EUR 135 million from the national budget, complemented by EUR 270 million from the EU.

The Minister for Agriculture proposed an adjustment plan for the ***broiler industry*** of EUR 6 million. Payments will be provided to farmers who volunteer to stop production and to help in the restructuring of abattoirs. The aim is to withdraw 2% of current production. The embargo against ***beef*** imports from the UK was lifted in October, following the recommendation of the French Food Safety Agency, AFSSA. The French government, with approval from the Commission, granted EUR 75.5 million of support to farmers, who lost cattle because of BSE. A ceiling of EUR 2 000 per farm (EUR 6 000 in the case of corporate farms) is available to compensate for lost animals and to allow for reduced interest rates on loans. To facilitate payment procedures during 2002, funds available to Member States under the new Common Market Organisation for ***sheep and goat meat*** will be used in France to top-up the EU premium. From October 2002, producers will receive an additional EUR 1 per ewe (for meat production) and EUR 0.8 per milking goat or ewe. For the future, specific payments are being envisaged: a payment for production of certified quality and a payment to farms producing extensively on pastures in areas that do not receive the extensification premium (because they are not less favoured areas)

As part of a plan to eradicate ***scrapies***, some 100 000 sheep and goats older than six months are to be tested at abattoirs. A genetic test will be carried out in all sheep flocks where a case has been found and any "susceptible" animal will be slaughtered and its carcass destroyed. Compensation will be paid at the replacement value of the animal. Animals that are resistant to scrapies will be notified to the authorities for the purpose of genetic selection. In the case of goats for which susceptibility to scrapies cannot be tested, all the animals in a flock where a case has been found will be killed. Compensation will be EUR 45.73 per animal slaughtered and EUR 76.22 per head for breeding animals. The cost of the programme is expected to be EUR 15 million in 2002.

In regions affected by heavy rain and ***floods***, a total of EUR 140 million of direct assistance was available for the agri-food sector. The rate of compensation from the agricultural disaster assistance fund was increased by 15 points. Total indemnities should amount to EUR 30 to 40 million. Moreover, loans with reduced interest rates (1.5%) were available to affected farmers. Various measures to help farmers and agro-food companies restart business were also funded.

Crop insurance was implemented throughout 2002. Existing and new contracts received subsidies on their premia. Hail insurance continued to be offered. A combined guarantee 'frost/hail' for fruit trees and for vineyards, and a specific insurance against multiple climatic risks for oilseeds and pulses were introduced.

The modified ***programme to control pollution of agricultural origin*** was resumed in December. The scheme now targets high risk zones where the environmental benefit of reducing nitrate leaching would be most significant, and includes all livestock farms, including small ones in priority zones. Most investments will be subsidised at the rate of 60%. Under the resumed programme, EUR 1.28 billion are available for the period 2000-06.

In May, the French government published a decree defining the concept of ***Agriculture raisonnée***, a method of farming more respectful of the environment, and emphasising control of safety risks, health and security in the workplace, and animal welfare, while aiming at efficiency. Qualifying criteria are defined. Farms can be certified for five years. Qualification and control will be carried out by an independent organisation. A separate decree on labelling has been published and has been submitted to the European Commission for approval.

A Committee for the simplification of ***administrative*** tasks for farmers was established in October. A new agency for agricultural and rural development (*Agence du Développement Agricole et Rural, ADAR*) was created to replace a previous agency with similar tasks (*Association Nationale pour le Développement Agricole, ANDA*). The ten taxes paid by producers to fund the ANDA will be replaced by a single levy on farm sales, resulting in a reduction in producer taxation. The agency will finance applied research and technology transfers to farmers.

Germany

The 2002 agricultural budget of the Federal Government, excluding EU contributions and expenditures by the *Länder* (federal states), amounted to EUR 5.7 billion compared to EUR 5.6 billion in 2001. As in previous years, agricultural social policy accounted for the largest share, almost three-quarter (about EUR 4.1 billion). About 15% of total agricultural expenditure (about EUR 872 million) was earmarked for the programme "Joint Task for the Improvement of Agricultural Structures and Coastal Protection" (GAK), the most important federal measure supporting structural change and development in rural areas.

The European Commission approved financial compensation by the Federal government to farmers affected by ***floods***. Up to 20% (30% in disadvantaged areas) of lost revenues due to floods and land surface damage will be compensated. On-the-spot payments of up to 50% will be made for the loss or destruction of plants, machines, land and livestock. Farmers will be compensated for working capital and evacuation costs. Aid will also be given for the full or partial compensation of property investment losses in order to keep business in operation.

The central programme of ***structural policy***, the "Joint Task for the Improvement of Agricultural Structures and Coastal Protection" was reoriented to support organic farming, market and site-adapted agriculture and ecologically compatible, nature-related and welfare-oriented quality production. Furthermore, within the CAP framework, modulation of direct payments was introduced in January 2003. Product-related direct payments (per head and per hectare) above EUR 10 000 per holding will be cut by 2%. The funds thus released (about EUR 52 million annually plus national co-financing) are to be used for measures relating to rural development, particularly agri-environment measures. However, the cap on direct payments to individual farms was removed.

The Federal ***Organic Farming*** Scheme will receive about EUR 34.8 million per year in 2002 and 2003. Payments to producers for the adoption and maintenance of organic production will be raised. It also includes a variety of technical measures at all levels of the food chain, such as control, training, information, technology transfers, etc. The amended Federal ***Nature Conservation*** Act entered into force. It establishes, *inter alia* , principles of good farming practices that are expected to aim at more sustainable land use and food production. Illustrating the shift to a more ***animal welfare***-oriented type of husbandry, the

caging of laying hens is banned under the new provisions of the Farm Animal Husbandry Ordinance. There is a transitional period until 2006 for existing conventional cages, while existing enriched cages will be banned as from 2012. Thus, Germany has established shorter transitional periods for conventional cage housing than those authorised under the EC Directive. At the same time, the Federal Scheme for Welfare-Oriented Husbandry Methods (EUR 12.8 million in 2002) promotes investments improving husbandry methods for laying hens. In the field of ***consumer health protection***, two new federal authorities (Federal Office of Consumer Protection and Food Safety, Federal Institute for Risk Assessment) were created, clearly separating risk management and risk assessment, in accordance with developments at the EU level. In addition, various measures, notably in the area of food monitoring, maximum residue levels and meat hygiene, were adopted to further improve food safety.

Greece

In 2002, total agricultural budgetary support to agriculture is estimated to have increased slightly to EUR 3.3 billion, of which 28% was financed out of the national budget. The agricultural support fully financed out of the national budget accounted for 19% of the total agricultural budgetary support. It was primarily aimed at compensating farmers for natural disasters, interest concessions and debt arrangements of livestock products. From the support which is co-financed with the EU, EUR 309 million or around 9% was financed out of the national budget and is mainly for early retirement, afforestation, agri-environmental programmes and improvement of the livestock sector. The rates of co-financing range between 50% to 80%, depending on the measure.

The EUR 2.5 billion Greek rural development programme for 2000-06, was approved by the European Commission in April 2002. The programme covers all rural areas and is additional to the measures co-financed by the Guidance ttof the EAGGF under Objective 1 of the Structural Funds, for which Greece as a whole is eligible. It mainly finances agricultural investments, promotes processing and trade of agricultural and forestry products, and supports young farmers.

In the context of the implementation of the rural development programme, a series of EU co-financed measures was announced. Concerning investment financing, EUR 543 million has been allocated over the period. Subsidies for "economically viable farms" can be claimed by individuals who derive at least 50% of their income from farming (or 25% in disadvantaged areas), are not drawing a pension and where the family income is not more than EUR 11 740 a year. A second category is reserved for owners of small farms in mountainous areas or island locations, who have been engaged in farming for at least three years and meet the criteria for this category. The support is mainly intended for livestock farmers and is worth up to EUR 25 000 per farm. Another category provides finance for innovative enterprises and farm projects. A scheme has also been set up to reward innovative and environmentally sound investments aimed at reducing production costs, improve product quality and protect the environment. The maximum payment is EUR 75 000 per work unit or EUR 60 000 per applicant.

Support for first time young farmers starting up has total funding of EUR 225 million, of which 69% will be financed by the EU. The amounts available per farm are EUR 25 000 in mountainous areas, EUR 20 000 for disadvantaged areas and EUR 15 000 for all other areas. In addition, young farmers are eligible for interest rate subsidies for loans with a duration of up to six years and up to a maximum of EUR 100 000.

Investments in processing and marketing cover a wide range of agricultural products and involve grants for new buildings, the acquisition and installation of machinery and equipment, implementation of environmental protection measures, fencing work and a variety of other investment costs such as fees for professional advice. However, the purchase of buildings and second hand equipment, and maintenance costs are excluded.

In September 2002, the national aid scheme intended to help restore damaged production potential through replanting of trees and repairing of damage to property, as well as to compensate for lost production caused by severe weather in the winter of 2001/02 was approved by the European Commission. The authorised national funding for farmers, fishermen and fish farmers who suffered is estimated at EUR 171.6 million.

In the area of ***agri-environmental*** measures, payments of EUR 9.2 million were allocated in 2002, 25% of which were financed from the national budget. Of this, 52% was granted to organic farming, 39% for the reduction of nitrate contamination, and 9% for the protection of endangered breeds and native species. Rotation in the cotton sector has been introduced, which will be voluntary for full-time farmers with rates ranging from 5% for small farmers (up to 100 hectares) to 15% for farmers with more than 150 hectares. Farmers will be eligible for compensation from income losses associated with the implementation of agri-environmental programmes. For non-full-time farmers, rotation is compulsory and the rate is 10% without compensation.

In February 2002, the European Commission has proposed amendments to specific measures to support production of certain agricultural products in the Aegean islands. Proposed amendments include the addition of wheat imports and aid for cotton seed transport, an increase in the number of beehives and a 15% increase in the rate of investment aid in agricultural holdings.

Ireland

The net budgetary allocation to the Department of Agriculture and Food in 2002 is estimated to be EUR 838 million. This number excludes contributions from the EU, which co-finances many measures. The ***National Development Plan 2000-06*** provides EUR 394.6 million for agriculture and rural development. Annually the amount of funding available under the Plan is EUR 56.4 million. Responsibility for rural development was moved from the Department of Agriculture, Food, and Rural Affairs to the Department of Arts, Heritage, Gaeltacht and the Islands. These departments were renamed the Department of Agriculture and Food and the Department of Community, Rural and Gaeltacht Affairs as a result of this reorganisation.

Tax reliefs available to farmers affected by compulsory disposals of livestock, namely stock relief and profit deferral, were extended by two years to up to four years after the disposal had taken place. The flat rate of Value Added Tax, used to compensate farmers that are not registered for VAT on their business inputs, remained unchanged at 4.3%.

The ***National Scheme for the Control of Farm Pollution*** assisted smaller farmers to control farm pollution through the provision of grant-aid for farm waste storage, winter housing for cattle and sheep, silage storage and ancillary farmyard facilities. In 2002, payments made under the scheme amounted to EUR 5.3 million. The ***Scheme of Grant Aid for the Development of the Organic Sector***, re-launched in May 2002, provides grant assistance to organic operators in respect of investments in equipment and facilities for the production, preparation, grading, packing and storage of organic products. For on-farm

investment projects costing over EUR 2 540 per farm, the Department of Agriculture and Food provides 40% grant assistance, up to a maximum of EUR 50 790 per farm.

Under the terms of the ***Fallen Animal Scheme*** licensed fallen animal collectors receive a state subsidy for the collection of fallen bovine animals. The scheme also provides a subsidy for the rendering of all fallen animals delivered to approved SRM Rendering Plants and the disposal of the resultant meat and bone meal. Payments made under the scheme came to nearly EUR 24 million in 2002.

Italy

Agriculture policy in Italy is a shared responsibility between the state and the regions. Under laws enacted in 1995 and 1999, financing and responsibility for agricultural programmes are increasingly being transferred to the regions. Consequently, budget transfers to the regions have been increasing, from EUR 191 million in 2000, to EUR 279 million in 2001 and EUR 313 million (estimate) in 2002.

The state retains overall authority for policy direction and coordination, allocation of resources at the national level, and co-financing interregional programs. Key state activities include research, income support, infrastructure services, and payments in case of natural disasters.

At the regional level, local organisations have authority to legislate and administer programmes according to their own specific agriculture development needs. In general, these programmes provide services such as technical assistance, financial planning, operation of producer groups and associations, etc.

The Netherlands

In 2002, the total national budget of the Ministry of Agriculture, Nature Management and Fisheries was EUR 2 billion, a 13% increase compared to 2001. A further EUR 1.4 billion is provided from the European Union. A large proportion of the national budget is for research, education and extension, as well as for the development and management of nature reserves.

As part of the Government's strategy to reduce the adverse environmental impacts of agricultural production, a law was passed in April 2002 that provides a framework for restructuring ***intensive livestock*** farming in regions with a high concentration of pigs and poultry. Within these regions, three zones have been identified. In "development zones" production can expand, in "interwoven zones" production must be combined with other farming activities and in "reduction zones" production must decrease, including by the transfer of production to other regions. New legislation was also passed in 2002 to impose stricter requirements on ***ammonia emissions***, including the requirement of low-emission housing by 2008 for all pig and poultry holdings and for production near important nature areas. The government is using tax incentives and labelling standards to encourage the adoption of cleaner animal-friendly housing.

Implementation of the Government's five-year plan for the ***organic sector*** announced in 2000 continued with the launch of a media information campaign in September 2002. The focus of the campaign is on promoting organic products to new consumers, who are less influenced by "idealistic purchasing motives" and more by the range and quality of products. Reflecting the strong co-operation that has been established between the public and private sectors as part of the five-year organic plan, the retail sector is supporting the

government's campaign by spending an equal amount on product-orientated promotion, including in-store tasting and extra shelf space for organic products.

To achieve nature development objectives, greater priority is being placed on management contracts with farmers as opposed to the purchase of land for establishing national ecological networks. The budget for purchasing land will be reduced by 17% in 2003 to EUR 70 million. The cost of this programme had been increasing because of the dramatic rise in Dutch land prices, which is being fuelled in part by the policy itself and by the land requirements of the manure application policy.

In 2002, an agreement was reached between the Government and the national farmers union (LTO Nederland) on the principles of an ***insurance scheme*** against the effects of heavy rainfall. While the scheme will be financed by farmers, the government will provide finance to the insurance company should the value of claims exceed contributions. The scheme will be implemented in 2003.

The Netherlands took a decision to reverse the ban on battery cages and mink breeding, and to ease the approval process for crop protection products. These decisions were made as part of the general strategy of the Government elected in 2002 to bring Dutch agricultural policy into line with EU standards and timeframes where they currently impose stricter requirements, particularly on issues such as animal welfare and the environment. Efforts are also being made to reduce the administrative burden placed on farmers by improving co-ordination in Ministry requirements.

Portugal

The total budget of the Ministry of Agriculture, Rural Development and Fisheries, excluding transfers from the European Union, decreased by about 6% to around EUR 635 million in 2002.

In 2002, the 118 000 hectares national production quota for durum wheat was once again exceeded by 61%. In May the law imposing the modulation of direct payments to farmers was revoked, although it had never been implemented. Since July, the rate of the compensatory payment for oilseeds became equal to the payment rate for cereals. The European Commission approved an emergency wine distillation for Portugal covering a total volume of 25 million litres of wine, with a maximum of 20 million litres for "quality wine" produced in designated regions. EUR 2.30 and EUR 1.91 per hectolitre and 10% of alcohol volume is paid for quality and table wine respectively. The 1.9 million tonne milk production quota was again exceeded by around 7%, and the 73 000 tonnes of milk equivalent exempt of "additional levy" in Azores was exceeded by about 50 000 tonnes. Regulations were adopted to impose limits on residuals of medicines in livestock products used for food, establish sanitary rules on the use of animal by-products for food, and eliminate BSE, including rules for imports of live animals and livestock products.

Spain

The total agricultural budget of the central Government for 2002, excluding most transfers from the EU and expenditures by regional governments, is estimated to have decreased by 2.3% compared with 2001, to EUR 1.39 billion. Most measures are co-financed by the European Union. The most important nationally financed agricultural programme, accounting for 13% of the total agricultural budget, is the Combined Agricultural Insurance System, managed by the State Agricultural Insurance Agency (ENESA). In 2002, an

estimated expenditure of EUR 28 million was earmarked for emergency aid programmes. The research institute INIA received a budget transfer of EUR 48 million to develop agricultural and food technologies. Part of the technical work associated with agricultural policies is sub-contracted to the public enterprise TRAGSATEC. Spanish farmers have special income tax and social security regimes, and they have lower tax rates for fuel and VAT. Some seasonal workers have a special unemployment benefit scheme, which is now being revised and limited.

The system of ***insurance*** subsidies covers around 36% of agricultural output and pays around 40% of the premium charged by the insurance company. Regional governments provide additional subsidies for specific products. In 2002, ENESA received a budget transfer of EUR 180 million, 11% more than in 2001. The 2002 Agricultural Insurance Plan aims to increase farmer's participation and coverage. Among the new insurance lines approved there is a combined insurance for potatoes covering most climate risks, and a multiple vegetable insurance allowing a single contract for all the vegetables grown on a given farm. Coverage for persistent rain risks has been included in most insurance lines. Insurance covering the costs of destroying cattle that have died on the farm has been generalised to all regions willing to participate. In 2002 ENESA launched a viability study for insurance on market risks.

The Government approved new legislation on ***plant health***, incorporating EU legislation, and a new regulation on "integrated agricultural products" launching a certification process for agricultural products verifying that the whole production and transformation process follows EU standards. The Ministry of Agriculture, in co-operation with farmers' unions and co-operatives has launched a plan to evaluate ***occupational risks*** in the agricultural sector that will be followed by a campaign of information oriented to farmers and farm workers with the purpose of reducing accidents at work.

Sweden

The budget for agriculture, fisheries and forestry including EU payments was SEK 14.1 billion (EUR 1.54 billion) in 2002, which is SEK 400 million (EUR 44 million) more than in 2001. Just over 50% is financed from the EU budget, with about 95% of the total for agricultural related expenditure. The most significant increase was for agri-environmental payments provided under the Swedish Environmental and Rural Development Programme (SERDP) which rose by SEK 550 million (EUR 60 million). Expenditure on agri-environmental programmes have increased from SEK 650 million (EUR 97 million) in 1996 to SEK 3.6 billion (EUR 0.4 billion) in 2002.

In 2002, an extra SEK 34 million (EUR 3.7 million) was committed to ***organic*** production, of which SEK 23 million was designated for market promotion measures, market analysis and statistics, and measures to encourage the use of organic food in large-scale catering. The remaining SEK 11 million was designated for applied research. This supplements the SEK 35 million that was committed in the 2001 budget for organic research and development on an annual basis over the three years 2001-03. This money is in addition to the expenditure funding support measures for organic agriculture under the SERDP.

In late 2000, the Government began consultations with the Federation of Swedish Farmers on how to recycle the revenue from ***taxes on pesticides and fertilisers*** back to agriculture through measures that would lead to a reduction in nutrient run-off and

eutrophication. In June 2002, the European Commission agreed to a plan whereby the revenue from these taxes will be used to encourage farmers to establish cropping plans, supplementing the support already provided for limiting nutrient run-off through the Environment and Rural Development Programme. The amount of money to be recycled for 2002-04 will be based on taxes paid in 2001-03.

During 2002 efforts were made to streamline the ***administration*** of the agricultural sector, including the management of EU agricultural support. The establishment of a national administrative council on which each county administrative board is represented has created a more formal co-ordination system. A number of information technology projects are being developed to better control and manage the administration of support, which are estimated to save SEK 40 million when fully implemented. Thirty national agencies, companies and authorities are being brought together under the auspices of the Swedish Board of Agriculture to create a new body (STUDS) for the prevention and eradication of contagious diseases in livestock. This was mainly done in response to the FMD outbreaks that occurred in a number of countries during 2001 that demonstrated the need for effective co-operation and planning.

From 2003 the optional ***control scheme*** designed to prevent tuberculosis in farmed deer will be made compulsory. To reduce the risk of salmonella outbreaks, optional salmonella control schemes for bovine and porcine meat were introduced to complement the existing approved control programme. The Government also agreed in January 2003 to establish a new authority to deal with ***animal welfare***. This will bring together, under a single authority, responsibilities that were previously with the Board of Agriculture and municipalities.

United Kingdom

Agricultural budgetary expenditure for 2002, excluding EU payments, was GBP 621 million (EUR 989 million), a 3.6% reduction from 2001. Of this, UK expenditure on EU co-financed programmes is estimated to have been GBP 367 million (EUR 584 million).

The Department for Environment, Food and Rural Affairs (DEFRA) published its ***Strategy for Sustainable Farming and Food*** (*www.defra.gov.uk/farm/sustain/newstrategy/index.htm*). The Strategy is backed by GBP 500 million (EUR 796 million) over the next three years, subject to EU approval, and aims to: develop a new scheme to encourage sustainable farming for all farmers; further expand existing rural and environmental schemes; develop a "whole farm" approach to management and regulation; extend the Agricultural Development Scheme to improve competitiveness and marketing; provide funding to assist small regional food producers; increase spending for skills and training; establish a network of demonstration farms; and improve animal health and combat diseases. An independent implementation group will oversee the delivery of the Strategy by both government and industry.

The ***Agriculture Development Scheme*** was opened to a fourth application round in July, with a budget of GBP 2 million (EUR 3.2 million), subject to EU approval. The scheme aims to support projects that promote co-operation amongst primary producers; benchmarking and the spread of good practice; assurance schemes; and projects which open up new markets, with priority given to helping post Foot and Mouth Disease (FMD) recovery. The ***Animal Health Act*** was strengthened in November to help react more quickly to future FMD outbreaks and other animal health problems. The National Scrapie Plan (NSP) was

launched in July 2001 with the long-term aim to reduce and eventually eradicate scrapie, a fatal neurological disease in sheep. Since the launch of the voluntary plan there has been an increase in participation to a level of over 6 500 flocks by October 2002. The Hill Farm Allowance scheme, providing support to farmers in ***disadvantaged areas***, was increased by 10% compared to 2001, to GBP 40 million (EUR 64 million), partly to help offset FMD losses.

A study by DEFRA into *the Economic Cost of* ***Foot and Mouth Disease*** *in the UK* (*www.defra.gov.uk/corporate/inquiries/lessons/fmdeconcost.pdf*) over the period 2001-2005, estimates that the cost to the UK agri-food chain amounted to GBP 3.1 billion (EUR 5.0 billion) of which GBP 2.6 billion (EUR 4.1 billion) was compensated by government, with the majority of this received by farmers, although producers have suffered a loss estimated at GBP 355 million (EUR 565 million). The cost to the UK tourist industry is estimated in the range of GBP 2.7 – 3.2 billion (EUR 4.3 – 5.1 billion), for which the government implemented modest measures, including reductions in business rates and deferral of income tax. The UK Treasury has estimated that the net economic effect of the outbreak was less than 0.2% of Gross Domestic Product.

Agri-environmental schemes are now being developed at two levels following the recommendations of the Strategy for Sustainable Farming and Food. First, a new "broad and shallow" Entry-Level Scheme (ELS) that aims to encourage sustainable practices across all farms. Pilot schemes will be launched early in 2003 in four areas testing the ELS, with the intention that it will be made available to all farmers in 2005. Second, a "narrow and deep" Higher Tier Scheme, that concentrates on high priority wildlife habitats and features, and is based on the current Environmentally Sensitive Areas and the Countryside Stewardship scheme, which would be merged and together cover around 10% of UK agricultural land. The Arable Stewardship Pilot Scheme tested the flexibility and effectiveness of a range of options devised to maintain and enhance wildlife in arable areas. Results of DEFRA ecological and economic evaluations indicate that the pilot was effective and beneficial to plants, insects and birds. Following EU approval in 2001, the most successful of the options were made available to farmers in the nationwide Countryside Stewardship scheme from January 2002. These included, overwintered stubbles, conservation headlands and wildlife seed mixtures. The DEFRA's 'headline' farmland bird population indicator showed that from 1977 to 1993 populations had declined by almost a half, but from 1993 to 2001 have been relatively stable.

The area under ***Nitrate*** **Vulnerable Zones** (NVZs) in England was increased by 8% taking the total to 55% of agricultural land. Farms within NVZs need to comply with a range of measures, introduced in 1998, to control agricultural nitrate loss. According to DEFRA more than 70% of nitrates and 40% of phosphates in English waters originate from agricultural land. A new duty rate for biodiesel of 25.82 pence per litre (ppl) (EUR 0.41 per litre) came into effect in July, which is a cut of GBP 0.2 per litre (EUR 0.32 per litre) compared to ultra-low sulphur diesel. Under the ***Organic Farming Scheme*** GBP 5 million (EUR 8 million) will be provided over 5 years from 2003/4 to support organic research. GBP 5 million (EUR 8 million) in 2003/4 and GBP 10 million (EUR 16 million) in the following two years will be provided to implement the Countryside and Rights of Way Act 2000 by increasing public access to the countryside and enhancing landscape amenities.

DEFRA and the Department of Health are working with farmers, the food industry and consumers to produce a ***Food and Health*** **Action Plan** aimed at improving the nation's health through encouraging people to eat a better diet. According to the Department of

Heath statistics, 6-8% of the population was categorised as obese in 1980, but this had risen to 21% by 2000.

5. Hungary

5.1. *Main policy instruments*

Border measures, administered prices, input subsidies and, increasingly, area and headage payments are the main policy instruments used to support agriculture in Hungary. Export subsidies constitute an important, albeit declining, policy instrument to regulate crops and animal product markets, especially for poultry and pigmeat. Imports are regulated by *ad valorem* tariffs and tariff rate quotas. Hungarian policy is now undergoing some important changes, partly by pressures to align its policies with those of the EU and partly driven by its commitments in the WTO.

Market price support for milling wheat and feed maize is based on a system of guaranteed prices. When market prices are below the guaranteed prices the State purchases limited quantities of milling wheat and feed maize. Prices for milk, pigmeat and beef are supported by a system of guaranteed and guidance prices. For these livestock products, payments based on output are used to cover the gap between market prices and guidance prices. The payments are paid to processors when market prices are higher than the guidance price and to farmers when market prices are lower than the guidance price. In addition, price premiums for high-quality production are provided mainly for beef, milk, pigmeat, poultry and game meat, although some vegetable products are also eligible. For milk, domestic production is constrained by an output quota.

Area payments are granted to all farms with less than 300 hectares of agricultural land, with payments inversely related to the farm size. Headage payments are provided for the purchase and breeding of animals. Among budgetary payments based on input use, the most important are subsidised credits, loan guarantees, capital grants, and fuel-tax subsidies. Agri-environmental and rural development measures are increasing in importance. Per hectare subsidies to limit soil erosion and to promote organic farming are the two main environmental policy measures. On 13 December 2002, provisions for extending membership of the EU to ten new Member States were agreed at the Copenhagen Summit. In consequence, Hungary will join the EU on 1 May 2004 (Box 5.4).

5.2. *Developments in domestic policies*

Hungarian agricultural policy in 2002 continued to focus on the implementation of the National Programme for the adoption of the *Acquis Communautaire* of the EU. Nonetheless, no substantial change occurred in Hungarian agricultural policies. Market regulation mechanisms remained unchanged, although institutional prices for several commodities were higher compared to 2001. Guaranteed prices were increased for milling wheat, feed maize, pigmeat, beef and milk (Table 5.5). The intervention prices for all commodities also increased.

Intervention purchases were announced for wheat and maize. Farmers were eligible for a 100% interest rate refund and support totalling HUF 20 (USD 0.1) per tonne per week for maize placed in public warehouses. Grain market regulations are to be tailored to the EU system. Support based on quantity for the distillation of wine, for the storage of high quality wines and for the storage of apples was also granted. There were not significant

Table 5.5. **Hungary: Guaranteed prices**

Product	2001		2002		% Change in price 2001 to 2002	
	HUF/t	USD/t[7]	HUF/t	USD/t[7]	HUF	USD
Milling wheat[1, 2]	17 000	59	17 500	67	2.9	13.6
Feed maize[1, 3]	14 000	49	15 000	58	7.1	18.1
Beef[4]	220 000	768	231 000	889	5.0	15.8
Pigmeat[5]	238 000	831	252 000	970	5.9	16.8
Milk[6]	44 000	154	48 000	185	9.1	20.3

1. Crop year July to June; "2001" = crop year 2001/2002; "2002" = 2002/2003.
2. Procurement period from 01.08. to 01.12.
3. 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 and S.
6. Price for premium-quality milk (VAT excluded).
7. Conversion using OECD annual exchange rates (January to December).

Source: Office for Agricultural Market Regulation, Budapest.

policy changes regarding the livestock sector and the milk quota in 2002 remained unchanged at 2 billion litres or 2.1 million tonnes.

Budgetary payments based on output include mainly "quality" and intervention payments. Quality payments are provided principally to livestock products, especially beef, milk, poultry, pigmeat, game meat and (since 2000) some vegetable products. Intervention payments are granted to a large range of crop products and eggs. In 2002, the total amount spent on payments based on output is estimated to have increased by almost 18% to HUF 21 241 million (USD 82 million), of which 80% was allocated to quality payments. Intervention payments increased for crops, mainly to wheat and maize and eggs. For sugar beet, potatoes and some other livestock products, intervention payments declined. A package of HUF 2 760 million (USD 1 063 million) to apple growers was announced.

Area based payments are granted to farms with agricultural sales accounting for 50% of total output and use quality seeds on at least 40% of the total area (100% of the maize area). The maximum payment is HUF 12 000 (USD 42) per hectare for holdings from 1 to 10 hectares, and over that size HUF 8 000 (USD 28) per hectare. Furthermore, farms from 1 to 300 hectares can get preferential short-term credits up to HUF 15 000 (USD 53) per hectare, with 80% state guarantee and 100% interest subsidy. Up to October 2002, the amount allocated to these payments amounted to HUF 20 111 million (USD 77 million), which is about a 10% increase as compared to 2001. This scheme benefited 139 000 producers.

Headage payments were HUF 20 000 (USD 77) per dairy cow; HUF 1 500 (USD 5) per sheep and goat; and from HUF 10 000 (USD 38) to HUF 17 000 (USD 65) per pig, depending on livestock intensity. In 2002, headage payments increased by 26% to HUF 6 439 million (USD 24.8 million).

At the end of 2001, a new law was passed by the Parliament where the term 'family farm' was defined as those farms, which are supposed to be competitive with the farms of current EU Member States. These farms have to meet certain conditions, and if registered, can receive extra support within the framework of the existing programmes. For these farms, area payments were increased. Family farms cultivating from 0.5 to 10 hectares of orchards and vineyards and farms from 10-300 hectares of cereals and oilseeds received extra HUF 8 000 (USD 31) per hectare, while farms producing protein crops from

10 to 300 hectares received extra HUF 12 000 (USD 46) per hectare. As of September 2002, HUF 8 000 million (USD 31 million) was granted. For purchases of machinery, construction works, and establishing plantation investments, these farms can receive an additional 10% aid, and the credit guarantees and grants have further preferential arrangements. The farm machinery aid scheme in its current form can only be maintained until Hungary joins the EU.

As in previous years, payments based on ***input use*** account for the largest share of agricultural budget payments. At around HUF 103.5 billion (USD 399 million), they were almost 8% lower than in 2001. This budgetary item includes principally expenses resulting from subsidised interest-rates and guarantees for farm credit (around 45% of the total), capital grants (15%) and fuel tax concessions (20%). In 2002, an envelope of HUF 65.8 billion (USD 253 million) was available to support investment in agriculture. The forms of investment support have not been significantly modified, but some changes were made to conform to the EU system. In particular, in the construction-type investments a significant decentralisation has been carried out, with an investment cost below HUF 100 million (USD 0.4 million) to be administered by county agricultural offices. The rate of support has been uniformly set at 25%, but family farmers may request 10% more support, and the ceiling of support which may be requested has been increased from HUF 40 million (USD 0.1 million) to HUF 50 million (USD 0.2 million). For purchases of agricultural machinery, the gradual investment support system based upon purchase price has been discontinued, and the ceiling of support that can be granted in one year has been increased to HUF 50 million (USD 0.2 million). For irrigation and other improvements, where 40% of the capital can be subsidised if 25% of the total investment is from a farmer's own financial resources, an amount of HUF 1 350 million (USD 5.2 million) was allocated in 2002.

Repayment of HUF 1 700 million (USD 6.6 million) of farm loans was waived as of January 2002. The interest-free loans, which were taken out between 1993 and 1995, affect 900 farmers and some 200 agricultural businesses. A farm debt-relief programme of some HUF 60 000 million (USD 231 million) was announced, of which three-quarters will be allocated to help farmers pay off HUF 120 000 million (USD 462 million) in short-term loans of less than one year and the rest to help cover damage caused by natural disasters. Loans backed by a state guarantee will have priority over others. Farmers whose losses from floods exceed 25% of their yield are eligible to apply. Farmers who suffered flood damage along the Danube may be compensated for up to 32% of their costs of repair, while those who lost 25-35% of their crop because of drought are eligible for compensation for 20% of their loss. HUF 20 billion (USD 77 million) was paid for farmers who suffered damages from drought and HUF 237 million (USD 0.9 million) for damages caused by flood. The programme does not cover farmers whose orchards and vineyards suffered damage from frost. A guarantee fund worth HUF 10 000 million (USD 0.38 million) support farm development loans applied for by farmers was announced. The fund will enter in force in 2003, but the terms of the loans are still to be decided.

About HUF 2 291 million (USD 8.8 million) was made available in 2002 for agricultural land use and protection. Of this amount, 15% were allocated to support land purchases aimed at farm consolidation and 48% on strengthening the real estate registration system. In the context of a reassessment of land policy, the National Land Fund was amended and a new institutional system was established. The main amendments entail giving anyone who is renting farmland priority over family farmers for purchasing or renting arable land. The duration of land lease for National Land Fund lands will decline from 50 to 20 years,

while in the case of private persons this will increase from 10 to 20 years. Land sales to foreigners and legal entities are prohibited.

Grants for advisory services are distributed to counties and the decisions are made by the county authorities. Special attention and support is given to the creation and development of producer marketing organisations. Agricultural insurance is supported at a rate of 30% of the fees charged. In 2002, an amount of HUF 1 098 million (USD 4.2 million) was allocated to animal breeding management and institutions, and an envelope of HUF 1 000 million (USD 3.9 million) was made available for the preservation, maintenance and development of biological base organisms. Further payments are allocated to information systems, border quarantine, training programmes for young farmers and study trips abroad. In the context of ***food safety***, new food labelling rules to be applied on dairy products, eggs and most food products of vegetable origin entered into force as from April 2002.

Agri-environmental programmes provide support for holdings larger than 1 hectare of arable land, or with more than 0.5 hectares of orchards and vineyards, or for fish ponds larger than 5 hectares. Support for organic production, which since the start of 2002 has become part of the National Agri-Environmental Programme, comprises HUF 10 000 (USD 38.5) to HUF 40 000 (USD 154) per hectare to farmers who are in the process of conversion to organic production and from HUF 8 000 (USD 30.8) to HUF 20 000 (USD 77) per hectare to those who have already switched to organic production. The area dedicated to organic farming sharply increased in 2001/02, but still only accounted for 1.4% of total arable land. Organic farmers increased their livestock numbers by 65%. Under the Agri-environment Protection Programme an amount of HUF 2 200 million (USD 8.5 million) was announced in 2002, out of which HUF 550 million (USD 2.1 million) was paid for organic farming.

In November 2002, the EU authorised the ***SAPARD*** (Special Accession Programme for Agriculture and Rural Development) pre-accession agricultural support programme for Hungary. The Hungarian SAPARD programme focuses on four main areas: investments in agricultural holdings, processing and marketing of agricultural goods; development of rural infrastructure; and technical assistance. Under this scheme, Hungary will be entitled to EUR 38.7 million (HUF 10 064 million) for the year 2000 and EUR 39.4 million (HUF 10 113 million) for the year 2001, while the indicative amount from 2002 until 2006 is EUR 40.6 million (HUF 9 886 million) per annum.

5.3. Developments in trade policy

Following the expiry of Hungary's waiver from its URAA ***export subsidy*** commitments, the number of subsidised products was reduced. In 2002, the total amount spent on export subsidies is estimated to have been HUF 4.2 billion (USD 15 million), down by around 70% compared to 2001, or 28% of permitted levels. In 2002, export subsidies were accorded to only four commodities: wheat, pigmeat, poultry and wine. According to the most recent ***notification of Hungary to WTO*** on market access in February 2002, the simple average tariff-quota fill rate in the calendar year 2001 was 45%, the same as in the previous year. The fill rate was particularly low or zero for a number of products, including bovine animals and meat, milk and cream, wheat, barley, maize, poultry, eggs not in shell, honey and preserved vegetables. Concerning the use of special safeguard provisions (SSG), Hungary notified the WTO in April 2002 that for calendar year 2001, the price-based SSG was invoked for raw sugar and white sugar.

The agricultural ***trade agreement*** between Hungary and the EU, which entered into force on 1 July 2002, was ratified**.** The agreement enhances the existing bilateral trade arrangements between the parties and involves additional duty-free trade coverage of around HUF 700 million (USD 2.4 million). For Hungary, the agreement involves opening duty-free tariff quotas for Hungarian exports to the EU for a total of eighteen agricultural product groups. This includes, in addition to existing preferential quotas, a duty-free quota for 120 000 tonnes of wheat and 450 000 tonnes of maize. All existing quotas would be increased by 10% per year from July 2003 onwards. In return, the EU will be granted increased quotas for fruit and vegetables, including melons, potatoes, tomatoes and onions, as well as beef and poultrymeat. Furthermore, both parties agreed not to use export subsidies for beef and veal and dairy products. However, if Hungary accedes to the EU, as planned, on 1 May 2004, then all trade between Hungary and the EU will become fully liberalised. Hungary continues to harmonise agricultural policy institutions and SPS standards with those of the EU.

A trade agreement was signed in January 2002 between Hungary and the United States, including for agricultural products. The agreement, which entered into force in April 2002, provides for tariff reduction for US almonds and pecans, a tariff rate quota increase for Hungarian imports from US bovine semen and a new tariff rate quota for US grapefruit. The tariffs on US imports for these products will be closer to the duty-free levels enjoyed by the EU.

5.4. Overall evaluation

Agricultural policy in Hungary is characterised by relatively low but increasing levels of support, as measured by the %PSE. In recent years, support has increased significantly, due to measures addressing the problems of transition towards a market economy as well as the implementation of measures to conform to the EU's CAP. Support to producers as a share of farm receipts fell from 16% in 1991-93 – the period when economic reforms started –, to 12% on average in 1995-97, but rose in the late 1990s and reached 29% in 2002, slightly lower than the OECD average of 31%.

The increase in producer support was mainly due to sharp increases in market price support, which more than tripled between 1991-93 and 2000-02. In 2002, market price support rose by 87% compared to the previous year. This sharp increase is overwhelmingly attributable to the 65% increase in the market price support for milk, due to the lower milk border price and higher domestic milk producer prices. However, domestic prices for all products, on average, have declined (Table III.47). The increase in market price support resulted in an increase in the implicit tax on consumers, as measured by the %CSE. While gross farm receipts in 2001 were 24% higher than they would have been without any support, by 2002 they were 41% higher. Overall, total support to agriculture as a share of GDP increased from 2.5% in 1991-93, to 2.9% of the GDP, which is 1.7 percentage point above the OECD average, in contrast to the %PSE (and NAC) which are slightly below the OECD average (Tables III.22-23).

For a second consecutive year, output payments, especially for maize, sharply increased compared to 2001. The combined share of output payments, market price support and payments based on input use in total support increased from 90% in 2001 to 92% in 2002, only slightly down from 96% in 1986-88. These are among the forms of support that are the most production and trade distorting and the least efficient in transferring income to farmers. As a consequence, in 2002 prices received by farmers were, on average,

22% higher than those on the world market, whilst in 2001 they were only 6% higher, which was mirrored by developments in domestic consumer prices. However, while for some livestock sectors, such as milk and eggs, producer prices were respectively 130% and 97% above those on the world market, for most crops producer prices were lower than world prices. The implicit taxation of crop producers could be attributable to inefficiencies in the domestic market and impediments that prevent full transmission between domestic and world prices.

Investment and capital aid accounted for 26% of total producer support in 2002. Although such payments are likely to affect production, especially in the long term, they can contribute to the restructuring of the agricultural sector in order to increase production efficiency.

Overall since the start of the transition to a market economy in the early 1990s, only limited progress has been made towards the market orientation of the agricultural sector, in terms of a small shift away from the most production and trade distorting policy measures. However, while producer support is below the OECD average, its level and variability has increased since transition. Efforts to align agricultural policies and institutions with those in the European Union accelerated during 2002, which contributed to the increase in support. Further efforts to accelerate structural adjustment and enhance the market orientation of the agricultural sector are needed.

6. Iceland

6.1. Main policy instruments

Support in Iceland is mainly provided through border measures, direct payments based on output and production quotas. Agricultural agreements define the policy framework and policy parameters are negotiated between the government and the farmers' union. Since the beginning of the 1990's, the government has phased out most administered agricultural prices. Milk and sheepmeat are the two major agricultural commodities and developments in domestic agricultural policies have been concentrated in these two sectors. For milk, the government administers producer and wholesale prices coupled with a production quota system. Direct payments based on output are also made to milk producers. For sheepmeat, the government maintains direct payments based on historical production quota entitlements that had been established under a system that was abolished in 1996. A levy is imposed on the total agricultural revenue of each farm and distributed within and between various agricultural bodies. The markets for some agricultural products such as meat and dairy products are being progressively opened under WTO minimum access provisions. However, imports of agricultural products competing with major, domestically produced commodities are still limited. Consumer subsidies for wool are provided at the wholesale level. Interest concessions on agricultural loans are the main support to agricultural inputs. Agri-environmental policy mainly focuses on soil conservation and afforestation.

6.2. Developments in domestic policies

A new agricultural agreement was signed between the government and the farmers' union in March 2002 specifying details of new support measures for general services to be provided to agriculture, based on the 1998 Law on Farming. This agreement aims to increase efficiency and productivity of agricultural inputs such as agricultural land and

livestock, and covers the period from 2003 to 2007. Under the agreement, the government will provide financial and technical assistance for research and development activities carried out by the farmers' union and agricultural research institutions.

The government introduced new payments based on output for horticultural producers at the beginning of 2002. This payment covers three major vegetables – cucumbers, tomatoes and red pepper – produced in greenhouses in which water from hot springs is used for heating. The purpose is to protect farm income against the risk of price falls caused by trade liberalisation in these three products from 2002. The budget for the new payments in 2002 was ISK 195 million (USD 2.1 million).

Although administered prices for poultry, eggs, sheepmeat and wool were abolished during the late 1990's, the dismantling of the administered price for milk at the wholesale level, initially scheduled for June 2001, was postponed to July 2004. For the production year 2002-03, the administered prices for milk at the producer level and at the wholesale level were increased by 7.0% and 6.1% respectively (Table 5.6). The milk quota was 106 million litres in 2002, two million litres more than the previous year's quota, and the unit value of direct payments for milk, limited to the current quota level, rose by 7.0%. For sheepmeat, the unit value of payments based on historical production quota entitlements decreased by 2.0%. There was approximately 1 400 tonnes of surplus stock of sheepmeat at the end of the 2001/02 marketing year and about 22% of total sheepmeat production was exported without subsidisation.

Table 5.6. **Iceland: Administered prices for milk**

Product	2001		2002		Change in ISK price 2001 to 2002 %
	ISK/t	USD/t	ISK/t	USD/t	
Price at the producer level[1]	73 354	751	78 470	857	7.0
Price at the wholesale level	64 644	662	68 607	749	6.1

1. Including direct payments.
Source: Ministry of Agriculture, Reykjavik, 2002.

Based on the agricultural agreement for sheepmeat in 2001, sheep farmers are permitted to transfer their historical production quota entitlements among themselves in order to rationalise the sector. A unit of entitlement is equivalent to 18.2 kg of sheepmeat produced in the year 2002. Under the terms of the agreement, the government spent ISK 239.5 million (USD 2.6 million) in order to purchase 2 800 entitlements from farmers who wish to retire or re-organise in 2002. The purchased entitlements will be reallocated to active sheep farmers.

The government introduced a traceability system for livestock in 2002. All meat products from domestically raised cattle, poultry, pigs and horses must have individual ID numbers to identify the place of origin and processing plants. Discussions about the application of this system to the sheepmeat sector continue between the government and the farmers' union. Iceland maintains stringent regulations to prevent outbreaks of animal and food-borne diseases. The importation of meat and bone meal has been prohibited since 1968, and the use of meat and bone meal for the feeding of ruminants has been banned since 1978.

6.3. Developments in trade policy

The government exempted the importation of cucumbers, tomatoes and red pepper from import duty in order to reduce the consumer prices for these three products in January 2002. Tariff-quotas for meat and butter under minimum access commitments continued to be under-filled in 2002. Regarding current access commitments, only vegetables and flowers are subject to quotas and these were almost filled in 2002.

6.4. Overall evaluation

Icelandic agriculture is characterised by high support levels and limited market orientation, although a series of reforms has been implemented in agricultural policies. There has been a notable shift from market price support to direct payments for the milk and sheepmeat sectors in the past decade. In response to this change, agricultural support, as measured by the %PSE, has fallen from 75% in 1986-88 to 63% in 2002. The share of market price support in the total PSE has dropped from 87% to 48% during the same period. However, most of the support indicators suggest that the agricultural support level in Iceland is still very high. Although the producer NPC dropped to 2.38 in 2002 from 3.89 in 1986-88, domestic producer prices were still 140% higher than those in the world market in 2002. The producer NAC of 2.73 in 2002 also suggests that gross farm receipts were more than two and a half times as high as what they would have been without any support. The % PSE, the producer NPC and the producer NAC were each nearly twice OECD average in 2002 (Tables III.24-25).

The gap between domestic consumer and world market prices, as measured by the consumer NPC, has narrowed considerably: It fell to 1.89 in 2002 from 3.95 in 1986-88. During the same period, the consumer NAC also fell from 3.23 to 1.85; nonetheless, consumers were still implicitly taxed, to the extent that they paid nearly double what they would pay if world market prices prevailed. Support for general services to agriculture was slightly reduced in 2002 by comparison with the previous year, and accounted for 11% of the TSE. Transfers from taxpayers and consumers associated with agricultural policies, as measured by the TSE, are estimated at ISK 12.8 billion (USD 140 million), representing 1.6% of GDP in 2002. The government replaced border measures on imports of major horticultural products with new payments based on output in 2002. Although this change reduced the burden on consumers, producer prices for these products are still higher than world market prices, continuing to stimulate production and input use.

