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Agricultural Policies in OECD Countries
At a Glance 2008

Chapter 1

Evaluation of Support Policy Developments

This chapter provides an overview of developments in agricultural support in OECD countries. It first sets out the general macroeconomic and market context in which agricultural policies operated. Recent major changes and new initiatives in agricultural policies in OECD countries are highlighted. Estimated support is then evaluated in terms of developments in its level and composition. Changes over time, both in the short term (2007 compared to 2006) and over the longer term (the 2005-07 average compared to the 1986-88 base period) are analysed. Finally, some conclusions are drawn about the progress in agricultural reform being made in OECD countries.

Key economic and market developments

Economic growth slowed down…

Economic growth in the OECD area slowed in 2007 as a result of developments in financial and housing markets and the increase in commodity prices. Fortunately, high employment, high profits and strong company balance sheets and buoyant world trade helped to maintain above-trend growth in spite of the adverse conditions. The recent shocks are, nevertheless, expected to slow growth further in the OECD area during 2008 (OECD, 2007a).

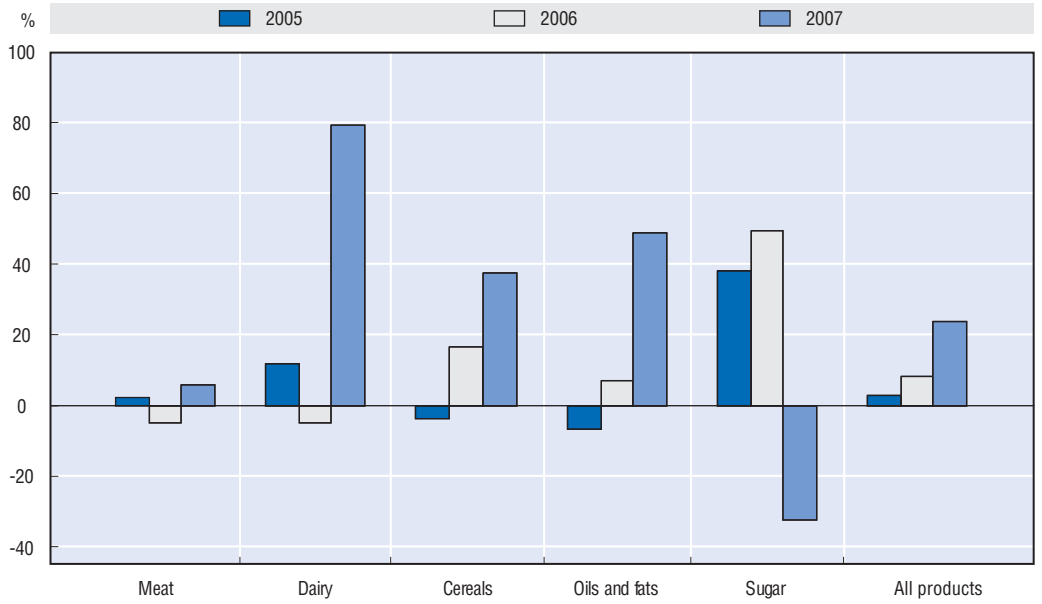
… and inflation was largely driven by rises in energy and food prices

In 2007, the rate of consumer price inflation for the OECD area as a whole remained nearly unchanged from the previous year level (2.5%, year-on-year). Food prices paid by final consumers, however, increased more strongly – by 3.6% – the highest rate observed since 2001, with many OECD countries registering annual increases above 4.0%. Together with energy, food prices were the key drivers of overall inflation. Rapid increases in food prices became a global phenomenon in 2007, which carried into 2008 – many non-OECD economies saw even steeper price rises, and some, in particular food importers, experienced considerable difficulties, facing shortages and price hikes for main food staples.

World agricultural markets saw the strongest price hikes…

Food price inflation reflected, in part, strong developments in prices in world agricultural markets. Prices of key commodities moved to or above previous record levels in 2007 in nominal terms (although in real terms prices were considerably lower than in the 1970s). Dairy, cereal and vegetable oil prices showed the strongest increases (Figure 1.1). Sugar was the only important exception with declining prices. Strong hikes in world agricultural prices occurred when longer term market trends driving prices up coincided with temporary tightening of supply in key markets. This had already begun to be felt in the previous two years, but manifested itself most strongly in 2007. Rapid growth in consumption in emerging economies, especially in China and India, was one long-term driver increasing demand for agricultural commodities. For cereal and oilseed markets, expansion of the biofuel sector, driven by policies encouraging production and consumption of biofuels, was an additional factor boosting demand. Speculative activity has also played a role. Supply, on the other hand, was dampened by rising energy and transport costs. Below average harvests and crop failures in the largest world cereal exporters in 2006 and 2007 also tightened supplies; the ratio of world grain stocks to utilisation fell well below the levels observed at the beginning of the decade. The result was a strong surge in grain prices – with knock-on effects on livestock prices through increased cost of animal feed. These world market developments dominated the overall context in which agricultural policies operated in 2007 (OECD-FAO, 2008 and FAO, 2007).

Figure 1.1. **Annual changes in world agricultural prices**



Note: Calculated on the basis of FAO's indices of world prices for key commodity groups, representing in total 55 principal international price quotations; growth rate for all products is calculated on the basis of FAO's Food Price Index, which is the weighted average of the indicated commodity group indices.

Source: FAO 2008.

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Main changes in agricultural policies

No major changes occurred on the agricultural policy scene in 2007. Some OECD countries were contemplating future policy directions for the mid-term, while others implemented major reforms agreed to previously. Natural disasters and animal disease continued to preoccupy producers and governments in some regions, but in most cases problems were not on the scale of previous years and were mostly tackled with no recourse to extraordinary measures. Although some progress has been achieved in the WTO negotiations, full international agreement and possible related domestic policy adjustments have been postponed for the future.

Some countries defined new agricultural legislation…

The ***United States*** continued intense discussions on the new *Farm Bill* in 2007. The Food, Conservation, and Energy Act of 2008 passed Congress in May 2008, although its legal status remained unresolved by early June as a result of circumstances surrounding the bill's enrollment. When enrolled, the 2008 Act will succeed the 2002 Act. ***Switzerland*** adapted its law on agricultural policy to cover the period up to 2011, stipulating further re-orientation of support from market interventions to direct payments. ***Canada*** introduced the *Growing Forward* initiative in place of the previous Agricultural Policy Framework, which, among other elements, refines and simplifies the main risk-management programmes. In ***Norway***, the *Agricultural Agreement* was concluded between the government and farmer organisations, setting new parameters of support for 2007-08, including the levels of target prices and direct payments.

… while others continued to implement major reforms agreed recently…

The ***European Union*** (EU) pursued policy changes agreed under the 2003 and subsequent reforms of the Common Agricultural Policy (CAP). The single payment scheme, applied in EU15 countries, was extended to Slovenia and Malta. Bulgaria and Romania implemented the single area payment scheme (SAPS), as in the other new member states. Implementation of the sugar reform continued and agreement was reached on reforms of the wine and fruit and vegetable sectors. Discussion on the *Health Check* of recent CAP reforms was launched at the end of 2007. ***Japan*** introduced new direct payments under the 2007 law on farm income stabilisation in a move towards re-instrumentation of support. The new payments are targeted to larger producers and allow greater flexibility in production choices to those receiving this support. Administered prices for wheat and barley were also abolished following the abolition of the administered price for rice a few years earlier. ***Korea*** was in the third year of implementation of the new system of direct support in the rice sector, which replaced the previous heavily interventionist regime of administered pricing. A move towards direct support continued in ***Iceland***'s milk sector, where output payments are being gradually replaced by headage payments.

Policies were further oriented towards broad environmental and social objectives

New policy measures to strengthen the viability of rural areas, improve environmental performance, and to address animal welfare, food quality and other societal concerns continued to emerge in policy packages in many countries. ***EU*** member states prepared *Rural Development Plans* for 2007-13, which were approved by the European Commission by April 2008. A total of EUR 88.3 billion of EU funds was unlocked for the seven-year period, for improving the sector's competitiveness, environmental performance, quality of life, and for economic diversification and capacity building in rural areas. ***Turkey*** launched its *Participatory Rural Development Programme*, which follows the lines of the EU rural development regulation and sets priorities on land consolidation, strengthening farmer organisations and village-based participatory investments to develop marketing and infrastructure and to encourage rural diversification. ***Korea*** adopted the 2007 *Food Industry Promotion Act* to strengthen vertical links in the agro-food system through development of processing centres in the rural areas. ***Australia*** continued reform of water policies under the *National Water Initiative* which seeks to improve management and use of this scarce resource. In ***Japan***, a newly introduced rural development programme aims at conservation of land and water quality in rural areas and emphasises the role of community initiatives in achieving these objectives. Policies in ***New Zealand*** were also focused on sustainable development and natural resource management, including water management, climate change and biosecurity control. New initiatives in some OECD countries also concerned consumer issues and food safety. Thus, ***Norway*** increased milk quotas for organic farming, while in ***New Zealand*** a *Food Safety Authority* was established as a special agency.

Natural disasters and disease were again a concern

Australia suffered one of the most severe droughts on record in 2006/07 and had recourse to additional drought relief, while the ***United States*** provided nationwide assistance to farmers and ranchers affected by disasters in 2005, 2006 and 2007. Producers in ***Canada*** also received *ad hoc* payments in response to damage from crop and livestock disease and drought. A number of ***EU*** member states provided significant assistance due to adverse events, including animal disease, such as Blue Tongue disease.

While progress in the WTO Doha Round is modest, bilateral and regional arrangements intensify…

Agriculture remains a chapter of continuing difficulty in the WTO Doha Development Agenda negotiations (alongside non-agricultural market access and services), but some progress has been made towards working out modalities for further commitments on agricultural support (Box 1.1). Amid the slow-moving multilateral process, many countries engaged in new bilateral and regional trade agreements. The ***United States*** and ***Korea*** concluded negotiations on a free trade agreement (FTA) foreseeing considerable mutual opening of markets. ***Mexico*** and the ***United States*** have completed implementation of the *North American Free Trade Agreement (NAFTA)* and eliminated the remaining duties on agricultural commodities. As members of the *European Free Trade Association (EFTA)*, ***Iceland***, ***Norway***, and ***Switzerland*** implemented FTAs with Lebanon and Egypt in 2007 and in 2008 signed an FTA with ***Canada***. EFTA is also in the process of negotiating FTAs with several countries in Latin America, the Middle East and South Asia which include concessions on primary and processed agricultural products. ***Japan*** was also actively involved in free trade negotiations. Having concluded FTAs with ***Mexico*** and a number of South Asian countries recently, Japan is now negotiating with ***Korea***, the Persian Gulf States, Vietnam, India, ***Australia*** and ***Switzerland***.