Overall, support to Iceland's farmers remains among the highest in the OECD although there has been progress in abolishing administered prices in recent years and shifting away from market price support. Consumer prices for agricultural products are, on average, still close to double world market prices. Considering the high agricultural support 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.

7. Japan

7.1. Main policy instruments

Support is primarily provided through administered prices, trade measures and supply management regimes. The number of agricultural commodities subject to administered prices has been reduced since 2000. For rice, government purchase and selling prices apply to less than 5% of consumption and production. The government

purchases this quantity as a national reserve from producers who follow the government's guidelines for rice supply control. A state-trading body, the Agriculture and Livestock Industries Corporation (ALIC), operates price stabilisation systems for beef and pigmeat. Tariff-rate quota systems apply to major commodities such as rice, wheat and barley. A state trading body, the Food Agency, is responsible for importing rice under Japan's WTO URAA minimum-access commitment. Supply controls include quotas on milk production and the diversion of land from rice to other crops under the Production Adjustment Promotion Programme (PAPP). The Rice Farming Income Stabilisation Programme (JRIS) provides direct payments based on output to farmers to compensate for part of the loss of revenue if market prices fall in comparison with the average price of the seven preceding years, excluding the highest and lowest years. Budgetary support is provided for irrigation and drainage, and the readjustment of agricultural land. Prefectural and local governments provide infrastructure and extension services. Agri-environmental programmes include measures to encourage farmers to adopt sustainable agricultural practices that reduce fertiliser and pesticide usage as well as improve the quality of soil with composting. Budgetary payments for farmers in hilly and mountainous areas aim to prevent the abandonment of agricultural land and to maintain environmental benefits.

7.2. Developments in domestic policies

The purchase price for the 2001 ***rice*** crop was reduced by 2.8%, and the selling price for domestic and imported rice was reduced by 1.2%. The budget for JRIS payments in 2002 was JPY 86 billion (USD 687 million). The target area for the PAPP of rice was 1.01 million hectares in 2002.

Government purchase and selling prices for ***wheat*** and ***barley*** were frozen at the 2001 level, and minimum producer prices for ***sugar beet*** and ***sugar cane*** were reduced slightly. The deficiency payment scheme for manufacturing milk was replaced in April 2001 by a direct payment based on output. Following this change, the price of manufacturing milk is determined by domestic market conditions. The government set a ceiling of 2.2 million tonnes on manufacturing milk to be covered by the new direct payment in 2002. The mark-ups on import prices were JPY 304 (USD 2.4) per tonne for skimmed milk powder and JPY 806 (USD 6.4) per tonne for butter. ALIC will continue to import certain dairy products. The floor level of the ***pigmeat*** price stabilisation band was maintained at the 2001 level. All administered prices for ***calves*** were frozen at their 2001 levels.

In December 2002, the government announced a set of programs to promote the utilisation of biomass energy and biobased products derived from organic waste, such as food, plant and animal waste, as part of Japan's efforts to deal with global warming and achieve sustainable development. The set of programs, called ***the Biomass Nippon strategy***, aims to recycle 80% of organic waste by 2010. Based on the Biomass strategy, the government will implement wide-ranging programs from 2003. For example, certain communities will be designated as model areas for implementing projects for making full use of biomass and these communities will be offered research and technical assistance. The government also plans to provide financial help for private companies to develop biomass-related technologies.

The budget for the ***direct payment to farmers in hilly and mountainous areas*** in fiscal year 2002 was JPY 33 billion (USD 263 million). It aims to prevent the abandonment of cultivation and secure environmental benefits, *e.g.* preventing soil erosion and preserving water resources, in hilly and mountainous areas by ensuring the maintenance of farming

activities in these areas. Budget outlays on programmes promoting ***environmental conservation*** and reducing the adverse environmental effects of agriculture were JPY 43 billion (USD 343 million) in fiscal year 2001 and JPY 38 billion (USD 304 million) in fiscal year 2002. These programmes include financial support for farmers' groups and local governments for introducing environmentally friendly farming practices that reduce excessive use of fertiliser and pesticides, and to set up agricultural facilities for recycling. The *2002 OECD Environmental Performance Reviews – Japan* shows that the use of nitrogenous and phosphate fertilisers declined by 20% during the 1990s whereas agricultural output had decreased by 8% over the same period. Government expenditure to improve ***rural infrastructure***, such as constructing roads and sewerage systems amounted to JPY 384 billion (USD 3.2 billion) for the fiscal year 2001 and JPY 330 billion (USD 2.6 billion) for the fiscal year 2002.

Five ***BSE*** cases have been detected since the first case in September 2001. In response to the BSE crisis, a number of emergency measures have been taken, including surveillance for the detection and eradication of BSE and a ban on the production, sale or use of all livestock feed containing meat and bone meal and similar products. In addition, beef traceability legislation will come into effect in 2003. The legislation will make it compulsory to display an individual ID number on all beef from domestically raised cattle sold in retail stores. With the ID numbers, consumers will be able to access details of breed, date of birth, gender, the date of slaughter and the farm, etc.

In addition to the BSE crisis, several other food safety problems occurred during 2002. For example, it was found that unapproved additives were used in various foods and that pesticide residues in some imported vegetables exceeded the maximum permissible residue levels. The government decided to create a ***Food Safety Commission*** and to reorganise the Ministry of Agriculture, Forestry and Fisheries (MAFF) in order to implement significant reforms to improve the country's food safety administration. The new Commission will be established in 2003, within the Cabinet Office. It will act as an independent specialist organisation responsible for the scientific assessment of the risk of human health damage from food additives. A new bureau will also be created for risk management in MAFF in 2003. In conjunction with this reorganisation, a ***Food Safety Basic Law*** will be implemented.

7.3. Developments in trade policy

The quantitative restriction on rice imports was abolished and replaced by a tariff-quota system in 1999. The over-quota tariff-rate was JPY 341 000 (USD 2 722) per tonne in 2002 compared to the import price of rice of JPY 38 838 (USD 310) per tonne. The tariff-quota for rice was 767 000 tonnes in 2002 and the maximum mark-up for rice imports, which is additional to the tariff, was set at JPY 292 000 (USD 2 331) per tonne. The quantity of rice exported as ***food aid*** to developing countries was around 0.71 million tonnes in 2001. The share of imported rice in the total aid shipment was about 30%. Japan's tariff-rate quotas continued to be under filled during 2002 for some products, including skimmed milk powder for school lunches and for feed, mineral concentrated whey, whey for infant formula and for feed, butter and butter oil for specific uses, starches and ground nuts.

In December 2002, the government announced a plan to improve the special preferential tariff treatment and provide duty-free and quota-free access to almost all agricultural and fishery products originating from least-developed countries. This plan will be implemented at the beginning of April 2003. The commodities concerned consist

mainly of meat products, fruit, fresh and processed vegetables and marine products. Close to two hundred commodities are concerned.

7.4. Overall evaluation

Japanese agriculture is characterised by high support levels and limited market orientation. Although the %PSE declined from 61% in 1986-88 to 59% in 2000-02, it is still twice the OECD average. The composition of support has remained unchanged since the mid-80s, with 93% coming from market price support and output payments. It is these forms of support that have the greatest effects in stimulating production and input use, which distort trade and often contribute to environmental pressure. Moreover, these measures are the least effective in transferring income to farmers or in targeting the provision of specific environmental benefits. Based on the New Basic Law for agriculture, implemented in 1999, the number of agricultural commodities subject to administered prices has declined and the remaining administered prices have been reduced or frozen since 2000. However, the gap between domestic producer and world prices has not narrowed substantially. The average producer NPC has decreased slightly from 2.46 in 1986-88 reaching 2.34 in 2002, indicating that the domestic producer prices, on average, were more than twice world market prices. The producer NPC varies significantly across commodities: the highest occurring for rice and wheat (seven times the world price); the lowest for poultry and eggs (less than 20% above the world price). Although the producer NAC declined marginally from 2.57 to 2.44 over the same period, gross farm receipts in 2002 were still about 140% greater than what they would have been without any support (Tables III.26-27).

The gap between domestic consumer prices and world prices, as measured by the consumer NPC narrowed from 2.35 in the mid-80s to 2.04 in 2002. In other words consumers continue to pay more than twice the world market prices. The implicit tax on consumers, as measured by the %CSE, has decreased slightly since the mid-80s to 51% in 2002. Transfers from taxpayers and consumers associated with agricultural policies, as measured by the TSE, fell from 2.3% of GDP in the mid-80s to 1.4% in 2002. Support provided to general services to agriculture has slightly increased in recent years, representing 21% of the TSE in 2002.

The level of support, as measured by the %PSE and the producer NAC, has remained among the highest in the OECD since 1986-88. This suggests that domestic markets continue to be sheltered from world markets by border measures, administered prices and related interventions in domestic markets – despite recent reforms in administered price policies affecting several commodities. At the same time, market price support has consistently accounted for more than 90% of the total PSE.

Overall, progress towards market orientation in Japan's agricultural sector is very limited. Progress has been made in oilseeds, sugar and beef. However, other products especially rice have yet to record any improvement. The reforms currently being scheduled, including the rice policy reform, have the potential to improve market orientation and reduce the high costs of agricultural protection. Substantial further effort is needed to increase the exposure of the agricultural sector to international market signals.

8. Korea

8.1. *Main policy instruments*

Agricultural policies consist mainly of market price support implemented through trade measures and domestic price stabilisation mechanisms, including government purchase and public stockholding. Market price support is supplemented by direct payments. These account for an increasing, although still small, share of the budget in recent years. The government has implemented programmes to enhance agriculture's competitiveness by developing the agricultural infrastructure, including land improvement and farm consolidation. Agricultural policy support has been focussed on rice, which is the staple crop. Recently the government has been seeking policy changes to manage the level of rice production and stockholding. Policy priorities have been widened to agri-environment, food quality, consumers' interests and rural development. Environmental improvement is supported through payments for reduction of input use. Payments for farmers using techniques that limit input use and to shift from traditional to environmentally friendly farming are the two main environmental policy measures. Consumer interest in food quality is reflected in policies to provide the necessary information through labelling systems for quality, regional origin and for the presence of GMOs. Rural development is promoted by rehabilitation programmes for rural society and support for rural welfare.

8.2. *Developments in domestic policies*

In 2002, the government sought to change rice policies in order to manage supply more efficiently and to improve rice quality rather than to increase production. A ***Set Aside Programme*** was introduced with a budget of KRW 81 billion (USD 65 million) for 27 500 hectares of paddy fields in 2003. Farmers who set aside paddy field receive KRW 3 million (UDS 2 400) per hectare. To increase rice quality, several projects are being implemented such as the spread of high quality varieties, and processing and marketing through RPCs (Rice Processing Complexes). There are now 328 RPCs operated by the National Agricultural Co-operative Federation (NACF) and private enterprises, handling 30% of rice marketing.

The government purchase price of ***rice*** was frozen, following a 4.0% rise in 2001. The volume purchased by the government was 16% of total production, 2.7% less than the previous year's purchase. With recent successive bumper harvests rice stocks (private and government) soared to 27% of total consumption. On the other hand, rice consumption has fallen drastically from 107 kg/person in 1995 to 87 kg/person in 2002 as a result of changes in dietary patterns. The 2002 harvest decreased by 11%. The poor harvest was caused by Typhoon Lusa in August 2002 and lessened the burden of stockholding to some extent.

The NACF manages the price support system for crops, such as ***barley, maize*** and ***soybeans***. In 2002, the purchase prices of these commodities were frozen (Table 5.7). The actual amount of government purchase has been less than the target level.

Since January 2001 the beef market is subject to a tariff only regime. After liberalisation domestic production fell – by 24% in 2001 and 12% in 2002. On the other hand, beef consumption has increased steadily except in 2001 due to a slump in the domestic economy and to outbreaks of BSE throughout the world.

Table 5.7. **Korea purchase prices and quantities of major cereals**

	Units	1998[1]	1999[1]	2000[1]	2001[1]	2002[1]	Percentage change		
							1999 to 2000	2000 to 2001	2001 to 2002
Rice[2]									
Purchase price	'000 KRW/t	1 738	1 825	1 925	2 002	2 002	5.5	4.0	0.0
	USD/t	1 241	1 538	1 703	1 551	1 600			
Purchase quantity	'000 t	928	876	906	829	807	3.4	–8.5	–2.7
Barley[3]									
Purchase price	'000 KRW/t	977	1 026	1 067	1 109	1 109	4.0	3.9	0.0
	USD/t	698	865	944	859	886			
Purchase quantity	'000 t	188	246	158	289	247	–35.8	82.9	–14.5
Maize[2]									
Purchase price	'000 KRW/t	504	529	558	580	580	5.5	3.9	0.0
	USD/t	360	446	494	449	464			
Purchase quantity	'000 t	14	8	5	5	3	–37.5	0.0	–40.0
Soyabeans[2]									
Purchase price	'000 KRW/t	1 512	1 739	2 087	2 296	2 296	20.0	10.0	0.0
	USD/t	1 080	1 465	1 846	1 779	1 835			
Purchase quantity	'000 t	6.15	2.22	3.80	5.46	4.83	71.2	43.7	–11.5

1. Calendar year basis.
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.

In response the government implemented policies to maintain domestic production of beef. The ***Calf breeding stabilisation scheme*** was continued by the NACF in 2002. 150 000 farms (69% of Korean cattle farms) participated in the scheme, which covered 570 000 cows. The stabilisation price per calf is KRW 1.2 million (USD 959) and the ceiling for the deficiency payment is KRW 250 000 (USD 200) per calf.

Foot and Mouth Disease (FMD) broke out again in pigs in May 2002 after the first outbreak in 2000. 16 cases of FMD were identified in 4 cities and counties in May and June. The outbreak has delayed the reopening of pork exports and pig farmers suffered from a drop of market price. The government gave compensation payments and concessional financial resources to the affected households. The FMD free status without vaccination of Korea was restored by the OIE Commission in November 2002.

The crop insurance scheme helped to stabilise the income of fruit farms especially those suffering from serious typhoon damage in 2002. The ***insurance scheme for agricultural crop disasters*** was applied to apples, pears, grapes and three other fruits. In 2002, 18% of the area targeted by the government for this programme actually participated. Farmers who want to participate pay 50% of the insurance premium and the remaining 50% is covered by the budget.

Various direct payments have been introduced in recent years and their objectives have been diversified. The government introduced the ***Direct Payment Scheme for Rice Income Stabilisation*** in 2002. A fund for the scheme was established. Participating farmers pay 0.5% of the base price for their contracted production amount and the rest is covered by the budget of KRW 50 billion (USD 40 million) in 2003. The fund pays for 80% of revenue losses if the market price goes under the base price, an average of 5 years market prices. ***Direct Income Support for Paddy Fields*** continued in 2002 with a budget of KRW 394 billion (USD 315 million). This programme is available for agricultural land that had been used as paddy field for three years from 1998 to 2000. The payment is given to support incomes but

the participating farmers carry out environmental conservation. They received KRW 400 000 to 500 000 (USD 320 to 400) per hectare. ***Direct payments for environmentally friendly farming*** are also being paid to farmers who reduce use of fertilisers and pesticides.

Environmentally friendly production is not very developed. However, with the growing concerns about healthy diet, a combination of farming technologies such as Integrated-Pest-Management (IPM) and Integrated-Nutrient-Management (INM) is widely applied. The government plans to support an increase in environmentally friendly production up to 5% of total production by 2005 from 2.7% in 2001 and aims to reduce the use of fertiliser and pesticide by 30% respectively by 2005. Due to the various policies that have been put in place for ***sustainable and environmentally friendly farming,*** fertiliser use decreased by 15% from 1999 to 2001.

With increasing consumer concerns the government has been putting increasing emphasis on consumer oriented policies. ***Information on agricultural products*** is given through quality, GMO and geographical labelling systems. Labelling of ***Genetically Modified*** products was applied to soybeans, soy sprouts, maize and potato, in accordance with the Agricultural Products Quality Control Act. Processed food containing GM soybeans and maize has also been labelled since July 2001. A 3% tolerance limit was designated for food use. A ***system for checking pesticide residues*** in agricultural products prior to distribution has been implemented, with the number of checks increasing from 56 000 in 2002 to 58 000 in 2003. If residues exceed the permitted limits, products are removed from the market.

The revised ***Farmland Act*** came into force on 1 January 2003. The revised law deregulated farmland ownership. It allows any individual to possess up to 0.1 hectare of farming land to farm during weekends or for leisure purpose. This measure is designed to foster rural vitality through rural and urban exchange. In the revised law, the five-hectare limit on farm size outside of the Farming Promotion Area (which accounts for nearly half of all arable land) was removed. The law also allows agricultural corporations to possess farmland.

The government implements rural policy measures to increase ***off-farm income*** and to promote ***rural welfare***. The government is implementing deregulation to promote green-tourism including the revision of the Farmland Act so that more capital flows into rural areas. In 2003, the Green Experience Programme for urban dwellers was implemented with spending of KRW 3.3 billion (USD 2.6 million). The government provides educational support for young rural students with funding of KRW 18 billion (USD 14 million). It also implements support programmes for the purpose of improving living conditions such as education, medical services and pensions.

8.3. Developments in trade policy

The ***Free Trade Agreement*** (FTA) negotiation with Chile pursued since 1999 concluded in October 2002. Ratification by the National Assembly is expected in the first half of 2003. In the agricultural sector Chilean vegetables and fruits will have increased access opportunities to the Korean market. Rice, apple and pear were excluded from the agreement. Korea used the ***safe guard*** measure on garlic imported from China in 2000. As a result of negotiations with China in 2000, use of the safeguard was discontinued at the end of 2002. The 2001 ***tariff-rate quota*** (TRQs) fill rate was around 70%, a 1% increase from 2000. Out of 63 agricultural products subject to TRQ, 38 were completely filled, 18 were partially filled and there were no imports of seven products.

8.4. *Overall evaluation*

Korean agriculture is characterised by high support levels and a very low level of market orientation. Support to producers, as measured by the %PSE, fell from 70% of farm receipts in 1986-88 to 66% in 2000-02, but it is still double the OECD average. The support level in 2002 increased by 3%, mainly due to a rise in market price support and budgetary payments. This in turn reflected a fall in world prices of livestock commodities and increasing government payments on measures such as those to reduce debts of farm households. The level of support varies across commodities from 4% for eggs to 90% for oilseeds and 81% for rice. Support provided to general services to agriculture has increased slightly over the last four years. Total support to agriculture as a share of GDP at 4.5% was the highest for any OECD country, but half of what it was in 1986-88 (Tables III.28-29, Table III.46 and Table III.47).

Market price support has fallen slightly since 1999, but still dominates support to producers. It accounted for 91% of support to producers in 2002, down from 99% in 1986-88. Payments based on input use were among the main categories of budgetary payments, accounting for 3% of producer support. It is these forms of support that have the greatest effects in stimulating production and input use, which distort trade and often contribute to environmental pressure. Moreover these measures are the least effective in transferring income to farmers, or in targeting the provision of specific environmental benefits. To limit the harmful environmental impacts of farming activities, cross-compliance requirements have been imposed on some budgetary payments. However, the budget for these measures is still limited and agriculture continues to pollute water in Korea. Payments based on overall farming income accounted for 3% of support to producers in 2002 due to a big increase of payments for support for in-debt and disaster-stricken farmers.

As a result of all these support measures, prices received by producers and paid by consumers, were almost three times world prices in 2002, a small narrowing of the gap between domestic prices and world prices since the mid-1980s. In 2002, gross farm receipts were around 200% greater than what they would have been without any support.

Overall, despite recent new policy initiatives for agri-environmental conservation and rural communities, further efforts are needed to reduce support, shift to less production and trade distorting forms of support, and improve market orientation. While protection for some commodities has been reduced, several agricultural commodities, including rice, remain isolated from international market signals, creating significant consumer costs.

9. Mexico

9.1. *Main policy instruments*

Agricultural policies consist mainly of market price support provided through border measures, budget payments to producers based on historical entitlements, and payments based on input use, mainly fixed inputs and technical assistance. Mexico's border protection with Canada and the United States is being reduced within the framework of the North American Free Trade Agreement (NAFTA) and the URAA. Mexico allocates its tariff-rate quotas (TRQ) through auctions for animal fats and oils, fresh eggs and part of the powder milk quota, and through direct allocation for the rest. TRQs are often increased in response to changing domestic market conditions. The set of programmes under the *Alianza Para El Campo* (Alliance for Agriculture) with the participation of State governments and producers, aims at enhancing investment on farms, especially in poor, rural areas. The PROCAMPO programme disburses payments to eligible farmers, based on the area planted during an

historical base period, on condition that farms (of more than five hectares) use their land for agricultural or livestock production, or for an environmental programme. The Support Services for Agricultural Marketing Agency (ASERCA) provides payments per tonne of wheat, maize, sorghum, rice and some other crops in certain states. In addition, 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 may reduce farmers' irrigation costs. The Secretariat for Social Development (SEDESOL) distributes free tortillas to poor families under the "Progresa" programme. The PROCEDE programme, run by the Secretariat for Agrarian Reform, has promoted the development of land property rights in the Ejidos (a Mexican community-based form of social ownership).

A substantial package of new measures was announced in November 2002, including a counter-cyclical payment for crops (see Box 5.5). Most of these measures will be developed during 2003 and may not be operative until 2004.

Box 5.5. **Mexico: New measures announced in 2002**

- **A new counter-cyclical payment for crops in addition to PROCAMPO will replace current per tonne marketing payments.** The amount of the payment per tonne will be calculated as the difference between the target price and the sum of the market price and PROCAMPO payments per ton. Target prices, fixed over time, are shown in Box Table 5.5.1.

Box Table 5.5.1. **Mexico: Announced target prices for crops**

	MXN/t.	USD/t.
Maize	1 650	172
Wheat	1 800	187
Sorghum	1 270	132
Safflower	3 300	343
Canola	3 500	364
Cotton	14 700	1 530
Rice	2 100	219
Soyabeans	3 000	312

Source: Secretary of Agriculture (SAGARPA) and Secretary of Economy (November 2002) "Actions of agro-food and fisheries policies for strengthening the sector".

- **A package of legislative measures:** new foreign trade law facilitating actions against "unfair" competition, new legislation on quality and labelling, a new legal framework for rural financial services permitting pluri annual budget provisions for agricultural measures, new legislation on rural stockholding to facilitate the use of crops as collateral for credit.
- **A package of measures to strength food safety, quality and health**. Inspection of imports at the border, traceability of imported products, application of food safety and quality standards and facilitating the declaration of disease-free zones. Most of these activities will be centralised in a single agency called SENASICA.
- **New programmes for livestock:** a new payment per cow conditional on extensification plus compulsory rules for traceability.
- **A new common subsidised price for electricity** used for agricultural production at 0.3 MXN/Kw, at an estimated cost of MXN 5700 million (USD 593 million).
- **Restructuring the rural financial sector:** liquidation of BANRURAL with a bail-out by the Government plus the creation of a new financial institution with government participation.

9.2. Developments in domestic policies

Since 2001, so-called ***marketing payments*** for maize, wheat, sorghum, rice and other crops have been provided, on a per tonne basis, directly to the producer. Transactions are occurring at market prices which are significantly lower than the administered prices of 2000. The level of support for each crop in each State, as well as the basket of eligible crops, is determined between the federal Government and each State government. Both in 2001 and 2002 the Government has participated in the determination of "consensus" prices between producers and buyers of some crops in some states.

Payments per hectare under PROCAMPO increased by 7% in 2002 to MXN 829 (USD 86) for the autumn/winter crop season and by 5% to MXN 873 (USD 91) for the spring/summer season (Table 5.8), compared with an inflation rate of 5.7%. Rules permitting the capitalisation of PROCAMPO payments were approved in July 2002. An agreement with some banks allows farmers to receive the total amount of payments due up to 2008, subject to developing an investment project in agro-food, forestry or fishing.

Table 5.8. **Mexico: PROCAMPO direct payments**

	Unit	2000		2001		2002		Change in MXN price %	
		MXN	USD	MXN	USD	MXN	USD	2000 to 2001	200 to 2002
Rate of payments (crop season)									
Autumn/winter	Per hectare	708	75	778	83	829	86	9.9	6.6
Spring/summer	Per hectare	778	82	829	89	873	91	6.6	5.3
Total payments	Million	10 379	1 098	11 005	1 178	12 420	1 292	6.0	12.9
		2000		2001		2002		Change %	
Area benefiting	Million hectares	13.6		13.4		14.0		–1.1	4.3

p: provisional.
Source: Second Government Report from the President, 2002.

In November 2002 the Secretariat for Agriculture (SAGARPA) announced a new framework for agricultural policies under the name of "Actions for agro-food and fisheries policies to strengthen the sector". This is the main agricultural policy package announced by the new administration since it took office in 2001. The package includes the items listed in Box 5.5. Specific details are still to be defined.

The set of programmes entitled ***ALIANZA*** was restructured in 2002, reducing the number of programmes by integrating some of them under common headings. The total budget dedicated to these programmes in 2002 was MXN 8 665 million (USD 902 million), 37% more than in 2001. The State Governments contributed 18% and producers contributed an estimated additional MXN 3 129 million (USD 326 million). Most of the payments under the ALIANZA programme consist of subsidies on inputs (mainly investment) or on-farm services.

Budgetary expenditure on payments to avoid the use of fire as a farming practice increased from MXN 47 million (USD 5 million) in 2001 to MXN 71 million (USD 7 million) in 2002. The programme now reaches 268 000 hectares, that is 54% of the land previously subject to these practices.

9.3. Developments in trade policy

According to the provisions of the NAFTA agreement, the transition period for the elimination of Mexican tariffs on many agricultural products from NAFTA countries expires at the end of 2002. Trade liberalisation may have had a significant impact on Mexican agricultural trade as shown in Box 5.6. The only exceptions are four important products for Mexico whose liberalisation is delayed until 2008: maize, sugar, milk powder and dry beans. The year 2004 is also the last year of the transition period under the Uruguay Agreement on Agriculture (URAA). For most products bound and applied MFN tariffs are well above those within NAFTA, and some of them are above 100% (Table 5.9).

Table 5.9. **Mexico: Tariffs on imports of selected agricultural products**

	MFN bound in 2004 %	Applied MFN 2002 %	NAFTA 2002 (from US) %	NAFTA tariff zero in
Wheat	67	67	2	2003
Maize	194	198[1]	109[1]	2008
Barley	115	118	24[1]	2003
Sorghum	45	0 –15[2]	0	1994
Rice	45	20	2	2003
Soyabeans	45	20	2	2003
Sugar	0.36 USD/kg	0.4 USD/kg	0.3 USD/kg	2008
Dairy products (except milk powder)	38	20	2	2003
Milk powder	125	128[1]	70[1]	2008
Beef	45	25	0	1994
Pigmeat	45	20	20[3]	2003
Poultrymeat	234	240	49	2003
Eggs	45	46	10[1]	2003
Dry beans	125	128	70[1]	2008
Tomatoes	36	13	0-10[2]	2003
Potatoes	245	251[4]	51.6[1]	2003
Apples, pears and other fruits	45	23	2	2003

1. In-quota tariff is zero.
2. The tariff rates depend on the dates in the year.
3. In-quota tarif is 2%.
4. In-quota tarif is 50%.

Source: Secretaria de Economia "New import tariffs 2002", WTO and EU Commission "Applied tariffs database".

Tariffs for many products under NAFTA were already quite low or zero in 2002. This is the case of sorghum and beef (0%), wheat, rice, soybeans, several fruits and dairy products excluding milk powder (2%), and eggs and vegetables (10%). For most of these products the final step of tariff reduction occurring the first of January 2003 is rather marginal. There are other products having a large final tariff reduction in 2003 such as barley (24%), pigmeat (20%), poultrymeat (49%) and potatoes (52%). For these products the tariff reduction in 2003 is more significant and may require significant adjustments, especially for meats whose producers have to pay a high price for the feed maize that is still highly protected with border measures: 109% out of quota tariff and binding tariff rate quotas.

There are still five years of transition within NAFTA for the most sensitive products. Dry beans are a main staple while milk powder is a main imported food in Mexico. Sugar is socially sensitive since production is highly concentrated in few states where many small producers depend on sugar cane production. Free trade with the United States may create opportunities for the Mexican sugar industry if the restructuring process initiated by the

Box 5.6. **NAFTA and Mexican agricultural production and trade**

The impact of NAFTA and the URAA on Mexican agricultural production and trade is difficult to estimate due to the on-going structural adjustment occurring in the whole Mexican economy. Agricultural GDP increased in the 90s at an annual rate of 1.5%, well below the rate of growth of 3.5% in the economy as a whole. However, the growth of GDP in the whole agro-industry sector was 3.4%, more in line with total GDP growth. The resulting reduction in the relative size of the primary sector is usual for a country at Mexico's stage of development.

The structural deficit in the Mexican agro-food balance of trade has been reduced in the 90s, as exports expanded faster than imports of agro-industrial products (18% *versus* 7% on an average annual basis). However the trade deficit in primary agricultural products – whose share in trade is rapidly falling – slightly increased due to a 9% rate of growth in exports as compared to 7% in imports.

Box Table 5.6.1 presents some figures on average production and trade for the main agricultural products in the four years before NAFTA (1990 93) as compared to the most recent four years (1999 2002). Production of maize has increased by 18% between these two periods, while the increase in net imports was 25% of initial production. The increase in domestic demand for maize is mainly due to an increase in production and demand for meat and livestock products. Most of the imported maize is yellow maize for animal feed.

Box Table 5.6.1. **Mexico: Production and imports of main agricultural products**

000t	Average production 90-93	Average production 99-02	% change	Average net imports 90-93	Average net imports 99-02	% change w.r.t. production 90-93
Wheat	3 799	3 277	–14	917	2 592	44
Maize	15 985	18 891	18	1 691	5 751	25
Barley	418	709	70	171	145	–6
Sorghum	4 555	5 888	29	3 547	5 005	32
Rice	257	308	20	332	660	127
Soyabeans	273	112	–59	1 747	4 205	901
Total crops above	25 286	29 184	15	8 406	18 357	39
Sugar	3 577	4 798	34	393	–337	–20
Beef	1 202	1 422	18	–21	191	18
Pigmeat	803	1 081	35	47	169	15
Poultrymeat	908	1 854	104	70	249	20
Total meats above	2 912	4 357	50	95	609	18
Milk	6 807	9 348	37	1 898	1936	1
Eggs	1 137	1 797	58	9	9	0
Dry beans	1 168	1 061	–9	83	57	–2
Tomatoes	1 713	2 186	28	–381	–691	–18

Source: PSE database.

There was a reduction in the production of wheat with a significant increase in imports, and a reduction of the production of soya, which is a minor product in Mexico. Barley, sorghum and rice production increased at different rates. Adding up the six crops in Box Table 5.6.1 the increase in production was 15% as compared to an equivalent 39% increase in net imports.

Production of sugar has increased by 34% and Mexico – which used to be a net importer of sugar – has become a big net exporter.

Box 5.6. **NAFTA and Mexican agricultural production and trade** *(cont.)*

The pattern of changes in production and trade is different for meats. Mexico continues to be a net importer of meat, but production of beef, pigmeat and poultrymeat has increased by 50% as compared to an equivalent 18% increase in imports. This is especially the case of poutrymeat whose production has more than doubled in a decade. The production of milk and eggs has also grown 37% and 58%, while the level of imports remained constant.

Government in 2001 succeeds. Maize is the main agricultural production and staple food in Mexico. The bulk of the external shock for maize in Mexico will occur in the next five years when the expanding quota becomes non-binding or the reducing out of quota tariff permits out of quota imports. Some small producers marketing part of their crops may need to adjust, which may require accompanying social measures, especially in poor areas.

Since NAFTA there has been an increase in agricultural production in Mexico and a significant increase in agricultural trade in the region (Box 5.6). In 2002 the North American Commission for Environmental Cooperation launched an initiative to study the gene flow from transgenic varieties of maize to native Mexican varieties ("Maize and biodiversity: the effects of transgenic maize in Mexico").

9.4. Overall evaluation

Mexican agriculture is characterised by relatively low support, a shift away from market price support, and a liberalisation of agricultural trade in the context of NAFTA. Support levels have fluctuated widely due to exchange rate volatility and imperfect price transmission between world and domestic markets. For example, producer support as a percentage of farm receipts changed from virtually zero in 1986-88 to 30% in 1992, and was slightly negative in 1995. In 2000-02 it was 22%, below the OECD average of 31%. In 2002, producer support was 22%, one per cent higher than in 2001, mainly due to an increase in market price support. Sugar and milk have the highest levels of support with %PSEs of 55% and 45% respectively, but maize (31%) and poultrymeat (30%) also made major contributions to total support due to their weight in Mexican agriculture. Support for general services to agriculture increased in 2002, but only represented 8% of total support to agriculture, which, in turn, represents about 1.4% of Mexican GDP, close to the OECD average (Tables III.30-31). The agricultural sector uses 78% of scarce Mexican water resources, and inefficiencies in the irrigation system contribute to environmental pressures.

Market price support, which potentially has the greatest effect in stimulating production and distorting trade and is the least effective instrument in targeting income to farmers, accounted for 66% of producer support in 2002, compared with 64% in 2001. Market price support has increased by 20% in 2002, due to a reduction in world prices of some commodities (sugar and beef, pork and poultry meats) not reflected in domestic prices (Table III.47). Prices received by farmers were on average 20% higher than those in the world market, well below the OECD average. The elimination of administered prices for some crops was matched by a small shift to output payments in 2001, which now account for 3% of producer support. This change in the form of support continues to provide

support to producers while not penalising consumers. Nonetheless, these output payments have not significantly improved the market orientation of producers.

In 2000-02, half of the budgetary payments made were based on historical entitlements (PROCAMPO) – a large change from 1986-88, when all payments were based on inputs. These measures are among the least production and trade distorting. An increase of 13% in PROCAMPO payments was the main element contributing to the increase in producer support in 2002. Payments based on historical entitlements (PROCAMPO) represent 16% of support compared with the OECD average of 5%. Gross farm receipts were 29% higher than they would have been without any support. Reflecting developments in agricultural policies, the support given to consumers, as measured by the CSE, has been declining between 1995 and 2001. Since 1997 there has been an implicit tax on consumers. In 2002 consumers at the farm gate paid, on average, 25% more than what they would have in the absence of market price support to producers and consumer subsidies. Expenditure on public stock holding which represented 47% of the GSSE in 1986-88 has been eliminated, meanwhile the proportion of GSSE dedicated to research and development and agricultural schools nearly doubled to 44% in 2002.

Although larger than in the period 1986-88, Mexico has lower levels of support than in the early 90's and has made significant reforms in agricultural policy, shifting to less production and trade distorting measures, gradually opening its markets – mainly to NAFTA members, eliminating the general consumer subsidy to tortilla while maintaining targeted tortilla and milk subsidies to poor families, and reforming property rights in the Ejidos. However, given the significance of agriculture in the economy and the sensitivity of low income consumers to food price increases, the challenge is to pursue stable policies that will give the right signals to farmers, to facilitate structural adjustment, to improve the productivity of the sector and the sustainable use of natural resources, while targeting support to poor farmers and consumers.

10. New Zealand

10.1. 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. New Zealand provides no market price support other than tariffs, which are at very low level, applied to some imported products such as pig meat and poultry, no export subsidies, nor other direct payments to producers. The New Zealand government does not directly control exports of agricultural products. Most producer boards with statutory powers controlling a range of marketing and trade activities have been reformed recently. In certain limited cases, statutory export rights have been granted to designated exporters in consistency with international trade obligations. Export marketing is now deregulated, except for kiwifruit and hops. To fund activities such as research and development, quality assurance, and trade policy, some industry organisations have statutory powers to collect levies from producers. These include the New Zealand Meat Board, Deer Industry New Zealand, the Pork Industry Board, and the New Zealand Wool Board. The trend is for statutory levies to be replaced by levies under the Commodity Levies Act 1990. Under this legislation, levies

can only be imposed if they are supported by producers, and producers themselves decide how levies are spent.

10.2. Developments in domestic policy

Historically, marketing of most agricultural products in New Zealand was under the control of ***statutory producer and marketing boards***. Recently the boards including the dairy board have been reformed. The ***New Zealand Dairy Board*** is now a subsidiary of Fonterra, and its single desk export powers have been removed from October 2001. However, the New Zealand Dairy Board continues to hold exclusive licences to export to the restricted access markets listed in the Dairy Industry Restructuring Act 2001 until various dates, ranging from 2007 to 2011. Fonterra has a dominant position in the market, where it is estimated to have a 97% share of New Zealand's manufacturing milk supply while two other companies control the remaining 3%. The Dairy Industry Restructuring Act 2001 provides for a legislative package of measures to mitigate the risks of that market power.

The ***kiwifruit*** industry still has a regulated marketing system in place. The legislation provides for Zespri to be the main exporter. Those who wish to export kiwifruit may do so only with the permission of the New Zealand Kiwifruit Board, which approves proposals for other exporters to market collaboratively with Zespri. New ***wine*** legislation was introduced into Parliament in October 2002. A bill was introduced into Parliament in 2002 to remove the ***Hop Marketing Board***'s export monopoly on hops and convert the Board to a company. Legislation is also scheduled to be introduced into Parliament to dissolve the ***New Zealand Wool Board***. This is the final step in deregulation of the Wool Board: it had previously lost its control powers in 1997, except for allocation of access to certain markets where importing countries impose restrictions.

The ***New Zealand Food Safety Authority*** (NZFSA) was established on 1 July 2002 as a semi-autonomous body. The new Authority combines the food-related functions of the Ministry of Health and the former MAF Food into one agency to provide a more integrated approach to food safety across the food chain. The NZFSA is responsible for the administration of food safety legislation and controls on the registration and use of agricultural compounds and veterinary medicines. It is New Zealand's controlling authority for imports and exports of food and food related products.

The government is engaged in implementing the general thrust of the July 2001 recommendations of the ***Royal Commission on Genetic Modification***. Work is currently underway to refine further New Zealand's legislative controls on new organisms including GM organisms through amendments to the Hazardous Substances and New Organisms Act 1996. One of the refinements being considered is to allow the release of new organisms to carry certain conditions, which could amongst other things, facilitate the coexistence of GM and non-GM agriculture and forestry. New protocols to test imported consignments of sweet corn and maize seeds for the presence of unapproved ***genetically modified seeds*** came into force on 1 August 2002. As well as extending the sweet corn regime to maize seeds from 1 August 2002, testing of canola seeds started from 1 October 2002. MAF also introduced testing for soybeans from 1 January 2003.

In September 2002, the government decided to implement a programme to eradicate the ***painted apple moth***. The painted apple moth is a major threat to forests, native bush and reserves, gardens and horticultural crops. A comprehensive three-year aerial

eradication programme is underway. This includes aerial operations covering 8 000 to 12 000 hectares, planned for completion by late Autumn 2003.

The Ministry of Agriculture and Forestry, the Ministry for the Environment, and regional councils are participating in an industry-based initiative to manage the impact of dairy farm intensification on ***water quality***. They have discussed issues and actions for strategic water use, large scale irrigation developments, the economics of efficient water use and the importance of instream values. The Action Plan will build on existing industry and local government initiatives already underway throughout the country.

The ***Sustainable Farming Fund*** has been operational for two years. The Fund provides financial grants for short-term projects that are practical and help with the transfer of information and technology from experts into the hands of the wider community. To date, 184 projects have been approved for grant support. The government is facilitating the development of ***organic agriculture*** through three initiatives. In November 2002, a small-scale organic producer certification scheme was launched. The second initiative is to help the sector develop a growth strategy stretching out over twenty years. This strategy is likely to be launched early in 2003. Also early in 2003, a New Zealand Organic Standard is expected to be launched.

10.3. Developments in trade policy

The ***Pacific Agreement on Closer Economic Relations*** (PACER) came into effect in October 2002. It is the overarching framework agreement setting out the basis of trade relations among 16 Pacific Island countries, including New Zealand and Australia. It includes technical assistance to implement trade facilitation measures and may be a step toward a regional free trade arrangement.

New Zealand and Hong Kong remain committed to concluding a comprehensive ***Closer Economic Partnership*** (CEP) agreement. New Zealand, Chile, and Singapore announced commencement of CEP negotiations in October 2002. Studies of the potential benefits of a possible CEP trade agreement between New Zealand and Mexico have been initiated.

New Zealand was involved in three ***WTO dispute settlement procedures*** in 2002 including the long-running dairy case. The WTO Appellate Body dealt with Canada's dairy export scheme. New Zealand and the United States argued that the new mechanisms introduced by Canada following the WTO decision in 1999 continued to violate WTO disciplines on export subsidies. On 20 December 2002 the Appellate Body ruled in favour of New Zealand and the United States in concluding that Canada's approach to the export of products made from commercial export milk constitutes an export subsidy.

New Zealand is involved as a third party in two cases taken by the United States. The first is at the consultation stage, regarding Venezuela's administration of tariff quotas on dairy and other products. The second is before a panel, and concerns Japanese SPS measures affecting the importation of apples.

10.4. Overall evaluation

New Zealand agriculture is market-oriented and domestic prices of agricultural products are aligned with world market prices. Support to agriculture as measured by the %PSE has been 1% since 1998 and continues to be the lowest in the OECD. The only commodities for which there is market price support are eggs and poultry, due to border measures that are imposed for biosecurity reasons to protect domestic poultry from

various avian diseases not present in New Zealand. In the mid-1980s, gross farm receipts were 13% greater than they would have been without any support, but after the agricultural reform to market orientation in the 1990s in New Zealand this gap was reduced to almost zero. Consumer prices were slightly above world market prices as measured by the %CSE (Tables III.32-33, Table III.46 and Table III.47).

Of the support provided to producers, most consists of payments for general services. Expenditure on general services provided to agriculture is mainly for agricultural research and inspection services. Food safety has been reinforced by rearrangement of the related regulations and organisations. The policy changes to the previous statutory arrangements for marketing and export go in the direction of deregulation, including the implementation of reforms aimed at removing the single-desk statutory powers of the producer boards. Following the corporatisation of producer boards, regulations were enacted to constrain their market power. Although greater competition in these markets should help increase efficiency, the effects of the reforms will need to be monitored.

Overall, policy developments have broadly achieved the long-term reform objective of reducing support to agriculture and eliminating market distortions, and are addressing environmental issues through market-based approaches.

11. Norway

11.1. *Main policy instruments*

Border measures and budgetary payments are the main policy instruments supporting agriculture in Norway. Market price support, in the form of wholesale target prices, is provided for most commodities, together with production quotas for milk. TRQs and high tariffs limit imports, although there is a system of "open periods" for imports at reduced tariff rates when domestic prices rise above threshold levels. Market price support is supplemented by a variety of budgetary payments to farmers including area, headage, and deficiency payments. Both target prices and budgetary payments are negotiated annually between the government and producer representatives resulting in an Agricultural Agreement, established on a July/June year basis. A significant proportion of the budgetary payments is differentiated by region and farm size. Agri–environmental payments have been increasing in recent years. Producer levies are used for marketing activities, including export subsidies for livestock products, while exports of processed products are financed directly by the government. The Norwegian Agricultural Authority (NAA), established in 2000 under the authority of the Ministry of Agriculture, is the central body for the implementation of agricultural policy. In 2000, the Norwegian Parliament endorsed a White Paper *On Norwegian Agriculture and Food Production*, which defined the direction of Norwegian agriculture policy over the coming years, emphasising increased consumer orientation, food safety and the multifunctional character of agriculture.

11.2. *Developments in domestic policies*

A significant policy development during 2002 was the government decision to reduce the budget of the 2002/03 Agricultural Agreement by NOK 300 million (USD 38 million), around 2.5%. This was to a large extent accomplished by reducing output related deficiency payments for livestock. However, the reduction was offset by increases in target prices for livestock and the expansion of income tax concessions for all farmers. Other developments include greater market flexibility in the trading of milk quotas, the separation of the

Acreage and Cultural Landscape Payment into two payments to make the payment objectives more explicit, a new interest rate concession programme, and changes to improve the consumer focus of food policy.

Target prices for livestock products were increased for the year 2002/03 but were reduced for grains (Table 5.10). The downward adjustment occurred because the target

Table 5.10. **Norway: Administered prices**

Product	2001/02 (July to June)		2002/03 (July to June)		Change in NOK price 2000/01 to 2001/02 %
	NOK/t	USD/t	NOK/t	USD/t	
	Wholesale level (excluding value-added tax)				
Food grains					
Wheat	2 310	257	2 230	279	–3.5
Rye	2 150	239	2 100	263	–2.3
Feed grains					
Barley and Oats[1]	1 850	206	1 800	225	–2.7
Oilseeds	4 400	489	4 390	550	–0.2
Beef, bull[2]	34 450	3 831	36 210	4 534	5.1
Pigmeat[3]	26 820	2 982	27 370	3 427	2.1
Sheepmeat, lamb[2]	42 240	4 697	44 000	5 510	4.2
Eggs[4]	13 340	1 483	13 590	1 702	1.9
Poultry	25 980	2 889	26 180	3 278	0.8
Milk[5]	5 194	578	5 291	663	1.9

1. There is only one administered price on feed grain which is made up of the two components barley and oats.
2. Class O- and better; Carcasses.
3. Class E; Carcasses minus head and trotter.
4. Class A, weighing more than 53 grams.
5. Converted from litres, assuming 1 litre equals 1.032 kilograms of milk.

Source: Ministry of Agriculture, Oslo, 2002.

prices set for the first year of implementation of the system for grains was too high and to reflect a reduction in grain distribution costs. Overall, these changes are estimated to increase the total value of farm gate production by NOK 475 million (USD 59 million), or around 2%. Producer levies ("marketing fees") remained fairly stable during 2002 for all products except milk which decreased, reflecting the fact that there have been no significant problems with surplus production in 2001 and 2002. A producer levy on grain was introduced on 1 January 2002 as a result of the change from a guaranteed price to the target price system in 2001.

Milk production quotas have been tradable since 1997 through a system whereby the NAA purchases and on-sells quota. The government has used this system to reduce production in response to lower domestic consumption and the WTO limits on subsidised exports. Over the period 1997-2001, the government on-sold only 36% of the quota it purchased, withdrawing the other 64% (275 million litres or 15% of production) from the market. During 2002, it was not necessary to withdraw quota from the market and so all 34.7 million litres of milk purchased by the NAA was on-sold. Some flexibility in the system will be introduced in 2003 with the government restricting itself to purchasing only 70% of the offered quota (for either on-sale or withdrawal), with the 30% able to be traded directly between farmers. However, sales will remain restricted through both systems to existing producers within the same county.