Box 1.1. **WTO Doha round: What is on the table?**

Following intense technical discussions, *Revised Draft Modalities* for agriculture were published on 19 May 2008. The document specifies the range of parameters of possible modalities for further commitments on binding and reducing support measures to agriculture in WTO member countries. The revised draft modalities retain and make more explicit the main points on which agreement was already reached during the Hong Kong ministerial in 2005: phase out of export subsidies and disciplines on parallel forms of policies affecting export competition; tiered formula reductions of domestic support; tiered formula reductions of trade barriers; and far reaching special and differential treatment for different types of developing countries. Next to generally lower reduction commitments and longer implementation periods for developing countries, there are special provisions for least developed countries (LDCs), small and vulnerable economies (SVEs) and recently acceded members (RAMs).

The revised draft makes it clear that an agreement in the DDA round will likely feature a considerable number of exceptions to the general rules in all three pillars of the negotiations. The most visible exceptions relate to sensitive and special products on which a lower than otherwise reduction of import barriers is envisaged. In the case of sensitive products, a deviation from the general tariff reduction formula will have to be offset by the granting of additional import quotas which are to be calculated according to a formula that uses domestic consumption levels as a base.

The revised draft also addresses the issue of tariff escalation, providing for additional tariff cuts on a list of processed products, tariff simplification, TRQ administration, Special safeguard mechanisms, accelerated tariff elimination for tropical products, and preference erosion. The latter is addressed by allowing a postponement of tariff reductions for selected products that currently enjoy a preferential margin and represent a significant export interest for the preference receiving country.

Developments in agricultural support

This overview of developments in agricultural support begins with the discussion of support levels for the OECD as a whole, followed by the results for individual OECD countries. The main drivers behind the changes in support levels between 2006 and 2007 are then considered. Next, the way in which support is provided (*i.e.* its composition), is discussed, looking again at the OECD area as whole and then at the country-specific situations. Finally, progress in policy reform in the long-term across the OECD countries is evaluated on the basis of changes in levels and composition of support.[1]

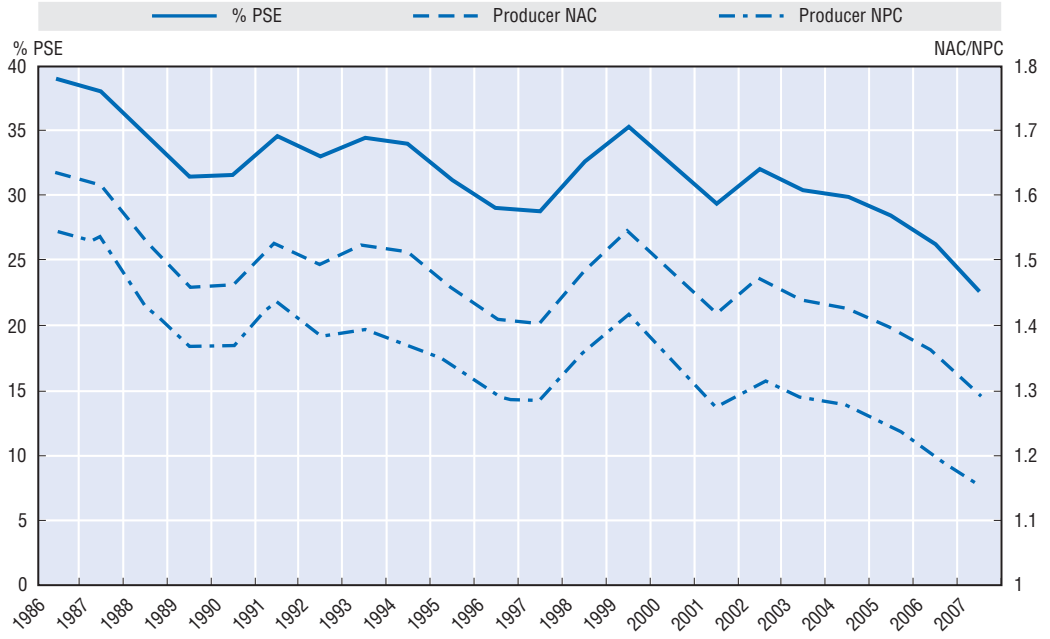
Producer support in the OECD area is at its lowest level since 1986…

The percentage Producer Support Estimate (%PSE) is the key indicator used to measure support to agricultural producers. It expresses the estimated monetary value of policy transfers from consumers and taxpayers to producers as a percentage of gross farm receipts. The %PSE is most suited to analyse changes in the level of support in the OECD area across time, as well as the levels of support across individual OECD countries (Box 1.2).

The level of producer support in the OECD area, as measured by the %PSE, was 23% in 2007, meaning that agricultural support increased farmers' gross receipts in OECD countries by somewhat less than one quarter (Figure 1.2 and Tables 1.1 and 1.2). The %PSE fell for the third consecutive year, from 28% in 2005 and 26% in 2006.

The producer Nominal Assistance Coefficient (producer NAC) complements the %PSE. It is the ratio between the value of gross farm receipts including support and the value of farm receipts estimated at border prices. The average producer NAC for the OECD area was

Figure 1.2. **Evolution of OECD support indicators**



%PSE: Producer Support Estimate (left scale).
NPC: Producer Nominal Protection Coefficient (right scale).
NAC: Producer Nominal Assistance Coefficient (right scale).
Source: OECD, *PSE/CSE Database* 2008.

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Table 1.1. **OECD: Estimates of support to agriculture**

USD million

	1986-88	2005-07	2005	2006	2007p
Total value of production (at farm gate)	**591 839**	**902 972**	**834 679**	**858 328**	**1 015 910**
of which share of MPS commodities (%)	*72*	*67*	*68*	*67*	*67*
Total value of consumption (at farm gate)	**557 838**	**885 580**	**806 401**	**847 589**	**1 002 750**
Producer Support Estimate (PSE)	**239 269**	**262 533**	**272 076**	**257 287**	**258 236**
Support based on commodity output	196 715	144 902	163 172	139 520	132 014
Market Price Support	*184 494*	*135 149*	*146 787*	*131 691*	*126 970*
Payments based on output	*12 221*	*9 753*	*16 385*	*7 829*	*5 044*
Payments based on input use	20 129	29 813	27 593	29 360	32 485
Based on variable input use	*9 745*	*11 749*	*11 094*	*11 932*	*12 222*
with input constraints	*739*	*505*	*514*	*614*	*387*
Based on fixed capital formation	*6 643*	*9 943*	*8 451*	*9 593*	*11 786*
with input constraints	*1 235*	*2 033*	*2 043*	*1 736*	*2 319*
Based on on-farm services	*3 740*	*8 120*	*8 048*	*7 835*	*8 478*
with input constraints	*451*	*1 230*	*1 365*	*1 194*	*1 130*
Payments based on current A/An/R/I,[1] production required	18 666	31 670	38 100	29 182	27 728
Based on receipts/Income	*2 051*	*4 037*	*4 052*	*4 266*	*3 794*
Based on area planted/Animal numbers	*16 615*	*27 633*	*34 048*	*24 916*	*23 934*
with input constraints	*3 685*	*21 790*	*27 405*	*19 686*	*18 279*
Payments based on non-current A/An/R/I, production required	533	1 021	717	820	1 527
Payments based on non-current A/An/R/I, production not required	2 080	51 031	38 819	53 642	60 634
With variable payment rates	*181*	*3 025*	*5 142*	*2 166*	*1 767*
With fixed payment rates	*1 899*	*48 006*	*33 676*	*51 476*	*58 867*
Payments based on non-commodity criteria	935	4 194	4 027	4 811	3 744
Based on long-term resource retirement	*934*	*3 487*	*3 277*	*4 041*	*3 142*
Based on a specific non-commodity output	*1*	*551*	*576*	*615*	*462*
Based on other non-commodity criteria	*0*	*156*	*174*	*154*	*140*
Miscellaneous payments	210	–99	–352	–48	104
Percentage PSE	**37**	**26**	**28**	**26**	**23**
Producer NPC	**1.50**	**1.20**	**1.24**	**1.20**	**1.15**
Producer NAC	**1.59**	**1.35**	**1.40**	**1.35**	**1.29**
General Services Support Estimate (GSSE)	**40 809**	**75 791**	**73 969**	**75 767**	**77 638**
Research and development	3 562	7 081	6 730	6 748	7 766
Agricultural schools	837	1 993	2 056	1 684	2 238
Inspection services	1 092	3 281	3 195	3 228	3 421
Infrastructure	13 866	22 184	22 169	22 143	22 239
Marketing and promotion	13 274	37 180	35 564	38 133	37 843
Public stockholding	6 561	1 562	1 801	1 385	1 499
Miscellaneous	1 617	2 510	2 455	2 446	2 630
GSSE as a share of TSE (%)	**13.6**	**20.6**	**19.7**	**20.9**	**21.3**
Consumer Support Estimate (CSE)	**–161 389**	**–125 210**	**–135 700**	**–124 026**	**–115 904**
Transfers to producers from consumers	–171 385	–134 374	–145 835	–132 021	–125 265
Other transfers from consumers	–22 633	–22 095	–21 429	–22 703	–22 152
Transfers to consumers from taxpayers	19 735	29 412	29 516	29 512	29 209
Excess feed cost	12 894	1 846	2 048	1 186	2 305
Percentage CSE	**–30**	**–15**	**–17**	**–15**	**–12**
Consumer NPC	**1.54**	**1.22**	**1.26**	**1.22**	**1.17**
Consumer NAC	**1.43**	**1.18**	**1.21**	**1.18**	**1.14**
Total Support Estimate (TSE)	**299 813**	**367 736**	**375 560**	**362 565**	**365 082**
Transfers from consumers	194 018	156 468	167 264	154 724	147 418
Transfers from taxpayers	128 428	233 362	229 726	230 545	239 817
Budget revenues	–22 633	–22 095	–21 429	–22 703	–22 152
Percentage TSE (expressed as share of GDP)[2]	2.49	0.97	1.05	0.97	0.89

p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
1. A (area planted)/An (animal numbers)/R (receipts)/I (income).
MPS is net of producer levies and Excess Feed Cost. MPS commodities: see notes to individual tables in Table .
2. TSE as a share of GDP for 1986-88 for the OECD total excludes the Czech Republic, Hungary, Poland and the Slovak Republic as GDP data for these countries is not available for this period.

Source: OECD, *PSE/CSE database* 2008.