Changes were made to the ***base deficiency payment*** per unit of output for the year 2002/03 to meet the required budget decrease. The base deficiency payment for cow milk (NOK 0.036 per litre) has been withdrawn, and payments reduced for beef and veal (40%), sheepmeat (22%) and goat milk (2%), but remained the same for goatmeat and wool. No changes were made to the ***regional deficiency payments***.

The Acreage and Cultural Landscape Programme accounts for one quarter of total budgetary support to farmers. To ensure greater transparency in objectives, the programme will be separated into two programmes from 2003. Under the Cultural Landscape Programme all farmers will receive a payment of NOK 2 000 (USD 250) per hectare provided they comply with requirements already in place relating to the maintenance of the landscape and the use of environmentally sound production practices. The separate Acreage Support Programme is focused on providing payments to less favoured areas, encouraging certain crops or providing support to small farmers. Consequently payment rates vary by crop, region and farm size. Total programme expenditure under the combined programme in 2002 was reduced by 2% to NOK 3.04 billion (USD 380 million), and will be further reduced to NOK 2.99 billion (USD 374 million) in 2003.

A further 20% of budgetary support is provided in the form of ***headage payments*** under the Production Subsidy to Livestock Programme for cows, beef cattle, sheep, goats, breeding pigs, pigs for slaughter and laying hens. Limits are placed on the number of animals per farm eligible to receive headage payments. In contrast to the area payment programme, a regional distinction is only made for laying hens and breeding pigs. No changes were made to headage payment rates applying in 2002/03. Total headage programme expenditure increased by 1% in 2002 to NOK 2.24 billion (USD 281 million), and will expand to NOK 2.271 billion (USD 284 million) in 2003.

In 2000, the government introduced an income tax deduction for farmers to offset reductions in target prices. This allowed those farmers with a positive income to deduct from their total income up to NOK 36 000 (USD 4 500), providing a maximum tax saving of NOK 10 000 (USD 1 250) per farm and total support of NOK 650 million (USD 81 million). Following the reduction in budgetary support in the 2002/03 Agricultural Agreement, the amount that can be deducted has been increased to provide a further tax saving of NOK 200 million (USD 25 million), or around NOK 3 000 (USD 375) per farm.

Assistance to ***organic farming*** increased by 30% in 2002 to NOK 100 million (USD 13 million) and will increase to NOK 115 million (USD 14 million) in 2003. The policy target is to increase the organic area from 2% to 10% of total agricultural land by 2010. Support for organic farming is provided in the form of direct payments to farmers on a per hectare basis, funding for research, advisory and certification organisations, and financing of a marketing strategy. However, funding to support specific landscape maintenance and development, including the restoration of ancient buildings and environmental investments, decreased by 3% in 2002 to NOK 98 million (USD 12 million). Following the Government's assessment that the pilot scheme had been successful, environmental planning and documentation at the individual farm level become mandatory for all farmers from 1 January 2003.

The ***interest rate*** charged on farm development loans from the Norwegian Industrial and Regional Development Fund (formerly administered by the State Bank for Agriculture) decreased from around 8.1% to approximately 7.9%. This narrowed the gap with market

interest rates, which fell from 8.6% to 8.2%. However, a new interest rate support scheme will be introduced in 2003. This will reduce the interest rate by five percentage points to farmers and cover a maximum of NOK 500 million (USD 63 million) worth of loans.

Legislation was introduced in 2002 for the protection of geographical indications and designations of origins on foodstuffs in response to demand for greater information about product origin and production methods. Structural changes are being made to the Norwegian Food Control Authority, the Norwegian Animal Health Authority and the Norwegian Agricultural Inspection Service to improve food safety co-ordination along the production chain. These organisations will be merged into one control agency in 2004. An action plan to more closely align food policy with consumer interests is being implemented by the government. This involves improving information flows and the establishment of consumer panels to advise on policy developments.

11.3. *Developments in trade policy*

Tariff-rate quotas have been developing as required by the URAA. Most of Norway's tariff-rate quota obligations ended in 2000 when the in-tariff quota rates for these products became equal to the WTO bound tariff rates. However, in effect this did not change the level of import protection, as the actual applied rates for these products had been equal to the final bound rates since the beginning of the URAA implementation period in 1995, with tariffs for the vast majority set between 100-400%. In 2001, the simple average TRQ-fill rate for the remaining tariff-quotas (covering 15 products) was 37%. ***Export subsidies*** are used for the promotion of branded cheese exports of processed agricultural products and to dispose of surplus meat, eggs and dairy products. In 2001, the total value of export subsidies was just over NOK 290 million (USD 36 million), after averaging NOK 622 million (USD 78 million) during the previous six years relating to the URAA reduction period. Restrictions on export subsidies established under the URAA have been particularly binding on cheese, with Norway using the full volume and budget commitment levels in most years. Norway provided NOK 215 million (USD 27 million) for ***food aid*** in 2001, mainly in the form of cash in lieu of commodities.

Negotiations with the EU over a reduction in trade barriers for basic agricultural products on the basis of Article 19 of the EEA Agreement restarted in mid-2002. The EEA agreement on tariff reductions for processed agricultural products, reached in 2001, was implemented from 1 January 2002. The EFTA is involved in broader free trade agreement negotiations with a number of countries, covering processed agricultural products and, on a bilateral basis, several basic agricultural products. Agreements were signed with Singapore in June 2002. Negotiations continued with Canada, Chile, Egypt, South Africa and Tunisia.

11.4. *Overall evaluation*

Norwegian agriculture is characterised by limited market orientation, with producers heavily protected from world markets and greatly supported through direct payments. Support to producers, as measured by the %PSE, has changed little between 1986-88 and 2000-02, falling from 70% to 68%. Since 1986 the level of support has been very constant, ranging between 65% and 73%. Support remains very high across all commodities and is among the highest of OECD countries at more than twice the OECD average. Support for general services provided to agriculture have increased between

1986-88 and 1999-2001, from 4% to 6% of total support. Total support to agriculture is 1.5% of GDP, half of the share in 1986-88 (Tables III.34-35).

In 2002, the level of support is estimated to have increased, with the %PSE rising from 67% in 2001 to 71%. This increase is mainly due to a rise in market price support, reflecting both an increase in some producer prices and a reduction in world prices valued in Norwegian currency (Table III.46 and Table III.47). Gross farm receipts remain more than twice what they would have been without any support, as measured by the NAC.

While the level of support to producers has remained relatively high and constant there has been a notable change in the composition of support over time. The combined share of market price support and output payments has fallen from 71% of producer support in 1986-88 to 56% in 2000-02. This is also shown by a significant fall in the gap between world and both producer and consumer prices, indicating a reduction in market protection. Prices received by Norwegian farmers in 1986-88 were almost four times those in world market, whereas by 2002 they were nearly three times as high. Norwegian consumers still paid on average two and a half times the world price for agricultural commodities in 2002. Consumer food subsidies have also been reduced, leading to very little change over the reform period in the implicit tax on consumers as measured by the %CSE. Despite moves to reduce prices, including a reduction in the VAT applying to food in 2001, significant cross-border shopping is still occurring.

While output related support has decreased, payments based on input use (mainly area support for grass production) have increased over the period since the mid-1980s. As a result, the combined share of output and input related support still represents almost 80% of producer support in Norway. It is these forms of support that are among those that have the greatest effects in stimulating production and input use, which distort trade and often contribute to environmental pressure. Moreover they are least effective in transferring income to farmers or in targeting the provision of specific environmental benefits.

Producers have generally been compensated for the reduction in output related support with area or headage payments and more recently tax concessions. Payments for landscape maintenance, organic production and to change soil cultivation practices have more than doubled between 1986-88 and 2000-02 but still represent only 3% of support to producers. Such payments have led to an increase in the number of organic producers and have raised the area cultivated in a manner that reduces erosion.

To limit the harmful environmental impacts of agricultural activities and policies, a growing number of cross-compliance requirements, particularly concerning production methods and the preservation of landscape, have been placed on some budgetary payments. While progress has been made in capping the level of nutrient and pesticide loss from agricultural production and decreasing it in some localities, agriculture is still a major contributor to water pollution, particularly in freshwater lakes and coastal waterways. The introduction of on-farm environmental planning should further improve the environmental impact of agriculture. However, to the extent that agri-environmental policy measures are implemented to offset the harmful environmental effects of output related support, the budgetary cost is higher than it would otherwise be.

Overall, while there has been some reduction in the most production and trade distorting policy measures, there has been little progress towards the long-term reform objective of a progressive reduction in support and further actions are needed in this

direction. While efforts have been made to improve the consumer orientation of policies, the cost to consumers of agricultural support policies remains significant.

12. Poland

12.1. *Main policy instruments*

The main agricultural policy instruments in Poland are market price support and input subsidies. Market price support is provided through production quotas, price supplements, intervention purchases, tariffs and export subsidies. Input subsidies consist mainly of interest concessions on loans for purchases of fixed and variable inputs, on-farm services such as health control and protection, and water drainage system payments and maintenance. The government buys, sells and stores certain agricultural products via the Agricultural Market Agency (AMA).

Agricultural policy institutions and instruments in Poland are in the process of being harmonized with those of the European Union. Broadly speaking, this implies changing or adopting laws and regulations related to veterinary issues, plant protection and seeds, the operation of particular agricultural markets, rural development, and the functioning of institutions that will implement policy after accession to the European Union. On 13 December 2002, provisions for extending membership of the EU to ten new Member States were agreed at the Copenhagen Summit. Consequently, Poland is expected to join the EU on 1 May 2004 (Box 5.4).

12.2. *Developments in domestic policies*

The programme of ***storage aids***, first introduced by the AMA in 2001, was expanded in July 2002 to include wheat and rye for human consumption. Cereals storage aids are targeted at farmers who produce cereals and store them in their own facilities until 31 October. Eligible producers cannot participate in intervention purchases, and must produce at least 300 tonnes of cereals. ***Compensatory payments*** were introduced for entrepreneurs buying cereals (wheat and rye) covered by AMA payments. The compensatory payment is the difference between the intervention price increased by PLN 6 (USD 1.5) per tonne and the actual sales price, calculated on a monthly basis.

In anticipation of ***accession to the European Union***, the Polish Parliament has adopted or amended several laws on agriculture. These include laws governing the organisation of markets (fruit and vegetables, tobacco, hops, dried fodder, milk and milk products, spirits), veterinary practices, animal protection, and animal breeding and reproduction. The scope of the activities of the Agricultural Market Agency (AMA) and the Agency for Restructuring and Modernisation of Agriculture (ARMA) has also been adjusted to conform with EU regulations.

On 24 August 2002 the Law of 18 July amending the ***market regulation for sugar*** entered into force. The amendment provides for the establishment of a sugar market company (Polski Cukier S.A) that will be controlled by employees and sugar beet growers. In addition, rules are being developed for the application of subsidies to exports of white sugar and isoglucose B, for subsidies to sugar processing for non-human consumption, and for intervention purchases of white sugar.

On 19 December 2002 Parliament passed a law on the organisation of a ***liquid bio-fuels*** market and bio-components. The benefits of this programme include the anticipated creation of about 100 000 jobs. Other benefits include enhanced environmental protection

and energy security. On 17 January 2003 this law was vetoed by the President. If the veto is accepted, a new legislative procedure will have to be launched.

A ***milk quota*** system is being implemented as part of the preparations for accession to the EU. The milk quota system will be implemented based on the law of 6 September 2001 on market organisation of milk and milk products which specifies detailed rules for the functioning of the system. The milk quota system will be administered by the AMA. Milk producers will be allocated individual quotas based on the quantity of milk and milk products produced and marketed in Poland in the reference year (1 April 2002 to 31 March 2003). Individual milk quotas will be allocated by directors of regional branches of the AMA based on applications submitted by suppliers (deliveries and direct sales). On 16 July 2002, the AMA was granted authority to make ***payments to domestic milk powder manufacturers***, up to a maximum quantity of 40 000 tonnes.

In response to requests from the ***poultry sector***, measures were taken to aid poultry producers with loan repayments. These measures included a one-year extension for the maximum period of payments of interest, and for the repayment of loans. In addition, interest payments in 2002 were suspended for new projects that contribute to the creation or expansion of the area used for production of live poultry and eggs.

Given the very ***difficult financial situation*** of many establishments involved in buying agricultural produce, measures were taken in 2002 to:

- Grant payments of interest on credits to finance purchase and storage of agricultural produce, where the credit was not repaid by 30 September 2001; payments were fixed in proportion to interest already paid by 30 September.
- Extend by two months (from 31 May to 31 July 2002) the deadline for payment of interest on credits contracted for purchases of cereals from the 2001 harvest by domestic establishments involved in storage activities.

ARMA provides ***interest subsidies*** for loans to finance new projects in agriculture, agri-food processing, agricultural services, and for the creation of new jobs for the rural population. In 2002 eligibility was extended to agricultural producer groups based on the Law of 15 September 2000 (which defines agricultural producer groups and associations). Preferential credit is particularly important for the meat and milk sectors as they adjust to EU requirements. The current interest rate is 1.88% annually.

SAPARD (Special Accession Programme for Agriculture and Rural Development) a pre-accession agricultural support programme for Poland has been implemented since July 2002. SAPARD is implemented according to EU rules. Therefore, it is an important element of institutional capacity building for future utilization of EU funds allocated to agriculture and rural areas after accession.

In 2002 the Ministry of Agriculture made an amendment to the rules concerning the provision of ***disaster credits*** through ARMA. The change extends by one year the repayment of loans contracted by farmers as a result of natural disasters in 1999 and 2000. On 20 December 2001 the Government of the Republic of Poland signed a ***credit agreement*** with the European Investment Bank. This loan, together with a national earmarked reserve of EUR 385 million (USD 363) will be allocated under the EBI-bis Project to alleviate the effects of flood and modernise flood control facilities in the Vistula catchment. The Programme covers nine voivodships and will be implemented in 2002-04. Out of the total loan amount the Ministry of Agriculture received EUR 154 million (USD 145 million). About 500 tasks relating to revamping and modernising flood control facilities will be financed from these

funds. This programme will significantly improve the safety of flood control facilities in Poland and create new jobs.

A draft Law on ***agrarian structure*** has been developed to regulate land sale and lease. It provides detailed conditions for land acquisition such as possession of an agricultural qualification, an obligation to run the farm in person, etc. These conditions are similar to those existing in some EU member states.

On 25 August 2002 the amended Law establishing AMA entered into force. This enables the government to adopt a domestic ***food aid program***. The Agency is empowered to transfer agricultural and food products, at zero cost or partially against payments, to organisations (government and non-government) providing social welfare and humanitarian aid. Eligible institutions include hospitals, schools and education facilities, military units, and prisons.

ARMA supports ***rural development*** by providing interest subsidies for the creation of jobs in off-farming businesses, services and trade. The Agency provides zero interest loans for small business and preferential credits for projects that create new jobs for the rural population. ARMA implements and monitors a Rural Development programme financed by a World Bank loan. Aid is targeted at infrastructural projects relating to the construction and modernisation of *gmina* (commune) and *poviat* (country) roads, water pipeline systems, sewerage and systems of solid waste collection and utilisation. ARMA also implements the policy for setting aside agricultural land for afforestation. On October 2002 a ***Microloan Program*** was launched as a part of the rural development programme. Inhabitants of rural areas and small towns in the voivodships of Zachodniopomorskie, Warminsko-Mazurskie Kjawsko-Pmorskie, Podkarpackie and Ma'opolskie can receive microloans amounting to the equivalent of USD 5 000. In addition, people starting a new business can receive a single subsidy of PLN 3 600 (USD 882) for the purchase of fixed assets. The microloan repayment period will be three years and the interest rate 12%. Microloans will be allocated for the start or continuation of off-farming operations.

The ***State Treasury Agricultural Property Agency*** (STAPA) manages State Treasury agricultural property and programmes for improvement in the agrarian structure of private and formerly state-owned farms. STAPA is currently implementing a programme supporting workers of formerly state-owned farms who are unemployed. Employers involved in off-farm activities are reimbursed up to 50% of the costs of the lowest wage employee. Schools and local governments in *gminas* and *poviats* are also eligible for this program. In 2002 STAPA started to finance early retirement benefits for employees of formerly state-owned farms, as well as scholarships and holiday camps for their children.

12.3. Developments in trade policy

On 1 January 2002, following the example of the European Union's "Everything But Arms Initiative", a ***zero tariff*** rate was introduced for products imported from the Least Developed Countries. However, sugar, tobacco and alcohol remain as exceptions.

In October 2002, following two years of negotiations, an ***agreement*** was reached with the European Union giving Poland TRQ's at zero tariff for sugar confectionery, other sugar confectionery, and chocolate confectionery. In return, Poland granted TRQ's to the EU at a tariff reduced by 30% for sugar confectionery, chocolate confectionery and baker's wares. The EU also granted unilateral preferences to Poland (*ie*. without reciprocity) for imports of coffee essences, extracts and concentrates (cappuccino), tea and chicory, and pasta. Poland

will reduce tariff rates for these products by 25% (with the exception of pasta). Additional ***import duties*** were introduced for poultry meat, poultry offal, and hen chicks. Maximum quantities allowed under one license within WTO quotas were fixed for live poultry (up to 5 tonnes) and poultry meat and offal (up to 100 tonnes).

On 28 March 2002 the Chief Veterinary Officer ***suspended export licences*** for meat plants in Bialystok and Kolo after information from the British veterinary services that two spinal cords were detected in two beef transports of 506 quarters. These establishments will regain export approval once they have procedures in place to exclude spinal cords.

Classical Swine Fever prompted the Chief Veterinary Officer to issue a ban on imports of pigs, wild boars and various derived products, particularly those not subject to heat treatment above 72 degrees celsius. Bans were issued on imports from Bulgaria (on 24 April 2002), Romania (24 April 2002), France (7 may 2002), and Moldava (19 July 2002). On 13 August 2002, the occurrence of ***Swine Vesicular Disease*** in Italy prompted a ban on imports and transit through Poland of the same swine products as above. In addition, the ban was also imposed on products obtained from these species intended for animal feeding and/or industrial and/or agricultural use, for pharmaceutical or surgical use, not subjected to heat treatment.

On 28 May 2002 the Council of Ministers expanded the list of countries from which import or transit of certain goods due to the ***risk of BSE transmission*** was banned. The ban concerns, *inter alia*, live bovine animals, chilled and frozen bovine meat, sausages and similar meat products, different types of edible offal, and other processed bovine products used for pharmaceutical products. The ban also applies to importation of human and animal blood prepared for therapeutic, prophylactic or diagnostic purposes. The countries added to the list were: Austria, the Czech Republic, Finland, Greece, Japan, Slovakia, Slovenia and Italy. At the same time a ban was lifted on imports of breeding heifers and bulls for insemination stations in Poland.

12.4. Overall Evaluation

Agricultural policies in the Poland have developed in the context of a transition towards a market economy and in preparation for entry into the EU. However, agricultural support in Poland, as measured by the %PSE, remains relatively low. The average %PSE for 2000-02 is estimated to be 15%, half of the average for OECD. The level of support varies widely amongst commodities. In 2002 sugar had the highest level of support (38%) while beef had the lowest (–1%). Total support to the agricultural sector was 1.3% of GDP in 2000-02 compared to 2.2% in 1991-93 (Tables III.36-37).

Relative to 2001, the PSE in 2002 is estimated to have decreased by 3.9% (Table III.46). This total change can be decomposed into a fall in market price support (which by itself would have caused the PSE to fall by 12.6%) which was largely offset by a positive contribution from budgetary payments (8.6%). Although the %PSE is relatively low, it should be noted that more than 80% of support is output (MPS and output payments) and input- linked support. These forms of support are among those that are the most production and trade distorting, are least efficient at transferring income to producers, and have the most potential to increase pressure on the environment.

World prices were generally lower in 2002 relative to 2001, but did not decrease by as much as producer prices (Table III.47). As in previous years, market price support was negative for beef and sheepmeat, suggesting that producers of these commodities were

taxed. These two commodities account for a relatively small share in the total value of agricultural production. Negative market price support may be indicative of inefficiencies in the domestic market, impediments to trade that prevent full transmission between domestic and world prices, or a combination of these factors.

In line with the decrease in market price support, the implicit tax on consumers, as measured by the %CSE fell from 13% in 2001 to 10% in 2002. Consequently, prices received by Polish consumers were on average 12% higher than those prevailing in the world market.

Support for general services to agriculture accounted for 9.5% of total support to agriculture in 2000-02 (Table III.36). The bulk of these expenditures are for research and development, inspection services, and infrastructure.

Overall, in the most recent period agricultural policies and institutions in Poland have been evolving in response to anticipated accession to the European Union. Policies have been implemented, notably in the area of general services, that promote the structural adjustments necessary to achieve a more market oriented agricultural sector. This is a step in the right direction. However, agriculture in Poland remains largely composed of small, less efficient farms with low capital intensity and high labour use. Continuing reforms are necessary to assist farm operations undergoing structural change and to improve the functioning of market institutions.

13. Slovak Republic

13.1. Main policy instruments

Border measures, market regulation and budgetary payments are the main policy instruments to support Slovak agriculture. Market orders for grains, sugar, potatoes, beef, pigmeat, poultry and eggs, set minimum prices and amounts of production quotas for which at least minimum prices have to be paid under selling contracts, and guaranteed prices at which State intervention occurs through the State Agricultural Intervention Agency (SAIA). For milk the government sets a minimum price subject to a production quota. In addition to price guarantees, producers receive payments based on output for the production within the quota for sugarbeet, potatoes, milk, beef and sheep meat. Export subsidies are used mainly for milk products and malt. In order to control the export of some agro-food products, the government maintains its system of non-automatic export licences.

Payments are provided per hectare of grains, oilseeds and leguminous crops and headage payments for suckler cows, sheep and goats. Farmers in less favoured areas (LFAs) receive area payments per hectare of agricultural land. Payments are provided for arable land transformed into permanent grassland and to support organic farming. Irrigation is supported by water subsidies for water, energy and infrastructure, and a part of the fuel tax is refunded to farmers. Investments in agriculture are supported by grants for 40% of the value of farm investments, including the purchase of breeding animals, and by loans and subsidised credits of the State Support Fund for Agriculture and Food Industry (SSFAFI) which became in 2002 a part of the Ministry of Agriculture. The government supports agricultural training and education, research and extension, and plant and animal breeding. More recently, with the perspective of EU accession, increasing government spending goes to the establishment of the institutional framework and regulatory and control mechanisms required by EU legislation and the administration of the CAP. On

13 December 2002, provisions for extending membership of the EU to ten new Member States were agreed at the Copenhagen Summit. In consequence, the Slovak Republic will join the EU on 1 May 2004 (Box 5.4).

13.2. *Developments in domestic policies*

As in 2001, production quotas with minimum prices were set for wheat, potatoes, beef, and pigmeat (Table 5.11). In 2002 these quotas remained at the 2001 level with the exception of potatoes where the quota was reduced. The minimum prices were slightly increased for beef and pigmeat. Guaranteed prices were set only for grains and potatoes, but there were no intervention purchases in 2002. The SAIA provided loans (SKK 2.5 billion or USD 55 million) to ***grain*** and ***oilseed*** producers to finance the stocking of crops in public warehouses. The SAIA subsidised exports of malt from barley, while it limited exports of other grains by non-automatic export licences. The minimum price for ***milk*** was increased by 7% and the production quota was increased by 7.5%. Apart from the production quota linked to the minimum price, the ***beef*** market is regulated by export subsidies. Limited payments were granted also to processors of dairy, pigmeat and eggs. Prices of other commodities, in particular oilseeds, sugar/sugarbeet, poultry and eggs were supported only by border measures.

Table 5.11. **Slovak Republic: production quotas, minimum and guaranteed prices in 2001 and 2002**

	Production quota		Mimimum prices				Guaranteed prices			
	000 tonnes		SKK/t		USD/t[5]		SKK/t		USD/t[5]	
	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002
Wheat[1]	600	600	4 500	4 500	93	99	3 600	3 600	74	79
Potatoes[2]	162	140	5 200	5 200	108	115	3 000	4 000	62	88
Milk[3]	930	1 000	8 750	9 300	181	205	n.a.	n.a.	n.c.	n.c.
Beef[4]	30	30	46 000	48 000	951	1 060	41 000	n.a.	848	n.c.
Pigmeat[4]	190	190	44 000	48 000	910	1 060	38 000	n.a.	786	n.c.

n.a.: not applicable; n.c.: not calculated.
1. Wheat for food consumption.
2. Late potatoes for food consumption.
3. Volumes in million litres, prices per 000 litres.
4. Live weight.
5. Conversion using OECD annual exchange rates.

Source: State Fund for Market Regulation, 2002.

Area payments for ***grains*** were further reduced by 37% to SKK 500 (USD 11) per hectare. Output related payments continued to be paid for ***sugarbeet*** and late crop ***potatoes***. From August 2002, payments for sugarbeet are conditional on a delivery contract signed with a sugar plant and apply only to amounts actually delivered. Overall payments to sugarbeet and potatoes reached SKK 270 million (USD 6 million) which is 15% less than in 2001. ***Payments based on output,*** related to the contracted delivery, for selected oilseeds, leguminous vegetables, and tobacco, was expanded in 2002 to include flax and chicory. All payments for specific crops were provided on condition that at least 50% of seeds and planting material was certified by the Central Control and Testing Institute for Agriculture. Overall area and output payments to specific crops reached SKK 733 million (USD 16 million), which was 42% lower than in 2001.

For ***livestock production*** the most important are ***payments based on output*** for ***milk*** produced within the quota, which reached around SKK 1 billion (USD 22 million), which is 5% less than in 2001. The payments for high quality beef (grades E and U of the EUROP scale of carcass classification) increased from SKK 2.50 to SKK 4.50 per kg liveweight, while similar payments for pigmeat were abolished. The suckler cow ***headage payment*** remained fixed at higher rates in the LFAs than in other areas. Overall these payments increased by 4% to SKK 127 million (USD 2.8 million). Support to sheep and goat production continued to be provided through a combination of headage payments and output related payments for the production of milk and cheese, with a strengthening of the conditions under which these payments were made. Overall headage and output payments to livestock reached SKK 1 505 million (USD 33 million), which was 7% lower than in 2001.

There were no changes to programmes supporting farming in LFAs. Most of these payments (around 70% of payments to LFAs) are ***payments per hectare*** of permanent grassland with a minimum livestock density of 0.35 gross livestock units per hectare and which are regularly maintained by grazing and mowing. The other support to farming in LFAs was paid per hectare of arable land (28%), provided that the value of the production reaches a fixed standard level (standard revenues). Total payments to LFAs are estimated at SKK 3 267 million (USD 72 million) which was slightly above (0.4%) the 2001 level.

Although declining by 15% in 2002 ***payments based on input use*** remained the most important category of payments to agriculture. Support to non-capital inputs was provided with payments to reduce the cost of irrigation water, energy for irrigation and repair and maintenance of the irrigation system, and for the purchase of high quality breeding animals. Together these payments reached SKK 295 million (USD 6.5 million) which was 21% lower than in 2001. The partial refund of the fuel tax to farms for diesel oil used for agricultural machinery was replaced by a lower fuel tax for agriculture, the implicit support from the lower tax is estimated at SKK 1.2 billion (USD 26.5 million) which is 20% lower than the partial refunds in 2001. Support to capital investment was provided both by investment grants and subsidised credits. The State Support Fund for Farming and Food Industry (SSFAFI), which provided support to investment through loans or subsidised credits on bank loans, was merged with the Ministry of Agriculture and its support schemes became part of the programmes financed by the budget of the Ministry. Overall support to capital investment reached SKK 1 710 million (USD 38 million), which is 23% lower than in 2001. Subsidies for insurance premiums were increased to cover 50% (instead of 20% in 2001) of the cost of insurance against crop damage caused by hail or gale, and livestock damage caused by dangerous infections. Expenditures on this programme increased by 174% over 2001 to reach SKK 140 million (USD 3.1 million).

The State Fund for Protection and Enhancement of Agricultural Land (SFPEAL) was merged with the Ministry of Agriculture and all payments from the Fund were provided to farms directly from the state budget. These include per hectare payments to support conversion to grassland and to organic farming as well as the former programmes of the SFPEAL (reclamation of abandoned land and permanent grassland, disposal of old covers and permanent crops, and for liming of acid soil). Overall the agri-environmental payments were SKK 498 million (USD 11 million), which is 36% lower than in 2001.

Programmes for agricultural and rural development were approved by the European Commission and the Slovak Government, and came into effect from September 2001. These programmes have been developed for the Special Accession Programme for

Agriculture and Rural Development (SAPARD), co-financed by EU funds. During 2002 SAPARD begun operations as the Slovak SAPARD Agency has been accredited by the Commission and made available EUR 128 million (SKK 2.8 billion) allocated for the period 2000-06. The Slovak SAPARD Agency has to spend EUR 37.5 million (SKK 0.8 billion) allocated for 2000 and 2001 before end 2003. Most of this aid will be in the form of investments in agricultural holdings. Limited payments (SKK 41 million or USD 0.9 million) were extended from the state budget to support investments in agro-tourism, rural development and diversification of economic activities.

13.3. Developments in trade policy

In 2002, Slovakia applied custom tariffs in conformity with the URAA of the WTO, which remained at the 2000 level. Minimum and current ***market access*** is granted through tariff-rate quotas (TRQ). Slovakia also opened temporary import quotas at lower tariff rates for selected products (poultry breeds, hatching eggs, rape seed, sunflower seed, grapes). In 2001 Slovakia introduced annual import quotas for sugar which are to remain in place for four years. For 2002 the quota was fixed at 3 500 tonnes for Poland, 400 tonnes for other countries and no quotas for selected developing countries. These quotas apply to all countries with the exception of the Czech Republic, where a customs union exists with Slovakia. (Within the customs union the sugar trade is limited by reciprocal quotas set at 3 500 tonnes). From 1 September 2002, ***non-automatic import licenses*** where extended to apply to rape seed oil limited to 3 188 tonnes from the Czech Republic and homogenised products (HS 1602 10 00) limited to 1 013 tonnes from the Czech Republic. The government continued to apply ***automatic import licences*** for selected commodities.

As in previous years, ***export subsidies*** were granted on dairy products and malt from barley. In 2002, export subsidies ware also granted to beef for slaughtering and frozen vegetables. The estimated total amount of export subsidies SKK 410 million (USD 11 million) granted was around the same level as in 2001. Dairy and malt exports together attract nearly all export subsidies (93% in 2001 and 94% in 2002). Overall export subsidies remained within the commitments agreed in the URAA.

13.4. Overall evaluation

Agricultural policies in the Slovak Republic have developed in the context of a transition towards a market economy and in anticipation of entry into the EU. There was a marked decline in support to agriculture during the period 1986-96, but support has since increased. During 1997-2002 market price support has fluctuated markedly, reflecting state interventions on the domestic market and border measures which insulated domestic prices from world market and exchange rate developments. Budgetary payments to farmers increased up to 2000 but have since declined. Market liberalisation reforms dominated the first half of the 90s, while the second half was characterised by increasing domestic market regulation and budgetary payments.

In 2002, the %PSE is estimated to have increased by 5 percentage points to 21%, which is still lower than the in the early 90s (the start of the overall economic reform, including the reform of agricultural policy) and 10 percentage points below the OECD average. The increase in 2002 was due to a rise in market price support from 2001, and was only partially offset by reduction of budgetary payments (Table III.46). The rise in MPS was due to a combination of increasing domestic prices and much lower world market prices expressed in SKK (due to lower world prices and the strengthening of the SKK against the USD

in 2002) (Table III.47). The level of support varies substantially across commodities, with the lowest for grains and oilseeds and the highest for sugar and livestock. The increase in market price support resulted in a higher implicit tax on consumers, with consumers at the farm gate paying 14% more than world market prices, compared to 5% more in 2001. An increase in the taxation of consumers is particularly burdensome for a transition economy, where the share of household expenditure on food is relatively important (27%). In 2002, total farm receipts were 26% higher than those generated entirely in the market at world prices, while prices received by farmers were on average 15% above the world market level. Total support to agriculture increased to around 1.7% of GDP, which is 0.5 percentage point above the OECD average, in contrast to the %PSE (and NAC) which are below the OECD average (Tables III.38-39).

The share of output and input-linked support was around 60% in 2000-02, the same level as in 1991-93, but relatively low compared to other European countries. However, these forms of support are among those having potentially the greatest effect on stimulating production and input use, reducing trade and raising pressure on the environment, while having the lowest effectiveness in transferring income to farmers. Area and headage payments accounted for around 28% of support in 2000-02, around the same level as in 1991-93. There are no agri-environmental payments applied and rural development programmes have been developed under the Special Accession Programme for Agriculture and Rural Development (SAPARD), with most of the payment under this programme likely to be spent for investments in agriculture.

Overall, the longer-term evolution of agricultural policies in the Slovak Republic indicates a move towards market orientation, although impediments remain in responding to world price and exchange rate developments. Policies and institutions are being aligned with those in the EU as the country moves closer to joining the EU. Continuing reforms are necessary to improve the functioning of markets and further enhance the market orientation of the agricultural sector.

14. Switzerland

14.1. *Main policy instruments*

Border measures, production quotas, deficiency payments and increasingly other budgetary payments are the main policy instruments used to support agriculture in Switzerland. The AP 2002 agricultural policy reform programme provides the basic legislative framework governing agricultural policy for the period 2000-03. This programme entails elimination of all guaranteed prices and state-guaranteed processing margins and consolidation of previous direct payment programme into a uniform area payment. Other direct payments are now subject to restrictions of environmental and farm management practices, and are in two main categories: "General Direct Payments" are mainly granted in the form of area and headage payments, and payments based on historical entitlements, on condition that farmers comply with a set of environmental farm-management practice requirements; while "Ecological Direct Payments" are mainly granted in the form of payments based on input constraints and on the condition that farmers comply with a set of environmental standards and farm management practice requirements. Interest-free investment credits are allocated on the basis of fixed amounts per unit of eligible investment, instead of covering a share of farmers' investment costs, as under the previous system. Milk production is limited through production quotas. Dairy farmers receive

deficiency payments for the milk processed into cheese, and they receive additional premia if they refrain from feeding silage to their cows. Payments are also provided to the processors of oilseeds and sugar beet as well as to egg producers. Imports of several agro-food products into the country are subject to tariffs. Export subsidies are used to sell dairy products, mostly cheese and SMP, on world markets.

A package of agricultural policy measures for the 2004-07 period, Agricultural Policy 2007 (AP 2007), is under discussion. Its key aspects entail the abolition of the milk quota system, diversification of rural income, enhancing rural development and institutionalising the precautionary principle in food production. It is expected to become effective as from January 2004.

14.2. Developments in domestic policies

After the abolition of guaranteed prices in 1999, the Government now sets only a non-binding target price for ***milk*** to provide guidance to raw milk buyers and sellers. For the marketing year 2002/2003 (May-April) the target price was reduced in national currency from CHF 770 per tonne (USD 456 per tonne) CHF 730 per tonne (USD 469 per tonne) and the production quota was increased by 1.5% (*i.e.* by 45 000 tonnes), following a 3% increase in 2001/2002. Meanwhile, due to a downturn in milk markets during summer/autumn 2002, quotas were decreased by 2% retroactive from May 2002. As from 2003, the institutions of the milk market (branch organisations, processing industry) will have the opportunity to request the amount of milk necessary for their products, although the Federal Council in the final instance can approve or refuse these requests.

For a second consecutive year, the budget for market support for ***dairy products*** was reduced in 2002/03 by 23% (CHF 65 million or USD 41 million). While the price supplement and the non-silage use premium for milk remain unchanged, domestic market support for butter and SMP as well as export subsidies for cheeses and other milk products were reduced. There were no major policy changes for the ***beef*** market.

The structure of the programmes and the eligibility conditions applied within the "General Direct Payments" and the "Ecological Direct Payments" categories remained unchanged from 2001. However, for some programmes the payment rates were increased. Outlays to farmers for these categories increased by almost 5%, to CHF 2 447 million (USD 1 562 million) (Table 5.12). About 82% of the total is granted under the general direct payments category. Area payments per hectare of arable land and permanent crop land is the most important single category and accounts for 65% of general direct payments. The upper limit to receive payments for holding livestock under difficult conditions was raised from 15 to 20 Livestock Units (LU). Further, concerning headage payments for roughage-consuming animals, the threshold for extensive farms with milk production was raised by 200 kg to 4 400 per year. Headage payments for roughage-consuming animals and animals raised in difficult conditions account for 29% of general direct payments.

Ecological payments increased by over 7% to CHF 442 million (USD 284 million), mainly due to increased in "ecological compensation", per hectare payments to farmers to meet the cost of providing environmental benefits. Payments for animal friendly poultry husbandry systems and headage payments for animals raised outdoors increased by CHF 100 (USD 64) per LU to CHF 280 (USD 179) per LU. Summer pasturing area payments for roughage consuming livestock other than milking cows, goats, and sheep were increased by CHF 40 per "standard pasture" (NST). Area payments where organic farming is practised

Table 5.12. **Switzerland: Outlays for direct payments**

Type of payment	2001		2002p		Change in CHF price 2001 to 2002p %
	mn CHF	mn USD	mn CHF	mn USD	
General direct payments	1 928	1 143	2 009	1 290	4.2
of which:					
Area payments	1 304	773	1 315	845	0.9
Holding of roughage-consuming animals	268	159	342	220	27.5
Payments for farming in difficult production locations	356	211	352	226	–1.2
Holding of livestock under difficult conditions	*250*	*148*	*243*	*156*	*–2.8*
Farming on steep slopes	*96*	*57*	*95*	*61*	*–1.0*
Wine cultivation on steep slopes	*10*	*6*	*14*	*9*	*37.3*
Ecological payments	412	244	442	284	7.3
of which:					
Ecological compensation	118	70	126	81	6.8
Extensive cereal and rapeseed farming	33	19	33	21	1.5
Organic farming	24	14	26	17	10.6
Regularly keeping animals outdoors	121	72	126	81	3.8
Animal welfare through housing systems	34	20	37	24	8.8
Summer pasturing	81	48	90	58	11.8
Water protection	2	1	4	3	81.8
Total	2 341	1 387	2 451	1 574	4.7

p: provisional.
Notes: Direct payments are subject to restrictions of environmental and farm management practices.
Source: Federal Office of Agriculture, Bern, 2002.

also increased. About 37% of total ecological payments are accorded for animal welfare. Another 29% of total ecological payments are granted for extensive meadows, litter areas, hedges, floral and rotation fallow, extensive area strips and high-stem fruit trees which are not harvested. Summer pasturing accounts for 20%, payments supporting extensive grain and rapeseed production for just over 7% and organic farming for 6% of total ecological payments.

Government outlays for concessionary credits and investment aid increased in 2002. Investment credits, which were allocated on the basis of fixed amounts per unit of eligible investment, increased from CHF 1 792 million (USD 1 062 million) in 2001 to CHF 1 862 million (USD 1 196 million) in 2002. The related level of credit subsidies increased by 4% to CHF 84 million (USD 54 million) in 2002. The value of interest-free credits to restructure the debts of heavily leveraged farms increased from CHF 160 million (USD 95 million) in 2001 to CHF 170 million (USD 109 million) in 2002.

14.3. *Developments in trade policy*

Import measures consist of relatively high tariffs and a system of TRQs to support prices on the domestic market. Preferential tariff rates are applied to imports from less-developed countries. TRQs cover a number of basic agricultural and food products, in particular, meat, milk products, potatoes, fruits, vegetables, bread grain and wine. Since 1999, allocated TRQ volumes have been transferable from one importer to another. As a part of AP 2007, the Parliament is discussing the auctioning of beef and pigmeat import quotas. Egg quotas for consumption and for the processing industry have been distributed on a "first come first serve" basis since January 2002. According to the most recent ***notification of Switzerland to WTO*** concerning the use of special safeguard provisions

(SSG), Switzerland notified the WTO in June 2002 that these provisions were not invoked in 2001.

Export subsidies are applied mainly to dairy products, of which more than 50% is for cheese, and the rest mainly for fruits, potato products and seed potatoes. In 2002, Switzerland used 81% of its export subsidy budgetary entitlements under the URAA. Total export subsidy outlays declined by 24% to CHF 93 million (USD 59 million) in 2002 brought about by a 50% fall in export subsidies for cheese. On 1 May 2002, the ***trade agreement*** on cheese with the EU became effective, with full access for both sides to their respective cheese markets within a transition period of 5 years.

14.4. Overall evaluation

Agriculture in Switzerland is characterised by continuing high support levels and limited market orientation. However, as a result of successive reforms, the composition of support has changed since the mid-1980s with a notable decrease in the share of market price support. Support to producers, as measured by the %PSE, decreased from 76% of farm receipts in 1986-88 to 73% in 2000-02. In 2002, producer support is estimated at 75%. The decline in world prices in US dollars, together with the appreciation of the Swiss franc against the US dollar and the euro, were the main factors explaining the increase in PSE. The developments in the level and composition of producer support were mirrored by the implicit tax on consumers as measured by the %CSE, which increased to 62%. In 2002, gross farm receipts were still more than twice what they would have been without any support, as measured by the NAC. Total support to agriculture declined from 3.9% of GDP in the mid-1980s to 2.0% in 2000-02 (Tables III.40-41).

The combined share of market price support, output and input use payments accounted for 68% of producer support in 2002, a substantial reduction from the 1986-88 estimate of 91%. This trend is reflected in the decrease in the gap between world and both domestic producer and consumer prices, indicating a reduction in market protection, although prices received by Swiss farmers and paid by Swiss consumers in 2002 were still on average around 200% more than those in the world market. However, the shift in the composition of support is a step in the right direction as it is these forms of support that are among those that have the greatest effects in stimulating production and input use, which distort trade and often contribute to environmental pressure. Moreover, these are the least effective in transferring income to farmers or targeting the provision of specific environmental benefits.

Payments based on historical entitlements and on area and headage have witnessed the largest increase since 1986-88 and are subject to cross compliance requirements associated with environmental protection. Payments based on historical entitlements continued to be the most important single budgetary category, accounting for 17% of total producer support. Payments based on input constraints, which include measures for sharing the costs of providing environmental services or reducing environmental damage, have doubled since the mid-90s, but still account for only 2% of total support to producers. This category of support, which is among the least production and trade distorting categories of support, has contributed to improve the environmental performance of the sector. While, since the implementation of the AP 2002 reform package, progress has been made in increasing the amount of agricultural land being farmed organically, reducing nitrate pollution and phosphorous contamination, water pollution from agriculture is still significant, particularly in lowland lakes. In 2002, the share of ecological payments,

including payments for animal welfare is estimated at around 6% of total producer support.

Overall, although the changes in the composition of support are steps in the direction of reducing the most production -and trade- distorting policies, there has been less progress towards the long-term reform objective of a progressive reduction in support. The ongoing discussions of the AP 2007 policy package present an opportunity for re-orientation of Swiss agricultural policy.

15. Turkey

15.1. *Main policy instruments*

Border measures, administered prices, input subsidies and budgetary payments are the main policy instruments supporting agriculture. Under the 2001-05 Agricultural Reform Implementation Project (ARIP),[2] administered output prices and input subsidies are in the process of being eliminated and replaced by a budgetary payment granted per hectare to all farmers. Import tariffs, complemented by purchasing prices fixed for cereals, sugar and tobacco provide support for domestic production. A ban on imports of livestock has been applied for sanitary purposes. Export subsidies are applied to a number of products, including fresh and processed fruit and vegetables and derived food products, poultry meat and eggs. Supply control measures are applied to sugar beet and tea.

Deficiency payments are often implemented for oilseeds, cotton and milk. Tea growers are paid the full costs incurred in implementing strict pruning requirements to control supply. Input subsidies are still provided mainly for irrigation and livestock production. An annual ***Direct Income Support*** (DIS) payment is granted per hectare to all farmers to cover the reduction in income associated with the removal of administered prices and input subsidies. An one-off farmer transition payment is also granted to cover the costs in diverting from over-produced commodities (namely hazelnuts and tobacco) to other commodities. Most farmers are exempt from income tax.

Financial aid is granted to assist in the restructuring and transformation of Agricultural Sales Co-operatives (ASC) and their unions (ASCU) into independent, financially autonomous and self-managed co-operatives that sell and process members' production. Financial aid is also provided for improving public services to facilitate reform implementation. A number of regulations control water and soil pollution, and protect wetlands. National and regional plans provide information to combat land desertification and reduce discharges of nutrients. The government plays a large role in investment in infrastructure, especially irrigation works.

15.2. *Developments in domestic policies*

Administered prices set and implemented by State Economic Enterprises (SEEs) were abolished. Instead, ***purchasing prices*** set by marketing boards were fixed well above prices at the border (Table 5.13). In 2002, purchasing prices increased by around 36% for tobacco, about 40% for wheat and maize, and 50% for oats (inflation was around 48%). The production quota for tobacco was abolished. The purchasing price for sugar beet increased by 48% together with an increase of 9.6% in the production quota to 12.6 million tonnes of sugar beet.

In 2002, ***compensatory payments*** used to pay tea growers the costs for pruning (with a view to control supply) were increased by 47%. Deficiency payments decreased by 94% for

Table 5.13. **Turkey: purchasing prices for cereals, sugar and tobacco**

Product	2001		2002		Change in TRL price 2001 to 2002 %
	TRL mn/t	USD/t	TRL mn/t	USD/t	
Wheat					
Durum, Anatolian[1]	189	154	259	171	37
Durum, other[1]	172	140	242	160	40
Hard, white Anatolian[1]	164	134	230	152	40
Hard, red Anatolian[1]	164	134	230	152	40
White barley[2]	131	107	150	99	14
Rye[2]	123	100	168	111	37
Oats[2]	123	100	184	122	50
Maize[3]	156	127	219	144	40
Sugar beet[4]	50	41	74	49	48
Tobacco, Black Sea	2 200	1 791	3 000	1984	36
GDP deflator 1995 = 100	2 138		3 163		48

1. Base prices were raised by TRL 2 million (USD 8) per tonne each month for grain purchased from 1 July to 30 September.
2. Base prices were raised by TRL 1.25 million (USD 5) per tonne each month in July and August and by a further TRL 1 million (USD 4) in September.
3. Base prices were raised by TRL 1.5 million (USD 6) per tonne in October and November.
4. Base prices. On the basis of 16% sugar content, each additional/lower polar (sugar content) level is compensated by a payment/deduction of TRL 1 million (USD 4) per tonne.

Source: Government of Turkey, *Resmi Gazete* [Official Gazette], Ankara, 2002.

olive oil, 42% for cotton, and 15% for sunflower, but remained stable for soybeans and increased 87% for mohair and rose nearly 4 fold for rape seed and silk cocoon. The milk premium doubled to TRL 1 million (USD 0.6) per hectolitre and the associated expenditure increased by 49%. Compensation for animal death increased by 58%. It should be noted that overall inflation in Turkey was around 48% between 2001 and 2002.

In 2002, the second year of ARIP implementation, the number of farmers registered by the National Farmer Registry (NFR) system for receiving ***DIS payments*** increased by 13% to 2.6 million. The rate of the DIS payment increased by 35% to TRL 135 million (USD 84) per hectare, and the area limit raised from 20 to 50 hectares per farmer. Total expenditure for DIS payments increased from about TRL 84 trillion (USD 68 million) in 2001 to TRL 1 877 trillion (USD 1.5 billion) in 2002. In addition, expenditure for designing and implementing the NFR system increased by about 14% to TRL 931 billion (USD 0.6 million). Funding for ***transition payments*** to help farmers to switch from some commodities was fixed at TRL 298 trillion (USD 186 million) for the 2001-2005 period, but no payments were granted in 2002.

Input subsidies increased by 12% for irrigation water, 32% for animal pest and diseases control, 45% for improving pasture, 56% for improving farm production capacity, and 58% for livestock replacement. Subsidies for artificial insemination decreased by 29%. Subsidies on fertilisers, interest rates and capital grants, were zero in 2002, as were those on hybrid seeds and pesticides for all commodities except sugar beet, which increased by 5% and by 35%, respectively. Overall, total government expenditure on input subsidies has been reduced by around three-quarters since 1999 despite high inflation levels.

In 2002, from the USD 178 million fund available for the ***restructuring of ASC/ASCUs*** under the ARIP, USD 40 million were spent and there was a reduction of 6 000 in the number of employees. A further 13 900 hectares of the area covered by ***irrigation schemes***

operated by the State Hydraulic Works was transferred to farmers' co-operatives and water users' associations. A new regulation on the ***conservation of wetlands*** entered into force in January 2002, establishing general principles for the protection of wetlands, definition of protected areas, and the preparation of management plans. ***Foreign investment*** in agriculture increased by about 11% to reach TRL 238 trillion (USD 149 million) in 2002, but represents less than 2% of the total authorised foreign investment in Turkey.

15.3. *Trade policy developments*

An ***import approval*** procedure based on sanitary and phytosanitary conditions remained in place in 2002. *ad valorem* ***import tariffs*** remained unchanged at well above 100% for a number of livestock and livestock products. Tariffs applied to cereals are generally lower and were reduced by 5 percentage points to 40% for wheat. In 2002, the announced rates of ***export subsidies*** and related quantity limits remained around the 2001 levels. Export subsidies, limited to a maximum of between 10% and 20% of the export values and between 29% and 100% of the quantities exported, continued to be provided for processed fruit and vegetables, fruit juices, olive oil, potatoes, apples, poultry meat and eggs. In recent years, subsidised export quantities have reached the maximum permitted levels under Turkey's URAA commitments for a number of products (including fresh potatoes, vegetables, and olive oil), but the latest available information is only for the year 2000.

15.4. *Overall evaluation*

Agricultural policy in Turkey is characterised by generally low levels of support, but frequent and often *ad hoc* changes to policy settings in a context of high inflation and volatile exchange rates. After peaking at 26% of farm receipts in 1998, support to producers, as measured by the %PSE, decreased to 10% in 2001, but is estimated to have increased to 23% in 2002, still among the lower rates of support across OECD countries. The restructuring of state enterprises (SEEs) and agricultural sales cooperatives (ASCUs) continued, and government expenditure to compensate for their losses still represents almost all of the transfers on services provided to agriculture. Support for research, education, extension and training continued to account for only a minor share of support in 2002. Support associated with agricultural policies serve a relatively large agricultural population, but imposes a heavy burden on consumers and taxpayers, as indicated by the 4% share of total support in GDP, one of the highest shares in the OECD (Tables III.42-43).

The steep decrease in support in 2001 was mainly the result of the start of the reform process, which initiated the removal of administered prices and input subsidies in a context of higher inflation, without providing the foreseen level of compensatory payments. The rebound in support in 2002 was the result of the increase in market price support and the implementation of the output and input de-linked DIS payments, which represent about 20% of support to producers. While the share of output and input-linked support in producer support was 100% at the beginning of the 2000's, it fell to 80% in 2002. This change in the composition of support is a step in the right direction, since output and input-linked support has benefited mainly larger farms, led to overproduction of many commodities, while increasing the pressure on the use of natural resources (such as water), and failing to relieve poverty for subsistence farmers.

Overall, the 2001-05 ARIP is broadly in line with the OECD long-term reform principles. However, its success will very much depend on the extent to which its four inter-related

components will be co-ordinated and implemented so as to reduce the burden of agricultural support in the economy. The new DIS and Transition payments have the potential to be a less costly and more effective way of transferring income to farmers and encouraging a transition towards more profitable crops with less negative spill-over effects on production, trade and the environment. The restructuring of state enterprises and co-operatives is a step towards a more economically efficient agricultural sector in so far as it will represent a real retrenchment of government direct intervention. The improvement of support services such as advisory, training, and research has the potential to facilitate farming adjustment and reduce current impediments to greater efficiency and productivity.

16. United States

16.1. Main policy instruments

The Farm Security and Rural Investment Act of 2002 (2002 Farm Act) provides the basic legislation governing farm policy for the period 2002-07. However, 2002 was a transitional year as policy developments were determined by both the Federal Agricultural Improvement and Reform Act of 1996 (1996 Farm Act) and the 2002 Farm Act. While the Chapter on Analysis of the 2002 Farm Act in the United States describes the main provisions of the 2002 Farm Act and evaluates their potential effects, this Chapter analyses the main policy developments in 2002.

The main policy instruments for the crop sector were the Producer Flexibility Contract Payments (PFCP) for cereals, rice and upland cotton (under the 1996 Farm Act) together with Direct Payments for Crops (DPC), Counter-Cyclical Payments (CCP), and support-price provisions operating through non-recourse marketing loans for cereals, rice, upland cotton, oilseeds, peanuts and pulses (small chickpeas, lentils and dry peas) under the 2002 Farm Act. While PFCP and DPC are based on pre-determined rates and past production, the CCP are based on current prices and past production. Sugar is supported by a tariff-rate quota, together with provisions for non-recourse loans. Milk and dairy products are supported by minimum prices with government purchases of butter, SMP and cheddar cheese, and a payment per tonne of milk marketed, as well as by tariffs, tariff-rate quotas and export subsidies. For other livestock industries, there are the Lamb Meat Adjustment Program, marketing loans for wool, mohair and honey, and border measures, including tariff-rate quotas for beef and sheep meat, and, occasionally, export subsidies for poultry and eggs.

Interest concessions, fuel tax reductions, and subsidies for grazing and irrigation are also provided. Environmental programmes form a relatively important and increasing dimension of agricultural policy, focusing on measures to convert highly erodible cropland to approved conservation uses (including long-term retirement), to re-convert 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 food safety and promoting sustainable farming practices.

16.2. Developments in domestic policies

In 2002, ***loan rates*** were extended to pulse crops, peanuts, wool, mohair, and honey. Loan rates were increased for all commodities, except rice and oilseeds (Table 3.1). However, total expenditures under the ***Marketing Assistance Loan Program*** (MALP)

decreased from nearly USD 9 billion in 2001 to about USD 2 billion in 2002 due to a significant price rise and a considerable production decline for most crops due to drought. While in 2001 eligible farmers received about USD 9 billion under ***Producer Flexibility Contract Payments*** and ***Crop Market Loss Assistance***, in 2002, they received only about USD 5 billion under PFC payments and the new ***Direct Payments for Crops***. However, a total of nearly USD 2 billion was also granted under the new ***Counter-Cyclical Payments***, and a total of more than USD 1 billion was granted to peanut quota owners under the new ***Quota Loss Compensation Payments.***

The loan rate for ***sugar*** remained unchanged, but marketing assessments and loan forfeiture penalties were eliminated. Sugar loans continue to be non-recourse under the 2002 Farm Act. The overall sugar marketing allotment quantity provided for in the 2002 Farm Act was fixed at 6.98 million tonnes of CCC sugar (raw equivalent) for fiscal year (FY) 2003. A total of 2 336 tonnes of sugar (raw equivalent) were used as in-kind storage payments for the 2001 and 2002 crops. About 10 000 tonnes of CCC sugar (raw equivalent) were sold for use in ethanol production. By the end of September 2002 total CCC inventory was estimated at 192 784 tonnes of sugar (raw equivalent).

In 2002, the national average ***milk*** support price remained unchanged (Table III.1), the support purchase price for non-fat dry milk was reduced by 11% to USD 1764/tonne, while the support purchase price for butter was raised by 23% to USD 2315/tonne. However, the producer price for milk decreased significantly and generated a large reduction in market price support in 2002. The payment per tonne of milk introduced by the 2002 Farm Act was not yet granted and support to producers decreased.

Some USD 752 million in payments were granted under the Livestock Compensation Program to livestock producers suffering from drought in 42 states. Producers received an ***emergency disaster payment*** of USD 18 per animal consuming unit, based on standard feed consumption data for each eligible type of livestock, including dairy and beef cows, buffalo, goats and sheep. More than USD 3 billion in crop insurance indemnity payments were paid for crop year 2002 production losses of major commodities, as a result of drought and other adverse weather conditions.

The Job Creation and Worker Assistance Act of 2002 provides ***taxation concessions*** through an additional first-year depreciation deduction equal to 30% of qualified property for investments between September 2001 and September 2004. Most depreciable farm property will qualify, including farm machinery and equipment, crop storage facilities and single purpose agricultural and horticultural structures. In 2002, the amount of farm capital investment that could be written off as a result of this provision is estimated to have increased by about 15% or USD 1.8 billion. This should reduce Federal income and self-employment taxes paid by farmers by over USD 500 million.

Although payments to crops are still the main regular source of budgetary payments to farmers, payments for ***environmental conservation and protection*** are increasingly significant. In 2002, total payments under the Environmental Quality Incentives Program (EQIP) increased by 17% to USD 108 million. In addition, total expenditures increased by about 8% to USD 1.8 billion for the Conservation Reserve Program (CRP) and by 14% to USD 8 million the Farmland Protection Program (FPP), while expenditures for the Wetland Reserve Program (WRP) decreased by a quarter to USD 110 million. There were no payments under the Conservation Security and Grassland Reserve Programs introduced by the 2002 Farm Act.

At the end of 2002, the Environmental Protection Agency (EPA) imposed stricter rules on livestock farms to curb excessive manure run-off that causes water pollution. Under the new rules, an estimated 15 500 concentrated animal feeding operations (CAFO), livestock farms having more than 1 000 animal units, must write and implement comprehensive nutrient management plans by December 2006 and submit annual reports with the number of animals, the amount of manure generated and disposal methods. At the same time, EQIP provides cost-sharing payments to eligible producers for construction of animal waste management facilities and nutrient management planning. Under the 1996 Farm Act CAFOs were not eligible for these payments because of the 1 000 animal units size limit. However, the 2002 Farm Act eliminated this size limit and made large CAFOs eligible for EQIP cost-sharing payments.

In 2002, to assist the ***production of bio-energy***, over USD 5 million were granted in 14 states to develop 22 ethanol facilities with an overall capacity of over 150 million litres. Total expenditures for ***domestic food assistance*** programmes increased by 12% to about USD 37 billion. This mainly reflects the rise in expenditures for the *Food Stamp Program* which increased by about 16% to USD 22 billion in 2002.

16.3. Trade policy developments

In 2002, the total value of ***export credit guarantees*** under the Export Credit Guarantee Program (ECGP) increased by 5% to USD 3.4 billion. ***Foreign food aid*** decreased by about 26% in volume to 4.6 million tonnes, and by 8% in value to USD 1.5 billion. Total expenditure on ***export subsidies*** under the Dairy Export Incentive Program increased from around USD 8 million in 2001 to about USD 55 million. Expenditure under the Export Enhancement Program (EEP) decreased from about USD 7 million (for frozen poultry) in 2001 to zero in 2002. The ***tariff rate quota*** actually allocated for sugar imports in FY 2002 was 1.289 million tonnes, 2% over the 2001 quota, but it will be reduced by over 10% to 1.154 million tonnes in 2003. The Trade Act of 2002, signed into law in August 2002, renewed the President's ***trade promotion authority*** (elapsed in 1994) until July 2005 or under certain conditions July 2007.

16.4. Overall evaluation

Agricultural policy in the United States is characterised by levels of support below the OECD average. The %PSE decreased from 25% in 1986-88 to 21% in 2000-02. From 2001 the %PSE in 2002 is estimated to have declined by 5 percentage points to 18% compared with the historic low of 11% in 1995. The most heavily supported commodities, sugar and milk, remained at the high OECD average level. In 2002, as measured by the producer NPC, prices received by farmers were on average 10% higher than those in the world market. At the beginning of the 6-year 1996 Farm Act the producer NAC indicated that total farm receipts were 13% higher than those generated at the market without any support, but by 2002, they were 21% higher. The combined changes in market price support and budgetary support to food consumption (through Food Stamps and other programmes) have resulted in a net subsidy to consumption, as measured by the CSE. Total support to agriculture remained at about 1% of GDP, which is lower than the OECD average (Tables III.44-45).

The decrease in the 2002 PSE was mainly the result of a reduction in support for crops and milk. As foreseen under the 1996 Farm Act the PFCP for crops in 2002 declined, and (contrary to the previous four years) no *ad hoc* emergency payments were granted. A significant rise in most crop prices resulted in spending levels under the new DPC and CCP,

introduced by the 2002 Farm Act, lower than the levels of the *ad hoc* payments in the previous years. These new payments are granted through different criteria and have potentially different effects on production and trade. The reduction in support for milk was mainly the result of a decrease in producer prices, and a narrowing of the gap with world prices.

Market price support plus payments based on output and input-linked support decreased from around 70% of support to producers in 1986-88 to 63% in 2002 (Table III.7), which is in line of the reform principles. Nevertheless, it is these forms of support that potentially have the greatest effects in stimulating production and input use, reducing trade and raising pressure on the environment, while having the lowest effectiveness in transferring income to farmers. On the other hand, the share of payments specifically targeted to address environmental issues has increased, but still represents less than 5% of total support to producers. To the extent that current production-linked support encourages the use of fragile land and may increase environmental damage, the cost of achieving specific environmental goals is higher than it would otherwise have been. In the livestock sector, the removal of the size limit for EQIP cost-sharing payments will reduce the cost of large operators in meeting environmental regulations. This is not consistent with the Polluter Pays Principle, and may provide an incentive for the creation of a larger number of big operations and more pollution.

Overall, the long-term reduction in support and protection is a move in the right direction, but support to producers remains higher and the degree of market orientation lower than when the 1996 Farm Act was introduced. Output-linked support is still significant and, given the importance of the US agricultural sector, it will continue to depress world prices. Altogether, the 1996 Farm Act did not achieve its objectives of controlling farm programme costs and reducing government direct intervention. The changes introduced by the new 2002 Farm Act do not seem likely to reduce government expenditures and improve market orientation (see Part I, Chapter 3).

Notes

1. Before that date the minimum prices for milk to farms were to be paid only by dairies applying for export subsidies.
2. ARIP includes four main components: Direct Income Support (DIS) payments, Farmer transition payments, ASC/ASCU restructuring, and improvement of support services (see *Agricultural Policies in OECD Countries: Monitoring and Evaluation, 2002*).

PART III

Summary tables on estimates of support to agriculture

Abstract. *Part II of the Monitoring and Evaluation provides detailed background information on agricultural policies of each OECD country using a standard format. The main agricultural policy instruments are described, followed by developments in domestic agricultural policies and trade policy during 2002. An overall evaluation, which includes a summary of changes in the level and composition of support to agriculture, concludes each country chapter. The analysis is complemented in Part III with a standard set of Summary Tables on estimates of support to agriculture for OECD and each OECD member country. These tables include the standard indicators of support to agriculture used in OECD analysis: the Producer Support Estimate (PSE), the Consumer Support Estimate (CSE), the General Services Support Estimate (GSSE) and the Total Support Estimate (TSE) as well as the derived indicators such as the Producer and Consumer Nominal Protection Coefficient (NPC) and Nominal Assistance Coefficient (NAC)*

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PART III

Chapter 6

Summary tables on estimates of support to agriculture

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 2002 should be treated as provisional. All changes in prices and expenditure data are expressed in nominal terms unless stated otherwise. GDP deflators are included in Tables III.14-III.44 to facilitate interpretation of nominal changes in monetary terms in particular in countries where inflation is high.

As part of its ongoing review of the PSE calculations, the Secretariat has revised the 1986-2002 series of reference prices for the EU beef and veal, pigmeat and poultry MPS calculations, which changed the PSE results for these products and the total EU PSE. As the EU reference prices are also used for Norway, Switzerland (beef and veal, pigmeat, poultry), Czech Republic, Hungary, Poland and Slovak Republic (pigmeat and poultry) the changes reference prices affected also the PSE estimates for these countries. The OECD PSE/CSE database 2003, including detailed information on definitions and calculations available in the cookbooks, is available on the OECD website (*www.oecd.org/agr/policy*).

The United States *Counter Cyclical Payments* (CCP) granted for the first time in 2002 have similarities with payments based on area planted and payments based on historical entitlements, but they do not fit well in any of these two PSE categories of measures. This is why CCP were provisionally placed between these two categories of payments, pending review of the PSE classification over the coming year. This is the case in Tables III.7 and III.44 where the results for the United States are presented. However, in Table III.1 and III.2 presenting aggregate estimates of support for the OECD as a whole, CCP are provisionally reflected in payments based on area planted.

Table III.1. **OECD: Estimates of support to agriculture**
(USD million)

	1986-88	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**586 929**	**657 251**	**658 392**	**649 336**	**664 025**
of which share of MPS commodities (%)	*71*	*68*	*68*	*68*	*68*
Total value of consumption (at farm gate)	**531 078**	**610 247**	**617 410**	**601 255**	**612 077**
Producer Support Estimate (PSE)	**240 859**	**234 686**	**242 365**	**226 845**	**234 847**
Market price support	186 114	146 880	153 163	138 764	148 713
of which MPS commodities	*131 527*	*99 443*	*103 637*	*94 146*	*100 547*
Payments based on output	12 529	14 140	17 005	16 593	8 823
Payments based on area planted/animal numbers [1]	15 833	30 429	29 110	29 020	33 158
Payments based on historical entitlements	515	12 160	13 614	11 921	10 946
Payments based on input use	20 337	21 074	21 046	20 784	21 394
Payments based on input constraints	2 995	6 597	6 145	6 196	7 449
Payments based on overall farming income	2 254	3 554	2 991	3 540	4 129
Miscellaneous payments	281	-149	-708	28	235
Percentage PSE	**38**	**31**	**32**	**31**	**31**
Producer NPC	**1.57**	**1.32**	**1.34**	**1.30**	**1.31**
Producer NAC	**1.61**	**1.46**	**1.48**	**1.44**	**1.46**
General Services Support Estimate (GSSE)	**39 828**	**53 929**	**53 324**	**53 194**	**55 268**
Research and development	3 981	5 137	5 020	4 976	5 414
Agricultural schools	764	1 812	1 595	1 874	1 968
Inspection services	1 094	1 858	1 817	1 859	1 898
Infrastructure	12 549	16 892	17 478	17 135	16 063
Marketing and promotion	12 793	22 341	21 569	22 035	23 419
Public stockholding	6 474	1 929	2 068	1 722	1 997
Miscellaneous	2 173	3 960	3 777	3 594	4 509
GSSE as a share of TSE (%)	**13.2**	**17.1**	**16.6**	**17.4**	**17.4**
Consumer Support Estimate (CSE)	**-169 350**	**-138 545**	**-147 796**	**-130 418**	**-137 421**
Transfers to producers from consumers	-185 156	-143 319	-151 576	-134 675	-143 705
Other transfers from consumers	-17 635	-22 886	-24 095	-22 065	-22 496
Transfers to consumers from taxpayers	21 563	26 431	25 646	25 461	28 185
Excess feed cost	11 878	1 229	2 229	862	596
Percentage CSE	**-33**	**-24**	**-25**	**-23**	**-24**
Consumer NPC	**1.63**	**1.37**	**1.40**	**1.35**	**1.37**
Consumer NAC	**1.50**	**1.31**	**1.33**	**1.29**	**1.31**
Total Support Estimate (TSE)	**302 251**	**315 045**	**321 335**	**305 501**	**318 300**
Transfers from consumers	202 791	166 204	175 671	156 740	166 201
Transfers from taxpayers	117 094	171 726	169 759	170 826	174 595
Budget revenues	-17 635	-22 886	-24 095	-22 065	-22 496
Percentage TSE (expressed as share of GDP)	2.30	1.23	1.26	1.21	1.21

Notes: p: provisional. MPS commodities: See notes to country tables. MPS is net of producer levies and excess feed costs.
TSE as a share of GDP for 1986-88 for the OECD excludes the Czech Republic, Hungary, Poland and Slovak Republic as GDP data is not available for this period. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
1. This category provisionally includes the US counter cyclical payments, which fit no category well.

Source: OECD, PSE/CSE database 2003.

Table III.2. **OECD: Estimates of support to agriculture**
(EUR million)

	1986-88	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**531 618**	**714 682**	**714 424**	**725 049**	**704 574**
of which share of MPS commodities (%)	*71*	*68*	*68*	*68*	*68*
Total value of consumption (at farm gate)	**480 628**	**663 590**	**669 954**	**671 362**	**649 453**
Producer Support Estimate (PSE)	**219 224**	**255 158**	**262 991**	**253 295**	**249 188**
Market price support	169 378	159 645	166 197	154 944	157 794
of which MPS commodities	*119 792*	*108 089*	*112 457*	*105 123*	*106 687*
Payments based on output	11 435	15 447	18 452	18 528	9 362
Payments based on area planted/animal numbers [1]	14 418	33 058	31 588	32 403	35 182
Payments based on historical entitlements	489	13 232	14 772	13 311	11 614
Payments based on input use	18 432	22 915	22 837	23 207	22 700
Payments based on input constraints	2 724	7 163	6 668	6 919	7 903
Payments based on overall farming income	2 080	3 860	3 246	3 953	4 381
Miscellaneous payments	268	-163	-769	31	250
Percentage PSE	**38**	**31**	**32**	**31**	**31**
Producer NPC	**1.57**	**1.32**	**1.34**	**1.30**	**1.31**
Producer NAC	**1.61**	**1.46**	**1.48**	**1.44**	**1.46**
General Services Support Estimate (GSSE)	**36 217**	**58 634**	**57 862**	**59 397**	**58 643**
Research and development	3 603	5 583	5 448	5 556	5 745
Agricultural schools	692	1 970	1 731	2 093	2 088
Inspection services	992	2 021	1 972	2 076	2 014
Infrastructure	11 450	18 380	18 965	19 133	17 044
Marketing and promotion	11 617	24 286	23 404	24 605	24 849
Public stockholding	5 899	2 095	2 244	1 923	2 119
Miscellaneous	1 964	4 298	4 098	4 013	4 784
GSSE as a share of TSE (%)	**13.2**	**17.1**	**16.6**	**17.4**	**17.4**
Consumer Support Estimate (CSE)	**-153 894**	**-150 604**	**-160 374**	**-145 624**	**-145 812**
Transfers to producers from consumers	-168 427	-155 778	-164 475	-150 378	-152 480
Other transfers from consumers	-15 913	-24 885	-26 146	-24 638	-23 870
Transfers to consumers from taxpayers	19 588	28 721	27 828	28 430	29 906
Excess feed cost	10 858	1 338	2 419	962	632
Percentage CSE	**-33**	**-24**	**-25**	**-23**	**-24**
Consumer NPC	**1.63**	**1.37**	**1.40**	**1.35**	**1.37**
Consumer NAC	**1.50**	**1.31**	**1.33**	**1.29**	**1.31**
Total Support Estimate (TSE)	**275 029**	**342 514**	**348 682**	**341 122**	**337 737**
Transfers from consumers	184 341	180 663	190 621	175 016	176 350
Transfers from taxpayers	106 602	186 736	184 207	190 744	185 256
Budget revenues	-15 913	-24 885	-26 146	-24 638	-23 870
Percentage TSE (expressed as share of GDP)	2.30	1.23	1.26	1.21	1.21

Notes: p: provisional. MPS commodities: See notes to country tables. MPS is net of producer levies and excess feed costs. TSE as a share of GDP for 1986-88 for the OECD excludes the Czech Republic, Hungary, Poland and Slovak Republic as GDP data is not available for this period. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
1. This category provisionally includes the US counter cyclical payments, which fit no category well.

Source: OECD, PSE/CSE database 2003.

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Table III.3. **OECD: Producer Support Estimate by country**

		1986-88	2000-2002	2000	2001	2002p
Australia	USD mn	1 285	919	942	818	844
	EUR mn	1 181	997	1 022	913	896
	Percentage PSE	9	4	5	4	4
	Producer NPC	1.05	1.00	1.01	1.00	1.00
	Producer NAC	1.10	1.05	1.05	1.04	1.05
Canada	USD mn	5 667	4 255	4 192	3 977	4 596
	EUR mn	5 183	4 622	4 548	4 440	4 876
	Percentage PSE	34	19	19	17	20
	Producer NPC	1.40	1.12	1.13	1.11	1.12
	Producer NAC	1.51	1.23	1.23	1.21	1.25
Czech Republic	USD mn	1 350	840	552	881	1 086
(1)	EUR mn	1 098	912	599	984	1 152
	Percentage PSE	31	23	17	23	28
	Producer NPC	1.54	1.17	1.06	1.16	1.28
	Producer NAC	1.49	1.30	1.20	1.31	1.39
European Union	USD mn	95 426	92 296	88 606	87 734	100 549
	EUR mn	86 718	100 266	96 146	97 963	106 689
	Percentage PSE	40	35	34	34	36
	Producer NPC	1.76	1.33	1.34	1.30	1.35
	Producer NAC	1.67	1.53	1.52	1.51	1.57
Hungary (1)	USD mn	880	1 201	1 045	1 009	1 550
	EUR mn	716	1 302	1 134	1 127	1 645
	Percentage PSE	16	24	22	19	29
	Producer NPC	1.15	1.15	1.17	1.06	1.22
	Producer NAC	1.20	1.31	1.29	1.24	1.41
Iceland	USD mn	195	125	145	108	122
	EUR mn	176	135	157	120	129
	Percentage PSE	75	63	64	60	63
	Producer NPC	3.89	2.33	2.44	2.17	2.38
	Producer NAC	3.99	2.67	2.80	2.49	2.73
Japan	USD mn	48 906	47 824	54 118	45 423	43 929
	EUR mn	44 342	52 019	58 724	50 720	46 612
	Percentage PSE	61	59	60	59	59
	Producer NPC	2.46	2.37	2.41	2.34	2.34
	Producer NAC	2.57	2.46	2.51	2.44	2.44
Korea	USD mn	12 120	18 088	19 475	16 680	18 109
	EUR mn	10 882	19 657	21 132	18 624	19 215
	Percentage PSE	70	66	67	63	66
	Producer NPC	3.36	2.78	2.91	2.63	2.80
	Producer NAC	3.42	2.92	3.04	2.73	2.98
Mexico	USD mn	-108	7 652	7 605	7 271	8 080
	EUR mn	- 79	8 315	8 252	8 119	8 573
	Percentage PSE	0	22	24	21	22
	Producer NPC	0.92	1.21	1.25	1.18	1.20
	Producer NAC	1.00	1.29	1.32	1.26	1.29
New Zealand	USD mn	474	66	72	35	93
	EUR mn	451	72	78	39	98
	Percentage PSE	11	1	1	1	1
	Producer NPC	1.02	1.01	1.01	1.00	1.01
	Producer NAC	1.13	1.01	1.01	1.01	1.01

Table III.3. **OECD: Producer Support Estimate by country (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Norway	USD mn	2 763	2 346	2 276	2 135	2 627
	EUR mn	2 499	2 547	2 469	2 384	2 787
	Percentage PSE	70	68	68	67	71
	Producer NPC	3.95	2.70	2.69	2.51	2.91
	Producer NAC	3.29	3.17	3.14	2.99	3.39
Poland (1)	USD mn	1 433	2 088	2 014	2 165	2 087
	EUR mn	1 180	2 272	2 185	2 417	2 215
	Percentage PSE	11	15	15	15	14
	Producer NPC	1.08	1.17	1.21	1.16	1.14
	Producer NAC	1.13	1.17	1.18	1.18	1.17
Slovak Republic (1)	USD mn	540	309	362	232	334
	EUR mn	440	335	393	259	354
	Percentage PSE	28	21	25	16	21
	Producer NPC	1.17	1.12	1.14	1.06	1.15
	Producer NAC	1.40	1.26	1.34	1.19	1.26
Switzerland	USD mn	5 304	4 673	4 525	4 444	5 051
	EUR mn	4 791	5 077	4 910	4 962	5 360
	Percentage PSE	76	73	72	72	75
	Producer NPC	4.56	2.91	3.00	2.73	3.00
	Producer NAC	4.20	3.72	3.60	3.62	3.95
Turkey	USD mn	2 874	5 032	6 766	2 251	6 080
	EUR mn	2 611	5 435	7 342	2 514	6 451
	Percentage PSE	15	18	21	10	23
	Producer NPC	1.15	1.19	1.25	1.10	1.23
	Producer NAC	1.18	1.22	1.26	1.11	1.29
United States	USD mn	41 831	46 972	49 673	51 683	39 559
	EUR mn	38 406	51 195	53 901	57 709	41 974
	Percentage PSE	25	21	22	23	18
	Producer NPC	1.19	1.13	1.14	1.16	1.10
	Producer NAC	1.34	1.26	1.28	1.29	1.21
OECD	USD mn	240 859	234 686	242 365	226 845	234 847
	EUR mn	219 224	255 158	262 991	253 295	249 188
	Percentage PSE	38	31	32	31	31
	Producer NPC	1.57	1.32	1.34	1.30	1.31
	Producer NAC	1.61	1.46	1.48	1.44	1.46

Notes: p: provisional. NPC: Nominal Protection Coefficient.
NAC: Nominal Assistance Coefficient. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.
(1) For Czech Republic, Hungary, Poland and Slovak Republic: The figure in the first column refers to 1991-93.
Austria, Finland, and Sweden are included in the OECD totals for all years and in the EU from 1995.
Source: OECD, PSE/CSE database 2003.

Table III.4. **OECD : Producer Support Estimate by commodity**

		1986-88	2000-2002	2000	2001	2002p
Wheat						
	USD mn	18 670	15 310	17 315	14 017	14 600
	EUR mn	17 038	16 644	18 788	15 651	15 492
	Percentage PSE	47	37	40	36	36
	Producer NPC	1.69	1.08	1.14	1.05	1.07
	Producer NAC	1.92	1.60	1.66	1.56	1.57
Maize						
	USD mn	12 694	10 640	13 892	10 402	7 627
	EUR mn	11 633	11 594	15 074	11 615	8 093
	Percentage PSE	40	27	35	27	20
	Producer NPC	1.30	1.09	1.17	1.08	1.02
	Producer NAC	1.67	1.39	1.54	1.38	1.25
Other grains						
	USD mn	11 201	7 973	8 420	7 811	7 689
	EUR mn	10 238	8 672	9 137	8 722	8 158
	Percentage PSE	52	41	43	40	42
	Producer NPC	1.97	1.09	1.14	1.07	1.07
	Producer NAC	2.13	1.71	1.74	1.68	1.71
Rice						
	USD mn	26 933	25 002	28 244	24 179	22 581
	EUR mn	24 477	27 202	30 648	26 999	23 960
	Percentage PSE	81	81	82	81	80
	Producer NPC	4.91	4.98	5.34	4.99	4.61
	Producer NAC	5.22	5.24	5.60	5.25	4.88
Oilseeds						
	USD mn	5 386	6 462	7 775	7 032	4 579
	EUR mn	4 878	7 049	8 437	7 852	4 858
	Percentage PSE	26	25	29	28	18
	Producer NPC	1.27	1.16	1.22	1.22	1.03
	Producer NAC	1.36	1.34	1.42	1.38	1.22
Sugar						
	USD mn	5 760	5 226	5 763	4 598	5 316
	EUR mn	5 241	5 676	6 254	5 134	5 641
	Percentage PSE	54	47	50	45	48
	Producer NPC	2.33	1.95	2.06	1.81	1.97
	Producer NAC	2.18	1.91	2.00	1.81	1.91
Milk						
	USD mn	48 171	40 137	38 013	41 258	41 139
	EUR mn	43 995	43 656	41 248	46 069	43 651
	Percentage PSE	59	46	45	46	48
	Producer NPC	2.70	1.78	1.75	1.77	1.83
	Producer NAC	2.47	1.87	1.81	1.85	1.93
Beef and Veal						
	USD mn	22 175	26 264	23 717	24 422	30 654
	EUR mn	20 222	28 510	25 735	27 270	32 526
	Percentage PSE	32	33	30	31	37
	Producer NPC	1.41	1.27	1.26	1.24	1.31
	Producer NAC	1.46	1.49	1.43	1.45	1.60
Sheepmeat						
	USD mn	4 680	3 145	3 743	3 239	2 454
	EUR mn	4 210	3 427	4 061	3 617	2 603
	Percentage PSE	55	34	40	35	27
	Producer NPC	1.87	1.11	1.18	1.09	1.06
	Producer NAC	2.23	1.52	1.66	1.54	1.37

Table III.4. **OECD : Producer Support Estimate by commodity (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Wool						
	USD mn	294	117	113	99	139
	EUR mn	267	127	122	111	147
	Percentage PSE	7	6	6	5	6
	Producer NPC	1.01	1.02	1.02	1.02	1.02
	Producer NAC	1.07	1.06	1.07	1.06	1.07
Pigmeat						
	USD mn	8 764	10 383	9 701	9 675	11 774
	EUR mn	7 938	11 274	10 527	10 803	12 493
	Percentage PSE	18	21	20	18	24
	Producer NPC	1.30	1.23	1.22	1.18	1.27
	Producer NAC	1.23	1.26	1.25	1.22	1.32
Poultry						
	USD mn	4 895	6 144	6 098	5 881	6 452
	EUR mn	4 391	6 677	6 617	6 567	6 846
	Percentage PSE	20	17	17	15	18
	Producer NPC	1.33	1.16	1.18	1.14	1.17
	Producer NAC	1.25	1.20	1.21	1.18	1.21
Eggs						
	USD mn	2 638	1 713	1 828	1 630	1 681
	EUR mn	2 399	1 863	1 984	1 820	1 784
	Percentage PSE	17	10	10	10	10
	Producer NPC	1.22	1.08	1.09	1.08	1.08
	Producer NAC	1.20	1.11	1.11	1.11	1.11
Other Commodities						
	USD mn	68 600	76 169	77 743	72 601	78 163
	EUR mn	62 298	82 787	84 359	81 066	82 936
	Percentage PSE	30	26	26	25	25
	Producer NPC	1.40	1.27	1.29	1.26	1.26
	Producer NAC	1.43	1.35	1.36	1.34	1.34
All commodities						
	USD mn	240 859	234 686	242 365	226 845	234 847
	EUR mn	219 224	255 158	262 991	253 295	249 188
	Percentage PSE	38	31	32	31	31
	Producer NPC	1.57	1.32	1.34	1.30	1.31
	Producer NAC	1.61	1.46	1.48	1.44	1.46

Notes: p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for the commodities listed above.
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 2003.

Table III.5. **OECD: Producer Support Estimate per full-time farmer equivalent**

	1986-88	2000-2002	2000	2001	2002p
USD '000					
Australia	**3**	**2**	**2**	**2**	**3**
Canada	**8**	**10**	**11**	**10**	**11**
Czech Republic (1991-93)	**4**	**5**	**3**	**6**	**7**
European Union	**10**	**15**	**15**	**15**	**17**
Hungary (1991-93)	**2**	**5**	**4**	**4**	**6**
Iceland	**25**	**27**	**31**	**24**	**27**
Japan	**14**	**23**	**26**	**22**	**21**
Korea	**8**	**23**	**24**	**21**	**23**
Mexico	**n.c.**	**1**	**1**	**1**	**1**
New Zealand	**4**	**1**	**1**	**0**	**1**
Norway	**29**	**38**	**35**	**34**	**45**
Poland (1991-93)	**1**	**1**	**1**	**1**	**1**
Slovak Republic (1991-93)	**2**	**3**	**3**	**2**	**3**
Switzerland	**35**	**30**	**30**	**28**	**32**
Turkey	**n.c.**	**n.c.**	**n.c.**	**n.c.**	**n.c.**
United States	**16**	**19**	**20**	**21**	**16**
OECD	**10**	**11**	**11**	**10**	**11**
EUR '000					
Australia	**3**	**3**	**3**	**2**	**3**
Canada	**10**	**11**	**11**	**11**	**12**
Czech Republic (1991-93)	**3**	**6**	**4**	**6**	**8**
European Union	**9**	**17**	**16**	**16**	**18**
Hungary (1991-93)	**1**	**5**	**4**	**5**	**7**
Iceland	**23**	**30**	**34**	**27**	**29**
Japan	**12**	**25**	**28**	**24**	**22**
Korea	**7**	**25**	**27**	**23**	**24**
Mexico	**n.c.**	**1**	**1**	**1**	**1**
New Zealand	**4**	**1**	**1**	**0**	**1**
Norway	**26**	**41**	**38**	**39**	**47**
Poland (1991-93)	**0**	**1**	**1**	**1**	**1**
Slovak Republic (1991-93)	**2**	**3**	**3**	**3**	**4**
Switzerland	**31**	**33**	**32**	**32**	**34**
Turkey	**n.c.**	**n.c.**	**n.c.**	**n.c.**	**n.c.**
United States	**15**	**21**	**22**	**23**	**17**
OECD	**9**	**12**	**12**	**11**	**11**

Notes: p: provisional. n.c.: not calculated. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.
Austria, Finland, and Sweden are included in the OECD totals for all years,and in the EU from 1995.
For Czech Republic, Hungary, Poland and Slovak Republic: the figure in the first column refers to 1991-93.
Data on full-time farmer equivalents is not available Mexico (1986-88) and Turkey.
Source: OECD, PSE/CSE database 2003.

Table III.6. **OECD: Producer Support Estimate per hectare of agricultural land**

	1986-88	2000-2002	2000	2001	2002p
USD					
Australia	**3**	**2**	**2**	**2**	**2**
Canada	**76**	**57**	**56**	**53**	**62**
Czech Republic (1991-93)	**315**	**196**	**129**	**206**	**254**
European Union	**709**	**670**	**643**	**637**	**730**
Hungary (1991-93)	**142**	**205**	**178**	**172**	**265**
Iceland	**103**	**65**	**76**	**56**	**64**
Japan	**9 163**	**9 828**	**11 122**	**9 335**	**9 028**
Korea	**5 440**	**9 307**	**9 977**	**8 604**	**9 341**
Mexico	**-1**	**71**	**70**	**67**	**75**
New Zealand	**33**	**5**	**5**	**3**	**7**
Norway	**2 820**	**2 254**	**2 184**	**2 051**	**2 526**
Poland (1991-93)	**77**	**114**	**109**	**118**	**114**
Slovak Republic (1991-93)	**221**	**127**	**148**	**96**	**137**
Switzerland	**3 357**	**2 958**	**2 864**	**2 813**	**3 197**
Turkey	**74**	**125**	**169**	**56**	**151**
United States	**98**	**112**	**119**	**123**	**94**
OECD	**183**	**182**	**188**	**176**	**182**
EUR					
Australia	**3**	**2**	**2**	**2**	**2**
Canada	**69**	**62**	**61**	**60**	**65**
Czech Republic (1991-93)	**256**	**213**	**140**	**230**	**269**
European Union	**644**	**728**	**697**	**711**	**775**
Hungary (1991-93)	**115**	**222**	**194**	**192**	**281**
Iceland	**92**	**71**	**82**	**63**	**68**
Japan	**8 306**	**10 690**	**12 068**	**10 423**	**9 579**
Korea	**4 884**	**10 115**	**10 826**	**9 607**	**9 911**
Mexico	**-1**	**77**	**76**	**75**	**79**
New Zealand	**32**	**5**	**6**	**3**	**7**
Norway	**2 551**	**2 447**	**2 370**	**2 290**	**2 680**
Poland (1991-93)	**63**	**124**	**119**	**131**	**120**
Slovak Republic (1991-93)	**180**	**138**	**161**	**107**	**146**
Switzerland	**3 032**	**3 214**	**3 108**	**3 141**	**3 392**
Turkey	**67**	**135**	**183**	**63**	**161**
United States	**90**	**122**	**129**	**138**	**100**
OECD	**167**	**198**	**204**	**196**	**193**

Notes: p: provisional. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.
Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.
For Czech Republic, Hungary, Poland and Slovak Republic: the figure in the first column refers to 1991-93.
Source: OECD, PSE/CSE database 2003.

Table III.7. **OECD: Composition of Producer Support Estimate**
(percentage share in PSE)

	1986-88	2000-2002	2000	2001	2002p
Australia					
Market Price Support	47	3	7	0	0
Payments based on output	0	3	3	3	3
Payments based on area planted/animal numbers	0	2	2	2	2
Payments based on historical entitlements	0	9	6	12	12
Payments based on input use	32	67	64	65	66
Payments based on input constraints	0	0	0	0	0
Payments based on overall farm income	21	16	17	17	16
Miscellaneous payments	0	0	0	0	0
Canada					
Market Price Support	49	47	49	48	46
Payments based on output	17	5	8	6	3
Payments based on area planted/animal numbers	17	12	8	10	16
Payments based on historical entitlements	0	13	13	13	13
Payments based on input use	16	8	8	9	7
Payments based on input constraints	0	0	0	0	0
Payments based on overall farm income	0	14	13	14	14
Miscellaneous payments	2	1	2	0	1
Czech Republic (1)					
Market Price Support	93	64	53	60	75
Payments based on output	0	1	2	0	0
Payments based on area planted/animal numbers	1	17	11	26	13
Payments based on historical entitlements	0	4	15	0	0
Payments based on input use	6	13	18	13	11
Payments based on input constraints	1	1	0	1	1
Payments based on overall farm income	0	1	1	1	1
Miscellaneous payments	0	0	0	0	0
European Union					
Market Price Support	86	57	58	55	57
Payments based on output	5	4	4	4	4
Payments based on area planted/animal numbers	3	27	27	29	26
Payments based on historical entitlements	0	1	1	1	1
Payments based on input use	5	8	8	8	8
Payments based on input constraints	1	4	3	4	4
Payments based on overall farm income	0	0	0	0	0
Miscellaneous payments	0	0	-1	0	0
Hungary (1)					
Market Price Support	75	57	64	45	60
Payments based on output	0	6	5	6	6
Payments based on area planted/animal numbers	4	9	9	10	7
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	21	28	22	39	26
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
Iceland					
Market Price Support	87	47	49	45	48
Payments based on output	1	30	29	32	30
Payments based on area planted/animal numbers	1	0	0	0	0
Payments based on historical entitlements	0	14	15	14	14
Payments based on input use	11	8	8	9	9
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.7. **OECD: Composition of Producer Support Estimate (cont'd)**
(percentage share in PSE)

	1986-88	2000-2002	2000	2001	2002p
Japan					
Market Price Support	90	90	90	90	90
Payments based on output	3	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	4	5	5	5	5
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	94	96	94	91
Payments based on output	0	0	0	0	0
Payments based on area planted/animal numbers	0	1	0	1	2
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	1	3	3	2	3
Payments based on input constraints	0	0	0	0	0
Payments based on overall farm income	0	2	2	2	3
Miscellaneous payments	0	0	0	0	0
Mexico					
Market Price Support	n.c.	68	74	64	66
Payments based on output	n.c.	3	0	6	3
Payments based on area planted/animal numbers	n.c.	2	1	1	5
Payments based on historical entitlements	n.c.	16	14	16	16
Payments based on input use	n.c.	10	10	12	8
Payments based on input constraints	n.c.	0	0	0	0
Payments based on overall farm income	n.c.	1	1	1	2
Miscellaneous payments	n.c.	0	0	0	0
New Zealand					
Market Price Support	19	69	73	39	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	37	0	0	0	0
Payments based on input use	39	30	24	60	22
Payments based on input constraints	0	0	0	0	0
Payments based on overall farm income	5	1	3	0	0
Miscellaneous payments	0	0	0	0	0
Norway					
Market Price Support	48	42	40	42	45
Payments based on output	23	14	14	15	14
Payments based on area planted/animal numbers	9	16	16	17	16
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	18	22	23	22	20
Payments based on input constraints	2	3	6	1	3
Payments based on overall farm income	0	2	1	3	3
Miscellaneous payments	0	0	0	0	0
Poland (1)					
Market Price Support	66	74	75	78	68
Payments based on output	0	5	3	4	8
Payments based on area planted/animal numbers	0	2	3	3	1
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	33	18	18	15	22
Payments based on input constraints	0	0	0	0	0
Payments based on overall farm income	0	0	0	0	0
Miscellaneous payments	0	1	0	0	1

Table III.7. **OECD: Composition of Producer Support Estimate (cont'd) (percentage share in PSE)**

	1986-88	2000-2002	2000	2001	2002p
Slovak Republic (1)					
Market Price Support	45	21	20	3	35
Payments based on output	1	10	8	14	9
Payments based on area planted/animal numbers	30	39	48	42	28
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	13	29	24	40	27
Payments based on input constraints	0	0	0	0	0
Payments based on overall farm income	11	1	1	1	1
Miscellaneous payments	1	0	0	0	0
Switzerland					
Market Price Support	82	59	61	58	58
Payments based on output	1	5	4	5	5
Payments based on area planted/animal numbers	6	12	11	11	12
Payments based on historical entitlements	0	17	16	17	17
Payments based on input use	8	4	4	5	4
Payments based on input constraints	0	2	2	2	1
Payments based on overall farm income	0	0	0	0	0
Miscellaneous payments	3	3	3	3	3
Turkey					
Market Price Support	66	76	84	69	75
Payments based on output	0	6	5	20	3
Payments based on area planted/animal numbers	0	0	0	0	0
Payments based on historical entitlements	0	12	0	3	20
Payments based on input use	33	6	12	8	2
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	47	35	30	38	39
Payments based on output	7	16	21	18	6
Payments based on area planted/animal numbers	27	5	7	4	5
"Counter cyclical payments"	0	1	0	0	4
Payments based on historical entitlements	0	18	21	17	16
Payments based on input use	16	15	14	15	18
Payments based on input constraints	2	4	4	4	5
Payments based on overall farm income	2	5	4	5	6
OECD					
Market Price Support	77	63	63	61	63
Payments based on output	5	6	7	7	4
Payments based on area planted/animal numbers	7	13	12	13	14
Payments based on historical entitlements	0	5	6	5	5
Payments based on input use	8	9	9	9	9
Payments based on input constraints	1	3	3	3	3
Payments based on overall farm income	1	2	1	2	2
Miscellaneous payments	0	0	0	0	0

Notes: p: provisional, n.c.: not calculated. EU-12 for 1986-94, EU-15 from 1995,
EU includes ex-GDR from 1990. Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.
(1) For Czech Republic, Hungary, Poland and Slovak Republic: The figure in the first column refers to 1991-93.
Market Price support is net of producer levies and excess feed costs.
Source: OECD, PSE/CSE database 2003.