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Table 1.2. **OECD: Estimates of support to agriculture**

EUR million

	1986-88	2005-07	2005	2006	2007p
Total value of production (at farm gate)	**536 124**	**699 171**	**671 599**	**683 827**	**742 086**
of which share of MPS commodities (%)	*72*	*67*	*68*	*67*	*67*
Total value of consumption (at farm gate)	**504 821**	**685 531**	**648 846**	**675 272**	**732 473**
Producer Support Estimate (PSE)	**217 507**	**204 176**	**218 917**	**204 980**	**188 632**
Support based on commodity output	178 805	112 959	131 291	111 155	96 432
Market Price Support	*167 656*	*105 257*	*118 107*	*104 918*	*92 747*
Payments based on output	*11 149*	*7 702*	*13 184*	*6 237*	*3 685*
Payments based on input use	18 239	23 107	22 202	23 391	23 729
Based on variable input use	*8 847*	*9 120*	*8 927*	*9 507*	*8 927*
with input constraints	*679*	*395*	*413*	*489*	*282*
Based on fixed capital formation	*6 018*	*7 684*	*6 800*	*7 643*	*8 609*
with input constraints	*1 124*	*1 574*	*1 644*	*1 383*	*1 694*
Based on on-farm services	*3 374*	*6 303*	*6 476*	*6 242*	*6 193*
with input constraints	*408*	*958*	*1 099*	*951*	*826*
Payments based on current A/An/R/I,[1] production required	17 044	24 720	30 656	23 249	20 255
Based on receipts/Income	*1 907*	*3 144*	*3 260*	*3 399*	*2 771*
Based on area planted/Animal numbers	*15 138*	*21 576*	*27 396*	*19 850*	*17 483*
with input constraints	*3 272*	*17 029*	*22 051*	*15 684*	*13 352*
Payments based on non-current A/An/R/I, production required	505	782	577	653	1 115
Payments based on non-current A/An/R/I, production not required	1 900	39 420	31 234	42 736	44 291
With variable payment rates	*161*	*2 385*	*4 138*	*1 726*	*1 290*
With fixed payment rates	*1 739*	*37 036*	*27 097*	*41 010*	*43 001*
Payments based on non-commodity criteria	816	3 269	3 240	3 833	2 735
Based on long-term resource retirement	*816*	*2 717*	*2 637*	*3 220*	*2 295*
Based on a specific non-commodity output	*1*	*430*	*463*	*490*	*338*
Based on other non-commodity criteria	*0*	*122*	*140*	*123*	*102*
Miscellaneous payments	197	–82	–283	–38	76
Percentage PSE	**37**	**26**	**28**	**26**	**23**
Producer NPC	**1.50**	**1.20**	**1.24**	**1.20**	**1.15**
Producer NAC	**1.59**	**1.35**	**1.40**	**1.35**	**1.29**
General Services Support Estimate (GSSE)	**37 040**	**58 864**	**59 517**	**60 363**	**56 711**
Research and development	3 225	5 488	5 415	5 376	5 673
Agricultural schools	758	1 544	1 654	1 341	1 635
Inspection services	989	2 547	2 570	2 572	2 499
Infrastructure	12 590	17 241	17 838	17 641	16 245
Marketing and promotion	12 058	28 880	28 616	30 380	27 643
Public stockholding	5 955	1 216	1 449	1 104	1 095
Miscellaneous	1 464	1 948	1 975	1 948	1 921
GSSE as a share of TSE (%)	**13.6**	**20.6**	**19.7**	**20.9**	**21.3**
Consumer Support Estimate (CSE)	**–146 477**	**–97 554**	**–109 187**	**–98 811**	**–84 664**
Transfers to producers from consumers	–155 715	–104 675	–117 341	–105 180	–91 502
Other transfers from consumers	–20 438	–17 171	–17 242	–18 088	–16 181
Transfers to consumers from taxpayers	17 887	22 866	23 749	23 512	21 336
Excess feed cost	11 790	1 425	1 648	945	1 684
Percentage CSE	**–30**	**–15**	**–17**	**–15**	**–12**
Consumer NPC	**1.54**	**1.22**	**1.26**	**1.22**	**1.17**
Consumer NAC	**1.43**	**1.18**	**1.21**	**1.18**	**1.14**
Total Support Estimate (TSE)	**272 433**	**285 906**	**302 183**	**288 855**	**266 680**
Transfers from consumers	176 154	121 845	134 584	123 268	107 683
Transfers from taxpayers	116 718	181 231	184 842	183 674	175 178
Budget revenues	–20 438	–17 171	–17 242	–18 088	–16 181
Percentage TSE (expressed as share of GDP)[2]	2.49	0.97	1.05	0.97	0.89

p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
1. A (area planted) / An (animal numbers) / R (receipts) / I (income).
MPS is net of producer levies and Excess Feed Cost. MPS commodities: see notes to individual tables in Table .
2. TSE as a share of GDP for 1986-88 for the OECD total excludes the Czech Republic, Hungary, Poland and the Slovak Republic as GDP data for these countries is not available for this period.

Source: OECD, PSE/CSE database 2008.

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Box 1.2. **Use of %PSE in evaluating annual changes in agricultural support for the OECD area as a whole**

The PSE, the total monetary value for the estimated policy transfers to producers, is expressed in the local currency of each country. It must be converted into a common currency to allow aggregation into total PSE for the OECD area as a whole. Consequently, the year-on-year variation in the total level of transfers denominated in a single currency will result from both changes in the level of transfers measured in each national currency and exchange rate movements.

The OECD total value of agricultural policy transfers to producers, as measured by the PSE, increased slightly in USD – to USD 258 billion in 2007 from USD 257 billion in 2006 (Table 1.1). In contrast, when expressed in euros, the OECD total PSE declined markedly – to EUR 189 billion in 2007 as compared to EUR 205 billion in 2006 (Table 1.2). While the PSE estimates the amount of support provided, how can these varying results expressed in different currencies be interpreted? In what sense did the level of support to producers decline as stated in the report?

The most appropriate measure to compare changes in the level of support in the OECD as whole is the %PSE, which expresses the value of policy transfers as a share of gross producer receipts. The latter represent the market value of agricultural output to which are added transfers to producers from taxpayers.

The %PSE solves the problem of exchange rate choice because the same exchange rates are used to convert both the denominator and the numerator into a single currency. Consequently, the %PSE is the same regardless of the currency.

Since the %PSE is a relative measure, it also provides a sense of the importance of policy-induced transfers in the sector and is also appropriate for comparisons among OECD countries.

Because the %PSE is a relative indicator, its value also depends on changes in the value of agricultural output. In this respect, a reduction in support may not always lead to a smaller %PSE if the fall in the value of output (due, for example, to a fall in production caused by a reduction in support, or a change, in its composition) is greater than the reduction in support. In addition, the changes in the %PSE are sensitive to the initial level of the indicator, *i.e.* at high levels of %PSE a given reduction in the absolute PSE will lead to a smaller change in the %PSE, compared to when the initial level of the %PSE is low.

1.29 in 2007, indicating that farmer receipts were 29% higher than if entirely generated at border prices and with no other support. This differential was narrower than in 2006 when it was 35%, and represents an even stronger reduction over 2005 when it was 40%.

The producer Nominal Protection Coefficient (producer NPC) is a ratio between the producer price (including payments per unit of output) and the border price, and shows the degree to which policies increase prices received by domestic producers. The average producer NPC for the OECD area was 1.15 in 2007, meaning that in the OECD farmers received, on average, prices that were 15% above international levels (20% in 2006 and 24% in 2005).

Averaging over three years, the %PSE in 2005-07 was at 26%, down from 37% in 1986-88. This is the lowest level observed since OECD began estimating producer support in 1986. A decline in support is also reflected in the producer NAC, showing that in

2005-07 agricultural policies added over one third (35%) to what producer receipts would have been without any support, while in 1986-88 they added 59%. The most rapid reduction is observed in the producer NPC, which indicates the rate of price protection. It has more than halved for the OECD area as a whole since the 1980s, *i.e.* producer prices exceeded international levels by 20% in 2005-07, whereas in 1986-88 this differential was 50%. The fact that of the two producer support indicators – the NAC and NPC – the latter shows the strongest decline indicates that the observed fall in producer support in OECD countries was largely due to alignment of domestic and border prices. A more detailed discussion of the factors driving the change in the domestic-to-border price gap between 2006 and 2007 follows.

... with almost all countries seeing declines in support in 2007

Producer support fell in the vast majority of OECD countries in 2007. This is the case both for the monetary value of estimated support (the PSE), and its relative level compared to gross farm receipts (the %PSE). ***Australia***, ***Turkey*** and the ***United States*** are the few exceptions to this broadly observed trend of declining support, both in absolute and relative terms (Table 3.1 in Chapter 3). ***Australia*** again provided relief payments related to drought in 2006/07, thereby increasing the monetary amount of support transfers. This did not change the %PSE, however, because the value of gross farm receipts rose proportionately (as producer prices increased). The monetary PSE was also up somewhat in the ***United States***, mainly due to higher estimated market price support; but compared to gross farm receipts, the level of support fell, as in the majority of countries. ***Turkey*** is the only OECD member where producer support has gone up both in value and in percentage terms. In value terms, the Turkish PSE increased mainly due to higher market price support as well as payments based on output provided to certain crops (wheat, maize and barley), while in relative terms it rose because the gross farm receipts increased by less than the PSE value.

The fall in support resulted mostly from developments in international prices

The reduction in the PSE between 2006 and 2007 was driven mostly by the rise in prices on world agricultural markets, which moved closer to supported price levels in OECD domestic markets. The gap between domestic and border prices was narrowed, and the estimated market price support (MPS) and the total PSE decreased. There is an inverse relationship between world market prices and MPS (and hence the PSE), which indicates the dependence of some policy transfers on market developments (Box 1.3).

Although in many countries the fall in MPS was partly offset by increased budgetary transfers, this was not on a scale to reverse the decline in MPS (Table 1.3). Budgetary transfers based on output and on current farm assets (area or animals) or revenue or income have decreased overall, contributing respectively 1.2 and 1.1 percentage points to the year-on-year drop in the total PSE value. Reductions in payments based on non-commodity criteria, which in any case represent only a small portion of the PSE, contributed 0.4 percentage points to the annual change in the PSE.

Where budgetary transfers have increased, it occurred chiefly through expenditures based on inputs used (both with and without constraints attached) and on non-current farm assets, receipts or income. Payments based on input use declined only in ***Australia***, ***Canada*** and the ***United States***, while payments based on non-current parameters fell only in ***Switzerland***, ***Turkey*** and the ***United States***.

Box 1.3. **Why does the PSE change when world prices change?**[1]

Support levels as measured in the PSE framework tend to fluctuate over time, a large part of which can be attributed to fluctuations in the MPS component of the PSE.

The calculation of the MPS for a given commodity is based on the gap between the producer price (at the farm gate) and the border price equivalent (adjusted for marketing margins) in the country concerned. The major source of fluctuations in the MPS is the variability of world market prices for agricultural commodities. Another source is variability of exchange rates, as world market prices (at the border) and domestic prices have to be expressed in the same currency.