Table III.8. **OECD: General Services Support Estimate by country**

		1986-88	2000-2002	2000	2001	2002p
Australia	USD mn	389	563	472	461	502
	EUR mn	352	609	512	515	532
	Percentage of TSE	23	41	35	39	41
Canada	USD mn	1 464	1 349	1 342	1 331	1 374
	EUR mn	1 328	1 467	1 456	1 487	1 458
	Percentage of TSE	20	24	24	25	23
Czech Republic (1)	USD mn	36	99	105	93	98
	EUR mn	29	108	114	104	104
	Percentage of TSE	3	11	16	10	8
European Union	USD mn	10 493	8 024	7 844	7 835	8 393
	EUR mn	9 520	8 722	8 511	8 749	8 906
	Percentage of TSE	9	8	8	8	7
Hungary (1)	USD mn	5	206	153	219	247
	EUR mn	5	224	166	244	262
	Percentage of TSE	1	14	12	17	13
Iceland	USD mn	23	16	17	14	15
	EUR mn	20	17	19	16	16
	Percentage of TSE	9	11	10	11	11
Japan	USD mn	8 775	12 295	13 303	11 864	11 717
	EUR mn	7 889	13 372	14 435	13 247	12 433
	Percentage of TSE	15	20	20	21	21
Korea	USD mn	1 069	2 707	2 741	2 567	2 812
	EUR mn	954	2 942	2 975	2 867	2 984
	Percentage of TSE	8	13	12	13	13
Mexico	USD mn	680	686	627	722	710
	EUR mn	637	746	680	806	753
	Percentage of TSE	57	8	7	9	8
New Zealand	USD mn	104	94	95	91	97
	EUR mn	94	103	103	102	103
	Percentage of TSE	17	59	57	72	51
Norway	USD mn	129	155	148	152	167
	EUR mn	117	169	161	169	177
	Percentage of TSE	4	6	6	6	6
Poland (1)	USD mn	257	223	218	203	248
	EUR mn	209	242	237	227	264
	Percentage of TSE	14	10	10	8	10
Slovak Republic (1)	USD mn	72	42	39	35	52
	EUR mn	58	46	42	40	55
	Percentage of TSE	12	12	10	13	13
Switzerland	USD mn	438	326	311	332	336
	EUR mn	396	355	337	370	357
	Percentage of TSE	7	6	6	7	6
Turkey	USD mn	308	2 846	3 725	3 159	1 653
	EUR mn	276	3 108	4 042	3 527	1 754
	Percentage of TSE	11	35	36	58	21
United States	USD mn	15 233	24 297	22 183	24 116	26 594
	EUR mn	13 980	26 405	24 071	26 927	28 218
	Percentage of TSE	22	26	24	25	29
OECD	USD mn	39 828	53 929	53 324	53 194	55 268
	EUR mn	36 217	58 634	57 862	59 397	58 643
	Percentage of TSE	13	17	17	17	17

Notes: p: provisional. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.
Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.
(1) For Czech Republic, Hungary, Poland and Slovak Republic: The figure in the first column refers to 1991-93.
Source: OECD, PSE/CSE database 2003.

Table III.9. **OECD: Composition of General Services Support Estimate**
(percentage share in GSSE)

		1986-88	2000-2002	2000	2001	2002p
Australia	Research and Development	55	66	70	66	64
	Agricultural schools	0	0	0	0	0
	Inspection services	16	8	5	10	10
	Infrastructure	12	23	22	22	23
	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	20	22	20	18
	Agricultural schools	14	11	12	11	10
	Inspection services	17	25	24	26	25
	Infrastructure	25	24	20	22	28
	Marketing and promotion	27	20	22	21	18
	Public stockholding	0	0	0	0	0
	Miscellaneous	0	0	0	0	0
Czech Republic (1)	Research and Development	44	28	25	28	32
	Agricultural schools	47	40	44	36	40
	Inspection services	8	8	3	8	14
	Infrastructure	1	24	28	28	14
	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	11	11	12	11	9
	Agricultural schools	1	12	10	13	13
	Inspection services	2	3	3	4	2
	Infrastructure	12	23	25	22	22
	Marketing and promotion	26	37	34	39	38
	Public stockholding	49	12	14	10	11
	Miscellaneous	0	3	2	1	4
Hungary (1)	Research and Development	0	11	10	12	11
	Agricultural schools	100	8	8	8	9
	Inspection services	0	14	17	13	13
	Infrastructure	0	5	1	8	5
	Marketing and promotion	0	9	13	8	8
	Public stockholding	0	0	0	0	0
	Miscellaneous	0	52	50	52	54
Iceland	Research and Development	10	14	15	14	14
	Agricultural schools	16	31	32	31	31
	Inspection services	4	10	14	9	9
	Infrastructure	30	24	20	26	26
	Marketing and promotion	1	2	2	2	2
	Public stockholding	38	17	17	17	17
	Miscellaneous	1	1	1	1	1
Japan	Research and Development	4	4	4	4	4
	Agricultural schools	2	3	3	4	4
	Inspection services	1	1	1	1	1
	Infrastructure	80	76	78	78	73
	Marketing and promotion	2	2	2	2	2
	Public stockholding	3	3	3	3	3
	Miscellaneous	9	11	9	9	14
Korea	Research and Development	6	9	8	8	10
	Agricultural schools	1	1	1	1	1
	Inspection services	2	4	4	4	3
	Infrastructure	44	67	70	69	64
	Marketing and promotion	0	1	1	1	1
	Public stockholding	47	18	16	17	20
	Miscellaneous	0	0	0	0	0
Mexico	Research and Development	9	19	17	19	20
	Agricultural schools	15	25	25	25	24
	Inspection services	0	14	14	14	14
	Infrastructure	26	25	16	31	28
	Marketing and promotion	2	15	23	10	12
	Public stockholding	47	0	0	0	0
	Miscellaneous	1	3	5	1	2

Table III.9. **OECD: Composition of General Services Support Estimate (Cont'd)**

(percentage share in GSSE)

		1986-88	2000-2002	2000	2001	2002p
New Zealand	Research and Development	43	57	59	56	56
	Agricultural schools	0	3	4	5	0
	Inspection services	31	28	26	26	32
	Infrastructure	26	12	10	12	12
	Marketing and promotion	0	0	0	0	0
	Public stockholding	0	0	0	0	0
	Miscellaneous	0	0	0	1	0
Norway	Research and Development	53	49	48	48	51
	Agricultural schools	0	0	0	0	0
	Inspection services	4	19	18	18	20
	Infrastructure	15	12	11	12	14
	Marketing and promotion	28	9	13	10	6
	Public stockholding	0	1	1	1	1
	Miscellaneous	0	10	9	11	9
Poland (1)	Research and Development	50	21	25	23	16
	Agricultural schools	1	5	2	2	10
	Inspection services	1	32	30	37	31
	Infrastructure	16	22	16	21	28
	Marketing and promotion	12	10	21	10	0
	Public stockholding	17	5	4	5	6
	Miscellaneous	3	6	3	2	10
Slovak Republic (1)	Research and Development	32	26	31	32	19
	Agricultural schools	29	5	8	4	3
	Inspection services	25	28	22	18	39
	Infrastructure	14	36	35	39	34
	Marketing and promotion	0	5	4	6	5
	Public stockholding	0	0	0	0	0
	Miscellaneous	0	0	0	0	0
Switzerland	Research and Development	20	17	18	17	17
	Agricultural schools	6	4	4	4	4
	Inspection services	2	2	2	2	2
	Infrastructure	20	17	15	18	17
	Marketing and promotion	7	11	12	11	11
	Public stockholding	15	11	11	13	9
	Miscellaneous	31	37	37	35	39
Turkey	Research and Development	16	1	1	1	2
	Agricultural schools	1	0	0	0	0
	Inspection services	17	3	2	2	4
	Infrastructure	2	0	0	0	0
	Marketing and promotion	35	96	97	97	92
	Public stockholding	0	0	0	0	0
	Miscellaneous	29	0	0	0	1
United States	Research and Development	10	10	10	10	10
	Agricultural schools	0	0	0	0	0
	Inspection services	3	3	3	3	3
	Infrastructure	20	12	12	15	11
	Marketing and promotion	61	66	65	63	68
	Public stockholding	0	0	0	0	0
	Miscellaneous	7	9	10	9	8
OECD	Research and Development	10	10	9	9	10
	Agricultural schools	2	3	3	4	4
	Inspection services	3	3	3	3	3
	Infrastructure	32	31	33	32	29
	Marketing and promotion	32	41	40	41	42
	Public stockholding	16	4	4	3	4
	Miscellaneous	5	7	7	7	8

Notes: p: provisional. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.

Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.

(1) For Czech Republic, Hungary, Poland and Slovak Republic: The figure in the first column refers to 1991-93.

Source: OECD, PSE/CSE database 2003.

Table III.10. **OECD: Consumer Support Estimate by country**

		1986-88	2000-2002	2000	2001	2002p
Australia	USD mn	-306	-106	-92	-109	-115
	EUR mn	- 282	- 115	-100	-122	-123
	Percentage CSE	-7	-2	-1	-2	-2
	Consumer NPC	1.08	1.00	1.00	1.00	1.00
	Consumer NAC	1.08	1.02	1.01	1.02	1.02
Canada	USD mn	-2 506	-2 097	-2 113	-1 968	-2 210
	EUR mn	- 2 281	- 2 278	-2 292	-2 197	-2 345
	Percentage CSE	-22	-14	-14	-13	-14
	Consumer NPC	1.32	1.16	1.17	1.15	1.16
	Consumer NAC	1.28	1.16	1.17	1.15	1.16
Czech Republic (1)	USD mn	-957	-501	-265	-513	-725
	EUR mn	- 779	- 543	-287	-573	-769
	Percentage CSE	-28	-16	-10	-17	-22
	Consumer NPC	1.49	1.17	1.06	1.18	1.27
	Consumer NAC	1.43	1.20	1.11	1.21	1.28
European Union	USD mn	-70 518	-45 241	-44 775	-41 306	-49 641
	EUR mn	- 64 137	- 49 127	-48 585	-46 122	-52 672
	Percentage CSE	-41	-26	-27	-24	-28
	Consumer NPC	1.90	1.40	1.41	1.35	1.42
	Consumer NAC	1.69	1.36	1.37	1.32	1.39
Hungary (1)	USD mn	-510	-765	-670	-652	-973
	EUR mn	- 417	-829	-727	-727	-1 032
	Percentage CSE	-12	-19	-16	-18	-24
	Consumer NPC	1.14	1.20	1.17	1.16	1.27
	Consumer NAC	1.14	1.24	1.19	1.21	1.31
Iceland	USD mn	-119	-61	-71	-50	-60
	EUR mn	- 107	- 66	-77	-56	-64
	Percentage CSE	-68	-45	-48	-40	-46
	Consumer NPC	3.95	1.86	1.97	1.71	1.89
	Consumer NAC	3.23	1.82	1.93	1.68	1.85
Japan	USD mn	-55 088	-58 983	-66 690	-56 280	-53 979
	EUR mn	- 49 789	- 64 161	-72 366	-62 843	-57 276
	Percentage CSE	-57	-51	-51	-51	-51
	Consumer NPC	2.35	2.04	2.05	2.04	2.04
	Consumer NAC	2.35	2.04	2.05	2.03	2.04
Korea	USD mn	-11 817	-19 544	-20 444	-17 579	-20 609
	EUR mn	- 10 625	- 21 227	-22 184	-19 629	-21 867
	Percentage CSE	-66	-62	-64	-59	-64
	Consumer NPC	2.95	2.66	2.75	2.45	2.77
	Consumer NAC	2.94	2.65	2.74	2.45	2.76
Mexico	USD mn	2 277	-5 720	-5 818	-5 303	-6 040
	EUR mn	2 082	- 6 215	-6 313	-5 922	-6 409
	Percentage CSE	17	-19	-20	-17	-20
	Consumer NPC	0.92	1.25	1.29	1.21	1.25
	Consumer NAC	0.86	1.23	1.24	1.20	1.25
New Zealand	USD mn	-91	-51	-56	-19	-77
	EUR mn	- 83	- 55	-60	-22	-82
	Percentage CSE	-9	-4	-4	-1	-5
	Consumer NPC	1.10	1.04	1.04	1.01	1.06
	Consumer NAC	1.10	1.04	1.04	1.01	1.06

Table III.10. **OECD: Consumer Support Estimate by country (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Norway	USD mn	-1 311	-991	-916	-882	-1 174
	EUR mn	- 1 190	- 1 075	-994	-985	-1 246
	Percentage CSE	-55	-51	-50	-48	-54
	Consumer NPC	3.17	2.36	2.32	2.19	2.56
	Consumer NAC	2.23	2.03	2.00	1.91	2.20
Poland (1)	USD mn	-1 048	-1 662	-1 891	-1 733	-1 363
	EUR mn	- 872	- 1 811	-2 051	-1 935	-1 447
	Percentage CSE	-8	-12	-14	-13	-10
	Consumer NPC	1.09	1.16	1.19	1.16	1.12
	Consumer NAC	1.09	1.14	1.17	1.15	1.11
Slovak Republic (1)	USD mn	-183	-133	-132	-89	-180
	EUR mn	- 151	- 144	-143	-100	-191
	Percentage CSE	-12	-11	-11	-8	-14
	Consumer NPC	1.15	1.10	1.09	1.05	1.14
	Consumer NAC	1.14	1.13	1.13	1.08	1.17
Switzerland	USD mn	-4 888	-3 229	-3 358	-2 971	-3 356
	EUR mn	- 4 411	- 3 508	-3 644	-3 317	-3 561
	Percentage CSE	-72	-61	-63	-59	-62
	Consumer NPC	4.54	2.79	2.94	2.59	2.83
	Consumer NAC	3.62	2.59	2.69	2.44	2.64
Turkey	USD mn	-2 149	-3 886	-5 658	-1 542	-4 457
	EUR mn	- 1 961	- 4 197	-6 140	-1 722	-4 729
	Percentage CSE	-14	-16	-22	-8	-19
	Consumer NPC	1.19	1.21	1.30	1.09	1.24
	Consumer NAC	1.17	1.20	1.28	1.08	1.24
United States	USD mn	-8 778	3 800	4 703	-149	6 845
	EUR mn	- 8 201	4 067	5 104	-166	7 263
	Percentage CSE	-7	2	3	0	4
	Consumer NPC	1.19	1.11	1.10	1.13	1.10
	Consumer NAC	1.08	0.98	0.97	1.00	0.96
OECD	USD mn	-169 350	-138 545	-147 796	-130 418	-137 421
	EUR mn	- 153 894	- 150 604	-160 374	-145 624	-145 812
	Percentage CSE	-33	-24	-25	-23	-24
	Consumer NPC	1.63	1.37	1.40	1.35	1.37
	Consumer NAC	1.50	1.31	1.33	1.29	1.31

Notes: p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.
(1) For Czech Republic, Hungary, Poland and Slovak Republic: The figure in the first column refers to 1991-93.
Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.
Source: OECD, PSE/CSE database 2003.

Table III.11. **OECD : Consumer Support Estimate by commodity**

		1986-88	2000-2002	2000	2001	2002p
Wheat	USD mn	-7 815	-1 660	-2 326	-1 127	-1 526
	EUR mn	- 7 059	- 1 800	-2 524	-1 258	-1 619
	Percentage CSE	-31	-7	-11	-5	-7
	Consumer NPC	1.86	1.13	1.19	1.09	1.11
	Consumer NAC	1.45	1.08	1.12	1.06	1.07
Maize	USD mn	598	2 602	2 174	2 540	3 093
	EUR mn	568	2 825	2 359	2 836	3 281
	Percentage CSE	3	11	10	11	12
	Consumer NPC	1.24	1.04	1.08	1.03	1.01
	Consumer NAC	0.97	0.90	0.91	0.90	0.89
Other grains	USD mn	-3 899	-2 227	-2 614	-2 097	-1 971
	EUR mn	- 3 536	- 2 423	-2 836	-2 341	-2 092
	Percentage CSE	-20	-16	-18	-16	-15
	Consumer NPC	2.09	1.27	1.35	1.24	1.23
	Consumer NAC	1.25	1.20	1.23	1.19	1.18
Rice	USD mn	-23 314	-22 161	-25 471	-21 326	-19 687
	EUR mn	- 21 127	- 24 113	-27 638	-23 813	-20 889
	Percentage CSE	-79	-80	-81	-80	-78
	Consumer NPC	4.96	4.96	5.40	4.98	4.50
	Consumer NAC	4.89	4.94	5.38	4.96	4.48
Oilseeds	USD mn	-559	-234	-395	-185	-121
	EUR mn	- 505	- 255	-428	-207	-129
	Percentage CSE	-3	-1	-2	-1	0
	Consumer NPC	1.05	1.02	1.03	1.02	1.02
	Consumer NAC	1.03	1.01	1.02	1.01	1.00
Sugar	USD mn	-7 455	-6 004	-6 252	-5 497	-6 263
	EUR mn	- 6 778	- 6 523	-6 784	-6 138	-6 645
	Percentage CSE	-62	-52	-53	-49	-53
	Consumer NPC	2.60	2.17	2.21	2.08	2.23
	Consumer NAC	2.67	2.07	2.12	1.95	2.14
Milk	USD mn	-35 808	-32 131	-30 767	-33 202	-32 425
	EUR mn	- 32 749	- 34 955	-33 386	-37 073	-34 405
	Percentage CSE	-58	-43	-42	-43	-44
	Consumer NPC	2.72	1.85	1.82	1.83	1.90
	Consumer NAC	2.46	1.75	1.71	1.74	1.79
Beef and Veal	USD mn	-17 078	-14 448	-14 939	-12 321	-16 083
	EUR mn	- 15 587	- 15 678	-16 211	-13 758	-17 065
	Percentage CSE	-26	-20	-20	-18	-22
	Consumer NPC	1.40	1.30	1.29	1.26	1.35
	Consumer NAC	1.36	1.25	1.24	1.21	1.29
Sheepmeat	USD mn	-3 682	-822	-1 256	-698	-512
	EUR mn	- 3 307	- 895	-1 363	-780	-543
	Percentage CSE	-53	-12	-19	-11	-7
	Consumer NPC	2.14	1.14	1.23	1.12	1.08
	Consumer NAC	2.13	1.14	1.23	1.12	1.08

Table III.11. **OECD : Consumer Support Estimate by commodity (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Wool	USD mn	-8	1	1	1	1
	EUR mn	- 7	1	1	1	1
	Percentage CSE	-3	1	1	1	1
	Consumer NPC	1.04	1.01	1.02	1.01	1.01
	Consumer NAC	1.03	0.99	0.99	0.99	0.99
Pigmeat	USD mn	-9 210	-7 791	-7 612	-6 857	-8 903
	EUR mn	- 8 367	- 8 454	-8 260	-7 657	-9 446
	Percentage CSE	-21	-17	-17	-14	-20
	Consumer NPC	1.30	1.26	1.25	1.21	1.31
	Consumer NAC	1.27	1.21	1.20	1.16	1.25
Poultry	USD mn	-4 777	-3 535	-3 946	-3 179	-3 481
	EUR mn	- 4 294	- 3 842	-4 281	-3 550	-3 694
	Percentage CSE	-21	-11	-13	-9	-11
	Consumer NPC	1.33	1.17	1.19	1.15	1.18
	Consumer NAC	1.28	1.12	1.14	1.10	1.13
Eggs	USD mn	-2 467	-985	-1 167	-898	-889
	EUR mn	- 2 246	- 1 071	-1 266	-1 003	-943
	Percentage CSE	-17	-6	-7	-6	-6
	Consumer NPC	1.23	1.09	1.10	1.08	1.09
	Consumer NAC	1.21	1.07	1.08	1.06	1.06
Other commodities	USD mn	-53 875	-49 150	-53 226	-45 571	-48 652
	EUR mn	- 48 899	- 53 421	-57 756	-50 884	-51 623
	Percentage CSE	-32	-23	-25	-22	-23
	Consumer NPC	1.54	1.37	1.39	1.35	1.36
	Consumer NAC	1.48	1.30	1.33	1.29	1.29
All commodities	USD mn	-169 350	-138 545	-147 796	-130 418	-137 421
	EUR mn	- 153 894	- 150 604	-160 374	-145 624	-145 812
	Percentage CSE	-33	-24	-25	-23	-24
	Consumer NPC	1.63	1.37	1.40	1.35	1.37
	Consumer NAC	1.50	1.31	1.33	1.29	1.31

Notes: p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient. The CSE for "other commodities" is the residual of the CSE for all commodities minus the CSE for commodities listed above. 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 2003.

Table III.12. **OECD: Total Support Estimate by country**

		1986-88	2000-2002	2000	2001	2002p
Australia	USD mn	1 674	1 387	1 352	1 171	1 232
	EUR mn	1 533	1 504	1 468	1 308	1 307
	Percentage of GDP	0.8	0.4	0.4	0.3	0.3
Canada	USD mn	7 161	5 604	5 533	5 308	5 969
	EUR mn	6 541	6 088	6 004	5 927	6 334
	Percentage of GDP	1.7	0.8	0.8	0.8	0.8
Czech Republic (1)	USD mn	1 386	940	658	975	1 186
	EUR mn	1 127	1 021	714	1 089	1 259
	Percentage of GDP	4.4	1.6	1.3	1.7	1.7
European Union	USD mn	110 771	103 849	100 061	98 921	112 564
	EUR mn	100 624	112 823	108 577	110 456	119 438
	Percentage of GDP	2.7	1.3	1.3	1.3	1.3
Hungary (1)	USD mn	901	1 443	1 230	1 258	1 841
	EUR mn	733	1 564	1 335	1 405	1 953
	Percentage of GDP	2.5	2.6	2.6	2.4	2.9
Iceland	USD mn	259	143	165	124	139
	EUR mn	232	155	179	139	148
	Percentage of GDP	5.1	1.7	2.0	1.6	1.6
Japan	USD mn	57 573	60 168	67 480	57 338	55 687
	EUR mn	52 133	65 445	73 223	64 024	59 087
	Percentage of GDP	2.3	1.4	1.4	1.4	1.4
Korea	USD mn	13 262	20 887	22 306	19 347	21 009
	EUR mn	11 902	22 700	24 204	21 603	22 292
	Percentage of GDP	9.3	4.6	4.8	4.6	4.5
Mexico	USD mn	1 444	8 673	8 969	8 142	8 908
	EUR mn	1 379	9 425	9 732	9 091	9 452
	Percentage of GDP	0.6	1.4	1.5	1.3	1.4
New Zealand	USD mn	578	161	167	126	189
	EUR mn	545	174	181	140	201
	Percentage of GDP	1.7	0.3	0.3	0.3	0.3
Norway	USD mn	3 112	2 570	2 493	2 354	2 865
	EUR mn	2 817	2 791	2 705	2 629	3 040
	Percentage of GDP	3.4	1.5	1.5	1.4	1.5
Poland (1)	USD mn	1 693	2 343	2 254	2 388	2 387
	EUR mn	1 391	2 548	2 446	2 667	2 533
	Percentage of GDP	2.2	1.4	1.4	1.4	1.3
Slovak Republic (1)	USD mn	612	352	401	268	386
	EUR mn	498	381	435	299	410
	Percentage of GDP	4.2	1.7	2.0	1.3	1.6
Switzerland	USD mn	6 393	5 144	4 977	4 927	5 526
	EUR mn	5 775	5 589	5 401	5 502	5 863
	Percentage of GDP	3.9	2.0	2.1	2.0	2.0
Turkey	USD mn	3 183	7 878	10 491	5 410	7 733
	EUR mn	2 888	8 543	11 384	6 041	8 205
	Percentage of GDP	3.6	4.2	5.3	3.6	4.1
United States	USD mn	68 532	93 504	92 797	97 442	90 273
	EUR mn	62 804	101 761	100 695	108 804	95 785
	Percentage of GDP	1.4	0.9	0.9	1.0	0.9
OECD	USD mn	302 251	315 045	321 335	305 501	318 300
	EUR mn	275 029	342 514	348 682	341 122	337 737
	Percentage of GDP	2.3	1.2	1.3	1.2	1.2

Notes: p: provisional. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.
Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.
(1) For Czech Republic, Hungary, Poland and Slovak Republic: The figure in the first column refers to 1991-93.
Source: OECD, PSE/CSE database 2003.

Table III.13. **OECD: Total Support Estimate per capita**

	1986-88	2000-2002	2000	2001	2002p
USD					
Australia	**103**	**71**	**70**	**60**	**84**
Canada	**271**	**181**	**180**	**171**	**192**
Czech Republic (1991-93)	**134**	**91**	**64**	**95**	**115**
European Union	**326**	**279**	**266**	**268**	**304**
Hungary (1991-93)	**88**	**146**	**125**	**127**	**187**
Iceland	**1 048**	**504**	**587**	**436**	**489**
Japan	**471**	**473**	**532**	**451**	**438**
Korea	**318**	**442**	**475**	**409**	**444**
Mexico	**19**	**89**	**92**	**84**	**91**
New Zealand	**175**	**42**	**44**	**33**	**49**
Norway	**743**	**570**	**555**	**522**	**635**
Poland (1991-93)	**44**	**61**	**58**	**62**	**62**
Slovak Republic (1991-93)	**115**	**65**	**74**	**50**	**72**
Switzerland	**965**	**713**	**693**	**681**	**764**
Turkey	**61**	**116**	**156**	**79**	**113**
United States	**282**	**332**	**337**	**342**	**317**
OECD	**297**	**280**	**287**	**271**	**283**
EUR					
Australia	**94**	**78**	**76**	**67**	**89**
Canada	**248**	**197**	**195**	**191**	**204**
Czech Republic (1991-93)	**109**	**99**	**69**	**106**	**123**
European Union	**296**	**303**	**288**	**299**	**323**
Hungary (1991-93)	**71**	**159**	**135**	**142**	**198**
Iceland	**942**	**548**	**637**	**487**	**519**
Japan	**426**	**515**	**577**	**503**	**464**
Korea	**286**	**481**	**515**	**456**	**471**
Mexico	**18**	**97**	**100**	**93**	**97**
New Zealand	**166**	**45**	**47**	**36**	**52**
Norway	**673**	**619**	**602**	**582**	**673**
Poland (1991-93)	**36**	**66**	**63**	**69**	**66**
Slovak Republic (1991-93)	**94**	**71**	**81**	**56**	**76**
Switzerland	**872**	**775**	**752**	**761**	**811**
Turkey	**55**	**125**	**169**	**88**	**120**
United States	**259**	**361**	**366**	**382**	**336**
OECD	**270**	**305**	**311**	**303**	**300**

Notes: p: provisional. EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990.
For Czech Republic, Hungary, Poland and Slovak Republic: The figure in the first column refers to 1991-93.
Austria, Finland, and Sweden are included in the OECD totals for all years, and in the EU from 1995.
Source: OECD, PSE/CSE database 2003.

Table III.14. **Australia: Estimates of support to agriculture**
(AUD million)

	1986-88	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**20 155**	**36 441**	**33 865**	**41 846**	**33 611**
of which share of MPS commodities (%)	*81*	*77*	*76*	*79*	*76*
Total value of consumption (at farm gate)	**6 359**	**11 820**	**11 640**	**11 669**	**12 151**
Producer Support Estimate (PSE)	**1 812**	**1 681**	**1 626**	**1 583**	**1 555**
Market Price Support (MPS)	852	43	121	6	2
of which MPS commodities	*691*	*33*	*92*	*5*	*1*
Payments based on output	0	50	50	50	50
Payments based on area planted/animal numbers	0	37	37	37	37
Payments based on historical entitlements	0	152	91	183	183
Payments based on input use	577	1 130	1 046	1 033	1 031
Payments based on input constraints	0	0	0	0	0
Payments based on overall farming income	382	269	280	274	252
Miscellaneous payments	1	0	0	0	0
Percentage PSE	**9**	**4**	**5**	**4**	**4**
Producer NPC	**1.05**	**1.00**	**1.01**	**1.00**	**1.00**
Producer NAC	**1.10**	**1.05**	**1.05**	**1.04**	**1.05**
General Services Support Estimate (GSSE)	**541**	**1 032**	**815**	**893**	**924**
Research and development	298	678	569	586	591
Agricultural schools	0	0	0	0	0
Inspection services	89	88	42	90	92
Infrastructure	65	236	181	193	217
Marketing and promotion	49	10	8	8	8
Public stockholding	0	0	0	0	0
Miscellaneous	41	21	15	16	16
GSSE as a share of TSE (%)	**23.0**	**40.7**	**34.9**	**39.4**	**40.7**
Consumer Support Estimate (CSE)	**-432**	**-194**	**-159**	**-211**	**-213**
Transfers to producers from consumers	-433	-19	-54	-3	-2
Other transfers from consumers	0	0	0	0	-1
Transfers to consumers from taxpayers	0	-175	-106	-209	-210
Excess feed cost	0	0	0	0	0
Percentage CSE	**-7**	**-2**	**-1**	**-2**	**-2**
Consumer NPC	**1.08**	**1.00**	**1.00**	**1.00**	**1.00**
Consumer NAC	**1.08**	**1.02**	**1.01**	**1.02**	**1.02**
Total Support Estimate (TSE)	**2 353**	**2 538**	**2 335**	**2 267**	**2 269**
Transfers from consumers	433	20	54	3	3
Transfers from taxpayers	1 920	2 519	2 281	2 264	2 267
Budget revenues	0	0	0	0	-1
Percentage TSE (expressed as share of GDP)	0.80	0.37	0.36	0.33	0.31
GDP deflator 1995 = 100	77	113	110	113	117

Notes: p: provisional. Market price support is net of producer levies and excess feed costs.

MPS commodities for Australia are: wheat, other grains, rice, oilseeds, sugar, cotton, milk, beef and veal, sheepmeat, wool, pigmeat, poultry and eggs. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

Source: OECD, PSE/CSE database 2003.

Table III.15. **Australia: Main indicators by commodity**

		1986-88	2000-2002	2000	2001	2002p
Wheat	PSE (AUD mn)	177	188	206	197	132
	Percentage PSE	9	5	5	4	5
	Producer NPC	1.05	1.01	1.01	1.01	1.01
	Producer NAC	1.10	1.05	1.05	1.04	1.06
	Percentage CSE	-4	0	0	0	0
	Consumer NPC	1.05	1.00	1.00	1.00	1.00
	Consumer NAC	1.05	1.00	1.00	1.00	1.00
Maize	PSE (AUD mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains	PSE (AUD mn)	29	57	64	58	39
	Percentage PSE	4	4	4	3	4
	Producer NPC	1.00	1.00	1.00	1.00	1.00
	Producer NAC	1.04	1.04	1.04	1.03	1.04
	Percentage CSE	0	0	0	0	0
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	1.00	1.00	1.00	1.00	1.00
Rice	PSE (AUD mn)	16	12	17	13	5
	Percentage PSE	17	6	6	5	7
	Producer NPC	1.13	1.02	1.02	1.02	1.02
	Producer NAC	1.22	1.07	1.06	1.05	1.07
	Percentage CSE	-11	-2	-2	-2	-2
	Consumer NPC	1.13	1.02	1.02	1.02	1.02
	Consumer NAC	1.13	1.02	1.02	1.02	1.02
Oilseeds	PSE (AUD mn)	6	19	20	19	15
	Percentage PSE	5	3	3	3	4
	Producer NPC	1.00	1.00	1.00	1.00	1.00
	Producer NAC	1.06	1.04	1.03	1.03	1.04
	Percentage CSE	0	0	0	0	0
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	1.00	1.00	1.00	1.00	1.00
Sugar	PSE (AUD mn)	89	113	103	110	117
	Percentage PSE	14	12	13	10	11
	Producer NPC	1.12	1.00	1.00	1.00	1.00
	Producer NAC	1.16	1.13	1.15	1.12	1.13
	Percentage CSE	-10	0	0	0	0
	Consumer NPC	1.12	1.00	1.00	1.00	1.00
	Consumer NAC	1.12	1.00	1.00	1.00	1.00
Milk	PSE (AUD mn)	504	493	446	496	508
	Percentage PSE	33	14	13	13	15
	Producer NPC	1.46	1.01	1.03	1.00	1.00
	Producer NAC	1.51	1.16	1.15	1.14	1.17
	Percentage CSE	-31	-12	-10	-13	-13
	Consumer NPC	1.46	1.01	1.03	1.00	1.00
	Consumer NAC	1.46	1.14	1.11	1.14	1.15
Beef and Veal	PSE (AUD mn)	200	229	228	205	200
	Percentage PSE	7	4	4	3	4
	Producer NPC	1.00	1.00	1.00	1.00	1.00
	Producer NAC	1.07	1.04	1.04	1.03	1.04
	Percentage CSE	0	0	0	0	0
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	1.00	1.00	1.00	1.00	1.00

Table III.15. **Australia: Main indicators by commodity (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Sheepmeat	PSE (AUD mn)	33	66	52	58	69
	Percentage PSE	5	4	4	3	4
	Producer NPC	1.01	1.00	1.00	1.00	1.00
	Producer NAC	1.05	1.04	1.04	1.03	1.04
	Percentage CSE	-1	0	0	0	0
	Consumer NPC	1.01	1.00	1.00	1.00	1.00
	Consumer NAC	1.01	1.00	1.00	1.00	1.00
Wool	PSE (AUD mn)	173	137	126	119	137
	Percentage PSE	4	5	5	4	4
	Producer NPC	1.01	1.01	1.01	1.01	1.01
	Producer NAC	1.04	1.05	1.05	1.04	1.05
	Percentage CSE	-1	0	0	0	0
	Consumer NPC	1.01	1.00	1.00	1.00	1.00
	Consumer NAC	1.01	1.00	1.00	1.00	1.00
Pigmeat	PSE (AUD mn)	15	32	29	27	32
	Percentage PSE	3	4	4	3	4
	Producer NPC	1.00	1.00	1.00	1.00	1.00
	Producer NAC	1.03	1.04	1.04	1.03	1.05
	Percentage CSE	0	0	0	0	0
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	1.00	1.00	1.00	1.00	1.00
Poultry	PSE (AUD mn)	27	43	37	35	44
	Percentage PSE	4	4	4	3	4
	Producer NPC	1.00	1.00	1.00	1.00	1.00
	Producer NAC	1.04	1.04	1.04	1.03	1.04
	Percentage CSE	0	0	0	0	0
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	1.00	1.00	1.00	1.00	1.00
Eggs	PSE (AUD mn)	48	17	15	13	17
	Percentage PSE	18	4	4	3	4
	Producer NPC	1.18	1.00	1.00	1.00	1.00
	Producer NAC	1.23	1.04	1.04	1.03	1.04
	Percentage CSE	-14	0	0	0	0
	Consumer NPC	1.18	1.00	1.00	1.00	1.00
	Consumer NAC	1.18	1.00	1.00	1.00	1.00
Other commodities	PSE (AUD mn)	496	274	285	233	236
	Percentage PSE	9	2	2	1	2
	Producer NPC	1.03	1.00	1.00	1.00	1.00
	Producer NAC	1.10	1.02	1.02	1.01	1.02
	Percentage CSE	-7	0	0	0	0
	Consumer NPC	1.08	1.00	1.00	1.00	1.00
	Consumer NAC	1.08	1.00	1.00	1.00	1.00
All commodities	PSE (AUD mn)	1 812	1 681	1 626	1 583	1 555
	Percentage PSE	9	4	5	4	4
	Producer NPC	1.05	1.00	1.01	1.00	1.00
	Producer NAC	1.10	1.05	1.05	1.04	1.05
	Percentage CSE	-7	-2	-1	-2	-2
	Consumer NPC	1.08	1.00	1.00	1.00	1.00
	Consumer NAC	1.08	1.02	1.01	1.02	1.02

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

Source: OECD, PSE/CSE database 2003.

Table III.16. **Canada: Estimates of support to agriculture**
(CAD million)

	1986-88	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**18 420**	**31 478**	**30 199**	**32 504**	**31 731**
of which share of MPS commodities (%)	*82*	*76*	*76*	*78*	*75*
Total value of consumption (at farm gate)	**15 363**	**23 310**	**22 056**	**23 175**	**24 698**
Producer Support Estimate (PSE)	**7 482**	**6 533**	**6 225**	**6 157**	**7 215**
Market Price Support (MPS)	3 659	3 098	3 045	2 938	3 311
of which MPS commodities	*3 013*	*2 358*	*2 312*	*2 279*	*2 483*
Payments based on output	1 262	358	480	361	233
Payments based on area planted/animal numbers	1 247	766	467	645	1 185
Payments based on historical entitlements	0	845	811	810	914
Payments based on input use	1 160	506	508	525	484
Payments based on input constraints	0	0	0	0	0
Payments based on overall farming income	0	903	792	875	1 043
Miscellaneous payments	153	57	122	4	44
Percentage PSE	**34**	**19**	**19**	**17**	**20**
Producer NPC	**1.40**	**1.12**	**1.13**	**1.11**	**1.12**
Producer NAC	**1.51**	**1.23**	**1.23**	**1.21**	**1.25**
General Services Support Estimate (GSSE)	**1 920**	**2 070**	**1 992**	**2 061**	**2 157**
Research and development	332	411	431	413	389
Agricultural schools	277	224	233	222	217
Inspection services	327	518	481	532	542
Infrastructure	474	493	404	462	613
Marketing and promotion	510	424	444	432	396
Public stockholding	0	0	0	0	0
Miscellaneous	0	0	0	0	0
GSSE as a share of TSE (%)	**20.3**	**24.1**	**24.2**	**25.1**	**23.0**
Consumer Support Estimate (CSE)	**-3 303**	**-3 218**	**-3 137**	**-3 047**	**-3 469**
Transfers to producers from consumers	-3 614	-3 097	-3 044	-2 937	-3 311
Other transfers from consumers	-41	-120	-93	-109	-159
Transfers to consumers from taxpayers	42	0	0	0	0
Excess feed cost	310	0	0	0	0
Percentage CSE	**-22**	**-14**	**-14**	**-13**	**-14**
Consumer NPC	**1.32**	**1.16**	**1.17**	**1.15**	**1.16**
Consumer NAC	**1.28**	**1.16**	**1.17**	**1.15**	**1.16**
Total Support Estimate (TSE)	**9 444**	**8 603**	**8 218**	**8 219**	**9 372**
Transfers from consumers	3 655	3 218	3 137	3 047	3 469
Transfers from taxpayers	5 830	5 505	5 174	5 281	6 061
Budget revenues	-41	-120	-93	-109	-159
Percentage TSE (expressed as share of GDP)	1.68	0.78	0.77	0.75	0.82
GDP deflator 1995 = 100	81	109	108	109	110

Notes: p: provisional. Market price support is net of producer levies and excess feed costs.
MPS commodities for Canada are: wheat, maize, other grains, oilseeds, milk, beef and veal, pigmeat, poultry and eggs. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
Source: OECD, PSE/CSE database 2003.

Table III.17. **Canada: Main indicators by commodity**

		1986-88	2000-2002	2000	2001	2002p
Wheat	PSE (CAD mn)	2 054	657	587	645	738
	Percentage PSE	45	16	14	17	18
	Producer NPC	1.48	1.01	1.01	1.01	1.01
	Producer NAC	1.84	1.20	1.16	1.21	1.22
	Percentage CSE	-25	0	0	0	0
	Consumer NPC	1.54	1.00	1.00	1.00	1.00
	Consumer NAC	1.38	1.00	1.00	1.00	1.00
Maize	PSE (CAD mn)	210	207	283	206	131
	Percentage PSE	24	16	25	15	9
	Producer NPC	1.17	1.08	1.12	1.09	1.04
	Producer NAC	1.34	1.20	1.33	1.18	1.10
	Percentage CSE	0	0	0	0	0
	Consumer NPC	1.02	1.00	1.00	1.00	1.00
	Consumer NAC	1.00	1.00	1.00	1.00	1.00
Other grains	PSE (CAD mn)	713	217	171	204	277
	Percentage PSE	54	16	12	13	23
	Producer NPC	2.00	1.03	1.03	1.03	1.03
	Producer NAC	2.50	1.20	1.14	1.15	1.30
	Percentage CSE	4	0	0	0	0
	Consumer NPC	1.83	1.00	1.00	1.00	1.00
	Consumer NAC	0.97	1.00	1.00	1.00	1.00
Rice	PSE (CAD mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds	PSE (CAD mn)	381	436	419	471	419
	Percentage PSE	26	17	15	19	17
	Producer NPC	1.20	1.01	1.01	1.01	1.00
	Producer NAC	1.36	1.20	1.17	1.23	1.21
	Percentage CSE	-6	0	0	0	0
	Consumer NPC	1.07	1.00	1.00	1.00	1.00
	Consumer NAC	1.07	1.00	1.00	1.00	1.00
Sugar	PSE (CAD mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Milk	PSE (CAD mn)	2 292	2 330	2 362	2 236	2 393
	Percentage PSE	61	54	55	51	55
	Producer NPC	3.09	2.12	2.16	2.01	2.18
	Producer NAC	2.61	2.16	2.21	2.04	2.22
	Percentage CSE	-63	-52	-53	-50	-54
	Consumer NPC	2.83	2.10	2.13	2.00	2.18
	Consumer NAC	2.83	2.10	2.13	2.00	2.18
Beef and Veal	PSE (CAD mn)	357	635	530	547	827
	Percentage PSE	10	9	9	8	12
	Producer NPC	1.04	1.01	1.02	1.01	1.01
	Producer NAC	1.10	1.11	1.10	1.09	1.13
	Percentage CSE	-2	0	0	0	0
	Consumer NPC	1.02	1.00	1.00	1.00	1.00
	Consumer NAC	1.02	1.00	1.00	1.00	1.00

Table III.17. **Canada: Main indicators by commodity (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Sheepmeat	PSE (CAD mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool	PSE (CAD mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat	PSE (CAD mn)	100	249	278	223	245
	Percentage PSE	5	7	8	5	7
	Producer NPC	1.04	1.02	1.04	1.02	1.01
	Producer NAC	1.05	1.07	1.08	1.06	1.07
	Percentage CSE	0	0	0	0	0
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	1.00	1.00	1.00	1.00	1.00
Poultry	PSE (CAD mn)	192	42	42	38	46
	Percentage PSE	18	2	3	2	3
	Producer NPC	1.19	1.01	1.01	1.01	1.01
	Producer NAC	1.23	1.03	1.03	1.02	1.03
	Percentage CSE	-15	-1	-1	-1	-1
	Consumer NPC	1.19	1.01	1.01	1.01	1.01
	Consumer NAC	1.19	1.01	1.01	1.01	1.01
Eggs	PSE (CAD mn)	109	137	107	134	168
	Percentage PSE	22	24	21	23	28
	Producer NPC	1.28	1.30	1.23	1.29	1.37
	Producer NAC	1.31	1.32	1.26	1.31	1.39
	Percentage CSE	-19	-23	-19	-22	-27
	Consumer NPC	1.28	1.30	1.23	1.29	1.37
	Consumer NAC	1.28	1.30	1.23	1.29	1.37
Other commodities	PSE (CAD mn)	1 075	1 624	1 446	1 453	1 972
	Percentage PSE	40	19	19	17	22
	Producer NPC	1.58	1.11	1.13	1.09	1.12
	Producer NAC	1.67	1.24	1.23	1.20	1.28
	Percentage CSE	-24	-14	-14	-13	-14
	Consumer NPC	1.32	1.16	1.17	1.15	1.16
	Consumer NAC	1.31	1.16	1.17	1.15	1.16
All commodities	PSE (CAD mn)	7 482	6 533	6 225	6 157	7 215
	Percentage PSE	34	19	19	17	20
	Producer NPC	1.40	1.12	1.13	1.11	1.12
	Producer NAC	1.51	1.23	1.23	1.21	1.25
	Percentage CSE	-22	-14	-14	-13	-14
	Consumer NPC	1.32	1.16	1.17	1.15	1.16
	Consumer NAC	1.28	1.16	1.17	1.15	1.16

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

Source: OECD, PSE/CSE database 2003.

Table III.18. **Czech Republic: Estimates of support to agriculture**
(CZK million)

	1991-93	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**123 938**	**121 763**	**118 126**	**129 839**	**117 324**
of which share of MPS commodities (%)	*65*	*74*	*73*	*77*	*73*
Total value of consumption (at farm gate)	**102 049**	**108 987**	**105 666**	**113 921**	**107 374**
Producer Support Estimate (PSE)	**39 326**	**30 123**	**21 313**	**33 503**	**35 552**
Market Price Support (MPS)	36 476	19 292	11 318	20 022	26 537
of which MPS commodities	*23 420*	*14 286*	*8 228*	*15 378*	*19 251*
Payments based on output	11	173	358	76	85
Payments based on area planted/animal numbers	229	5 260	2 365	8 708	4 706
Payments based on historical entitlements	0	1 089	3 266	0	0
Payments based on input use	2 255	3 960	3 793	4 275	3 813
Payments based on input constraints	345	156	89	168	211
Payments based on overall farming income	11	193	124	254	200
Miscellaneous payments	0	0	0	0	0
Percentage PSE	**31**	**23**	**17**	**23**	**28**
Producer NPC	**1.54**	**1.17**	**1.06**	**1.16**	**1.28**
Producer NAC	**1.49**	**1.30**	**1.20**	**1.31**	**1.39**
General Services Support Estimate (GSSE)	**1 042**	**3 610**	**4 069**	**3 554**	**3 206**
Research and development	458	1 002	999	991	1 015
Agricultural schools	493	1 444	1 781	1 285	1 267
Inspection services	80	289	137	277	454
Infrastructure	11	864	1 140	991	460
Marketing and promotion	0	11	12	10	10
Public stockholding	0	0	0	0	0
Miscellaneous	0	0	0	0	0
GSSE as a share of TSE (%)	**2.6**	**10.7**	**16.0**	**9.6**	**8.3**
Consumer Support Estimate (CSE)	**-27 908**	**-17 825**	**-10 234**	**-19 523**	**-23 719**
Transfers to producers from consumers	-30 151	-15 352	-6 542	-16 978	-22 537
Other transfers from consumers	5	-32	252	-149	-199
Transfers to consumers from taxpayers	0	43	29	30	70
Excess feed cost	2 237	-2 484	-3 972	-2 427	-1 052
Percentage CSE	**-28**	**-16**	**-10**	**-17**	**-22**
Consumer NPC	**1.49**	**1.17**	**1.06**	**1.18**	**1.27**
Consumer NAC	**1.43**	**1.20**	**1.11**	**1.21**	**1.28**
Total Support Estimate (TSE)	**40 368**	**33 775**	**25 411**	**37 087**	**38 828**
Transfers from consumers	30 146	15 385	6 291	17 126	22 736
Transfers from taxpayers	10 217	18 423	18 868	20 109	16 291
Budget revenues	5	-32	252	-149	-199
Percentage TSE (expressed as share of GDP)	4.39	1.58	1.28	1.72	1.71
GDP deflator 1995 = 100	82	141	135	142	146

Notes: p: provisional. Market price support is net of producer levies and excess feed costs.
MPS commodities for the Czech Republic are: wheat, other grains, oilseeds, sugar, milk, beef and veal, pigmeat, poultry and eggs. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
Source: OECD, PSE/CSE database 2003.

Table III.19. **Czech Republic: Main indicators by commodity**

		1991-93	2000-2002	2000	2001	2002p
Wheat	PSE (CZK mn)	2 039	-393	-1 844	680	-15
	Percentage PSE	22	-3	-13	4	0
	Producer NPC	1.39	0.87	0.80	0.90	0.91
	Producer NAC	1.42	0.97	0.88	1.04	1.00
	Percentage CSE	-6	3	5	2	3
	Consumer NPC	1.39	0.87	0.80	0.90	0.91
	Consumer NAC	1.07	0.97	0.95	0.98	0.97
Maize	PSE (CZK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains	PSE (CZK mn)	1 593	-726	-1 868	-413	104
	Percentage PSE	25	-13	-36	-5	2
	Producer NPC	1.36	0.81	0.67	0.83	0.94
	Producer NAC	1.39	0.90	0.73	0.95	1.02
	Percentage CSE	-4	7	16	4	1
	Consumer NPC	1.36	0.81	0.67	0.83	0.94
	Consumer NAC	1.05	0.94	0.86	0.96	0.99
Rice	PSE (CZK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds	PSE (CZK mn)	216	18	-360	715	-301
	Percentage PSE	16	-1	-6	9	-6
	Producer NPC	1.21	0.89	0.86	0.96	0.86
	Producer NAC	1.23	1.00	0.94	1.10	0.94
	Percentage CSE	1	-6	-8	-3	-7
	Consumer NPC	1.21	0.89	0.86	0.96	0.86
	Consumer NAC	0.99	1.06	1.08	1.03	1.08
Sugar	PSE (CZK mn)	1 672	972	634	982	1 300
	Percentage PSE	50	27	21	25	33
	Producer NPC	2.01	1.24	1.16	1.17	1.39
	Producer NAC	2.10	1.37	1.27	1.34	1.49
	Percentage CSE	-36	-13	-9	-10	-19
	Consumer NPC	2.01	1.24	1.16	1.17	1.39
	Consumer NAC	1.57	1.15	1.10	1.11	1.23
Milk	PSE (CZK mn)	9 432	6 911	4 927	5 620	10 185
	Percentage PSE	45	30	23	24	42
	Producer NPC	1.88	1.29	1.16	1.17	1.55
	Producer NAC	1.84	1.44	1.29	1.32	1.73
	Percentage CSE	-45	-21	-13	-14	-35
	Consumer NPC	1.88	1.29	1.16	1.16	1.55
	Consumer NAC	1.88	1.29	1.16	1.16	1.54
Beef and Veal	PSE (CZK mn)	6 792	2 483	3 430	1 831	2 189
	Percentage PSE	50	32	40	26	29
	Producer NPC	2.27	1.28	1.40	1.17	1.25
	Producer NAC	2.16	1.47	1.66	1.35	1.41
	Percentage CSE	-51	-21	-29	-15	-20
	Consumer NPC	2.27	1.28	1.40	1.17	1.25
	Consumer NAC	2.27	1.28	1.40	1.17	1.25

Table III.19. **Czech Republic: Main indicators by commodity (cont'd)**

		1991-93	2000-2002	2000	2001	2002p
Sheepmeat	PSE (CZK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool	PSE (CZK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat	PSE (CZK mn)	1 260	6 955	4 965	9 574	6 327
	Percentage PSE	8	32	26	37	32
	Producer NPC	1.19	1.35	1.15	1.48	1.41
	Producer NAC	1.12	1.48	1.36	1.60	1.48
	Percentage CSE	-11	-25	-13	-32	-29
	Consumer NPC	1.19	1.35	1.15	1.48	1.41
	Consumer NAC	1.19	1.35	1.15	1.48	1.41
Poultry	PSE (CZK mn)	1 683	3 213	2 487	3 233	3 919
	Percentage PSE	42	43	37	39	53
	Producer NPC	1.86	1.65	1.39	1.54	2.01
	Producer NAC	1.73	1.78	1.59	1.64	2.12
	Percentage CSE	-46	-38	-28	-35	-50
	Consumer NPC	1.86	1.65	1.39	1.54	2.01
	Consumer NAC	1.86	1.65	1.39	1.54	2.01
Eggs	PSE (CZK mn)	532	1 939	2 365	2 043	1 407
	Percentage PSE	14	33	37	34	28
	Producer NPC	1.28	1.38	1.39	1.41	1.33
	Producer NAC	1.19	1.50	1.59	1.51	1.39
	Percentage CSE	-18	-27	-28	-29	-25
	Consumer NPC	1.28	1.38	1.39	1.41	1.33
	Consumer NAC	1.28	1.38	1.39	1.41	1.33
Other commodities	PSE (CZK mn)	14 106	8 751	6 577	9 239	10 437
	Percentage PSE	30	25	17	26	30
	Producer NPC	1.52	1.17	1.06	1.16	1.29
	Producer NAC	1.48	1.33	1.21	1.36	1.44
	Percentage CSE	-31	-12	-3	-14	-20
	Consumer NPC	1.49	1.17	1.06	1.18	1.27
	Consumer NAC	1.54	1.15	1.04	1.17	1.24
All commodities	PSE (CZK mn)	39 326	30 123	21 313	33 503	35 552
	Percentage PSE	31	23	17	23	28
	Producer NPC	1.54	1.17	1.06	1.16	1.28
	Producer NAC	1.49	1.30	1.20	1.31	1.39
	Percentage CSE	-28	-16	-10	-17	-22
	Consumer NPC	1.49	1.17	1.06	1.18	1.27
	Consumer NAC	1.43	1.20	1.11	1.21	1.28

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

Source: OECD, PSE/CSE database 2003.

Table III.20. **European Union: Estimates of support to agriculture**
(EUR million)

	1986-88	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**204 712**	**244 622**	**239 571**	**247 147**	**247 147**
of which share of MPS commodities (%)	*72*	*71*	*71*	*71*	*71*
Total value of consumption (at farm gate)	**162 866**	**190 269**	**185 152**	**194 383**	**191 273**
Producer Support Estimate (PSE)	**86 718**	**100 266**	**96 146**	**97 963**	**106 689**
Market Price Support (MPS)	74 585	56 820	55 478	53 763	61 218
of which MPS commodities	*53 600*	*40 076*	*39 130*	*37 920*	*43 178*
Payments based on output	4 524	4 016	4 041	4 186	3 821
Payments based on area planted/animal numbers	2 415	27 364	25 970	27 972	28 149
Payments based on historical entitlements	0	606	627	591	599
Payments based on input use	4 525	7 998	7 711	7 992	8 290
Payments based on input constraints	643	3 812	3 312	3 567	4 557
Payments based on overall farming income	0	0	0	0	0
Miscellaneous payments	26	-349	-992	-108	55
Percentage PSE	**40**	**35**	**34**	**34**	**36**
Producer NPC	**1.76**	**1.33**	**1.34**	**1.30**	**1.35**
Producer NAC	**1.67**	**1.53**	**1.52**	**1.51**	**1.57**
General Services Support Estimate (GSSE)	**9 520**	**8 722**	**8 511**	**8 749**	**8 906**
Research and development	1 042	956	1 034	1 005	829
Agricultural schools	93	1 028	821	1 106	1 158
Inspection services	156	251	288	307	159
Infrastructure	1 122	2 028	2 142	1 948	1 994
Marketing and promotion	2 430	3 208	2 867	3 386	3 370
Public stockholding	4 643	1 016	1 175	873	999
Miscellaneous	33	235	184	124	397
GSSE as a share of TSE (%)	**9.5**	**7.7**	**7.8**	**7.9**	**7.5**
Consumer Support Estimate (CSE)	**-64 137**	**-49 127**	**-48 585**	**-46 122**	**-52 672**
Transfers to producers from consumers	-75 090	-53 525	-53 613	-50 336	-56 626
Other transfers from consumers	-1 499	-251	-344	-230	-179
Transfers to consumers from taxpayers	4 387	3 835	3 919	3 744	3 843
Excess feed cost	8 066	815	1 453	700	290
Percentage CSE	**-41**	**-26**	**-27**	**-24**	**-28**
Consumer NPC	**1.90**	**1.40**	**1.41**	**1.35**	**1.42**
Consumer NAC	**1.69**	**1.36**	**1.37**	**1.32**	**1.39**
Total Support Estimate (TSE)	**100 624**	**112 823**	**108 577**	**110 456**	**119 438**
Transfers from consumers	76 589	53 776	53 957	50 566	56 805
Transfers from taxpayers	25 534	59 298	54 963	60 120	62 812
Budget revenues	-1 499	-251	-344	-230	-179
Percentage TSE (expressed as share of GDP)	2.67	1.28	1.27	1.25	1.31
GDP deflator 1995 = 100	74	111	108	111	113

Notes: p: provisional. Market price support is net of producer levies and excess feed costs.
MPS commodities for the European Community are: wheat, maize, other grains, rice, oilseeds, sugar, milk, beef and veal, sheepmeat, pigmeat, poultry, eggs and potatoes. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
Source: OECD, PSE/CSE database 2003.

Table III.21. **European Union: Main indicators by commodity**

		1986-88	2000-2002	2000	2001	2002p
Wheat	PSE (EUR mn)	7 879	9 757	9 950	9 243	10 078
	Percentage PSE	51	46	46	46	46
	Producer NPC	2.14	1.05	1.10	1.03	1.02
	Producer NAC	2.06	1.85	1.86	1.84	1.85
	Percentage CSE	-33	-2	-4	-1	-1
	Consumer NPC	2.14	1.04	1.09	1.02	1.02
	Consumer NAC	1.50	1.02	1.04	1.01	1.01
Maize	PSE (EUR mn)	2 928	2 616	3 038	2 812	1 997
	Percentage PSE	53	35	41	37	28
	Producer NPC	2.20	1.12	1.22	1.12	1.02
	Producer NAC	2.18	1.56	1.71	1.58	1.39
	Percentage CSE	-9	-1	-2	-2	0
	Consumer NPC	2.20	1.12	1.22	1.11	1.02
	Consumer NAC	1.10	1.01	1.02	1.02	1.00
Other grains	PSE (EUR mn)	5 238	6 110	6 014	6 199	6 116
	Percentage PSE	56	51	50	51	52
	Producer NPC	2.42	1.05	1.07	1.04	1.03
	Producer NAC	2.42	2.04	1.99	2.06	2.07
	Percentage CSE	-13	-1	-1	-1	-1
	Consumer NPC	2.34	1.05	1.07	1.04	1.03
	Consumer NAC	1.15	1.01	1.01	1.01	1.01
Rice	PSE (EUR mn)	395	269	136	349	321
	Percentage PSE	57	31	17	40	37
	Producer NPC	2.53	1.24	1.01	1.41	1.30
	Producer NAC	2.34	1.49	1.20	1.68	1.58
	Percentage CSE	-58	-17	0	-29	-23
	Consumer NPC	2.43	1.23	1.00	1.40	1.30
	Consumer NAC	2.43	1.23	1.00	1.40	1.29
Oilseeds	PSE (EUR mn)	2 828	1 884	2 157	1 806	1 689
	Percentage PSE	59	35	39	34	31
	Producer NPC	2.38	1.00	1.00	1.00	1.00
	Producer NAC	2.44	1.54	1.65	1.52	1.46
	Percentage CSE	1	0	0	0	0
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	0.99	1.00	1.00	1.00	1.00
Sugar	PSE (EUR mn)	2 883	2 357	2 614	2 008	2 449
	Percentage PSE	60	48	50	44	49
	Producer NPC	3.32	2.24	2.43	1.98	2.32
	Producer NAC	2.53	1.91	1.99	1.79	1.96
	Percentage CSE	-72	-53	-58	-45	-56
	Consumer NPC	3.32	2.24	2.42	1.97	2.31
	Consumer NAC	3.63	2.15	2.36	1.81	2.29
Milk	PSE (EUR mn)	19 002	17 523	16 335	17 088	19 147
	Percentage PSE	57	44	42	41	48
	Producer NPC	2.77	1.73	1.69	1.66	1.85
	Producer NAC	2.37	1.79	1.73	1.70	1.93
	Percentage CSE	-59	-40	-38	-38	-44
	Consumer NPC	2.76	1.73	1.68	1.65	1.84
	Consumer NAC	2.53	1.67	1.62	1.60	1.79
Beef and Veal	PSE (EUR mn)	11 956	21 047	17 720	20 108	25 313
	Percentage PSE	55	73	66	73	79
	Producer NPC	2.24	2.49	2.13	2.40	2.94
	Producer NAC	2.30	3.85	2.93	3.76	4.87
	Percentage CSE	-54	-59	-53	-58	-66
	Consumer NPC	2.24	2.49	2.13	2.40	2.94
	Consumer NAC	2.24	2.49	2.13	2.40	2.94

Table III.21. **European Union: Main indicators by commodity (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Sheepmeat	PSE (EUR mn)	3 616	3 050	3 507	3 333	2 312
	Percentage PSE	70	46	53	49	38
	Producer NPC	2.86	1.18	1.26	1.18	1.11
	Producer NAC	3.44	1.89	2.11	1.94	1.61
	Percentage CSE	-64	-15	-20	-15	-10
	Consumer NPC	2.86	1.18	1.26	1.18	1.11
	Consumer NAC	2.86	1.18	1.25	1.18	1.11
Wool	PSE (EUR mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat	PSE (EUR mn)	2 839	6 201	5 933	5 884	6 786
	Percentage PSE	16	24	25	20	26
	Producer NPC	1.38	1.28	1.31	1.22	1.31
	Producer NAC	1.20	1.31	1.33	1.25	1.35
	Percentage CSE	-27	-22	-23	-18	-24
	Consumer NPC	1.38	1.28	1.31	1.22	1.31
	Consumer NAC	1.38	1.28	1.31	1.22	1.31
Poultry	PSE (EUR mn)	1 770	3 432	3 295	3 535	3 466
	Percentage PSE	24	37	37	35	38
	Producer NPC	1.79	1.56	1.61	1.53	1.56
	Producer NAC	1.32	1.58	1.58	1.54	1.61
	Percentage CSE	-44	-36	-38	-34	-36
	Consumer NPC	1.79	1.56	1.61	1.53	1.56
	Consumer NAC	1.79	1.56	1.61	1.52	1.55
Eggs	PSE (EUR mn)	644	230	244	124	323
	Percentage PSE	13	4	4	2	6
	Producer NPC	1.24	1.02	1.03	1.00	1.03
	Producer NAC	1.16	1.04	1.05	1.02	1.06
	Percentage CSE	-19	-2	-3	0	-3
	Consumer NPC	1.24	1.02	1.03	1.00	1.03
	Consumer NAC	1.24	1.02	1.03	1.00	1.03
Other commodities	PSE (EUR mn)	24 740	25 791	25 205	25 474	26 694
	Percentage PSE	29	22	22	21	22
	Producer NPC	1.43	1.22	1.22	1.21	1.23
	Producer NAC	1.40	1.27	1.28	1.27	1.28
	Percentage CSE	-40	-23	-24	-21	-23
	Consumer NPC	1.77	1.34	1.37	1.31	1.35
	Consumer NAC	1.69	1.29	1.32	1.26	1.30
All commodities	PSE (EUR mn)	86 718	100 266	96 146	97 963	106 689
	Percentage PSE	40	35	34	34	36
	Producer NPC	1.76	1.33	1.34	1.30	1.35
	Producer NAC	1.67	1.53	1.52	1.51	1.57
	Percentage CSE	-41	-26	-27	-24	-28
	Consumer NPC	1.90	1.40	1.41	1.35	1.42
	Consumer NAC	1.69	1.36	1.37	1.32	1.39

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

Source: OECD, PSE/CSE database 2003.

Table III.22. **Hungary: Estimates of support to agriculture**
(HUF million)

	1991-93	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**429 029**	**1 251 734**	**1 211 562**	**1 337 964**	**1 205 675**
of which share of MPS commodities (%)	*73*	*76*	*72*	*78*	*78*
Total value of consumption (at farm gate)	**362 379**	**1 102 571**	**1 193 581**	**1 061 258**	**1 052 873**
Producer Support Estimate (PSE)	**73 016**	**327 706**	**294 883**	**289 092**	**399 144**
Market Price Support (MPS)	54 960	186 384	188 343	129 372	241 436
of which MPS commodities	*40 267*	*142 178*	*136 461*	*100 981*	*189 091*
Payments based on output	0	19 345	16 162	18 160	23 713
Payments based on area planted/animal numbers	2 933	28 520	26 723	29 231	29 607
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	15 123	93 105	63 606	112 263	103 446
Payments based on input constraints	0	353	50	66	942
Payments based on overall farming income	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE	**16**	**24**	**22**	**19**	**29**
Producer NPC	**1.15**	**1.15**	**1.17**	**1.06**	**1.22**
Producer NAC	**1.20**	**1.31**	**1.29**	**1.24**	**1.41**
General Services Support Estimate (GSSE)	**500**	**56 535**	**43 275**	**62 717**	**63 614**
Research and development	0	6 247	4 461	7 282	6 998
Agricultural schools	500	4 738	3 430	4 936	5 848
Inspection services	0	7 864	7 317	8 220	8 056
Infrastructure	0	2 957	646	5 124	3 100
Marketing and promotion	0	5 221	5 611	4 713	5 339
Public stockholding	0	0	0	0	0
Miscellaneous	0	29 509	21 811	32 442	34 274
GSSE as a share of TSE (%)	**0.7**	**14.7**	**12.7**	**17.8**	**13.7**
Consumer Support Estimate (CSE)	**-42 753**	**-208 744**	**-189 197**	**-186 653**	**-250 382**
Transfers to producers from consumers	-44 075	-176 838	-166 812	-144 029	-219 673
Other transfers from consumers	1 535	-5 249	-10 785	607	-5 570
Transfers to consumers from taxpayers	1 167	785	2 356	0	0
Excess feed cost	-1 379	-27 442	-13 956	-43 232	-25 139
Percentage CSE	**-12**	**-19**	**-16**	**-18**	**-24**
Consumer NPC	**1.14**	**1.20**	**1.17**	**1.16**	**1.27**
Consumer NAC	**1.14**	**1.24**	**1.19**	**1.21**	**1.31**
Total Support Estimate (TSE)	**74 683**	**385 027**	**340 514**	**351 810**	**462 758**
Transfers from consumers	42 540	182 087	177 597	143 421	225 243
Transfers from taxpayers	30 608	208 189	173 702	207 781	243 085
Budget revenues	1 535	-5 249	-10 785	607	-5 570
Percentage TSE (expressed as share of GDP)	2.47	2.65	2.64	2.42	2.85
GDP deflator 1995 = 100	56	210	192	210	227

Notes: p: provisional. Market price support is net of producer levies and excess feed costs.
MPS commodities for Hungary are: wheat, maize, other grains, oilseeds, sugar, milk, beef and veal, sheepmeat, pigmeat, poultry and eggs. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
Source: OECD, PSE/CSE database 2003.

Table III.23. **Hungary: Main indicators by commodity**

		1991-93	2000-2002	2000	2001	2002p
Wheat	PSE (HUF mn)	-1 683	2 405	15 031	-17 903	10 087
	Percentage PSE	-7	3	13	-13	9
	Producer NPC	0.91	0.94	1.05	0.79	0.98
	Producer NAC	0.96	1.04	1.15	0.88	1.10
	Percentage CSE	8	6	-2	17	3
	Consumer NPC	0.91	0.93	1.03	0.78	0.96
	Consumer NAC	0.94	0.95	1.02	0.85	0.97
Maize	PSE (HUF mn)	835	-29 568	-1 830	-64 981	-21 893
	Percentage PSE	2	-17	-1	-37	-13
	Producer NPC	1.00	0.78	0.91	0.65	0.78
	Producer NAC	1.05	0.87	0.99	0.73	0.88
	Percentage CSE	2	2	1	3	2
	Consumer NPC	1.00	0.77	0.90	0.64	0.77
	Consumer NAC	0.98	0.98	0.99	0.97	0.99
Other grains	PSE (HUF mn)	26	-1 272	-303	-3 224	-290
	Percentage PSE	0	-4	-1	-9	-1
	Producer NPC	0.99	0.87	0.91	0.82	0.88
	Producer NAC	1.04	0.97	0.99	0.92	0.99
	Percentage CSE	2	2	2	2	2
	Consumer NPC	0.99	0.87	0.91	0.82	0.87
	Consumer NAC	0.99	0.98	0.98	0.98	0.98
Rice	PSE (HUF mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds	PSE (HUF mn)	-3 968	2 382	-1 467	619	7 994
	Percentage PSE	-37	3	-6	1	12
	Producer NPC	0.71	0.93	0.87	0.90	1.01
	Producer NAC	0.75	1.03	0.95	1.01	1.14
	Percentage CSE	43	9	15	11	-1
	Consumer NPC	0.71	0.92	0.87	0.90	1.01
	Consumer NAC	0.71	0.92	0.87	0.90	1.01
Sugar	PSE (HUF mn)	654	3 658	2 181	4 891	3 902
	Percentage PSE	9	18	15	19	20
	Producer NPC	1.05	1.10	1.08	1.10	1.11
	Producer NAC	1.10	1.22	1.17	1.23	1.25
	Percentage CSE	1	1	-1	3	0
	Consumer NPC	1.05	1.09	1.08	1.08	1.10
	Consumer NAC	0.99	0.99	1.01	0.97	1.00
Milk	PSE (HUF mn)	14 986	77 824	56 725	70 223	106 525
	Percentage PSE	37	45	37	42	55
	Producer NPC	1.52	1.65	1.48	1.50	1.97
	Producer NAC	1.58	1.85	1.60	1.72	2.24
	Percentage CSE	-31	-35	-28	-30	-47
	Consumer NPC	1.52	1.58	1.42	1.43	1.88
	Consumer NAC	1.47	1.57	1.40	1.43	1.88
Beef and Veal	PSE (HUF mn)	6 175	5 626	4 662	6 982	5 234
	Percentage PSE	35	23	17	30	22
	Producer NPC	1.48	1.07	1.08	1.08	1.05
	Producer NAC	1.58	1.30	1.20	1.42	1.28
	Percentage CSE	-31	-6	-7	-7	-5
	Consumer NPC	1.48	1.07	1.07	1.08	1.05
	Consumer NAC	1.48	1.07	1.07	1.08	1.05

Table III.23. **Hungary: Main indicators by commodity (cont'd)**

		1991-93	2000-2002	2000	2001	2002p
Sheepmeat	PSE (HUF mn)	956	2 530	-1 297	6 213	2 675
	Percentage PSE	17	42	-34	115	46
	Producer NPC	1.17	0.44	0.43	0.43	0.47
	Producer NAC	1.65	- 1.33	0.75	- 6.59	1.85
	Percentage CSE	-11	127	135	134	113
	Consumer NPC	1.17	0.44	0.43	0.43	0.47
	Consumer NAC	1.17	0.44	0.43	0.43	0.47
Wool	PSE (HUF mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat	PSE (HUF mn)	17 037	59 402	40 355	73 087	64 765
	Percentage PSE	21	27	20	29	32
	Producer NPC	1.22	1.19	1.14	1.18	1.26
	Producer NAC	1.27	1.38	1.25	1.41	1.47
	Percentage CSE	-17	-14	-10	-14	-18
	Consumer NPC	1.22	1.17	1.11	1.16	1.23
	Consumer NAC	1.22	1.17	1.11	1.16	1.23
Poultry	PSE (HUF mn)	7 259	76 726	58 896	93 415	77 867
	Percentage PSE	21	43	37	47	46
	Producer NPC	1.21	1.52	1.45	1.55	1.57
	Producer NAC	1.27	1.78	1.58	1.88	1.87
	Percentage CSE	-17	-33	-30	-34	-35
	Consumer NPC	1.21	1.49	1.42	1.52	1.53
	Consumer NAC	1.21	1.49	1.42	1.52	1.53
Eggs	PSE (HUF mn)	7 801	37 453	29 443	41 609	41 307
	Percentage PSE	34	58	50	62	63
	Producer NPC	1.51	2.10	1.82	2.17	2.29
	Producer NAC	1.58	2.45	2.02	2.64	2.69
	Percentage CSE	-31	-52	-45	-54	-56
	Consumer NPC	1.51	2.09	1.82	2.17	2.29
	Consumer NAC	1.51	2.09	1.82	2.17	2.29
Other commodities	PSE (HUF mn)	22 939	90 539	92 487	78 160	100 969
	Percentage PSE	16	25	24	21	31
	Producer NPC	0.94	0.79	0.89	0.70	0.77
	Producer NAC	1.19	1.35	1.31	1.27	1.46
	Percentage CSE	10	44	18	67	47
	Consumer NPC	0.91	0.78	0.89	0.68	0.76
	Consumer NAC	0.92	0.71	0.85	0.60	0.68
All commodities	PSE (HUF mn)	73 016	327 706	294 883	289 092	399 144
	Percentage PSE	16	24	22	19	29
	Producer NPC	1.15	1.15	1.17	1.06	1.22
	Producer NAC	1.20	1.31	1.29	1.24	1.41
	Percentage CSE	-12	-19	-16	-18	-24
	Consumer NPC	1.14	1.20	1.17	1.16	1.27
	Consumer NAC	1.14	1.24	1.19	1.21	1.31

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

Source: OECD, PSE/CSE database 2003.

Table III.24. **Iceland: Estimates of support to agriculture**
(ISK million)

	1986-88	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**9 644**	**11 807**	**11 876**	**11 772**	**11 772**
of which share of MPS commodities (%)	*80*	*75*	*75*	*75*	*75*
Total value of consumption (at farm gate)	**8 750**	**12 149**	**11 949**	**12 249**	**12 249**
Producer Support Estimate (PSE)	**7 979**	**11 022**	**11 413**	**10 513**	**11 141**
Market Price Support (MPS)	6 965	5 196	5 547	4 707	5 335
of which MPS commodities	*5 592*	*3 881*	*4 151*	*3 511*	*3 980*
Payments based on output	113	3 332	3 324	3 335	3 335
Payments based on area planted/animal numbers	48	0	0	0	0
Payments based on historical entitlements	0	1 566	1 664	1 517	1 517
Payments based on input use	853	929	878	954	954
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	**75**	**63**	**64**	**60**	**63**
Producer NPC	**3.89**	**2.33**	**2.44**	**2.17**	**2.38**
Producer NAC	**3.99**	**2.67**	**2.80**	**2.49**	**2.73**
General Services Support Estimate (GSSE)	**935**	**1 384**	**1 362**	**1 395**	**1 395**
Research and development	93	200	201	200	200
Agricultural schools	149	430	429	430	430
Inspection services	39	145	192	121	121
Infrastructure	281	334	277	363	363
Marketing and promotion	10	27	27	27	27
Public stockholding	359	239	228	244	244
Miscellaneous	5	9	7	11	11
GSSE as a share of TSE (%)	**8.8**	**10.9**	**10.5**	**11.5**	**10.9**
Consumer Support Estimate (CSE)	**-4 823**	**-5 342**	**-5 631**	**-4 863**	**-5 534**
Transfers to producers from consumers	-6 432	-5 271	-5 616	-4 782	-5 415
Other transfers from consumers	-96	-311	-254	-320	-359
Transfers to consumers from taxpayers	1 705	240	240	240	240
Excess feed cost	0	0	0	0	0
Percentage CSE	**-68**	**-45**	**-48**	**-40**	**-46**
Consumer NPC	**3.95**	**1.86**	**1.97**	**1.71**	**1.89**
Consumer NAC	**3.23**	**1.82**	**1.93**	**1.68**	**1.85**
Total Support Estimate (TSE)	**10 619**	**12 646**	**13 015**	**12 148**	**12 776**
Transfers from consumers	6 528	5 582	5 871	5 103	5 774
Transfers from taxpayers	4 187	7 375	7 398	7 365	7 361
Budget revenues	-96	-311	-254	-320	-359
Percentage TSE (expressed as share of GDP)	5.05	1.73	1.98	1.63	1.61
GDP deflator 1995 = 100	49	127	117	128	136

Notes: p: provisional. Market price support is net of producer levies and excess feed costs.
MPS commodities for Iceland are: milk, beef and veal, sheepmeat, wool,
pigmeat, poultry and eggs. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
Source: OECD, PSE/CSE database 2003.

Table III.25. **Iceland: Main indicators by commodity**

		1986-88	2000-2002	2000	2001	2002p
Wheat	PSE (ISK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Maize	PSE (ISK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains	PSE (ISK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Rice	PSE (ISK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds	PSE (ISK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Sugar	PSE (ISK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Milk	PSE (ISK mn)	2 663	5 357	5 525	5 122	5 424
	Percentage PSE	82	75	78	72	76
	Producer NPC	5.70	3.98	4.47	3.43	4.05
	Producer NAC	5.64	4.07	4.54	3.52	4.14
	Percentage CSE	-73	-51	-57	-44	-52
	Consumer NPC	5.66	2.07	2.32	1.79	2.11
	Consumer NAC	4.19	2.07	2.32	1.79	2.10
Beef and Veal	PSE (ISK mn)	375	604	563	586	662
	Percentage PSE	61	58	54	56	63
	Producer NPC	2.48	2.27	2.09	2.14	2.57
	Producer NAC	2.61	2.38	2.19	2.26	2.70
	Percentage CSE	-50	-55	-52	-53	-61
	Consumer NPC	2.47	2.26	2.08	2.14	2.56
	Consumer NAC	2.23	2.26	2.07	2.14	2.56

Table III.25. **Iceland: Main indicators by commodity (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Sheepmeat	PSE (ISK mn)	2 407	1 848	1 946	1 800	1 800
	Percentage PSE	74	51	51	51	51
	Producer NPC	3.82	1.01	1.02	1.01	1.01
	Producer NAC	3.99	2.04	2.04	2.04	2.04
	Percentage CSE	-60	0	0	0	0
	Consumer NPC	3.81	1.00	1.00	1.00	1.00
	Consumer NAC	2.67	1.00	1.00	1.00	1.00
Wool	PSE (ISK mn)	30	128	138	141	106
	Percentage PSE	17	53	58	57	43
	Producer NPC	1.20	2.11	2.35	2.28	1.70
	Producer NAC	1.22	2.16	2.40	2.33	1.75
	Percentage CSE	125	-666	-359	-715	-924
	Consumer NPC	1.20	2.11	2.35	2.28	1.70
	Consumer NAC	0.45	- 0.22	- 0.39	- 0.16	- 0.12
Pigmeat	PSE (ISK mn)	353	490	546	414	511
	Percentage PSE	74	47	54	39	48
	Producer NPC	4.02	1.86	2.11	1.60	1.89
	Producer NAC	3.94	1.91	2.15	1.64	1.94
	Percentage CSE	-74	-45	-53	-37	-47
	Consumer NPC	3.77	1.85	2.11	1.59	1.87
	Consumer NAC	3.86	1.85	2.11	1.59	1.87
Poultry	PSE (ISK mn)	237	712	736	689	712
	Percentage PSE	86	84	85	81	84
	Producer NPC	7.71	6.39	7.11	5.53	6.52
	Producer NAC	7.19	6.17	6.83	5.38	6.30
	Percentage CSE	-86	-84	-86	-82	-84
	Consumer NPC	7.07	6.32	7.10	5.45	6.43
	Consumer NAC	7.31	6.31	7.08	5.44	6.42
Eggs	PSE (ISK mn)	304	330	336	324	330
	Percentage PSE	80	71	73	69	71
	Producer NPC	5.28	3.38	3.61	3.20	3.33
	Producer NAC	5.08	3.45	3.67	3.27	3.40
	Percentage CSE	-80	-70	-72	-68	-70
	Consumer NPC	5.02	3.35	3.61	3.15	3.28
	Consumer NAC	5.13	3.35	3.61	3.15	3.28
Other commodities	PSE (ISK mn)	1 610	1 553	1 622	1 438	1 597
	Percentage PSE	73	48	50	44	49
	Producer NPC	3.63	1.82	1.90	1.69	1.86
	Producer NAC	3.86	1.93	2.02	1.80	1.98
	Percentage CSE	-75	-46	-49	-42	-47
	Consumer NPC	3.95	1.86	1.97	1.71	1.89
	Consumer NAC	3.95	1.86	1.97	1.71	1.89
All commodities	PSE (ISK mn)	7 979	11 022	11 413	10 513	11 141
	Percentage PSE	75	63	64	60	63
	Producer NPC	3.89	2.33	2.44	2.17	2.38
	Producer NAC	3.99	2.67	2.80	2.49	2.73
	Percentage CSE	-68	-45	-48	-40	-46
	Consumer NPC	3.95	1.86	1.97	1.71	1.89
	Consumer NAC	3.23	1.82	1.93	1.68	1.85

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

Source: OECD, PSE/CSE database 2003.

Table III.26. **Japan: Estimates of support to agriculture**
(JPY billion)

	1986-88	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**10 936**	**8 905**	**9 140**	**8 784**	**8 791**
of which share of MPS commodities (%)	*69*	*66*	*66*	*66*	*66*
Total value of consumption (at farm gate)	**13 938**	**13 596**	**14 065**	**13 457**	**13 264**
Producer Support Estimate (PSE)	**7 143**	**5 619**	**5 836**	**5 518**	**5 502**
Market Price Support (MPS)	6 396	5 068	5 273	4 959	4 971
of which MPS commodities	*4 439*	*3 344*	*3 497*	*3 261*	*3 274*
Payments based on output	221	175	178	182	165
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	259	268	261	250
Payments based on input constraints	228	117	117	117	117
Payments based on overall farming income	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE	**61**	**59**	**60**	**59**	**59**
Producer NPC	**2.46**	**2.37**	**2.41**	**2.34**	**2.34**
Producer NAC	**2.57**	**2.46**	**2.51**	**2.44**	**2.44**
General Services Support Estimate (GSSE)	**1 267**	**1 448**	**1 435**	**1 441**	**1 468**
Research and development	46	55	61	52	53
Agricultural schools	29	49	42	53	52
Inspection services	8	11	11	11	11
Infrastructure	1 008	1 105	1 119	1 123	1 073
Marketing and promotion	22	26	26	26	26
Public stockholding	43	46	46	46	46
Miscellaneous	110	155	130	130	206
GSSE as a share of TSE (%)	**15.1**	**20.5**	**19.7**	**20.7**	**21.0**
Consumer Support Estimate (CSE)	**-8 011**	**-6 930**	**-7 192**	**-6 837**	**-6 761**
Transfers to producers from consumers	-6 310	-5 067	-5 272	-4 958	-4 970
Other transfers from consumers	-1 696	-1 872	-1 929	-1 888	-1 799
Transfers to consumers from taxpayers	-16	6	6	6	5
Excess feed cost	11	3	3	3	3
Percentage CSE	**-57**	**-51**	**-51**	**-51**	**-51**
Consumer NPC	**2.35**	**2.04**	**2.05**	**2.04**	**2.04**
Consumer NAC	**2.35**	**2.04**	**2.05**	**2.03**	**2.04**
Total Support Estimate (TSE)	**8 395**	**7 073**	**7 277**	**6 966**	**6 975**
Transfers from consumers	8 006	6 939	7 201	6 847	6 769
Transfers from taxpayers	2 085	2 006	2 005	2 008	2 005
Budget revenues	-1 696	-1 872	-1 929	-1 888	-1 799
Percentage TSE (expressed as share of GDP)	2.34	1.40	1.42	1.38	1.40
GDP deflator 1995 = 100	91	95	96	95	94

Notes: p: provisional. Market price support is net of producer levies and excess feed costs. MPS commodities for Japan are: wheat, other grains, rice, oilseeds, sugar, milk, beef and veal, pigmeat, poultry, eggs, apples, cabbage, cucumbers, grapes, mandarins, pears, spinach, strawberries and Welsh onions. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
Source: OECD, PSE/CSE database 2003.

Table III.27. **Japan: Main indicators by commodity**

		1986-88	2000-2002	2000	2001	2002p
Wheat	PSE (JPY bn)	163	105	99	100	117
	Percentage PSE	87	86	86	86	86
	Producer NPC	6.56	6.33	6.35	6.35	6.29
	Producer NAC	7.71	7.20	7.22	7.27	7.12
	Percentage CSE	-84	-75	-73	-74	-78
	Consumer NPC	6.48	4.06	3.73	3.87	4.59
	Consumer NAC	6.48	4.06	3.73	3.87	4.59
Maize	PSE (JPY bn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains	PSE (JPY bn)	61	26	27	25	26
	Percentage PSE	86	82	84	81	81
	Producer NPC	6.30	5.12	5.72	4.84	4.80
	Producer NAC	7.28	5.70	6.30	5.40	5.39
	Percentage CSE	-82	-79	-81	-78	-78
	Consumer NPC	6.18	5.04	5.60	4.77	4.77
	Consumer NAC	5.72	4.81	5.33	4.55	4.55
Rice	PSE (JPY bn)	2 939	1 947	2 062	1 928	1 849
	Percentage PSE	84	86	88	86	84
	Producer NPC	5.81	6.89	7.70	7.01	5.96
	Producer NAC	6.20	7.19	8.03	7.32	6.21
	Percentage CSE	-82	-85	-86	-85	-82
	Consumer NPC	5.61	6.54	7.29	6.63	5.70
	Consumer NAC	5.50	6.54	7.29	6.63	5.69
Oilseeds	PSE (JPY bn)	47	26	20	27	30
	Percentage PSE	75	40	34	42	46
	Producer NPC	2.96	1.45	1.32	1.46	1.57
	Producer NAC	4.15	1.69	1.50	1.72	1.86
	Percentage CSE	0	0	0	0	0
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	1.00	1.00	1.00	1.00	1.00
Sugar	PSE (JPY bn)	86	41	41	40	40
	Percentage PSE	66	42	43	40	41
	Producer NPC	2.88	1.63	1.67	1.60	1.61
	Producer NAC	2.99	1.71	1.76	1.68	1.69
	Percentage CSE	-67	-39	-41	-39	-39
	Consumer NPC	2.68	1.65	1.69	1.63	1.64
	Consumer NAC	3.01	1.65	1.69	1.63	1.64
Milk	PSE (JPY bn)	631	548	561	532	550
	Percentage PSE	84	77	79	76	77
	Producer NPC	6.28	4.26	4.61	3.93	4.24
	Producer NAC	6.49	4.45	4.82	4.10	4.43
	Percentage CSE	-83	-75	-77	-74	-75
	Consumer NPC	5.97	4.11	4.45	3.79	4.08
	Consumer NAC	5.92	4.09	4.43	3.78	4.07
Beef and Veal	PSE (JPY bn)	377	182	196	174	174
	Percentage PSE	44	32	32	32	32
	Producer NPC	1.76	1.43	1.43	1.44	1.44
	Producer NAC	1.80	1.48	1.47	1.48	1.48
	Percentage CSE	-43	-28	-28	-28	-28
	Consumer NPC	1.76	1.39	1.39	1.39	1.39
	Consumer NAC	1.76	1.39	1.39	1.39	1.39

Table III.27. **Japan: Main indicators by commodity (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Sheepmeat	PSE (JPY bn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool	PSE (JPY bn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat	PSE (JPY bn)	294	233	213	220	264
	Percentage PSE	42	49	48	45	54
	Producer NPC	1.73	1.95	1.89	1.80	2.17
	Producer NAC	1.76	1.98	1.92	1.83	2.19
	Percentage CSE	-41	-49	-47	-45	-54
	Consumer NPC	1.73	1.95	1.89	1.80	2.17
	Consumer NAC	1.73	1.95	1.89	1.80	2.17
Poultry	PSE (JPY bn)	49	22	22	22	22
	Percentage PSE	12	11	11	11	11
	Producer NPC	1.13	1.12	1.12	1.12	1.12
	Producer NAC	1.14	1.13	1.13	1.13	1.13
	Percentage CSE	-11	-10	-10	-10	-10
	Consumer NPC	1.13	1.12	1.12	1.12	1.12
	Consumer NAC	1.13	1.12	1.12	1.12	1.12
Eggs	PSE (JPY bn)	74	63	67	61	61
	Percentage PSE	18	16	16	16	16
	Producer NPC	1.21	1.18	1.17	1.18	1.18
	Producer NAC	1.22	1.19	1.18	1.19	1.19
	Percentage CSE	-17	-15	-15	-15	-15
	Consumer NPC	1.20	1.17	1.17	1.17	1.17
	Consumer NAC	1.20	1.17	1.17	1.17	1.17
Other commodities	PSE (JPY bn)	2 421	2 427	2 526	2 388	2 367
	Percentage PSE	53	53	54	53	53
	Producer NPC	2.03	2.06	2.10	2.04	2.04
	Producer NAC	2.11	2.15	2.19	2.13	2.13
	Percentage CSE	-51	-50	-50	-50	-49
	Consumer NPC	2.02	1.99	2.01	1.98	1.98
	Consumer NAC	2.02	1.99	2.01	1.98	1.98
All commodities	PSE (JPY bn)	7 143	5 619	5 836	5 518	5 502
	Percentage PSE	61	59	60	59	59
	Producer NPC	2.46	2.37	2.41	2.34	2.34
	Producer NAC	2.57	2.46	2.51	2.44	2.44
	Percentage CSE	-57	-51	-51	-51	-51
	Consumer NPC	2.35	2.04	2.05	2.04	2.04
	Consumer NAC	2.35	2.04	2.05	2.03	2.04

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

Source: OECD, PSE/CSE database 2003.

Table III.28. **Korea: Estimates of support to agriculture**
(KRW billion)

	1986-88	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**13 624**	**32 230**	**31 829**	**32 746**	**32 116**
of which share of MPS commodities (%)	*72*	*63*	*64*	*64*	*62*
Total value of consumption (at farm gate)	**14 367**	**38 500**	**36 469**	**38 503**	**40 529**
Producer Support Estimate (PSE)	**9 675**	**22 065**	**22 018**	**21 524**	**22 655**
Market Price Support (MPS)	9 578	20 660	21 057	20 276	20 649
of which MPS commodities	*6 881*	*13 072*	*13 483*	*12 938*	*12 795*
Payments based on output	0	0	0	0	0
Payments based on area planted/animal numbers	0	242	21	260	445
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	69	628	553	538	793
Payments based on input constraints	0	22	27	18	21
Payments based on overall farming income	28	513	359	432	747
Miscellaneous payments	0	0	0	0	0
Percentage PSE	**70**	**66**	**67**	**63**	**66**
Producer NPC	**3.36**	**2.78**	**2.91**	**2.63**	**2.80**
Producer NAC	**3.42**	**2.92**	**3.04**	**2.73**	**2.98**
General Services Support Estimate (GSSE)	**845**	**3 310**	**3 099**	**3 313**	**3 518**
Research and development	52	295	254	272	358
Agricultural schools	5	47	45	48	49
Inspection services	21	119	118	117	121
Infrastructure	374	2 232	2 161	2 287	2 249
Marketing and promotion	0	30	24	31	35
Public stockholding	394	587	497	557	706
Miscellaneous	0	0	0	0	0
GSSE as a share of TSE (%)	**8.0**	**13.0**	**12.3**	**13.3**	**13.4**
Consumer Support Estimate (CSE)	**-9 452**	**-23 860**	**-23 114**	**-22 684**	**-25 783**
Transfers to producers from consumers	-9 331	-20 161	-20 452	-19 383	-20 649
Other transfers from consumers	-181	-3 813	-2 764	-3 430	-5 244
Transfers to consumers from taxpayers	59	114	102	129	110
Excess feed cost	0	0	0	0	0
Percentage CSE	**-66**	**-62**	**-64**	**-59**	**-64**
Consumer NPC	**2.95**	**2.66**	**2.75**	**2.45**	**2.77**
Consumer NAC	**2.94**	**2.65**	**2.74**	**2.45**	**2.76**
Total Support Estimate (TSE)	**10 579**	**25 489**	**25 219**	**24 965**	**26 283**
Transfers from consumers	9 512	23 974	23 216	22 813	25 893
Transfers from taxpayers	1 248	5 328	4 767	5 582	5 635
Budget revenues	-181	-3 813	-2 764	-3 430	-5 244
Percentage TSE (expressed as share of GDP)	9.30	4.61	4.83	4.58	4.45
GDP deflator 1995 = 100	55	111	109	111	113

Notes: p: provisional. Market price support is net of producer levies and excess feed costs.
MPS commodities for Korea are: other grains, garlic, chinese cabbage, rice, oilseeds, milk, beef and veal, pigmeat, poultry and eggs. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
Source: OECD, PSE/CSE database 2003.