The PSE indicator reflects the nature of policy and the changes in support due to policy. It is tempting to think that the indicators should remain constant if policy settings have not changed. However, by picking up the variability of world market prices and exchange rates, the PSE rightly reflects the policy design characteristics that lead to a dependence of support levels on market developments. Fluctuations in policy transfers arise from fixed domestic support prices that are sustained through border instruments and that impede the full transmission of changes in world market prices to the domestic market. In the absence of price support policies, the producer price would be aligned with the border price (adjusted for marketing margins), and would therefore move up and down with changes in world market prices and exchange rates.[2]

There are different policies regarding the transmission of world market changes to the domestic market, and the MPS properly reflects such differences. For example, if an importing country has only an *ad valorem* tariff, then its domestic market price moves up and down with the world market price (although domestic prices remain higher than those on the world market) and hence the PSE would show no fluctuation (as long as no other policy instruments had changed), since the gap between border and domestic prices remains constant.

The fact that over time the MPS in the above case behaves differently than that of a country maintaining a constant domestic support price with some border mechanism to sustain it, is an appropriate reflection of differences in policy implementation. Similarly, a country providing a deficiency payment (a payment based on output) to maintain a constant domestic target price makes smaller budget expenditures when the border price is high (including due to exchange rate variations), and vice versa. In this case, the PSE calculations will show a variable level of domestic output payments, rather than of MPS.

In brief, the PSE is an indicator of the transfers associated with agricultural policies, including those resulting from keeping producer prices in the domestic market stable while world market prices and exchange rates fluctuate. The indicator provides an equivalent measurement of all types of policies that insulate producer prices from market fluctuations. In particular, the method treats market price support and deficiency payments in the same way.

1. For a more elaborate discussion on this topic see Tangermann, S. (2005), *Is the Concept of the Producer Support Estimate in Need of Revision?*, Working Paper No. 1, OECD, Paris.
2. In the reality of complex market situations, pass-through of a given change in the border price to the domestic market may take some time. However, this does not change the fundamental point that in the absence of price support policies or other barriers, domestic market prices would fluctuate along with international prices and exchange rates.

MPS declined in all but two OECD countries, with the average reduction being 6.6% (Table 1.3). The two exceptions are ***Turkey*** and the ***United States***, although the increase in these two countries does not carry enough weight to tip the scale for the OECD area as a whole.[2]

The change in MPS is further broken down in Tables 1.4a and 1.4b in order to better understand the main drivers behind annual changes in MPS by member country. The increase in border prices is the dominant factor in the development of MPS in a comparatively stable policy environment. The depreciation of the US dollar against most OECD currencies only partly offset the increase in US dollar-nominated border prices and all countries faced higher average border prices expressed in national currencies. Higher border prices generally reduced the gap between domestic and international prices; this is reflected in the drop in unit MPS in most countries.

Table 1.3. **Contribution to the change in the Producer Support Estimate by country, 2006 to 2007**

	Producer Support Estimate (PSE)		Contribution of		Contribution of budgetary payments (BP) based on:						
			MPS	BP	Output	Input use	Current A/An/R/I production required	Non-current A/An/R/I production required	Non-current A/An/R/I production not required	Non-commodity criteria	Miscella-neous
	USD mn, 2007	% change[1]	% change in PSE if all other variables are held constant								
Australia	1 872	11.9	–0.1	12.0	0.0	–9.7	1.0	0.0	20.7	0.0	0.0
Canada	7 001	–8.4	–16.0	7.6	0.0	–0.4	–0.2	6.0	2.1	–0.1	0.1
European Union[2]	129 896	–8.8	–7.7	–1.1	–0.8	0.6	–1.4	0.0	1.0	–0.7	0.1
Iceland	212	–9.6	–11.2	1.6	–1.3	0.0	2.8	0.4	0.0	–0.3	0.0
Japan	35 230	–9.1	–10.4	1.3	–1.7	1.1	–0.2	0.0	2.1	0.0	0.0
Korea	25 461	–1.7	–0.9	–0.7	0.0	0.5	–1.1	0.0	0.0	0.0	0.0
Mexico	6 053	–1.1	–9.3	8.2	–3.9	7.4	1.8	3.1	0.0	–0.2	0.0
New Zealand	82	–24.5	–22.5	–2.1	0.0	3.1	–5.1	0.0	0.0	0.0	0.0
Norway	2 803	–14.9	–16.4	1.5	0.3	0.2	0.8	0.2	0.0	0.0	0.0
Switzerland	4 180	–18.0	–18.6	0.6	–0.9	0.4	1.8	0.0	–0.9	0.1	0.0
Turkey	13 438	13.0	10.2	2.8	3.3	0.4	0.1	0.0	–0.9	0.0	0.0
United States	32 663	5.8	18.3	–12.5	–4.7	–0.6	–4.7	0.0	–2.0	–0.5	0.0
OECD[3]	258 236	–3.9	–3.4	–0.5	–1.2	0.9	–1.1	0.2	1.0	–0.4	0.1

1. Per cent changes in national currency.
2. EU25 for 2006 and 2007.
3. An average of per cent changes in individual country PSEs in national currencies, weighted by the shares of the country PSEs in the OECD PSE in the previous year; not equivalent to the variation in OECD PSE in any common currency.

Source: OECD, *PSE/CSE database* 2008.

StatLink http://dx.doi.org/10.1787/356327741284

Large variations in support levels across the OECD remain

Although in the long-term all OECD members (with the exception of Turkey) are on the same path of reducing support, large variations in support levels remain. These differences, among other things, stem from the varying economic, social and political priorities of countries that translate into more or less interventionist policy frameworks; they also reflect different degrees and speeds of agricultural policy reform.

Table 1.4a. **Contribution to the change in the Market Price Support by country, 2006 to 2007**

	Market Price Support (MPS)	Contribution to % change in MPS of:	
		Quantity	Unit MPS
	% change[1]	If all other variables are held constant	
Australia	–89.7	–98.6	8.9
Canada	–29.8	–0.4	–29.4
European Union[2]	–19.1	–0.3	–18.8
Iceland	–22.8	0.0	–22.8
Japan	–11.8	1.1	–12.9
Korea	–1.1	1.7	–2.7
Mexico	–25.6	0.2	–25.8
New Zealand	–39.5	–1.4	–38.2
Norway	–37.2	1.7	–38.8
Switzerland	–40.1	–0.5	–39.6
Turkey	16.2	9.5	6.8
United States	91.5	–7.6	99.2
OECD[3]	–6.6	1.7	–8.3

1. Per cent change in a country total MPS is the average of per cent changes in MPS for individual commodities in national currencies, weighted by the shares of individual commodity MPS in country' total MPS in the previous year.
2. EU25 for 2006 and 2007.
3. An average of percent changes in individual countries' MPS, weighted by the shares of the countries' MPS in the OECD total MPS in the previous year; not equivalent to the variation in OECD MPS in any common currency.

Source: OECD, *PSE/CSE database* 2008.

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Table 1.4b. **Contribution to the change in border price by country, 2006 to 2007**

	Border price	Contribution to % change in border price[1] of:	
		Exchange rate	Border price (USD)
	% change[2]	if all other variables are held constant	
Australia	8.9	–11.0	19.9
Canada	51.0	–6.9	57.9
European Union[3]	6.7	–8.9	15.6
Iceland	33.5	–10.2	43.7
Japan	14.7	1.3	13.5
Korea	14.5	–2.6	17.1
Mexico	12.0	0.2	11.7
New Zealand	7.1	–13.0	20.1
Norway	37.1	–10.8	48.0
Switzerland	42.8	–5.3	48.1
Turkey	38.8	–11.5	50.3
United States	24.3	0.0	24.3
OECD[4]	15.0	–4.6	19.6

1. Border price at farm gate, *i.e.* price excluding marketing margins between border/wholesale market and farm gate.
2. An average of per cent changes in border prices for individual commodities in national currencies, weighted by the shares of individual commodity MPS in total MPS in the previous year.
3. EU25 for 2006 and 2007.
4. An average of per cent changes in Border Price for individual countries, weighted by the value of countries' MPS in OECD total MPS in the previous year.

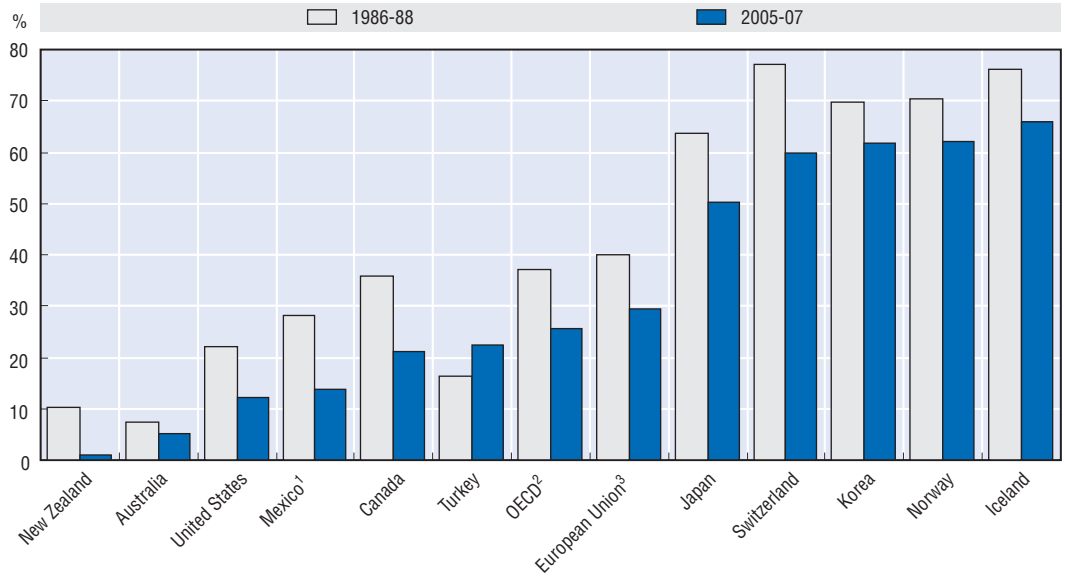
Source: OECD, *PSE/CSE database* 2008.

StatLink http://dx.doi.org/10.1787/356373074123

At one end of the spectrum there is ***New Zealand*** and ***Australia*** where the %PSEs are at 1% and 5% respectively; at the other end are ***Iceland***, ***Norway***, ***Korea, Switzerland*** and ***Japan*** where this indicator is above 50% (Figure 1.3). Between these two extremes support levels are also widely spread. The ***United States*** and ***Mexico*** have %PSEs which are around one half the OECD average; support levels in ***Canada*** and ***Turkey*** are also lower than, but much closer to, the OECD average level. The % PSE in the ***European Union*** approaches the OECD average, but is still above it (Table 3.1 of Chapter 3).

Figure 1.3. **Producer Support Estimate by country**

In per cent of value of farm gross receipts



Note: Countries are ranked according to 2005-07 levels.

1. For Mexico, 1986-88 is replaced by 1991-93.
2. Austria, Finland and Sweden are included in the OECD total for all years and in the EU from 1995. The Czech Republic, Hungary, Poland and the Slovak Republic are included in the OECD total for all years and in the EU from 2004. The OECD total does not include the non-OECD EU member states.
3. EU12 for 1986-94 including ex-GDR from 1990; EU15 for 1995-2003; EU25 for 2004-06 and EU27 from 2007.

Source: OECD, *PSE/CSE database* 2008.

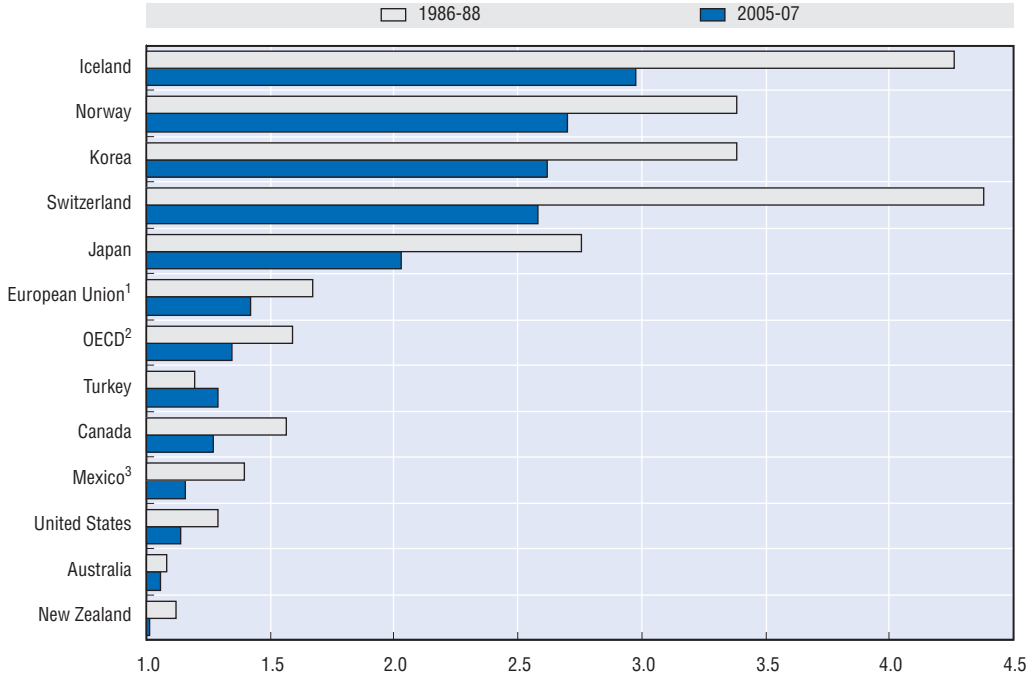
StatLink http://dx.doi.org/10.1787/355423364051

The wide variation in producer support levels across OECD countries is also reflected in the producer NAC (Figure 1.4). It shows that in 2005-07 producer receipts in ***Iceland*** were almost three times and in ***Korea***, ***Norway***, ***Switzerland*** and ***Japan*** more than double the level of receipts that would have been generated without any support (Table 3.1 in Chapter 3). This contrasts with the situation in ***New Zealand*** and ***Australia*** where domestic and border prices are broadly aligned and policies increase producer receipts only slightly above the level that would have prevailed with no policy interventions.

The implicit tax on consumers fell…

The overall reduction in the market price support has important implications for the consumer side, as it also affects the costs of agricultural support borne by consumers. The Consumer Support Estimate (the CSE) shows the monetary value of these costs, while the percentage CSE (%CSE) relates these costs to consumption expenditure (measured at the

Figure 1.4. **Producer Nominal Assistance Coefficient by country**



Note: Countries are ranked according to 2005-07 levels.

1. EU12 for 1986-94 including ex-GDR from 1990; EU15 for 1995-2003; EU25 for 2004-06 and EU27 from 2007.
2. Austria, Finland and Sweden are included in the OECD total for all years and in the EU from 1995. The Czech Republic, Hungary, Poland and the Slovak Republic are included in the OECD total for all years and in the EU from 2004. The OECD total does not include the non-OECD EU member states.
3. For Mexico, 1986-88 is replaced by 1991-93.

Source: OECD, *PSE/CSE database* 2008.

StatLink http://dx.doi.org/10.1787/355427645271

farm gate). If negative, the CSE, whether expressed in value or in relative terms, shows an implicit tax that policies supporting agricultural prices impose on consumers of agricultural commodities.

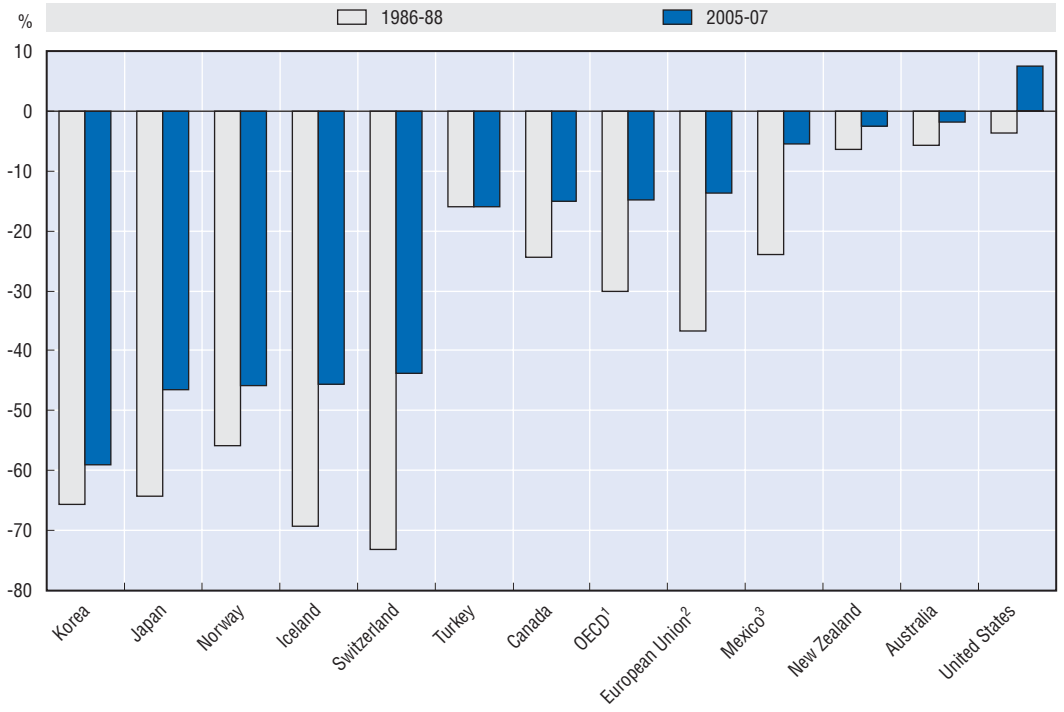
In 2007, the monetary CSE declined in the OECD area as whole and in the majority of OECD countries, except in ***Australia***, ***Korea*** and ***Turkey*** (Table 3.2 in Chapter 3). However, as a percentage of consumption expenditure the CSE fell everywhere, except in ***Australia*** where it remained unchanged (although the %CSE in this country is amongst the lowest).

Comparing the longer term trend, the implicit tax agricultural support imposes on consumers has fallen since the mid-1980s as the gap between prices in world and domestic markets has narrowed. In 2005-07, the %CSE for the OECD was half its 1986-88 level, with the largest reductions in ***Mexico***, ***Australia***, ***New Zealand***, the ***European Union*** and ***Switzerland***. Only in ***Turkey*** has the cost of agricultural support borne by consumers remained unchanged, reflecting the fact that this country has seen no consistent reductions in the MPS either in the long term or in the most recent period. The ***United States*** is the only OECD country with a positive %CSE in 2005-07, as the cost of MPS is offset by direct subsidies to consumers through domestic food aid programmes.

There is no contradiction between the fact that the CSE has been declining, while consumers have been facing rapidly rising prices. In fact, it is the higher prices that have resulted in a closer alignment of world with domestic prices, reducing the gap that is the

Figure 1.5. **Consumer Support Estimate by country**

In per cent of consumption expenditure at farm gate



Note: Countries are ranked according to 2005-07 levels. A negative percentage CSE is an implicit tax on consumption.

1. Austria, Finland and Sweden are included in the OECD total for all years and in the EU from 1995. The Czech Republic, Hungary, Poland and the Slovak Republic are included in the OECD total for all years and in the EU from 2004. The OECD total does not include the non-OECD EU member states.
2. EU12 for 1986-94 including ex-GDR from 1990; EU15 for 1995-2003; EU25 for 2004-06 and EU27 from 2007.
3. For Mexico, 1986-88 is replaced by 1991-93.

Source: OECD, *PSE/CSE database* 2008.

StatLink http://dx.doi.org/10.1787/355437878627

main component of the CSE. Consumers in some countries are experiencing pressure on household budgets as food prices and food expenditures rise, but this is due to a combination of mainly market factors and is consistent with the falling CSE. In this situation, a lower CSE simply means that the share of consumer food costs that results from government price support policies has fallen, not that consumer expenditure is lower.

Composition of support is important…

So far only the level of support has been considered. The level of support is important because it provides insights into the burden that agricultural support places on consumers and taxpayers. But it is also necessary to analyse the composition of support, which shows the different ways in which support is provided. For example, support may be linked to commodity output directly, as is the case of market price support, payments based on output or on variable inputs used. But it may also be less directly related to commodity production and be based on parameters such as area, animal numbers, or farm receipts, or income. Payments of this kind may be based on current or non-current parameters and may or may not impose an obligation on the recipient to produce in order to be eligible for the payment. Furthermore, support may be implemented with no link to commodity

production, but on the basis of certain non-commodity criteria. These different ways to implement policy transfers are represented by the PSE categories (various types of payments as shown in Tables 1.1 and 1.2). These distinctions are important because various ways to implement policy transfers have different consequences for farmers' production decisions and hence the potential for different impacts on production, trade, income and the environment. Support which is more decoupled from production means reduced interference with agricultural markets and trade and is also shown to be more efficient in rising producer incomes.