Table III.29. **Korea: Main indicators by commodity**

		1986-88	2000-2002	2000	2001	2002p
Wheat	PSE (KRW bn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Maize	PSE (KRW bn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains	PSE (KRW bn)	222	216	161	272	216
	Percentage PSE	73	79	81	77	78
	Producer NPC	3.69	4.51	5.11	4.22	4.19
	Producer NAC	3.71	4.69	5.25	4.37	4.47
	Percentage CSE	-71	-67	-67	-71	-63
	Consumer NPC	3.42	3.06	3.02	3.43	2.72
	Consumer NAC	3.42	3.06	3.02	3.43	2.72
Rice	PSE (KRW bn)	4 541	8 798	9 127	8 998	8 268
	Percentage PSE	82	82	84	81	81
	Producer NPC	5.59	5.35	6.22	4.98	4.84
	Producer NAC	5.62	5.57	6.39	5.16	5.16
	Percentage CSE	-82	-81	-84	-80	-79
	Consumer NPC	5.59	5.35	6.22	4.98	4.84
	Consumer NAC	5.58	5.33	6.22	4.96	4.82
Oilseeds	PSE (KRW bn)	157	257	263	244	263
	Percentage PSE	79	89	90	88	90
	Producer NPC	4.75	9.09	10.08	8.02	9.17
	Producer NAC	4.78	9.48	10.35	8.31	9.78
	Percentage CSE	-42	-42	-44	-42	-40
	Consumer NPC	1.72	1.73	1.79	1.74	1.67
	Consumer NAC	1.72	1.73	1.79	1.73	1.67
Sugar	PSE (KRW bn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Milk	PSE (KRW bn)	328	1 031	995	964	1 134
	Percentage PSE	73	69	71	66	70
	Producer NPC	3.83	3.20	3.41	2.88	3.29
	Producer NAC	3.85	3.27	3.49	2.94	3.38
	Percentage CSE	-73	-68	-71	-65	-69
	Consumer NPC	3.83	3.20	3.41	2.88	3.29
	Consumer NAC	3.77	3.17	3.39	2.86	3.27
Beef and Veal	PSE (KRW bn)	508	1 412	1 518	1 340	1 378
	Percentage PSE	54	65	63	63	69
	Producer NPC	2.23	2.78	2.62	2.61	3.11
	Producer NAC	2.26	2.90	2.69	2.73	3.28
	Percentage CSE	-52	-64	-62	-62	-68
	Consumer NPC	2.23	2.78	2.62	2.61	3.11
	Consumer NAC	2.17	2.78	2.62	2.61	3.11

Table III.29. **Korea: Main indicators by commodity (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Sheepmeat	PSE (KRW bn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool	PSE (KRW bn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat	PSE (KRW bn)	311	605	566	325	924
	Percentage PSE	33	26	26	14	37
	Producer NPC	1.50	1.34	1.32	1.14	1.55
	Producer NAC	1.50	1.37	1.36	1.17	1.59
	Percentage CSE	-32	-24	-24	-12	-35
	Consumer NPC	1.50	1.34	1.32	1.14	1.55
	Consumer NAC	1.50	1.34	1.32	1.14	1.55
Poultry	PSE (KRW bn)	138	346	419	306	314
	Percentage PSE	50	44	53	37	41
	Producer NPC	2.09	1.68	1.97	1.51	1.57
	Producer NAC	2.14	1.80	2.13	1.58	1.71
	Percentage CSE	-49	-40	-49	-34	-36
	Consumer NPC	2.09	1.68	1.97	1.51	1.57
	Consumer NAC	2.09	1.68	1.97	1.51	1.56
Eggs	PSE (KRW bn)	2	58	15	134	26
	Percentage PSE	1	7	2	16	4
	Producer NPC	0.92	1.01	0.85	1.16	1.01
	Producer NAC	1.01	1.08	1.02	1.19	1.04
	Percentage CSE	11	1	18	-14	-1
	Consumer NPC	0.92	1.01	0.85	1.16	1.01
	Consumer NAC	0.92	1.01	0.85	1.16	1.01
Other commodities	PSE (KRW bn)	3 468	9 343	8 954	8 941	10 132
	Percentage PSE	71	63	63	61	64
	Producer NPC	3.85	2.56	2.62	2.46	2.62
	Producer NAC	3.93	2.70	2.74	2.56	2.80
	Percentage CSE	-63	-60	-61	-56	-62
	Consumer NPC	2.75	2.51	2.55	2.31	2.66
	Consumer NAC	2.74	2.49	2.54	2.30	2.65
All commodities	PSE (KRW bn)	9 675	22 065	22 018	21 524	22 655
	Percentage PSE	70	66	67	63	66
	Producer NPC	3.36	2.78	2.91	2.63	2.80
	Producer NAC	3.42	2.92	3.04	2.73	2.98
	Percentage CSE	-66	-62	-64	-59	-64
	Consumer NPC	2.95	2.66	2.75	2.45	2.77
	Consumer NAC	2.94	2.65	2.74	2.45	2.76

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

Source: OECD, PSE/CSE database 2003.

Table III.30. **Mexico: Estimates of support to agriculture**
(MXN million)

	1986-88	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**23 249**	**303 401**	**280 696**	**305 838**	**323 668**
of which share of MPS commodities (%)	*75*	*68*	*68*	*67*	*68*
Total value of consumption (at farm gate)	**21 915**	**294 003**	**288 190**	**296 911**	**296 909**
Producer Support Estimate (PSE)	**-442**	**72 629**	**71 887**	**67 947**	**78 055**
Market Price Support (MPS)	-2 517	49 347	53 341	43 364	51 336
of which MPS commodities	*-1 865*	*33 447*	*36 268*	*29 086*	*34 985*
Payments based on output	2	2 329	69	4 196	2 723
Payments based on area planted/animal numbers	1	1 599	532	567	3 699
Payments based on historical entitlements	0	11 268	10 379	11 005	12 421
Payments based on input use	2 073	7 203	7 017	8 219	6 374
Payments based on input constraints	0	0	0	0	0
Payments based on overall farming income	0	882	549	597	1 500
Miscellaneous payments	0	0	0	0	1
Percentage PSE	**0**	**22**	**24**	**21**	**22**
Producer NPC	**0.92**	**1.21**	**1.25**	**1.18**	**1.20**
Producer NAC	**1.00**	**1.29**	**1.32**	**1.26**	**1.29**
General Services Support Estimate (GSSE)	**848**	**6 508**	**5 927**	**6 742**	**6 855**
Research and development	77	1 227	1 024	1 272	1 384
Agricultural schools	125	1 606	1 460	1 689	1 668
Inspection services	0	891	828	914	931
Infrastructure	223	1 654	953	2 122	1 888
Marketing and promotion	18	962	1 371	703	813
Public stockholding	400	0	0	0	1
Miscellaneous	6	168	291	44	169
GSSE as a share of TSE (%)	**56.8**	**7.9**	**7.0**	**8.9**	**8.0**
Consumer Support Estimate (CSE)	**3 405**	**-54 301**	**-54 999**	**-49 555**	**-58 348**
Transfers to producers from consumers	2 270	-50 431	-56 525	-43 679	-51 090
Other transfers from consumers	-114	-8 071	-7 786	-7 798	-8 628
Transfers to consumers from taxpayers	1 087	3 168	6 967	1 388	1 150
Excess feed cost	161	1 034	2 346	535	220
Percentage CSE	**17**	**-19**	**-20**	**-17**	**-20**
Consumer NPC	**0.92**	**1.25**	**1.29**	**1.21**	**1.25**
Consumer NAC	**0.86**	**1.23**	**1.24**	**1.20**	**1.25**
Total Support Estimate (TSE)	**1 493**	**82 306**	**84 781**	**76 077**	**86 059**
Transfers from consumers	-2 157	58 502	64 312	51 477	59 718
Transfers from taxpayers	3 763	31 874	28 256	32 398	34 969
Budget revenues	-114	-8 071	-7 786	-7 798	-8 628
Percentage TSE (expressed as share of GDP)	0.64	1.42	1.54	1.32	1.41
GDP deflator 1995 = 100	15	240	229	241	251

Notes: p: provisional. Market price support is net of producer levies and excess feed costs.
MPS commodities for Mexico are: wheat, maize, other grains, coffee beans, tomatoes, rice, oilseeds, sugar, milk, beef and veal, pigmeat, poultry and eggs. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
Source: OECD, PSE/CSE database 2003.

Table III.31. **Mexico: Main indicators by commodity**

		1986-88	2000-2002	2000	2001	2002p
Wheat [1]	PSE (MXN mn)	-72	1 752	1 748	1 561	1 947
	Percentage PSE	-12	31	31	28	34
	Producer NPC	0.81	1.28	1.27	1.24	1.34
	Producer NAC	0.91	1.45	1.44	1.39	1.51
	Percentage CSE	239	-2	-3	-2	-1
	Consumer NPC	0.83	1.07	1.19	1.02	1.01
	Consumer NAC	0.47	1.02	1.03	1.02	1.01
Maize [1]	PSE (MXN mn)	890	12 393	13 990	12 745	10 443
	Percentage PSE	31	36	42	37	31
	Producer NPC	1.31	1.26	1.38	1.28	1.14
	Producer NAC	1.48	1.58	1.72	1.57	1.44
	Percentage CSE	6	-8	-13	-8	-3
	Consumer NPC	1.24	1.17	1.29	1.14	1.07
	Consumer NAC	1.01	1.09	1.15	1.08	1.03
Other grains [1]	PSE (MXN mn)	310	3 149	3 375	3 254	2 818
	Percentage PSE	27	33	37	32	31
	Producer NPC	1.19	1.16	1.25	1.16	1.07
	Producer NAC	1.37	1.50	1.58	1.47	1.45
	Percentage CSE	0	-1	0	-2	-1
	Consumer NPC	1.17	1.07	1.15	1.04	1.01
	Consumer NAC	1.00	1.01	1.00	1.02	1.01
Rice [1]	PSE (MXN mn)	-44	180	247	177	117
	Percentage PSE	-38	32	29	35	32
	Producer NPC	0.63	1.33	1.26	1.43	1.30
	Producer NAC	0.73	1.47	1.41	1.55	1.46
	Percentage CSE	156	-6	-8	-4	-7
	Consumer NPC	0.64	1.07	1.09	1.04	1.07
	Consumer NAC	0.41	1.07	1.09	1.04	1.07
Oilseeds [1]	PSE (MXN mn)	17	130	121	204	65
	Percentage PSE	9	40	38	52	30
	Producer NPC	0.94	1.12	1.08	1.27	1.00
	Producer NAC	1.10	1.71	1.61	2.07	1.44
	Percentage CSE	6	-4	-6	-4	-2
	Consumer NPC	0.98	1.04	1.06	1.04	1.02
	Consumer NAC	0.95	1.04	1.06	1.04	1.02
Sugar	PSE (MXN mn)	96	7 021	7 327	6 332	7 403
	Percentage PSE	17	52	54	47	56
	Producer NPC	1.07	1.99	1.93	1.82	2.21
	Producer NAC	1.25	2.10	2.16	1.87	2.27
	Percentage CSE	-4	-64	-63	-60	-69
	Consumer NPC	1.07	2.79	2.69	2.50	3.20
	Consumer NAC	1.07	2.79	2.69	2.50	3.20
Milk [1]	PSE (MXN mn)	444	11 526	10 811	11 873	11 894
	Percentage PSE	34	43	41	43	45
	Producer NPC	1.56	1.74	1.74	1.73	1.77
	Producer NAC	1.62	1.76	1.70	1.77	1.81
	Percentage CSE	-17	-35	-30	-37	-38
	Consumer NPC	1.45	1.61	1.61	1.60	1.63
	Consumer NAC	1.28	1.55	1.43	1.59	1.62
Beef and Veal	PSE (MXN mn)	-517	1 450	2 065	893	1 391
	Percentage PSE	-28	7	10	4	6
	Producer NPC	0.76	1.03	1.08	1.00	1.02
	Producer NAC	0.79	1.07	1.11	1.04	1.07
	Percentage CSE	36	-3	-6	0	-1
	Consumer NPC	0.75	1.03	1.07	1.00	1.01
	Consumer NAC	0.75	1.03	1.07	1.00	1.01

Table III.31. **Mexico: Main indicators by commodity (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Sheepmeat	PSE (MXN mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool	PSE (MXN mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat	PSE (MXN mn)	-350	1 926	736	1 259	3 783
	Percentage PSE	-51	12	5	8	24
	Producer NPC	0.71	1.13	1.08	1.05	1.28
	Producer NAC	0.74	1.15	1.05	1.08	1.32
	Percentage CSE	59	-10	-7	-5	-18
	Consumer NPC	0.71	1.11	1.07	1.05	1.21
	Consumer NAC	0.71	1.11	1.07	1.05	1.21
Poultry	PSE (MXN mn)	368	7 267	8 031	4 978	8 794
	Percentage PSE	20	26	29	18	30
	Producer NPC	1.30	1.35	1.43	1.20	1.41
	Producer NAC	1.29	1.35	1.40	1.22	1.44
	Percentage CSE	-19	-23	-27	-15	-26
	Consumer NPC	1.29	1.31	1.38	1.18	1.36
	Consumer NAC	1.29	1.31	1.38	1.18	1.36
Eggs	PSE (MXN mn)	29	129	-113	277	221
	Percentage PSE	3	1	-1	2	2
	Producer NPC	1.00	1.00	1.00	1.00	1.00
	Producer NAC	1.04	1.01	0.99	1.02	1.02
	Percentage CSE	0	0	0	0	0
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	1.00	1.00	1.00	1.00	1.00
Other commodities	PSE (MXN mn)	-1 613	25 707	23 550	24 394	29 178
	Percentage PSE	-10	16	18	15	16
	Producer NPC	0.84	1.14	1.18	1.13	1.12
	Producer NAC	0.92	1.20	1.21	1.18	1.19
	Percentage CSE	26	-20	-22	-19	-21
	Consumer NPC	0.81	1.26	1.28	1.23	1.27
	Consumer NAC	0.80	1.26	1.28	1.23	1.27
All commodities	PSE (MXN mn)	-442	72 629	71 887	67 947	78 055
	Percentage PSE	0	22	24	21	22
	Producer NPC	0.92	1.21	1.25	1.18	1.20
	Producer NAC	1.00	1.29	1.32	1.26	1.29
	Percentage CSE	17	-19	-20	-17	-20
	Consumer NPC	0.92	1.25	1.29	1.21	1.25
	Consumer NAC	0.86	1.23	1.24	1.20	1.25

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

1. See Part 2 chapter on Mexico about PSE calculation for these commodities.

Source: OECD, PSE/CSE database 2003.

Table III.32. **New Zealand: Estimates of support to agriculture**
(NZD million)

	1986-88	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**6 860**	**14 245**	**13 698**	**15 144**	**13 893**
of which share of MPS commodities (%)	*72*	*74*	*73*	*76*	*73*
Total value of consumption (at farm gate)	**1 671**	**3 041**	**2 908**	**3 146**	**3 070**
Producer Support Estimate (PSE)	**852**	**147**	**158**	**82**	**201**
Market Price Support (MPS)	158	101	115	32	156
of which MPS commodities	*114*	*74*	*84*	*25*	*115*
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	334	44	38	50	44
Payments based on input constraints	0	0	0	0	0
Payments based on overall farming income	42	2	5	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE	**11**	**1**	**1**	**1**	**1**
Producer NPC	**1.02**	**1.01**	**1.01**	**1.00**	**1.01**
Producer NAC	**1.13**	**1.01**	**1.01**	**1.01**	**1.01**
General Services Support Estimate (GSSE)	**177**	**212**	**210**	**217**	**209**
Research and development	77	121	125	122	117
Agricultural schools	0	6	9	10	0
Inspection services	54	59	54	57	66
Infrastructure	47	25	21	27	26
Marketing and promotion	0	0	0	0	0
Public stockholding	0	0	0	0	0
Miscellaneous	0	1	1	1	0
GSSE as a share of TSE (%)	**17.2**	**59.0**	**57.0**	**72.5**	**51.1**
Consumer Support Estimate (CSE)	**-156**	**-112**	**-123**	**-46**	**-166**
Transfers to producers from consumers	-152	-98	-111	-33	-151
Other transfers from consumers	-4	-13	-12	-12	-16
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	0	0	0	0	0
Percentage CSE	**-9**	**-4**	**-4**	**-1**	**-5**
Consumer NPC	**1.10**	**1.04**	**1.04**	**1.01**	**1.06**
Consumer NAC	**1.10**	**1.04**	**1.04**	**1.01**	**1.06**
Total Support Estimate (TSE)	**1 029**	**359**	**368**	**299**	**410**
Transfers from consumers	156	112	123	46	166
Transfers from taxpayers	877	261	257	266	259
Budget revenues	-4	-13	-12	-12	-16
Percentage TSE (expressed as share of GDP)	1.71	0.30	0.33	0.25	0.33
GDP deflator 1995 = 100	78	110	107	112	112

Notes: p: provisional. Market price support is net of producer levies and excess feed costs.
MPS commodities for New Zealand are: wheat, maize, other grains, milk, beef and veal, sheepmeat, wool, pigmeat, poultry and eggs. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
Source: OECD, PSE/CSE database 2003.

Table III.33. **New Zealand: Main indicators by commodity**

		1986-88	2000-2002	2000	2001	2002p
Wheat	PSE (NZD mn)	5	0	0	0	0
	Percentage PSE	7	0	0	0	0
	Producer NPC	1.03	1.00	1.00	1.00	1.00
	Producer NAC	1.07	1.00	1.00	1.00	1.00
	Percentage CSE	0	0	0	0	0
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	1.00	1.00	1.00	1.00	1.00
Maize	PSE (NZD mn)	1	0	0	0	0
	Percentage PSE	2	0	0	0	0
	Producer NPC	1.00	1.00	1.00	1.00	1.00
	Producer NAC	1.02	1.00	1.00	1.00	1.00
	Percentage CSE	0	0	0	0	0
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	1.00	1.00	1.00	1.00	1.00
Other grains	PSE (NZD mn)	1	0	0	0	0
	Percentage PSE	2	0	0	0	0
	Producer NPC	1.00	1.00	1.00	1.00	1.00
	Producer NAC	1.02	1.00	1.00	1.00	1.00
	Percentage CSE	0	0	0	0	0
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	1.00	1.00	1.00	1.00	1.00
Rice	PSE (NZD mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds	PSE (NZD mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Sugar	PSE (NZD mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Milk	PSE (NZD mn)	131	29	26	33	28
	Percentage PSE	9	1	1	1	1
	Producer NPC	1.02	1.00	1.00	1.00	1.00
	Producer NAC	1.10	1.01	1.01	1.01	1.01
	Percentage CSE	-7	0	0	0	0
	Consumer NPC	1.09	1.00	1.00	1.00	1.00
	Consumer NAC	1.09	1.00	1.00	1.00	1.00
Beef and Veal	PSE (NZD mn)	78	12	9	13	12
	Percentage PSE	7	1	1	1	1
	Producer NPC	1.00	1.00	1.00	1.00	1.00
	Producer NAC	1.08	1.01	1.01	1.01	1.01
	Percentage CSE	0	0	0	0	0
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	1.00	1.00	1.00	1.00	1.00

Table III.33 **New Zealand: Main indicators by commodity (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Sheepmeat	PSE (NZD mn)	363	3	3	3	3
	Percentage PSE	24	0	0	0	0
	Producer NPC	1.00	1.00	1.00	1.00	1.00
	Producer NAC	1.56	1.00	1.00	1.00	1.00
	Percentage CSE	0	0	0	0	0
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	1.00	1.00	1.00	1.00	1.00
Wool	PSE (NZD mn)	92	0	0	0	0
	Percentage PSE	6	0	0	0	0
	Producer NPC	1.00	1.00	1.00	1.00	1.00
	Producer NAC	1.07	1.00	1.00	1.00	1.00
	Percentage CSE	0	0	0	0	0
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	1.00	1.00	1.00	1.00	1.00
Pigmeat	PSE (NZD mn)	3	0	0	0	0
	Percentage PSE	3	0	0	0	0
	Producer NPC	1.02	1.00	1.00	1.00	1.00
	Producer NAC	1.03	1.00	1.00	1.00	1.00
	Percentage CSE	-2	0	0	0	0
	Consumer NPC	1.02	1.00	1.00	1.00	1.00
	Consumer NAC	1.02	1.00	1.00	1.00	1.00
Poultry	PSE (NZD mn)	58	34	46	-14	69
	Percentage PSE	56	14	21	-6	27
	Producer NPC	2.80	1.19	1.26	0.95	1.36
	Producer NAC	2.83	1.19	1.26	0.95	1.36
	Percentage CSE	-56	-14	-20	6	-26
	Consumer NPC	2.80	1.19	1.26	0.95	1.36
	Consumer NAC	2.80	1.19	1.26	0.95	1.36
Eggs	PSE (NZD mn)	37	41	39	39	46
	Percentage PSE	45	35	33	32	38
	Producer NPC	1.81	1.53	1.49	1.48	1.61
	Producer NAC	1.83	1.53	1.49	1.48	1.61
	Percentage CSE	-44	-35	-33	-32	-38
	Consumer NPC	1.81	1.53	1.49	1.48	1.61
	Consumer NAC	1.81	1.53	1.49	1.48	1.61
Other commodities	PSE (NZD mn)	83	28	36	8	42
	Percentage PSE	4	1	1	0	1
	Producer NPC	1.02	1.01	1.01	1.00	1.01
	Producer NAC	1.04	1.01	1.01	1.00	1.01
	Percentage CSE	-9	-4	-4	-1	-5
	Consumer NPC	1.10	1.04	1.04	1.01	1.06
	Consumer NAC	1.10	1.04	1.04	1.01	1.06
All commodities	PSE (NZD mn)	852	147	158	82	201
	Percentage PSE	11	1	1	1	1
	Producer NPC	1.02	1.01	1.01	1.00	1.01
	Producer NAC	1.13	1.01	1.01	1.01	1.01
	Percentage CSE	-9	-4	-4	-1	-5
	Consumer NPC	1.10	1.04	1.04	1.01	1.06
	Consumer NAC	1.10	1.04	1.04	1.01	1.06

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

Source: OECD, PSE/CSE database 2003.

Table III.34. **Norway: Estimates of support to agriculture**
(NOK million)

	1986-88	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**17 354**	**17 720**	**17 304**	**17 640**	**18 215**
of which share of MPS commodities (%)	*73*	*81*	*82*	*80*	*80*
Total value of consumption (at farm gate)	**17 899**	**17 273**	**16 738**	**17 303**	**17 777**
Producer Support Estimate (PSE)	**18 925**	**20 065**	**20 018**	**19 199**	**20 977**
Market Price Support (MPS)	9 073	8 464	7 960	7 991	9 442
of which MPS commodities	*6 649*	*6 810*	*6 550*	*6 371*	*7 508*
Payments based on output	4 437	2 852	2 845	2 840	2 870
Payments based on area planted/animal numbers	1 645	3 241	3 210	3 251	3 263
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	3 451	4 350	4 539	4 316	4 194
Payments based on input constraints	320	670	1 165	247	598
Payments based on overall farming income	0	488	299	553	611
Miscellaneous payments	0	0	0	0	0
Percentage PSE	**70**	**68**	**68**	**67**	**71**
Producer NPC	**3.95**	**2.70**	**2.69**	**2.51**	**2.91**
Producer NAC	**3.29**	**3.17**	**3.14**	**2.99**	**3.39**
General Services Support Estimate (GSSE)	**885**	**1 332**	**1 301**	**1 364**	**1 330**
Research and development	472	649	626	649	673
Agricultural schools	0	0	0	0	0
Inspection services	33	248	236	244	263
Infrastructure	133	162	142	165	181
Marketing and promotion	247	125	165	135	75
Public stockholding	0	15	17	16	13
Miscellaneous	0	132	115	155	126
GSSE as a share of TSE (%)	**4.1**	**6.1**	**5.9**	**6.4**	**5.8**
Consumer Support Estimate (CSE)	**-9 004**	**-8 455**	**-8 055**	**-7 932**	**-9 377**
Transfers to producers from consumers	-11 234	-9 575	-9 268	-8 995	-10 463
Other transfers from consumers	-969	-342	-257	-397	-371
Transfers to consumers from taxpayers	1 522	595	608	608	569
Excess feed cost	1 677	867	862	852	888
Percentage CSE	**-55**	**-51**	**-50**	**-48**	**-54**
Consumer NPC	**3.17**	**2.36**	**2.32**	**2.19**	**2.56**
Consumer NAC	**2.23**	**2.03**	**2.00**	**1.91**	**2.20**
Total Support Estimate (TSE)	**21 333**	**21 991**	**21 927**	**21 170**	**22 877**
Transfers from consumers	12 203	9 917	9 524	9 392	10 834
Transfers from taxpayers	10 099	12 416	12 659	12 176	12 414
Budget revenues	-969	-342	-257	-397	-371
Percentage TSE (expressed as share of GDP)	3.44	1.46	1.50	1.40	1.48
GDP deflator 1995 = 100	81	133	132	134	134

Notes: p: provisional. Market price support is net of producer levies and excess feed costs.
MPS commodities for Norway are: wheat, other grains, milk, beef and veal, sheepmeat, wool, pigmeat, poultry and eggs. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
Source: OECD, PSE/CSE database 2003.

Table III.35. **Norway: Main indicators by commodity**

		1986-88	2000-2002	2000	2001	2002p
Wheat	PSE (NOK mn)	468	546	553	470	615
	Percentage PSE	80	68	67	66	72
	Producer NPC	3.69	2.31	2.36	2.02	2.55
	Producer NAC	5.02	3.18	3.07	2.93	3.54
	Percentage CSE	-19	-17	-27	3	-29
	Consumer NPC	2.05	2.47	2.50	2.18	2.73
	Consumer NAC	1.25	1.25	1.37	0.97	1.41
Maize	PSE (NOK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Other grains	PSE (NOK mn)	2 486	1 736	1 764	1 663	1 781
	Percentage PSE	82	69	71	68	70
	Producer NPC	4.25	2.05	2.14	1.95	2.04
	Producer NAC	5.67	3.28	3.41	3.11	3.31
	Percentage CSE	-21	22	22	21	22
	Consumer NPC	4.07	2.04	2.12	1.96	2.05
	Consumer NAC	1.27	0.82	0.82	0.83	0.82
Rice	PSE (NOK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds	PSE (NOK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Sugar	PSE (NOK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Milk	PSE (NOK mn)	6 607	8 026	8 756	7 388	7 935
	Percentage PSE	75	75	75	72	77
	Producer NPC	4.49	3.18	3.10	2.86	3.58
	Producer NAC	3.98	4.00	4.01	3.55	4.44
	Percentage CSE	-21	-58	-57	-54	-63
	Consumer NPC	2.45	2.40	2.33	2.19	2.69
	Consumer NAC	1.27	2.40	2.33	2.19	2.69
Beef and Veal	PSE (NOK mn)	2 805	3 713	3 441	3 746	3 953
	Percentage PSE	75	80	74	82	84
	Producer NPC	4.75	4.74	3.42	4.86	5.93
	Producer NAC	4.10	5.22	3.81	5.46	6.38
	Percentage CSE	-71	-73	-64	-74	-79
	Consumer NPC	3.71	3.83	2.81	3.84	4.84
	Consumer NAC	3.59	3.83	2.81	3.84	4.84

Table III.35 **Norway: Main indicators by commodity (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Sheepmeat	PSE (NOK mn)	1 014	1 610	1 500	1 667	1 662
	Percentage PSE	70	70	71	69	69
	Producer NPC	3.78	1.55	1.72	1.45	1.47
	Producer NAC	3.38	3.28	3.44	3.22	3.19
	Percentage CSE	-60	-14	-26	-5	-11
	Consumer NPC	2.69	1.17	1.35	1.06	1.12
	Consumer NAC	2.59	1.17	1.35	1.06	1.12
Wool	PSE (NOK mn)	229	339	330	322	365
	Percentage PSE	68	75	80	81	65
	Producer NPC	2.01	2.39	2.68	2.64	1.85
	Producer NAC	3.16	4.37	5.10	5.17	2.85
	Percentage CSE	-49	0	0	0	0
	Consumer NPC	2.01	1.00	1.00	1.00	1.00
	Consumer NAC	2.01	1.00	1.00	1.00	1.00
Pigmeat	PSE (NOK mn)	1 577	1 248	1 116	1 104	1 525
	Percentage PSE	58	50	48	44	57
	Producer NPC	3.77	2.49	2.48	2.02	2.98
	Producer NAC	2.39	2.02	1.92	1.78	2.35
	Percentage CSE	-72	-58	-59	-49	-66
	Consumer NPC	3.64	2.43	2.43	1.96	2.91
	Consumer NAC	3.64	2.43	2.43	1.96	2.91
Poultry	PSE (NOK mn)	172	423	427	362	481
	Percentage PSE	54	58	59	52	63
	Producer NPC	5.64	3.59	3.53	2.73	4.52
	Producer NAC	2.25	2.41	2.44	2.08	2.71
	Percentage CSE	-82	-71	-72	-63	-78
	Consumer NPC	5.64	3.59	3.53	2.73	4.52
	Consumer NAC	5.64	3.59	3.53	2.73	4.52
Eggs	PSE (NOK mn)	532	198	244	278	71
	Percentage PSE	56	32	41	44	11
	Producer NPC	4.27	1.75	1.95	2.13	1.17
	Producer NAC	2.29	1.54	1.70	1.79	1.13
	Percentage CSE	-74	-38	-48	-52	-13
	Consumer NPC	4.02	1.72	1.93	2.10	1.15
	Consumer NAC	4.02	1.72	1.93	2.10	1.15
Other commodities	PSE (NOK mn)	3 036	2 224	1 885	2 199	2 589
	Percentage PSE	58	55	53	53	59
	Producer NPC	3.27	2.38	2.37	2.21	2.57
	Producer NAC	2.38	2.23	2.14	2.12	2.44
	Percentage CSE	-68	-57	-57	-54	-61
	Consumer NPC	3.17	2.36	2.32	2.19	2.56
	Consumer NAC	3.17	2.36	2.32	2.19	2.56
All commodities	PSE (NOK mn)	18 925	20 065	20 018	19 199	20 977
	Percentage PSE	70	68	68	67	71
	Producer NPC	3.95	2.70	2.69	2.51	2.91
	Producer NAC	3.29	3.17	3.14	2.99	3.39
	Percentage CSE	-55	-51	-50	-48	-54
	Consumer NPC	3.17	2.36	2.32	2.19	2.56
	Consumer NAC	2.23	2.03	2.00	1.91	2.20

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

Source: OECD, PSE/CSE database 2003.

Table III.36. **Poland: Estimates of support to agriculture**
(PLN million)

	1991-93	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**17 569**	**56 757**	**55 953**	**57 500**	**56 818**
of which share of MPS commodities (%)	*63*	*56*	*56*	*58*	*54*
Total value of consumption (at farm gate)	**18 006**	**56 251**	**57 753**	**55 907**	**55 092**
Producer Support Estimate (PSE)	**2 224**	**8 713**	**8 750**	**8 869**	**8 519**
Market Price Support (MPS)	1 474	6 439	6 594	6 919	5 804
of which MPS commodities	*891*	*3 606*	*3 682*	*4 003*	*3 133*
Payments based on output	0	424	288	339	647
Payments based on area planted/animal numbers	0	217	296	229	126
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	738	1 576	1 536	1 356	1 835
Payments based on input constraints	2	5	4	6	5
Payments based on overall farming income	0	0	0	0	0
Miscellaneous payments	11	52	32	21	103
Percentage PSE	**11**	**15**	**15**	**15**	**14**
Producer NPC	**1.08**	**1.17**	**1.21**	**1.16**	**1.14**
Producer NAC	**1.13**	**1.17**	**1.18**	**1.18**	**1.17**
General Services Support Estimate (GSSE)	**367**	**931**	**949**	**831**	**1 014**
Research and development	183	194	235	188	158
Agricultural schools	5	43	15	19	96
Inspection services	5	301	283	305	314
Infrastructure	58	202	151	176	279
Marketing and promotion	43	92	195	80	0
Public stockholding	61	48	37	43	63
Miscellaneous	11	52	32	21	103
GSSE as a share of TSE (%)	**14.1**	**9.5**	**9.7**	**8.5**	**10.4**
Consumer Support Estimate (CSE)	**-1 751**	**-6 960**	**-8 216**	**-7 100**	**-5 565**
Transfers to producers from consumers	-1 640	-7 376	-8 751	-7 389	-5 988
Other transfers from consumers	-163	-218	-442	-145	-66
Transfers to consumers from taxpayers	3	130	97	85	209
Excess feed cost	49	504	881	349	281
Percentage CSE	**-8**	**-12**	**-14**	**-13**	**-10**
Consumer NPC	**1.09**	**1.16**	**1.19**	**1.16**	**1.12**
Consumer NAC	**1.09**	**1.14**	**1.17**	**1.15**	**1.11**
Total Support Estimate (TSE)	**2 594**	**9 774**	**9 795**	**9 785**	**9 742**
Transfers from consumers	1 803	7 594	9 193	7 534	6 054
Transfers from taxpayers	954	2 398	1 044	2 396	3 754
Budget revenues	-163	-218	-442	-145	-66
Percentage TSE (expressed as share of GDP)	2.21	1.36	1.43	1.36	1.31
GDP deflator 1995 = 100	44	179	173	180	184

Notes: p: provisional. Market price support is net of producer levies and excess feed costs.
MPS commodities for Poland are: wheat, maize, other grains, oilseeds, sugar, milk, beef and veal, sheepmeat, pigmeat, poultry and eggs. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
Source: OECD, PSE/CSE database 2003.

Table III.37. **Poland: Main indicators by commodity**

		1991-93	2000-2002	2000	2001	2002p
Wheat	PSE (PLN mn)	116	1 058	1 063	1 004	1 106
	Percentage PSE	0	21	22	19	23
	Producer NPC	1.00	1.22	1.23	1.20	1.24
	Producer NAC	1.05	1.27	1.28	1.24	1.30
	Percentage CSE	1	-6	-8	-6	-6
	Consumer NPC	1.00	1.13	1.16	1.12	1.11
	Consumer NAC	1.00	1.07	1.08	1.06	1.06
Maize	PSE (PLN mn)	13	42	-20	46	101
	Percentage PSE	28	6	-5	8	15
	Producer NPC	1.33	1.03	0.91	1.05	1.12
	Producer NAC	1.40	1.07	0.95	1.09	1.18
	Percentage CSE	-12	1	3	0	1
	Consumer NPC	1.33	1.03	0.91	1.05	1.12
	Consumer NAC	1.15	0.99	0.97	1.00	0.99
Other grains	PSE (PLN mn)	112	444	837	275	220
	Percentage PSE	4	13	27	7	6
	Producer NPC	1.02	1.12	1.31	1.04	1.02
	Producer NAC	1.07	1.17	1.36	1.08	1.07
	Percentage CSE	0	-2	-5	-1	0
	Consumer NPC	1.02	1.12	1.31	1.04	1.02
	Consumer NAC	1.01	1.02	1.05	1.01	1.00
Rice	PSE (PLN mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds	PSE (PLN mn)	21	165	200	114	180
	Percentage PSE	9	19	25	13	20
	Producer NPC	1.07	1.19	1.28	1.10	1.19
	Producer NAC	1.12	1.24	1.33	1.14	1.25
	Percentage CSE	-3	-15	-21	-9	-16
	Consumer NPC	1.07	1.19	1.28	1.10	1.19
	Consumer NAC	1.07	1.19	1.27	1.10	1.19
Sugar	PSE (PLN mn)	121	731	939	658	595
	Percentage PSE	28	52	67	50	38
	Producer NPC	1.34	2.14	2.94	1.94	1.53
	Producer NAC	1.41	2.23	3.06	2.01	1.61
	Percentage CSE	-24	-50	-66	-48	-34
	Consumer NPC	1.34	2.14	2.94	1.94	1.53
	Consumer NAC	1.34	2.13	2.93	1.94	1.52
Milk	PSE (PLN mn)	-204	1 039	819	1 107	1 191
	Percentage PSE	-11	12	9	12	14
	Producer NPC	0.89	1.14	1.12	1.14	1.16
	Producer NAC	0.91	1.13	1.10	1.13	1.16
	Percentage CSE	15	-12	-11	-12	-13
	Consumer NPC	0.89	1.14	1.12	1.14	1.16
	Consumer NAC	0.89	1.14	1.12	1.13	1.15
Beef and Veal	PSE (PLN mn)	162	-44	-103	-23	-6
	Percentage PSE	19	-4	-9	-2	-1
	Producer NPC	1.19	1.00	1.00	1.00	1.00
	Producer NAC	1.24	0.96	0.92	0.98	0.99
	Percentage CSE	-16	0	0	0	0
	Consumer NPC	1.19	1.00	1.00	1.00	1.00
	Consumer NAC	1.19	1.00	1.00	1.00	1.00

Table III.37 **Poland: Main indicators by commodity (cont'd)**

		1991-93	2000-2002	2000	2001	2002p
Sheepmeat	PSE (PLN mn)	1	0	-1	0	0
	Percentage PSE	-2	-1	-6	0	1
	Producer NPC	0.97	1.00	1.00	1.00	1.00
	Producer NAC	1.00	0.99	0.94	1.00	1.01
	Percentage CSE	6	0	0	0	1
	Consumer NPC	0.97	1.00	1.00	1.00	1.00
	Consumer NAC	0.97	1.00	1.00	1.00	0.99
Wool	PSE (PLN mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat	PSE (PLN mn)	337	677	48	1 217	767
	Percentage PSE	10	9	1	15	10
	Producer NPC	1.11	1.13	1.10	1.18	1.11
	Producer NAC	1.13	1.10	1.01	1.17	1.11
	Percentage CSE	-8	-11	-9	-15	-10
	Consumer NPC	1.11	1.13	1.10	1.18	1.11
	Consumer NAC	1.11	1.13	1.10	1.18	1.11
Poultry	PSE (PLN mn)	322	284	254	327	270
	Percentage PSE	54	13	13	14	12
	Producer NPC	2.22	1.18	1.22	1.18	1.14
	Producer NAC	2.27	1.15	1.16	1.17	1.13
	Percentage CSE	-53	-15	-18	-15	-12
	Consumer NPC	2.22	1.18	1.22	1.18	1.14
	Consumer NAC	2.22	1.18	1.21	1.18	1.14
Eggs	PSE (PLN mn)	282	446	839	400	100
	Percentage PSE	44	23	38	24	7
	Producer NPC	1.74	1.38	1.71	1.34	1.09
	Producer NAC	1.78	1.34	1.62	1.32	1.07
	Percentage CSE	-42	-25	-41	-26	-8
	Consumer NPC	1.74	1.38	1.71	1.34	1.09
	Consumer NAC	1.74	1.38	1.70	1.34	1.09
Other commodities	PSE (PLN mn)	941	3 871	3 875	3 744	3 994
	Percentage PSE	12	15	15	15	15
	Producer NPC	1.08	1.16	1.20	1.15	1.13
	Producer NAC	1.14	1.17	1.18	1.18	1.17
	Percentage CSE	-8	-13	-16	-13	-11
	Consumer NPC	1.09	1.16	1.19	1.16	1.12
	Consumer NAC	1.09	1.15	1.19	1.15	1.12
All commodities	PSE (PLN mn)	2 224	8 713	8 750	8 869	8 519
	Percentage PSE	11	15	15	15	14
	Producer NPC	1.08	1.17	1.21	1.16	1.14
	Producer NAC	1.13	1.17	1.18	1.18	1.17
	Percentage CSE	-8	-12	-14	-13	-10
	Consumer NPC	1.09	1.16	1.19	1.16	1.12
	Consumer NAC	1.09	1.14	1.17	1.15	1.11

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

Source: OECD, PSE/CSE database 2003.

Table III.38. **Slovak Republic: Estimates of support to agriculture**
(SKK million)

	1991-93	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**46 581**	**58 720**	**52 684**	**60 262**	**63 215**
of which share of MPS commodities (%)	*73*	*76*	*74*	*78*	*77*
Total value of consumption (at farm gate)	**43 178**	**55 479**	**53 730**	**55 469**	**57 237**
Producer Support Estimate (PSE)	**15 624**	**14 356**	**16 715**	**11 223**	**15 129**
Market Price Support (MPS)	6 990	2 960	3 277	295	5 309
of which MPS commodities	*5 016*	*2 249*	*2 428*	*229*	*4 091*
Payments based on output	151	1 434	1 367	1 564	1 370
Payments based on area planted/animal numbers	4 622	5 647	7 974	4 743	4 224
Payments based on historical entitlements	0	0	0	0	0
Payments based on input use	2 013	4 157	3 932	4 467	4 072
Payments based on input constraints	48	18	25	14	14
Payments based on overall farming income	1 665	140	140	140	140
Miscellaneous payments	136	0	0	0	0
Percentage PSE	**28**	**21**	**25**	**16**	**21**
Producer NPC	**1.17**	**1.12**	**1.14**	**1.06**	**1.15**
Producer NAC	**1.40**	**1.26**	**1.34**	**1.19**	**1.26**
General Services Support Estimate (GSSE)	**2 068**	**1 956**	**1 797**	**1 715**	**2 356**
Research and development	671	517	555	555	442
Agricultural schools	600	96	147	77	65
Inspection services	508	539	390	303	924
Infrastructure	289	704	633	673	805
Marketing and promotion	0	100	72	107	120
Public stockholding	0	0	0	0	0
Miscellaneous	0	0	0	0	0
GSSE as a share of TSE (%)	**11.7**	**12.0**	**9.7**	**13.3**	**13.5**
Consumer Support Estimate (CSE)	**-5 315**	**-6 177**	**-6 078**	**-4 317**	**-8 135**
Transfers to producers from consumers	-5 346	-4 648	-4 928	-2 445	-6 571
Other transfers from consumers	-286	-171	300	-398	-414
Transfers to consumers from taxpayers	0	8	6	4	14
Excess feed cost	317	-1 366	-1 455	-1 479	-1 164
Percentage CSE	**-12**	**-11**	**-11**	**-8**	**-14**
Consumer NPC	**1.15**	**1.10**	**1.09**	**1.05**	**1.14**
Consumer NAC	**1.14**	**1.13**	**1.13**	**1.08**	**1.17**
Total Support Estimate (TSE)	**17 692**	**16 320**	**18 518**	**12 942**	**17 499**
Transfers from consumers	5 632	4 819	4 628	2 843	6 986
Transfers from taxpayers	12 346	11 672	13 590	10 497	10 928
Budget revenues	-286	-171	300	-398	-414
Percentage TSE (expressed as share of GDP)	4.23	1.65	2.04	1.31	1.65
GDP deflator 1995 = 100	80	139	133	140	144

Notes: p: provisional. Market price support is net of producer levies and excess feed costs.
MPS commodities for Slovakia are: wheat,maize, other grains, oilseeds, sugar, milk, beef and veal, pigmeat, poultry and eggs. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
Source: OECD, PSE/CSE database 2003.

Table III.39. **Slovak Republic: Main indicators by commodity**

		1991-93	2000-2002	2000	2001	2002p
Wheat	PSE (SKK mn)	1 079	151	681	-427	201
	Percentage PSE	19	3	11	-5	3
	Producer NPC	1.07	0.85	0.83	0.82	0.91
	Producer NAC	1.26	1.03	1.12	0.95	1.03
	Percentage CSE	-1	10	11	11	6
	Consumer NPC	1.07	0.85	0.83	0.82	0.91
	Consumer NAC	1.02	0.91	0.90	0.90	0.94
Maize	PSE (SKK mn)	744	-244	78	-299	-510
	Percentage PSE	29	-7	4	-11	-15
	Producer NPC	1.20	0.77	0.77	0.78	0.77
	Producer NAC	1.42	0.94	1.04	0.90	0.87
	Percentage CSE	-12	9	6	9	10
	Consumer NPC	1.20	0.77	0.77	0.78	0.77
	Consumer NAC	1.14	0.92	0.94	0.91	0.91
Other grains	PSE (SKK mn)	601	-63	94	-139	-144
	Percentage PSE	20	-1	4	-4	-3
	Producer NPC	1.10	0.82	0.77	0.83	0.85
	Producer NAC	1.28	0.99	1.04	0.96	0.97
	Percentage CSE	-4	12	16	13	8
	Consumer NPC	1.10	0.81	0.75	0.82	0.85
	Consumer NAC	1.05	0.89	0.86	0.89	0.92
Rice	PSE (SKK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds	PSE (SKK mn)	145	-207	404	-386	-640
	Percentage PSE	12	-5	15	-12	-17
	Producer NPC	1.00	0.79	0.84	0.76	0.75
	Producer NAC	1.17	0.98	1.18	0.89	0.85
	Percentage CSE	3	27	19	29	33
	Consumer NPC	1.00	0.79	0.84	0.77	0.75
	Consumer NAC	1.00	0.79	0.84	0.77	0.75
Sugar	PSE (SKK mn)	793	650	728	614	608
	Percentage PSE	59	42	54	35	38
	Producer NPC	2.10	1.47	1.63	1.34	1.43
	Producer NAC	2.52	1.77	2.16	1.54	1.61
	Percentage CSE	-21	-2	-10	4	0
	Consumer NPC	2.10	1.36	1.52	1.22	1.34
	Consumer NAC	1.26	1.03	1.11	0.96	1.00
Milk	PSE (SKK mn)	3 222	3 933	3 430	3 257	5 112
	Percentage PSE	40	31	30	26	38
	Producer NPC	1.44	1.34	1.29	1.23	1.49
	Producer NAC	1.69	1.47	1.42	1.35	1.62
	Percentage CSE	-28	-17	-14	-10	-27
	Consumer NPC	1.41	1.21	1.16	1.11	1.37
	Consumer NAC	1.41	1.21	1.16	1.11	1.36
Beef and Veal	PSE (SKK mn)	2 345	338	489	380	144
	Percentage PSE	44	10	13	13	4
	Producer NPC	1.46	1.01	1.07	1.04	0.93
	Producer NAC	1.90	1.12	1.16	1.15	1.05
	Percentage CSE	-29	-1	-6	-4	7
	Consumer NPC	1.46	1.01	1.07	1.04	0.93
	Consumer NAC	1.46	1.01	1.07	1.04	0.93

Table III.39 **Slovak Republic: Main indicators by commodity (cont'd)**

		1991-93	2000-2002	2000	2001	2002p
Sheepmeat	PSE (SKK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Wool	PSE (SKK mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat	PSE (SKK mn)	699	3 526	3 359	3 101	4 117
	Percentage PSE	8	30	30	26	35
	Producer NPC	0.92	1.40	1.38	1.31	1.50
	Producer NAC	1.10	1.44	1.43	1.35	1.53
	Percentage CSE	10	-28	-27	-23	-33
	Consumer NPC	0.92	1.39	1.38	1.30	1.50
	Consumer NAC	0.92	1.39	1.38	1.30	1.50
Poultry	PSE (SKK mn)	933	1 661	1 424	1 698	1 861
	Percentage PSE	44	37	35	35	41
	Producer NPC	1.53	1.49	1.46	1.43	1.59
	Producer NAC	1.82	1.60	1.55	1.54	1.70
	Percentage CSE	-34	-33	-31	-30	-37
	Consumer NPC	1.53	1.49	1.46	1.43	1.59
	Consumer NAC	1.53	1.49	1.46	1.43	1.59
Eggs	PSE (SKK mn)	726	721	845	616	702
	Percentage PSE	29	26	29	23	25
	Producer NPC	1.19	1.26	1.33	1.21	1.24
	Producer NAC	1.41	1.35	1.41	1.30	1.34
	Percentage CSE	-16	-21	-25	-18	-20
	Consumer NPC	1.19	1.26	1.33	1.21	1.24
	Consumer NAC	1.19	1.26	1.33	1.21	1.24
Other commodities	PSE (SKK mn)	4 336	3 889	5 183	2 805	3 679
	Percentage PSE	29	23	29	17	22
	Producer NPC	1.16	1.11	1.13	1.06	1.14
	Producer NAC	1.40	1.30	1.40	1.21	1.28
	Percentage CSE	-16	-11	-11	-7	-14
	Consumer NPC	1.15	1.10	1.09	1.05	1.14
	Consumer NAC	1.19	1.12	1.12	1.07	1.17
All commodities	PSE (SKK mn)	15 624	14 356	16 715	11 223	15 129
	Percentage PSE	28	21	25	16	21
	Producer NPC	1.17	1.12	1.14	1.06	1.15
	Producer NAC	1.40	1.26	1.34	1.19	1.26
	Percentage CSE	-12	-11	-11	-8	-14
	Consumer NPC	1.15	1.10	1.09	1.05	1.14
	Consumer NAC	1.14	1.13	1.13	1.08	1.17

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

Source: OECD, PSE/CSE database 2003.