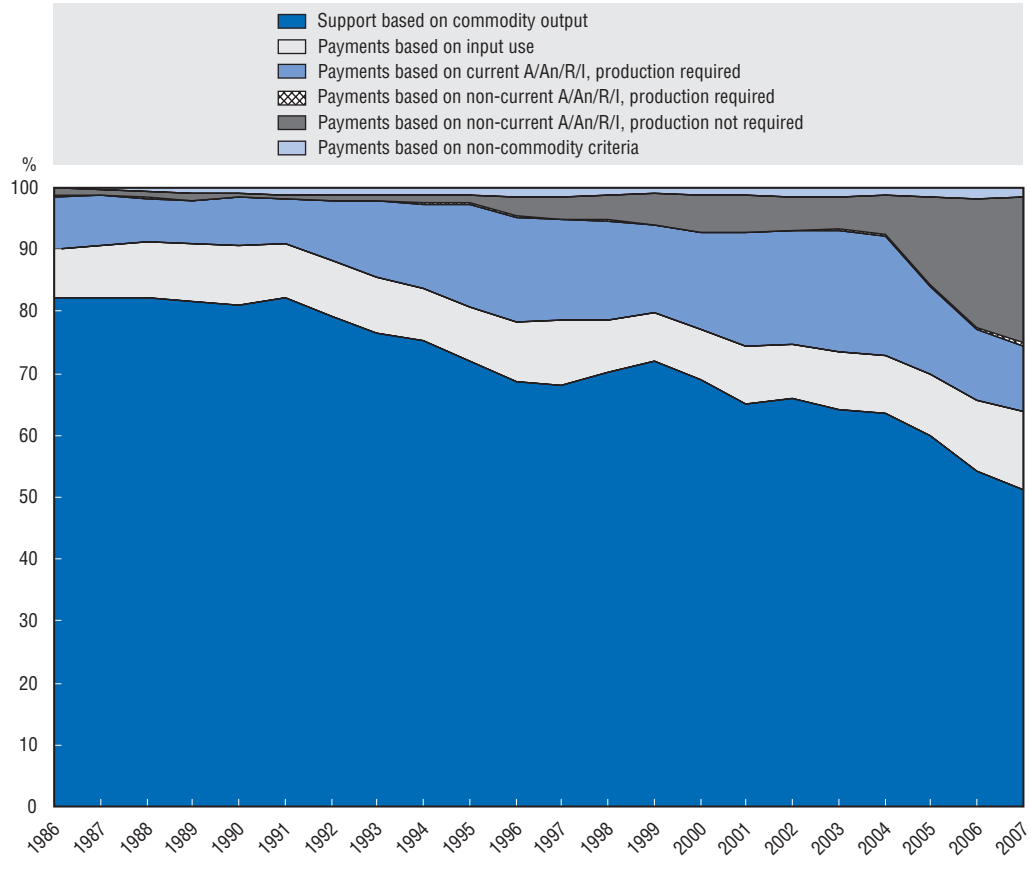
Most distorting support is being reduced, but is still prevailing…

The composition of support can be shown by the shares of policy categories mentioned above in the PSE (Figure 1.6). There has been a gradual movement in the OECD towards support that is more decoupled from production, largely due, in recent years, to policy reforms in the EU.

One principal dimension of this movement is the declining share of support directly linked to commodity output, such as payments based on output. The share of this category of support in the OECD total PSE fell from 82% in 1986-88 to 55% in 2005-07 (Table 3.5 in Chapter 3).

Figure 1.6. **OECD: Composition of Producer Support Estimate 1986-2007**

Percentage share in PSE



Source: OECD, *PSE/CSE database* 2008.

StatLink http://dx.doi.org/10.1787/355502075184

Output-based support is gradually giving way to more decoupled payments. The aggregate share of payments based on area, animal numbers, receipts or income in the OECD total PSE rose from 9% in 1986-88 to 32% in 2005-07. This represents the totality of payments based on the indicated parameters, irrespective of whether they are provided on the basis of current or non-current parameters, or whether they require production or not. There has also been a notable re-distribution within this broad group – from payments based on current parameters (current area, animal numbers, receipts or income) to payments based on non-current parameters (area, animal numbers, receipts or income corresponding to some base period). Furthermore, among the latter payments those which also do not impose a requirement to produce now predominate, accounting for nearly two-thirds of all payments based on area, animals, receipts or income in the OECD area (2005-07 average).

A significant development in the composition of support is the growing share of payments provided conditionally. Various constraints on use of inputs, specific production practices or various environmental or societal criteria (*e.g.* related to animal welfare) are required. Thus, over one quarter of total PSE transfers in the OECD were provided with some kind of constraints in 2005-07, whereas in 1986-88 this share was only 5% (Table 3.6 in Chapter 3). Provision of support is also to a growing degree associated with production quotas or incorporates limits on the amount of payment – transfers with these characteristics accounted for 40% of the OECD PSE in 2005-07, compared to 28% in 1986-88. Another marked feature is the increased provision of support with no requirement for farmers to produce. Examples are the single payment schemes applied in the European Union or the counter cyclical payments in the United States. These payments accounted for only 1% of total PSE transfers in 1986-88; by 2005-07, their share had reached 21%.

Payments based on non-commodity criteria, *e.g.* for long-term resource retirement, creation of buffer strips, preservation of endangered species, construction of stone walls or preservation of hedges, accounted for 2% of the OECD total PSE (and amounted to USD 4.2 billion or EUR 3.3 billion) in 2005-07. However, in a number of countries, some support in other categories, such as per hectare payments with input constraints, has the stated objective of supporting provision of environmental, animal welfare or other social benefits (Box 1.4).

Although reform has led to the provision of more decoupled support in all its various dimensions, and the process has advanced, particularly in the current decade, through reform efforts in many countries, a large part of support in OECD continues to be provided in the most production and trade distorting ways. The aggregate share of support based on output and variable inputs with no constraints attached to their use still accounted for slightly less than 60% in 2005-07.

... and the progress in re-instrumentation of support is uneven across countries

The changes in support composition for the OECD as a whole hide significant differences across countries (Figure 1.7 and Table 3.5 in Chapter 3). The ***European Union***, ***Mexico***, ***Norway***, and ***Switzerland*** have seen the most important reductions in output and variable input-based support (without constraints), although this result also reflects the current reduction in price support due to strong world prices. These countries, as well as ***Australia***, ***Canada*** and the ***United States*** which initiated re-instrumentation reforms earlier, provided almost 50% or more of total policy transfers to producers on a basis other than output and non-constrained use of variable inputs (in 2005-07). In contrast, ***Japan*** and ***Korea*** are at the very beginning of reform, with only 7% and 9% of payments provided with

Box 1.4. **How are environmental and animal welfare payments classified in the PSE?**

The PSE classification is based on implementation criteria. This means, for example, that the category "payments based on non-commodity outputs" includes only those policies where payments are directly related to (based on) the provision of specific non-commodity outputs. However, policies that are based on area or animal numbers or some other implementation criteria, although addressing the improvement of environmental performance or animal welfare, will be classified according to the primary basis on which the policies are implemented. Such policies are currently classified as "payments based on area/animal numbers/receipts/income", or in the case of payments financing investment, they are classified as "payments based on input use". In these cases further information concerning the nature of the policies is given through the use of labels. With respect to environmental or animal welfare programmes the label based on input constraints is often appropriate. These policies require farmers to reduce the use of inputs or apply specific farming practices. Payments with input constraints attached can be extracted and aggregated so that the PSE tables for OECD and each member-country indicate specifically the share of payments with input constraints in the relevant PSE categories (see for example Tables 1.1 and 1.2, country tables in Chapter 2 and Table 3.6 in Chapter 3). Work is on-going to further refine the new classification in order to provide comprehensive information about the content of categories and sub-categories that currently may contain rather heterogeneous measures. This should allow in future for attention to be drawn to the fact that a significant share of support has input constraints attached relating to environment, animal welfare, or other issues, where this is the case.

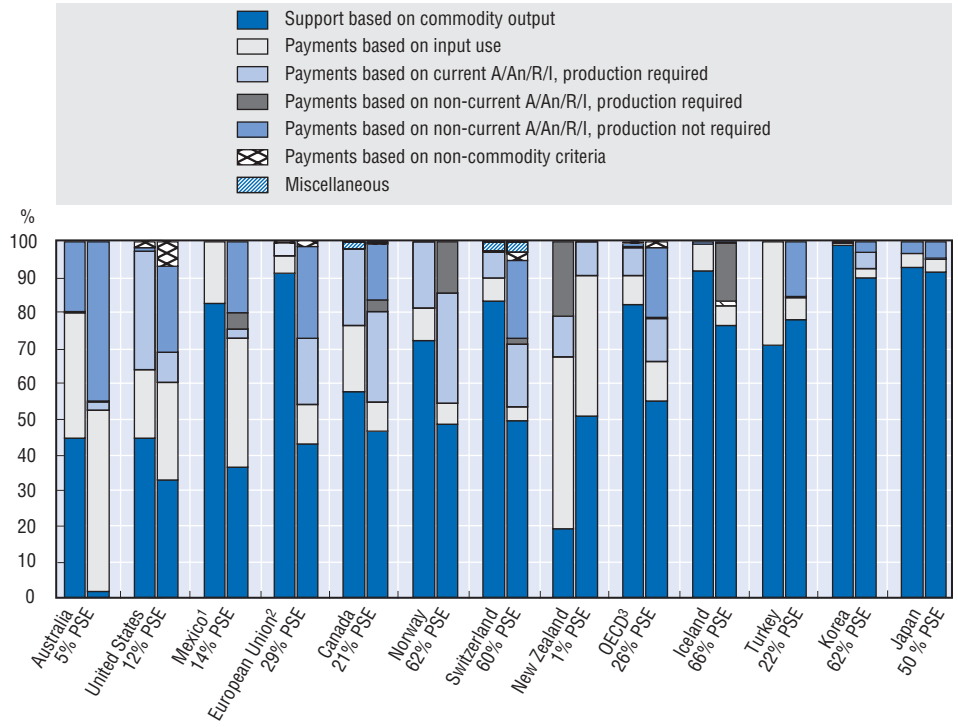
no link to output or variable inputs used and where the bulk of support is in the form of market price support (mainly for rice). Somewhat diverging tendencies are observed in ***Turkey***. On the one hand, there has been a clear shift away from variable input payments towards payments that require no production and are based on non-current parameters, in particular with implementation of the Direct Income Support Payment. On the other hand, the importance of output-based support rose in recent years, with increased recourse to direct output payments.

While payments based on parameters such as area, animal numbers, receipts or income have gained in importance throughout the OECD area, the degree to which implementation of these payments is decoupled from production varies across countries. In ***Australia***, ***Mexico***, ***Turkey,*** the ***United States***, and the ***European Union*** the majority of such payments (*i.e.* those based on area, animal numbers, receipts or income) are provided on the basis of past (non-current) parameters with no requirement for the farmer to produce in order to be eligible for support. In ***Norway*** and ***Iceland*** all such parameter payments require production, a part of which are provided on the basis of current area, area, animal, receipts or income. ***Canada*** and ***Switzerland*** apply various mixes of implementation criteria – production required versus not required and current versus non-current parameters.

Figure 1.8 compares the importance of support not requiring production in different OECD countries. This support combines payments based on non-current area, animal numbers, receipts or income that are provided with no obligation to produce together with payments based on non-commodity criteria. A considerable re-orientation towards support that does not require production happened in the ***United States*** and the ***European***

Figure 1.7. **Composition of Producer Support Estimate by country, 1986-88 and 2005-07**

Percentage shares of PSE



Note: Countries are ranked according to 2005-07 shares of Market Price Support and Payments based on output in the PSE.

1. For Mexico, 1986-88 is replaced by 1991-93.
2. EU12 for 1986-94 including ex-GDR from 1990; EU15 for 1995-2003; EU25 for 2004-06 and EU27 from 2007.
3. Austria, Finland and Sweden are included in the OECD total for all years and in the EU from 1995. The Czech Republic, Hungary, Poland and the Slovak Republic are included in the OECD total for all years and in the EU from 2004. The OECD total does not include the non-OECD EU member states.

Source: OECD, *PSE/CSE database* 2008.

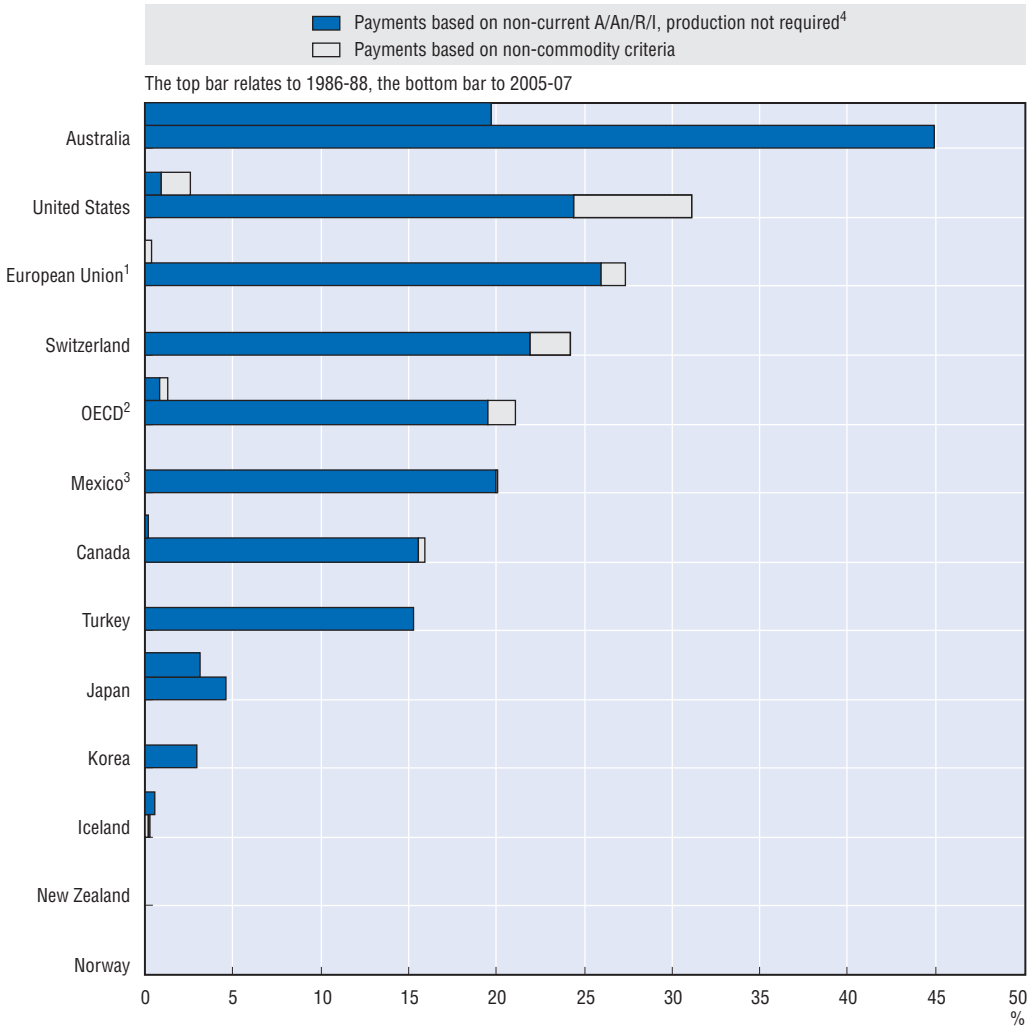
StatLink http://dx.doi.org/10.1787/355562065873

Union, where payments not requiring production make up around 30% of the PSE (2005-07) (Table 3.6 in Chapter 3). Support not requiring production is also now important in ***Switzerland***, ***Mexico***, ***Canada*** and ***Turkey***, having been virtually non-existent in the mid-1980s. Within the aggregate group of payments not requiring production those based on non-commodity criteria account for a small share.

The shift away from output-based support is well captured by the producer NPC. Commodity price protection has been considerably reduced in all OECD countries, with the exception of ***Turkey*** (Figure 1.9). Several countries with historically high protection levels demonstrate particularly strong reductions. In ***Switzerland***, ***Norway*** and ***Iceland*** where producer prices were more than four times the levels of border prices in 1986-88 (producer NPCs above 4.0), they were about double those levels in 2005-07 (producer NPCs above 2). Other countries also saw a substantial decline in price protection, although from considerably lower levels. The producer NPC more than halved between 1986-88 and 2005-07 in the ***European Union***, ***Canada***, ***Mexico*** and the ***United States***. ***Australia*** and ***New Zealand*** had producer NPCs close to unity, indicating that domestic producers have

Figure 1.8. **Use of payments not requiring production, by country**

Percentage share of PSE



Note: Countries are ranked according to 2005-07 levels.

1. EU12 for 1986-94 including ex-GDR from 1990; EU15 for 1995-2003; EU25 for 2004-06 and EU27 from 2007.
2. Austria, Finland and Sweden are included in the OECD total for all years and in the EU from 1995. The Czech Republic, Hungary, Poland and the Slovak Republic are included in the OECD total for all years and in the EU from 2004. The OECD total does not include the non-OECD EU member states.
3. For Mexico, 1986-88 is replaced by 1991-93.
4. A (area planted), An (animal numbers), R (receipts) or I (income).

Source: OECD, *PSE/CSE database* 2008.

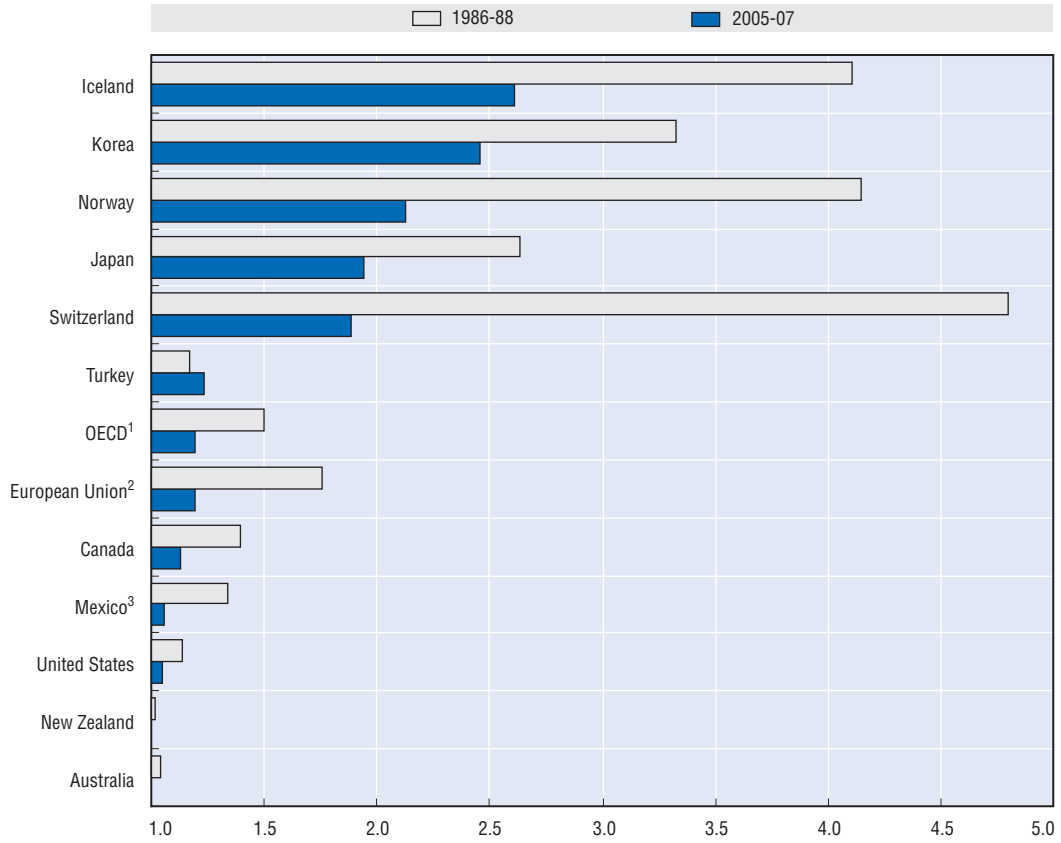
StatLink http://dx.doi.org/10.1787/355570666487

received only marginal market protection with producer prices being generally aligned with world market levels.

Overall, less support is directed to specific commodities…

The composition of support can also be analysed from the standpoint of the flexibility that policies accord to producers in determining production choices. For example, a payment designated for one specific commodity implies that in order to receive payment a farmer must produce that commodity. In contrast, payments may be provided to a group of commodities (*i.e.* any crop belonging to the cereals group), or

Figure 1.9. **Producer Nominal Protection Coefficient by country**



Note: Countries are ranked according to 2005-07 levels.

1. Austria, Finland and Sweden are included in the OECD total for all years and in the EU from 1995. The Czech Republic, Hungary, Poland and the Slovak Republic are included in the OECD total for all years and in the EU from 2004. The OECD total does not include the non-OECD EU member states.
2. EU12 for 1986-94 including ex-GDR from 1990; EU15 for 1995-2003; EU25 for 2004-06 and EU27 from 2007.
3. For Mexico, 1986-88 is replaced by 1991-93.

Source: OECD, *PSE/CSE database* 2008.

StatLink http://dx.doi.org/10.1787/355585031810

simply to any commodity without distinction. In such cases, producers who benefit from support have more freedom in defining their production mix and are thus more strongly guided by market signals.

The prevalence of transfers directed to single commodities – as reflected by the share of Single Commodity Transfers in the PSE – conveys important information on the flexibility given to producers in their production choices. The SCT includes all market price support and direct output payments as these forms of support are specific to a particular commodity by definition – these categories are by far the largest contributors to the SCTs. The latter also incorporate any payments provided to single commodities under other categories of support which require commodity production, mostly involving payments based on specific crop area or animal type (see Annex 1.A2 for full definition of the SCT). The share of total SCT in the PSE fell from 88% in 1986-88 to 59% in 2005-07, with particularly rapid decreases observed in the most recent years (Figure 1.10 and Tables 3.8

to 3.21 in Chapter 3). The most recent fall is largely a reflection of the reduction in market price support, the main component of the SCT.