Table III.40. **Switzerland: Estimates of support to agriculture**
(CHF million)

	1986-88	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**9 482**	**7 333**	**7 559**	**7 186**	**7 254**
of which share of MPS commodities (%)	*85*	*80*	*80*	*80*	*81*
Total value of consumption (at farm gate)	**11 624**	**8 879**	**9 270**	**8 745**	**8 623**
Producer Support Estimate (PSE)	**8 322**	**7 666**	**7 638**	**7 497**	**7 863**
Market Price Support (MPS)	6 863	4 510	4 622	4 320	4 588
of which MPS commodities	*5 805*	*3 613*	*3 680*	*3 449*	*3 710*
Payments based on output	102	355	331	381	354
Payments based on area planted/animal numbers	494	882	865	842	939
Payments based on historical entitlements	0	1 269	1 187	1 304	1 315
Payments based on input use	647	336	316	339	354
Payments based on input constraints	0	115	120	114	111
Payments based on overall farming income	0	0	0	0	0
Miscellaneous payments	216	199	197	198	203
Percentage PSE	**76**	**73**	**72**	**72**	**75**
Producer NPC	**4.56**	**2.91**	**3.00**	**2.73**	**3.00**
Producer NAC	**4.20**	**3.72**	**3.60**	**3.62**	**3.95**
General Services Support Estimate (GSSE)	**688**	**536**	**525**	**559**	**523**
Research and development	135	93	92	95	91
Agricultural schools	38	23	23	23	22
Inspection services	14	13	13	13	13
Infrastructure	137	89	80	98	90
Marketing and promotion	45	60	62	62	58
Public stockholding	103	59	59	71	47
Miscellaneous	216	199	197	198	203
GSSE as a share of TSE (%)	**6.9**	**6.3**	**6.2**	**6.7**	**6.1**
Consumer Support Estimate (CSE)	**-7 661**	**-5 302**	**-5 669**	**-5 012**	**-5 225**
Transfers to producers from consumers	-7 095	-4 610	-4 854	-4 340	-4 635
Other transfers from consumers	-1 960	-1 079	-1 264	-1 029	-943
Transfers to consumers from taxpayers	1 020	237	239	256	216
Excess feed cost	374	150	211	102	137
Percentage CSE	**-72**	**-61**	**-63**	**-59**	**-62**
Consumer NPC	**4.54**	**2.79**	**2.94**	**2.59**	**2.83**
Consumer NAC	**3.62**	**2.59**	**2.69**	**2.44**	**2.64**
Total Support Estimate (TSE)	**10 030**	**8 439**	**8 402**	**8 312**	**8 602**
Transfers from consumers	9 055	5 688	6 118	5 369	5 578
Transfers from taxpayers	2 935	3 829	3 548	3 972	3 967
Budget revenues	-1 960	-1 079	-1 264	-1 029	-943
Percentage TSE (expressed as share of GDP)	3.87	2.04	2.07	2.00	2.03
GDP deflator 1995 = 100	68	108	106	108	110

Notes: p: provisional. Market price support is net of producer levies and excess feed costs.
MPS commodities for Switzerland are: wheat, maize, other grains, oilseeds, sugar, milk, beef and veal, sheepmeat, pigmeat, poultry and eggs. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
Source: OECD, PSE/CSE database 2003.

Table III.41. **Switzerland: Main indicators by commodity**

		1986-88	2000-2002	2000	2001	2002p
Wheat	PSE (CHF mn)	442	276	346	225	256
	Percentage PSE	77	59	63	57	57
	Producer NPC	4.02	1.88	2.44	1.56	1.63
	Producer NAC	4.36	2.45	2.68	2.35	2.32
	Percentage CSE	-62	-39	-49	-34	-34
	Consumer NPC	4.02	1.88	2.44	1.56	1.63
	Consumer NAC	2.62	1.67	1.97	1.52	1.52
Maize	PSE (CHF mn)	169	84	99	71	83
	Percentage PSE	80	61	64	54	66
	Producer NPC	3.46	1.86	1.92	1.58	2.06
	Producer NAC	5.18	2.61	2.78	2.16	2.90
	Percentage CSE	-40	-14	-15	-11	-17
	Consumer NPC	3.46	1.86	1.92	1.58	2.06
	Consumer NAC	1.67	1.17	1.17	1.12	1.21
Other grains	PSE (CHF mn)	272	130	160	109	120
	Percentage PSE	85	69	75	66	67
	Producer NPC	4.53	2.26	2.66	1.99	2.13
	Producer NAC	6.55	3.30	3.95	2.90	3.06
	Percentage CSE	-46	-23	-28	-21	-21
	Consumer NPC	4.53	2.26	2.66	1.99	2.13
	Consumer NAC	1.87	1.30	1.38	1.26	1.26
Rice	PSE (CHF mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds	PSE (CHF mn)	85	91	92	82	100
	Percentage PSE	85	87	88	86	85
	Producer NPC	6.62	3.85	4.44	3.59	3.50
	Producer NAC	6.89	7.53	8.46	7.28	6.85
	Percentage CSE	-83	-73	-77	-72	-71
	Consumer NPC	6.62	3.85	4.44	3.59	3.50
	Consumer NAC	6.02	3.79	4.42	3.55	3.41
Sugar	PSE (CHF mn)	101	147	158	134	150
	Percentage PSE	74	76	78	76	73
	Producer NPC	4.51	3.42	3.80	3.38	3.09
	Producer NAC	3.87	4.19	4.65	4.20	3.72
	Percentage CSE	-67	-66	-69	-66	-62
	Consumer NPC	4.51	3.42	3.80	3.38	3.09
	Consumer NAC	3.05	2.93	3.23	2.93	2.62
Milk	PSE (CHF mn)	3 100	3 082	2 882	3 104	3 258
	Percentage PSE	82	77	75	76	80
	Producer NPC	5.90	3.26	3.08	3.08	3.62
	Producer NAC	5.51	4.36	3.92	4.17	4.99
	Percentage CSE	-76	-62	-61	-60	-67
	Consumer NPC	5.82	2.87	2.73	2.69	3.18
	Consumer NAC	4.25	2.68	2.53	2.50	2.99
Beef and Veal	PSE (CHF mn)	1 569	1 250	1 306	1 218	1 227
	Percentage PSE	78	78	78	78	77
	Producer NPC	4.40	2.94	3.21	2.93	2.70
	Producer NAC	4.78	4.49	4.56	4.61	4.29
	Percentage CSE	-75	-66	-69	-65	-63
	Consumer NPC	4.24	2.94	3.21	2.93	2.70
	Consumer NAC	4.22	2.92	3.20	2.87	2.69

Table III.41 **Switzerland: Main indicators by commodity (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Sheepmeat	PSE (CHF mn)	42	41	42	39	40
	Percentage PSE	72	56	60	54	54
	Producer NPC	5.42	2.14	2.47	1.96	1.98
	Producer NAC	3.57	2.30	2.52	2.19	2.17
	Percentage CSE	-81	-53	-59	-49	-49
	Consumer NPC	5.42	2.14	2.47	1.96	1.98
	Consumer NAC	5.41	2.13	2.47	1.96	1.98
Wool	PSE (CHF mn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat	PSE (CHF mn)	1 031	905	859	885	971
	Percentage PSE	60	65	63	63	67
	Producer NPC	3.38	2.64	2.82	2.34	2.75
	Producer NAC	2.49	2.83	2.74	2.73	3.01
	Percentage CSE	-70	-62	-64	-57	-64
	Consumer NPC	3.38	2.64	2.82	2.34	2.75
	Consumer NAC	3.36	2.63	2.81	2.33	2.75
Poultry	PSE (CHF mn)	132	191	179	194	200
	Percentage PSE	78	82	81	81	83
	Producer NPC	7.28	5.55	5.63	5.07	5.95
	Producer NAC	4.63	5.51	5.14	5.40	6.00
	Percentage CSE	-86	-82	-82	-80	-83
	Consumer NPC	7.28	5.55	5.63	5.07	5.95
	Consumer NAC	7.27	5.55	5.62	5.07	5.94
Eggs	PSE (CHF mn)	208	163	151	168	171
	Percentage PSE	80	79	76	80	81
	Producer NPC	6.41	4.14	3.92	4.10	4.39
	Producer NAC	4.97	4.79	4.19	5.03	5.16
	Percentage CSE	-84	-75	-74	-75	-77
	Consumer NPC	6.41	4.14	3.92	4.10	4.39
	Consumer NAC	6.19	4.04	3.79	4.02	4.31
Other commodities	PSE (CHF mn)	1 170	1 306	1 362	1 268	1 287
	Percentage PSE	74	70	69	69	72
	Producer NPC	4.51	2.78	2.88	2.60	2.86
	Producer NAC	3.92	3.33	3.27	3.20	3.52
	Percentage CSE	-78	-64	-66	-61	-65
	Consumer NPC	4.54	2.79	2.94	2.59	2.83
	Consumer NAC	4.54	2.79	2.94	2.59	2.83
All commodities	PSE (CHF mn)	8 322	7 666	7 638	7 497	7 863
	Percentage PSE	76	73	72	72	75
	Producer NPC	4.56	2.91	3.00	2.73	3.00
	Producer NAC	4.20	3.72	3.60	3.62	3.95
	Percentage CSE	-72	-61	-63	-59	-62
	Consumer NPC	4.54	2.79	2.94	2.59	2.83
	Consumer NAC	3.62	2.59	2.69	2.44	2.64

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

Source: OECD, PSE/CSE database 2003.

Table III.42. **Turkey: Estimates of support to agriculture**
(TRL billion)

	1986-88	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**18 179**	**28 275 488**	**19 707 660**	**26 861 614**	**38 257 190**
of which share of MPS commodities (%)	*57*	*63*	*63*	*63*	*64*
Total value of consumption (at farm gate)	**14 795**	**25 327 158**	**16 276 777**	**24 390 422**	**35 314 274**
Producer Support Estimate (PSE)	**2 721**	**5 394 453**	**4 224 064**	**2 764 990**	**9 194 306**
Market Price Support (MPS)	1 809	4 107 174	3 527 806	1 909 348	6 884 369
of which MPS commodities	*1 035*	*2 600 527*	*2 224 750*	*1 201 294*	*4 375 537*
Payments based on output	12	333 817	198 101	557 997	245 351
Payments based on area planted/animal numbers	0	0	0	0	0
Payments based on historical entitlements	0	653 667	0	83 640	1 877 360
Payments based on input use	900	299 796	498 157	214 004	187 226
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	**15**	**18**	**21**	**10**	**23**
Producer NPC	**1.15**	**1.19**	**1.25**	**1.10**	**1.23**
Producer NAC	**1.18**	**1.22**	**1.26**	**1.11**	**1.29**
General Services Support Estimate (GSSE)	**326**	**2 902 002**	**2 325 705**	**3 879 726**	**2 500 576**
Research and development	54	33 879	14 510	36 680	50 449
Agricultural schools	3	4 869	3 398	3 984	7 225
Inspection services	55	74 242	46 892	69 490	106 346
Infrastructure	7	4 595	3 095	4 729	5 960
Marketing and promotion	114	2 771 655	2 250 504	3 751 569	2 312 890
Public stockholding	0	0	0	0	0
Miscellaneous	93	12 762	7 306	13 274	17 706
GSSE as a share of TSE (%)	**10.7**	**35.0**	**35.5**	**58.4**	**21.4**
Consumer Support Estimate (CSE)	**-1 990**	**-4 055 775**	**-3 532 512**	**-1 894 430**	**-6 740 383**
Transfers to producers from consumers	-2 089	-4 054 664	-3 598 666	-1 870 852	-6 694 475
Other transfers from consumers	-33	-111 807	-133 780	-53 071	-148 571
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	132	110 697	199 934	29 494	102 663
Percentage CSE	**-14**	**-16**	**-22**	**-8**	**-19**
Consumer NPC	**1.19**	**1.21**	**1.30**	**1.09**	**1.24**
Consumer NAC	**1.17**	**1.20**	**1.28**	**1.08**	**1.24**
Total Support Estimate (TSE)	**3 047**	**8 296 455**	**6 549 769**	**6 644 715**	**11 694 882**
Transfers from consumers	2 121	4 166 472	3 732 446	1 923 923	6 843 046
Transfers from taxpayers	958	4 241 791	2 951 103	4 773 863	5 000 407
Budget revenues	-33	-111 807	-133 780	-53 071	-148 571
Percentage TSE (expressed as share of GDP)	3.58	4.17	5.26	3.56	4.09
GDP deflator 1995 = 100	1.4	2 208	1 323	2 138	3 163

Notes: p: provisional. Market price support is net of producer levies and excess feed costs.
MPS commodities for Turkey are: wheat, maize, other grains, oilseeds, sugar, milk, beef and veal, sheepmeat, poultry and eggs. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
Source: OECD, PSE/CSE database 2003.

Table III.43. **Turkey: Main indicators by commodity**

		1986-88	2000-2002	2000	2001	2002p
Wheat	PSE (TRL bn)	817	197 607	378 488	-157 257	371 592
	Percentage PSE	34	8	21	-6	10
	Producer NPC	1.36	1.07	1.19	0.92	1.10
	Producer NAC	1.57	1.11	1.27	0.94	1.11
	Percentage CSE	-22	-5	-15	8	-9
	Consumer NPC	1.36	1.07	1.19	0.92	1.10
	Consumer NAC	1.32	1.06	1.17	0.93	1.09
Maize	PSE (TRL bn)	58	38 550	65 071	20 068	30 511
	Percentage PSE	21	16	32	7	8
	Producer NPC	1.16	1.18	1.40	1.06	1.09
	Producer NAC	1.27	1.21	1.46	1.07	1.09
	Percentage CSE	-7	-5	-10	-2	-3
	Consumer NPC	1.16	1.18	1.40	1.06	1.09
	Consumer NAC	1.07	1.05	1.11	1.02	1.03
Other grains	PSE (TRL bn)	142	90 443	167 500	44 218	59 611
	Percentage PSE	28	12	27	5	5
	Producer NPC	1.34	1.13	1.30	1.04	1.05
	Producer NAC	1.46	1.16	1.37	1.05	1.05
	Percentage CSE	-3	-1	-2	0	0
	Consumer NPC	1.34	1.13	1.30	1.04	1.05
	Consumer NAC	1.03	1.01	1.02	1.00	1.00
Rice	PSE (TRL bn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Oilseeds	PSE (TRL bn)	45	67 916	73 757	71 992	58 001
	Percentage PSE	20	27	42	27	14
	Producer NPC	1.14	1.37	1.63	1.33	1.15
	Producer NAC	1.27	1.41	1.71	1.37	1.16
	Percentage CSE	-10	-26	-39	-25	-13
	Consumer NPC	1.14	1.37	1.63	1.33	1.15
	Consumer NAC	1.14	1.37	1.63	1.33	1.15
Sugar	PSE (TRL bn)	72	365 795	363 759	184 181	549 445
	Percentage PSE	23	44	56	30	46
	Producer NPC	1.10	1.78	2.19	1.37	1.79
	Producer NAC	1.31	1.85	2.28	1.42	1.85
	Percentage CSE	-9	-42	-54	-27	-44
	Consumer NPC	1.10	1.78	2.19	1.37	1.79
	Consumer NAC	1.10	1.78	2.19	1.37	1.79
Milk	PSE (TRL bn)	305	550 152	497 808	349 478	803 169
	Percentage PSE	35	32	39	22	35
	Producer NPC	1.62	1.52	1.72	1.29	1.56
	Producer NAC	1.59	1.49	1.64	1.29	1.54
	Percentage CSE	-34	-33	-41	-22	-36
	Consumer NPC	1.61	1.51	1.70	1.28	1.55
	Consumer NAC	1.61	1.51	1.70	1.28	1.55
Beef and Veal	PSE (TRL bn)	81	705 294	512 312	605 895	997 676
	Percentage PSE	16	50	55	44	52
	Producer NPC	1.21	2.08	2.31	1.79	2.13
	Producer NAC	1.21	2.02	2.20	1.79	2.09
	Percentage CSE	-14	-51	-57	-44	-53
	Consumer NPC	1.21	2.08	2.31	1.79	2.13
	Consumer NAC	1.21	2.08	2.31	1.79	2.13

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Table III.43 **Turkey: Main indicators by commodity (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Sheepmeat	PSE (TRL bn)	79	-47 909	125 816	-112 748	-156 795
	Percentage PSE	12	-3	21	-15	-15
	Producer NPC	1.17	1.01	1.27	0.87	0.88
	Producer NAC	1.14	1.00	1.27	0.87	0.87
	Percentage CSE	-14	3	-21	15	14
	Consumer NPC	1.17	1.01	1.27	0.87	0.88
	Consumer NAC	1.17	1.01	1.27	0.87	0.88
Wool	PSE (TRL bn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Pigmeat	PSE (TRL bn)	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage PSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Producer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
	Percentage CSE	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NPC	n.c.	n.c.	n.c.	n.c.	n.c.
	Consumer NAC	n.c.	n.c.	n.c.	n.c.	n.c.
Poultry	PSE (TRL bn)	81	205 969	177 463	128 324	312 120
	Percentage PSE	25	24	30	15	27
	Producer NPC	1.11	1.37	1.52	1.19	1.41
	Producer NAC	1.33	1.33	1.44	1.18	1.37
	Percentage CSE	-10	-26	-34	-16	-29
	Consumer NPC	1.11	1.37	1.52	1.19	1.41
	Consumer NAC	1.11	1.37	1.52	1.19	1.41
Eggs	PSE (TRL bn)	44	153 606	120 401	151 602	188 815
	Percentage PSE	16	30	35	28	28
	Producer NPC	1.14	1.54	1.78	1.41	1.45
	Producer NAC	1.19	1.44	1.54	1.39	1.39
	Percentage CSE	-12	-34	-44	-29	-31
	Consumer NPC	1.14	1.54	1.78	1.41	1.45
	Consumer NAC	1.14	1.54	1.78	1.41	1.45
Other commodities	PSE (TRL bn)	996	3 067 028	1 741 688	1 479 235	5 980 162
	Percentage PSE	9	15	13	8	22
	Producer NPC	1.11	1.14	1.14	1.07	1.19
	Producer NAC	1.10	1.18	1.15	1.09	1.29
	Percentage CSE	-13	-12	-15	-4	-17
	Consumer NPC	1.15	1.14	1.18	1.05	1.21
	Consumer NAC	1.15	1.14	1.18	1.05	1.21
All commodities	PSE (TRL bn)	2 721	5 394 453	4 224 064	2 764 990	9 194 306
	Percentage PSE	15	18	21	10	23
	Producer NPC	1.15	1.19	1.25	1.10	1.23
	Producer NAC	1.18	1.22	1.26	1.11	1.29
	Percentage CSE	-14	-16	-22	-8	-19
	Consumer NPC	1.19	1.21	1.30	1.09	1.24
	Consumer NAC	1.17	1.20	1.28	1.08	1.24

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

Source: OECD, PSE/CSE database 2003.

Table III.44. **United States: Estimates of support to agriculture**
(USD million)

	1986-88	2000-2002	2000	2001	2002p
Total value of production (at farm gate)	**143 469**	**195 753**	**189 318**	**197 037**	**200 903**
of which share of MPS commodities (%)	*69*	*65*	*65*	*67*	*64*
Total value of consumption (at farm gate)	**134 717**	**181 732**	**175 657**	**183 885**	**185 654**
Producer Support Estimate (PSE)	**41 831**	**46 972**	**49 673**	**51 683**	**39 559**
Market Price Support (MPS)	19 525	16 630	14 784	19 803	15 304
of which MPS commodities	*13 478*	*10 869*	*9 599*	*13 217*	*9 791*
Payments based on output	2 919	7 345	10 226	9 431	2 379
Payments based on area planted/animal numbers	11 313	2 461	3 491	1 925	1 967
"Counter cyclical payments"	0	584	0	0	1 753
Payments based on historical entitlements	0	8 527	10 530	8 740	6 312
Payments based on input use	6 526	7 264	6 986	7 497	7 308
Payments based on input constraints	637	1 917	1 778	1 924	2 047
Payments based on overall farming income	912	2 244	1 877	2 364	2 489
Percentage PSE	**25**	**21**	**22**	**23**	**18**
Producer NPC	**1.19**	**1.13**	**1.14**	**1.16**	**1.10**
Producer NAC	**1.34**	**1.26**	**1.28**	**1.29**	**1.21**
General Services Support Estimate (GSSE)	**15 233**	**24 297**	**22 183**	**24 116**	**26 594**
Research and development	1 457	2 453	2 235	2 410	2 714
Agricultural schools	n.a.	n.a.	n.a.	n.a.	n.a.
Inspection services	384	706	670	683	765
Infrastructure	3 027	2 988	2 577	3 548	2 838
Marketing and promotion	9 266	15 938	14 489	15 261	18 063
Public stockholding	0	76	75	76	77
Miscellaneous	1 098	2 137	2 137	2 137	2 137
GSSE as a share of TSE (%)	**22.2**	**26.0**	**23.9**	**24.7**	**29.5**
Consumer Support Estimate (CSE)	**-8 778**	**3 800**	**4 703**	**-149**	**6 845**
Transfers to producers from consumers	-19 033	-16 627	-14 782	-19 794	-15 304
Other transfers from consumers	-1 507	-1 808	-1 455	-1 997	-1 971
Transfers to consumers from taxpayers	11 468	22 235	20 941	21 643	24 120
Excess feed cost	294	0	0	0	0
Percentage CSE	**-7**	**2**	**3**	**0**	**4**
Consumer NPC	**1.19**	**1.11**	**1.10**	**1.13**	**1.10**
Consumer NAC	**1.08**	**0.98**	**0.97**	**1.00**	**0.96**
Total Support Estimate (TSE)	**68 532**	**93 504**	**92 797**	**97 442**	**90 273**
Transfers from consumers	20 540	18 435	16 237	21 792	17 275
Transfers from taxpayers	49 499	76 877	78 015	77 648	74 969
Budget revenues	-1 507	-1 808	-1 455	-1 997	-1 971
Percentage TSE (expressed as share of GDP)	1.44	0.92	0.94	0.97	0.87
GDP deflator 1995 = 100	79	111	109	112	113

Notes: p: provisional. Market price support is net of producer levies and excess feed costs.
MPS commodities for the United States are: wheat, maize, other grains, rice, oilseeds, sugar, milk, beef and veal, sheepmeat, wool, pigmeat, poultry and eggs. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
Source: OECD, PSE/CSE database 2003.

Table III.45. **United States: Main indicators by commodity**

		1986-88	2000-2002	2000	2001	2002p
Wheat	PSE (USD mn)	4 801	3 993	5 388	3 980	2 611
	Percentage PSE	49	40	48	42	30
	Producer NPC	1.33	1.06	1.14	1.04	1.01
	Producer NAC	2.06	1.69	1.92	1.73	1.43
	Percentage CSE	3	22	23	24	18
	Consumer NPC	1.20	1.00	1.00	1.00	1.00
	Consumer NAC	0.98	0.82	0.81	0.81	0.85
Maize	PSE (USD mn)	8 239	6 799	9 268	6 550	4 579
	Percentage PSE	38	26	34	26	17
	Producer NPC	1.13	1.08	1.15	1.07	1.01
	Producer NAC	1.64	1.36	1.51	1.35	1.21
	Percentage CSE	14	22	23	23	21
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	0.88	0.82	0.81	0.82	0.83
Other grains	PSE (USD mn)	1 307	975	1 264	1 005	654
	Percentage PSE	40	38	45	39	30
	Producer NPC	1.35	1.04	1.10	1.02	1.01
	Producer NAC	1.73	1.63	1.81	1.65	1.43
	Percentage CSE	3	20	18	20	24
	Consumer NPC	1.23	1.00	1.00	1.00	1.00
	Consumer NAC	0.97	0.83	0.85	0.83	0.81
Rice	PSE (USD mn)	868	924	886	995	891
	Percentage PSE	52	50	45	53	52
	Producer NPC	1.45	1.77	1.58	1.86	1.87
	Producer NAC	2.21	2.01	1.83	2.12	2.09
	Percentage CSE	15	26	22	26	29
	Consumer NPC	1.01	1.00	1.00	1.00	1.00
	Consumer NAC	0.87	0.80	0.82	0.80	0.77
Oilseeds	PSE (USD mn)	892	3 824	4 849	4 522	2 101
	Percentage PSE	8	22	28	26	13
	Producer NPC	1.01	1.20	1.29	1.29	1.01
	Producer NAC	1.08	1.30	1.39	1.36	1.14
	Percentage CSE	2	4	4	4	4
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	0.98	0.96	0.96	0.96	0.96
Sugar	PSE (USD mn)	1 153	1 223	1 204	1 287	1 176
	Percentage PSE	58	55	53	58	55
	Producer NPC	2.31	2.07	1.95	2.22	2.04
	Producer NAC	2.46	2.24	2.11	2.40	2.20
	Percentage CSE	-65	-58	-54	-61	-58
	Consumer NPC	3.18	2.73	2.49	2.96	2.73
	Consumer NAC	2.96	2.39	2.18	2.59	2.41
Milk	PSE (USD mn)	11 641	11 252	9 715	14 114	9 927
	Percentage PSE	60	48	44	53	46
	Producer NPC	2.59	1.82	1.71	2.01	1.74
	Producer NAC	2.64	1.92	1.80	2.12	1.84
	Percentage CSE	-54	-35	-32	-42	-32
	Consumer NPC	2.59	1.80	1.70	1.96	1.74
	Consumer NAC	2.36	1.56	1.47	1.73	1.46
Beef and Veal	PSE (USD mn)	1 456	1 516	1 427	1 670	1 451
	Percentage PSE	6	5	4	5	5
	Producer NPC	1.02	1.00	1.00	1.00	1.00
	Producer NAC	1.06	1.05	1.05	1.05	1.05
	Percentage CSE	5	10	9	9	11
	Consumer NPC	1.02	1.00	1.00	1.00	1.00
	Consumer NAC	0.96	0.91	0.92	0.92	0.90

Table III.45 **United States: Main indicators by commodity (cont'd)**

		1986-88	2000-2002	2000	2001	2002p
Sheepmeat	PSE (USD mn)	27	65	63	66	65
	Percentage PSE	6	18	16	19	19
	Producer NPC	1.01	1.17	1.14	1.18	1.18
	Producer NAC	1.06	1.22	1.19	1.24	1.24
	Percentage CSE	-1	-9	-9	-9	-9
	Consumer NPC	1.01	1.10	1.10	1.10	1.10
	Consumer NAC	1.01	1.10	1.10	1.10	1.10
Wool	PSE (USD mn)	82	1	1	1	1
	Percentage PSE	49	5	5	5	5
	Producer NPC	1.01	1.02	1.02	1.02	1.02
	Producer NAC	2.16	1.05	1.05	1.05	1.05
	Percentage CSE	-1	-2	-2	-2	-2
	Consumer NPC	1.01	1.02	1.02	1.02	1.02
	Consumer NAC	1.01	1.02	1.02	1.02	1.02
Pigmeat	PSE (USD mn)	401	473	476	527	415
	Percentage PSE	4	4	4	4	5
	Producer NPC	1.00	1.00	1.00	1.00	1.00
	Producer NAC	1.04	1.05	1.04	1.05	1.05
	Percentage CSE	10	23	19	19	30
	Consumer NPC	1.00	1.00	1.00	1.00	1.00
	Consumer NAC	0.91	0.82	0.84	0.84	0.77
Poultry	PSE (USD mn)	1 147	836	753	934	823
	Percentage PSE	13	4	4	5	5
	Producer NPC	1.11	1.00	1.00	1.00	1.00
	Producer NAC	1.16	1.05	1.04	1.05	1.05
	Percentage CSE	-1	10	10	9	12
	Consumer NPC	1.11	1.00	1.00	1.00	1.00
	Consumer NAC	1.01	0.91	0.91	0.92	0.90
Eggs	PSE (USD mn)	294	204	191	205	215
	Percentage PSE	9	4	4	4	5
	Producer NPC	1.06	1.00	1.00	1.00	1.00
	Producer NAC	1.10	1.05	1.04	1.05	1.05
	Percentage CSE	1	10	9	9	10
	Consumer NPC	1.06	1.00	1.00	1.00	1.00
	Consumer NAC	0.99	0.91	0.92	0.91	0.91
Other commodities	PSE (USD mn)	9 525	14 889	14 187	15 828	14 651
	Percentage PSE	20	20	20	22	18
	Producer NPC	1.17	1.13	1.13	1.16	1.10
	Producer NAC	1.25	1.25	1.24	1.28	1.22
	Percentage CSE	-6	3	4	1	4
	Consumer NPC	1.19	1.11	1.10	1.13	1.10
	Consumer NAC	1.07	0.97	0.96	0.99	0.96
All commodities	PSE (USD mn)	41 831	46 972	49 673	51 683	39 559
	Percentage PSE	25	21	22	23	18
	Producer NPC	1.19	1.13	1.14	1.16	1.10
	Producer NAC	1.34	1.26	1.28	1.29	1.21
	Percentage CSE	-7	2	3	0	4
	Consumer NPC	1.19	1.11	1.10	1.13	1.10
	Consumer NAC	1.08	0.98	0.97	1.00	0.96

Notes: p: provisional; n.c.: not calculated; PSE: Producer Support Estimate.

CSE: Consumer Support estimate. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

The PSE/CSE for "other commodities" is the residual of the PSE/CSE for all commodities minus the PSE/CSE for the commodities listed above.

Source: OECD, PSE/CSE database 2003.

Table III.46. **Change in producer support estimate (PSE) 2001 to 2002: Contribution of Market Price Support (MPS) and Budgetary Payments (BP)**

	PSE*	MPS	BP	PAYMENTS BASED ON						
				Output	Area or Numbers	Historical Entitlement	Input Use	Input Constraint	Farm Income	Misc.
	% change	contribution, ie. % change in PSE if all other variables are held constant								
Australia	**15.9**	-0.3	16.1	0.0	0.0	0.0	17.5	0.0	-1.4	0.0
Canada	**17.2**	6.1	11.1	-2.1	8.8	1.7	-0.7	0.0	2.7	0.6
Czech Republic	**6.1**	19.4	-13.3	0.0	-11.9	0.0	-1.4	0.1	-0.2	0.0
European Union	**8.9**	7.6	1.3	-0.4	0.2	0.0	0.3	1.0	0.0	0.2
Hungary	**38.1**	38.8	-0.7	1.9	0.1	0.0	-3.0	0.3	0.0	0.0
Iceland	**6.0**	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Japan	**-0.3**	0.2	-0.5	-0.3	0.0	0.0	-0.2	0.0	0.0	0.0
Korea	**5.3**	1.7	3.5	0.0	0.9	0.0	1.2	0.0	1.5	0.0
Mexico	**14.9**	11.7	3.1	-2.2	4.6	2.1	-2.7	0.0	1.3	0.0
New Zealand	**143.3**	150.3	-7.0	0.0	0.0	0.0	-6.7	0.0	-0.2	0.0
Norway	**9.3**	7.6	1.7	0.2	0.1	0.0	-0.6	1.8	0.3	0.0
Poland	**-3.9**	-12.6	8.6	3.5	-1.2	0.0	5.4	0.0	0.0	0.9
Slovak Republic	**34.8**	44.7	-9.9	-1.7	-4.6	0.0	-3.5	0.0	0.0	0.0
Switzerland	**4.9**	3.6	1.3	-0.4	1.3	0.1	0.2	0.0	0.0	0.1
Turkey	**232.5**	179.9	52.6	-11.3	0.0	64.9	-1.0	0.0	0.0	0.0
United States	**-23.5**	-8.7	-14.8	-13.6	3.5	-4.7	-0.4	0.2	0.2	0.0
OECD**	**2.0**	3.7	-1.8	-3.5	1.2	-0.3	0.1	0.5	0.3	0.1

* Percent changes in national currency

** Percent changes in national currency weighted by value of PSE in the previous year -NOT equivalent to the variation in OECD PSE in any common currency.

Source: OECD, PSE/CSE database, 2003.

Table III.47. **Change in Market Price Support (MPS) 2001 to 2002: Contribution of its elements**

	MPS*	Quantity	Unit MPS	Producer Price	Excess Feed Cost	World Price	Exchange Rate	World Price (USD)
	% change	contribution, ie. % change in MPS if all other variables are held constant						
Australia	**-72.7**	-67.2	-5.5	-279.6	0.0	274.1	154.8	119.3
Canada	**9.0**	-0.8	9.8	-1.7	0.0	11.5	-2.6	14.0
Czech Republic	**25.2**	4.8	20.4	-65.6	-6.1	92.1	74.4	17.7
European Union	**13.9**	1.8	12.1	-13.1	0.5	24.6	12.9	11.7
Hungary	**87.3**	19.6	67.7	-16.3	-21.4	105.4	91.4	13.9
Iceland	**13.3**	0.0	13.3	0.0	0.0	13.3	9.1	4.2
Japan	**0.4**	0.3	0.1	0.1	0.0	0.0	-2.1	2.1
Korea	**-1.1**	-8.2	7.1	-0.2	0.0	7.4	1.8	5.6
Mexico	**20.3**	2.2	18.1	2.2	1.0	14.9	-15.7	30.6
New Zealand	**363.9**	2.8	361.1	15.1	0.0	346.0	118.7	227.3
Norway	**17.8**	-0.1	18.0	6.9	-1.9	13.0	11.2	1.8
Poland	**-21.7**	5.5	-27.3	-92.3	3.6	61.4	2.7	58.7
Slovak Republic	**1688.3**	-119.4	1807.7	79.9	169.7	1558.2	1330.5	227.7
Switzerland	**7.6**	2.3	5.3	-0.3	-0.7	6.3	4.9	1.4
Turkey	**264.2**	22.8	241.5	504.1	-5.5	-257.2	-298.6	41.4
United States	**-25.9**	1.1	-27.0	-53.9	0.0	26.9	0.0	26.9
OECD**	**5.6**	-0.1	5.6	-6.7	0.1	12.2	2.1	10.2

* Percent changes in national currency

** Percent changes in national currency weighted by value of MPS in the previous year -NOT equivalent to the variation in OECD MPS in any common currency.

Source: OECD, PSE/CSE database, 2003.

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Glossary

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, "Contract crops" in the United States), 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.

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. Contrast with *Specific-rate tariff*.

Agenda 2000 (EU):
A package of measures, involving changes to common EU policies, including the *CAP*, for the 2000-06 period agreed by EU Heads of State at the March 1999 European Summit in Berlin. The other elements of the Agenda 2000 package deal mainly with a framework for new quinquennial structural programmes, specific measures for candidate countries to EU accession and budgetary discipline. The agreement is based on proposals by the European Commission put forward in March 1998.

***Aggregate Measurement of Support*, AMS**:
The indicator on which the domestic support discipline for the *Uruguay Round Agreement on Agriculture* is based. It is determined by calculating a market price support estimate for each commodity receiving such support, plus non-exempt direct payments or any other subsidy not exempted from reduction commitments, less specific agricultural levies or fees paid by producers. It differs from the *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*, 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 12 applicants: Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovak Republic 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 *land 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 South-East 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.

***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 *land set-aside* which increases the level of mandatory set-aside during the following year.

Basic price (EU):
It provides a reference point for the triggering of intervention measures. It is set in the same way as the *target price* in the sheep, goat, pig and sugar beet sectors. It is adjusted on a seasonal basis in the sheep and goat sector.

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)*.

***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 Nominal Assistance Coefficient (NACc):
an indicator of the nominal rate of assistance to consumers measuring the ratio between the value of consumption expenditure on agricultural commodities domestically produced including support to producers and that valued at world market prices without support to consumers.

Consumer Nominal Protection Coefficient (NPCc):
an indicator of the nominal rate of protection for consumers measuring the ratio between the average price paid by consumers (at farm gate) and the border price (measured at farm gate level).

***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 (first consumer) 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 transfers from consumers 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.

Creutzfeldt-Jakob Disease (CJD):
A rare but fatal brain disease with unusually long incubation periods (measured in years) and which usually strikes people over 65. Its cause is currently unknown. Surveillance of CJD in the UK was reinstituted in 1990 after the outbreak of bovine spongiform encephalopathy (*BSE* or "mad cow disease") in cattle, to see if there was a link between the two. In 1996, the British government announced a possible link, prompted by the discovery of several atypical cases of CJD in Great Britain. In contrast to the classic form of CJD, the new variant form predominantly affects younger persons and has atypical clinical features. This new variant of CJD raises the possibility that they are causally linked to BSE.

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.

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.

Euro (EU):
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. It has two sections: the EAGGF Guarantee section and the EAGGF Guidance section. The EAGGF Guarantee finances the expenditure of the common organisations of the market (the measures intended to regularise the agricultural markets and the refunds for exports to third countries). Depending on the products, the operations may take the form of intervention prices, production aid or premiums, compensatory aid for withdrawal of products from the market or storage aid. It also provides the financing for non-Objective 1 rural development activities, with the exception of the EU rural development initiative (LEADER PLUS), specific veterinary measures, plant health measures and information campaigns relating to CAP. With Agenda 2000, the EAGGF Guarantee Section has become almost the only source of funding for agricultural expenditure. The EAGGF Guidance Section finances rural development measures covered by activities under *Objective 1* and the EU rural development initiative (LEADER PLUS). 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 also *Agri-monetary system* and *euro*.

***European Economic Area* (EEA)**:
An 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 credits:
Government financial support, direct financing, guarantees, insurance or interest rate support provided to foreign buyers to assist in the financing of the purchase of goods from national exporters.

Export refunds (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* refunds and the US Export Enhancement Program. Export subsidies are now subject to value and volume restrictions under the *Uruguay Round Agreement on Agriculture*.

FAIR Act (United States):
Federal Agriculture Improvement and Reform Act of 1996 (1996 Farm Act). This legislation replaced the 1990 Farm Act and governs almost all aspects of food and agriculture policy during the period 1996-2002, and was replaced by the 2002 Farm Act (See *FSRI Act*).

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.

Foot and Mouth Disease, FMD:
A highly infectious viral disease that affects mainly cloven-hoofed ruminants such as cattle, sheep, pigs, goats and deer. The symptoms are fever and blister-like sores in mainly the mouth and feet areas, and although death is not usual, effected animals stop gaining weight, and the yield of dairy cattle falls. FMD does not usually pose a health risk to humans. It can spread rapidly if uncontrolled as it is easily transmitted on clothes, vehicle tires and even the wind.

FSRI Act (United States):
Farm Security and Rural Investment Act of 2002 (2002 Farm Act). This legislation replaced the 1996 Farm Act and governs almost all aspects of food and agriculture policy during the period 2002-2007 (See *FAIR Act*).

***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 disagreggated 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**:
A plant or animal micro-organism or virus, which has been genetically engineered or modified.

***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.

***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.

In-quota tariff:
The tariff applied on imports within a *tariff-rate quota*. The in-quota tariff is less than the *over-quota tariff*. ***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).

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* or sold on the world market with the aid of *export subsidies*.

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 and Slovak Republics, 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. See also *Market Price Support*.

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 producing *programme crops*. 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:
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 for agricultural products:
The term covers tariffs and tariff quotas negotiated during the Uruguay Round negotiations.

****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 *producer prices* and *reference 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 (*levies on output*). 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% 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 of aid (EU):
With effect from 1 January 2000, EU member States may decide to reduce direct aid (by a maximum of 20%) in cases where: the labour employed in the holding falls below a threshold set by national authorities; the overall prosperity of the holding is above certain limit; and the total payments granted under support schemes exceed a limit which is also set at national level. The savings which result and those from cross-compliance (observance of environmental criteria) may be used by the member State to supplement EU funding for early retirement measures, payments for less favoured areas and areas subject to environmental restrictions, agri-environmental provisions, afforestation and rural development.

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.

Nominal Assistance Coefficient (NAC):
See *Consumer Nominal Assistance Coefficient* and *Producer Nominal Assistance Coefficient*.

Nominal Protection Coefficient (NPC):
See *Consumer Nominal Protection Coefficient* and *Producer Nominal Protection Coefficient*.

Non-recourse loan (United States):
The major instrument used by the Commodity Credit Corporation to support the price of *programme crops*. 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, 2 and 3 (EU):
Priority objectives for allocating structural funds for the 2004-06 period. Objective 1 seeks to promote the development and adjustment of regions whose development is lagging behind (defined as those areas with a GDP of less than 75% of the EU average) including sparsely populated regions (defined as the regions north of the 62nd parallel with population density less than 8 inhabitants per $km^{2)}$in Finland and Sweden which were eligible to receive Objective 6 funding for 1995-99. Objective 2 supports economic and social conversion in areas in structural difficulties. A maximum 18% of the EU's population is covered by this Objective, of whom 5% in rural areas. Objective 3 seeks to support the adjustment and modernisation of education, training and employment policies. It applies outside Objective 1 regions. In addition, there are four EU initiatives: INTERREG (transfrontier, transnational and interregional co-operation); EQUAL (transnational co-operation to combat discrimination and inequality on the labour market); LEADER (rural development); URBAN (economic and social renewal of towns and urban areas in crisis to encourage sustainable development). 69.7% of the

structural funds' funding is allocated to Objective 1, 11.5% to Objective 2, 12.3% to Objective 3 and 5% to EU initiatives.

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.

Over-quota tariff:
The tariff applied on imports in excess of the *tariff-rate quota* volume. The over-quota tariff is greater than the *in-quota tariff*. 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 tariff-rate quota level, or both.

Private storage (EU):
This measure, which aims to stabilise the market, requires the establishment of a storage contract, concluded with the intervention board of the EU member State concerned. The amount of payment takes into account the storage costs and the foreseeable trend in prices of the product in question. It applies to cereals, sugar, milk and dairy products, isoglucose, wine, sheepmeat, goatmeat, pigmeat, textile plants and silkworms. In the beef and veal sector after 1 July 2002 the decision to grant such aid may be made when the average price on the EU market is likely to remain less than 103% of the *basic price*.

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 Nominal Assistance Coefficient (NACp)***:
An indicator of the nominal rate of assistance to producers measuring the ratio between the value of gross farm receipts including support and gross farm receipts valued at world market prices without support.

****Producer Nominal Protection Coefficient (NPCp)***:
An indicator of the nominal rate of protection for producers measuring the ratio between the average price received by producers (at farm gate), including payments per tonne of current output, and the border price (measured at farm gate level).

****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 the federal *loan rate* programme. These crops are wheat, corn (maize), barley, grain sorghum, oats, rye, extra-long staple and upland cotton, rice, soyabeans, tobacco, peanuts (groundnuts) and sugar.

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 used for calculating the *market price support* price gap, measured at the farmgate level. 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 Accession Programme for Agriculture and Rural Development (SAPARD) (EU, Czech Republic, Hungary, Poland, Slovakia):
A programme created by the EU to support the efforts of the Central and Eastern European candidate countries to prepare for participation in the common agricultural policy and the single market in the pre-accession period. The programme involves delegating the responsibility for managing EU funds for rural development and decentralised programmes to the candidate countries. The Regulation on SAPARD implementation, adopted by the Commission in 1999, sets out the conditions and areas for assistance, including investment in agricultural holdings and processing and marketing of products. The Programme is co-financed by the EU and the candidate countries. The annual EU budget during the programme's seven-year run (2000-06) is EUR 520 million.

Special [Agricultural] Safeguard SSG:
A provision 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. It allows WTO Members to impose additional tariffs on agricultural products if their import volume exceeds defined trigger levels or if prices fall below specified trigger level. 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. 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 *tariff* that is levied at a specific rate per physical unit of the particular item (*e.g.* USD 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 Agricultural Intervention Fund (SAIF) (Czech Republic):
SAIF was created in 2000 to replace the *State Fund for Market Regulation (SFMR)*, which had operated since 1992. In addition to regulating markets (through direct intervention in the domestic market and export refunds), the new legislation gives *SAIF* the power to introduce production quotas, set-aside schemes and to provide direct payments to producers.

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 three priority objectives, two regional and a horizontal objective for human resources (see *Objectives 1, 5a, 5b and 6*).

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 *buy-out schemes* and *land, 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, a non-binding target price is set annually for milk to provide market guidance. In the United States, target prices for wheat, maize, sorghum, barley, oats, rice and cotton were abolished by the 1996 FAIR Act and reintroduced by the 2002 FSRI Act for the same commodities plus oilseeds and peanuts.

Tariff:
A duty (or tax) imposed on commodity imports. A tariff may be a specific rate per unit of product imported (*specific-rate tariff*), a fixed percentage of value (*ad valorem tariff*), or a combination of both.

Tariffication:
The conversion to tariff equivalents of non-tariff trade measures applying to particular products 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:
Quantitative limit (quota) on imported goods, above which a higher *tariff* rate is applied. A lower *tariff* rate applies to any imports below the quota amount. Imports above this specified quantity face a higher tariff rate.

****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.

***Uruguay Round Agreement on Agriculture,* URAA**:
The Agreement on Agriculture that was negotiated in the Uruguay Round and ratified in 1994. The URAA contains commitments in the areas of *market access*, domestic support (see *AMS*) and *export subsidies*, and general provisions concerning monitoring and continuation. Reduction commitments are implemented over the period 1995-2000 for developed countries and over 1995-2004 for developing countries.

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. Its main objectives include: *(i)* to administer trade agreements; *(ii)* to act as a forum for trade negotiations; *(iii)* to settle trade disputes; *(iv)* to review national trade policies; and *(v)* to assist developing countries in trade policy issues.

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