... although the use of single commodity transfers varies across commodities

It is also instructive to look at the extent to which farmers' receipts for a particular commodity depend on the SCTs (the %SCT indicator). As Figure 1.10 shows, rice and sugar are the two sectors where commodity-specific support is particularly important. Thus, around two-thirds of rice producer receipts represented support transfers targeted specifically to rice (in 2005-07 on average); for sugar this percentage reached 42%. These figures indicate that policies provide strong incentives to producers to retain production of these commodities. Rice and sugar are also the commodities for which the importance of the SCTs has fallen less than for other commodities.

Cereals and oilseeds, for which the SCTs made up less than 8% of gross receipts in 2005-07, present a contrasting case. This is a remarkable development, as in 1986-88 nearly half of producer receipts from these commodities was made up of SCTs. There has also been considerable reduction in the %STC of milk and eggs, while there has been no change in the %SCTs for poultry and a rise for pigmeat. The substantial fall in %SCT for milk was to some degree related to the fact that world dairy prices registered one of the strongest increases.

More support is provided to general services for the sector...

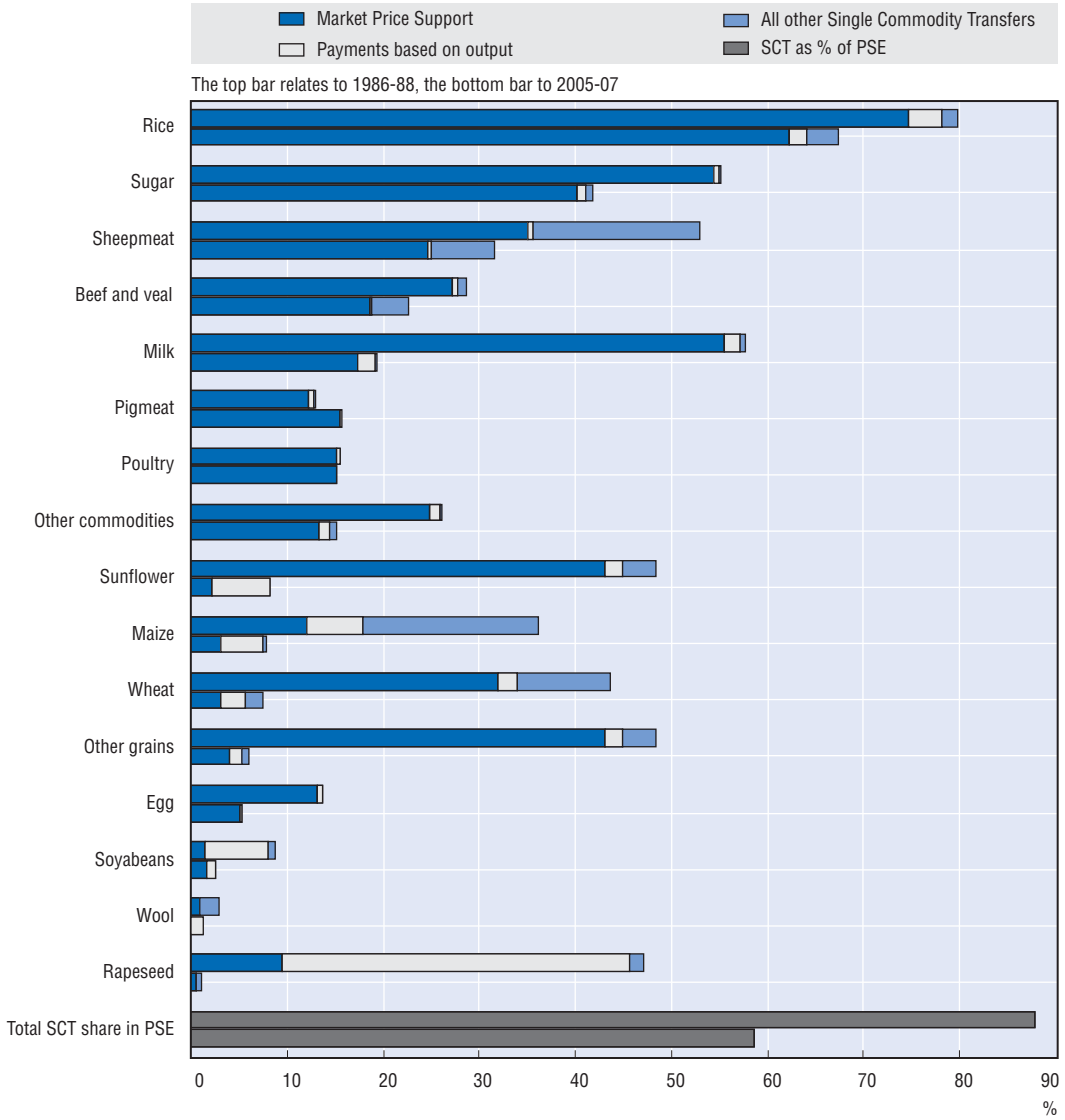
In addition to support provided to producers individually (the PSE), the agricultural sector is assisted through public financing of services such as agricultural research and development, training, inspection, marketing and promotion and public stockholding. The General Services Support Estimate (GSSE) measures the associated monetary transfers.

Transfers to general services in the OECD as a whole had almost doubled by 2005-07 compared to 1986-88, reaching USD 76 billion (USD 78 billion in 2007) (Table 1.1 and Table 3.3 in Chapter 3). These expenditures have been growing relatively steadily over the whole period with the result that the share of GSSE in total support to agriculture (see below) has risen from 14% (1986-88) to 21% (2005-07). The rising share of GSSE in the TSE partly reflects the falling PSE in 2005-07 (GSSE expenditures tend to be more constant, while the PSE changes more from year to year). The most significant re-orientation from supporting producers individually towards supporting general services occurred in ***New Zealand***, where the share of GSSE in total support tripled since 1986-88 and reached almost two thirds by 2005-07. The proportion of total support dedicated to general services increased substantially in the ***United States***, reaching 41% in 2005-07, in ***Australia*** (36%), and ***Canada*** (27%). In all other OECD counties support to general services also increased in importance, but modestly, leaving the share of GSSE ranging between 7% and 19% (2005-07).

Marketing and promotion and infrastructure dominated the total GSSE, accounting for 49% and 29% respectively in 2005-07 (Figure 1.11). However, spending priorities related to general services differ across the OECD (Table 3.7 in Chapter 3). Research and development is the major supported general service in ***Australia*** and ***Norway***, financing of infrastructure carries the largest weight in ***Korea***, ***Japan*** and the ***European Union***, while marketing and promotion accounts for 86% of GSSE in ***Turkey*** (2005-07). In contrast, expenditures in ***Canada***, ***Mexico*** and ***New Zealand*** are distributed relatively evenly across various types of services.

Figure 1.10. **OECD: Single Commodity Transfers, 1986-88 and 2005-07**

SCT as per cent of gross farm receipts for each commodity



Note: Commodities are ranked according to 2005-07 levels.

Source: OECD, *PSE/CSE database* 2008.

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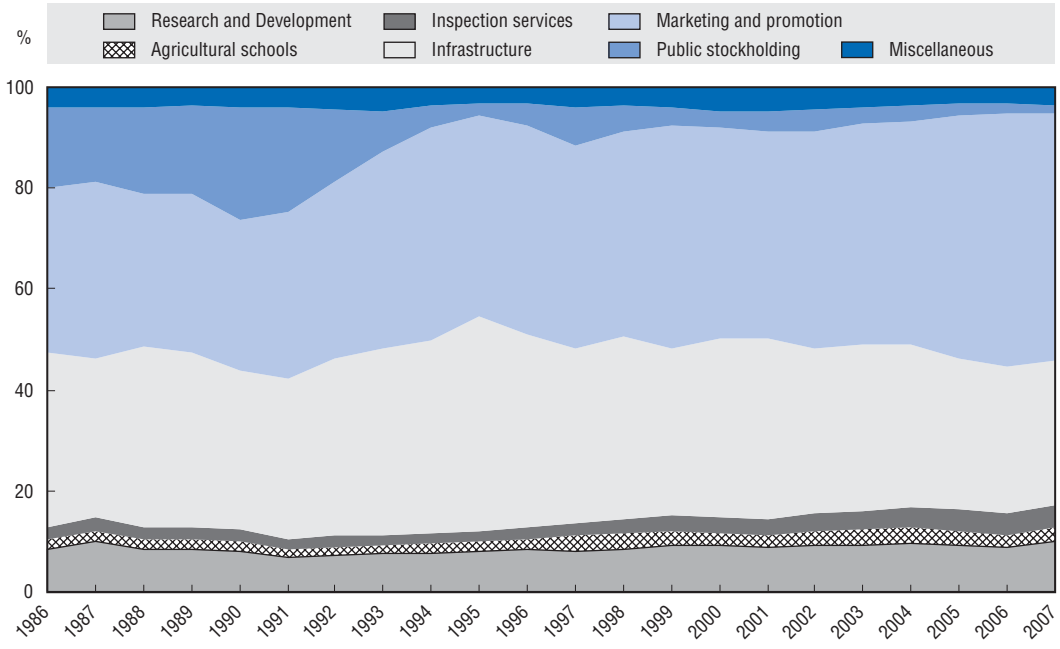
... while the burden of agricultural support on OECD economies falls

The Total Support Estimate (the TSE) is the broadest indicator of support, representing the sum of transfers to agricultural producers individually (the PSE) and collectively (the GSSE), as well as subsidies to consumers.

The total support to agriculture in the OCED reached USD 365 billion in 2007, showing a marginal change over 2006 (USD 363 billion) (Tables 1.1 and 1.2). However, when expressed in euros, there has been a decline to EUR 267 billion in 2007 from EUR 289 billion in 2006. The trend in the TSE can be more clearly evaluated on the basis of the %TSE, *i.e.* the TSE value expressed as a percentage of OECD's aggregate GDP (Figure 1.12). The %TSE

Figure 1.11. **OECD: Composition of General Services Support Estimate 1986-2007**

Percentage of GSSE



Source: OECD, *PSE/CSE database* 2008.

StatLink http://dx.doi.org/10.1787/355678823734

equalled 0.89% in 2007, meaning that the total transfers arising from agricultural support policies comprised slightly less than 1% of the OECD's aggregate GDP. This share fell from 1.05% in 2005 and 0.97% in 2006.

Over the long term, the burden of agricultural support on OECD economies was more than halved, with the average %TSE declining from 2.49% in 1986-88 to 0.97% in 2005-07. The reduced relative importance of agricultural support to the overall economy is characteristic of all OECD countries and is primarily a reflection of the falling importance of agriculture in their economies, but also is due to reform efforts. An almost three-fold or even stronger reduction in the %TSE occurred in ***Iceland***, ***Norway***, ***Korea*** and ***New Zealand***; in the latter case, the fall in %TSE was also the result of a considerable reduction in support transfers to individual producers. ***Turkey*** stands apart amongst the OECD countries with its high level of agricultural support in relation to GDP – 3.2% on average in 2005-07. This is primarily a consequence of the relatively high weight of agriculture in the Turkish economy.

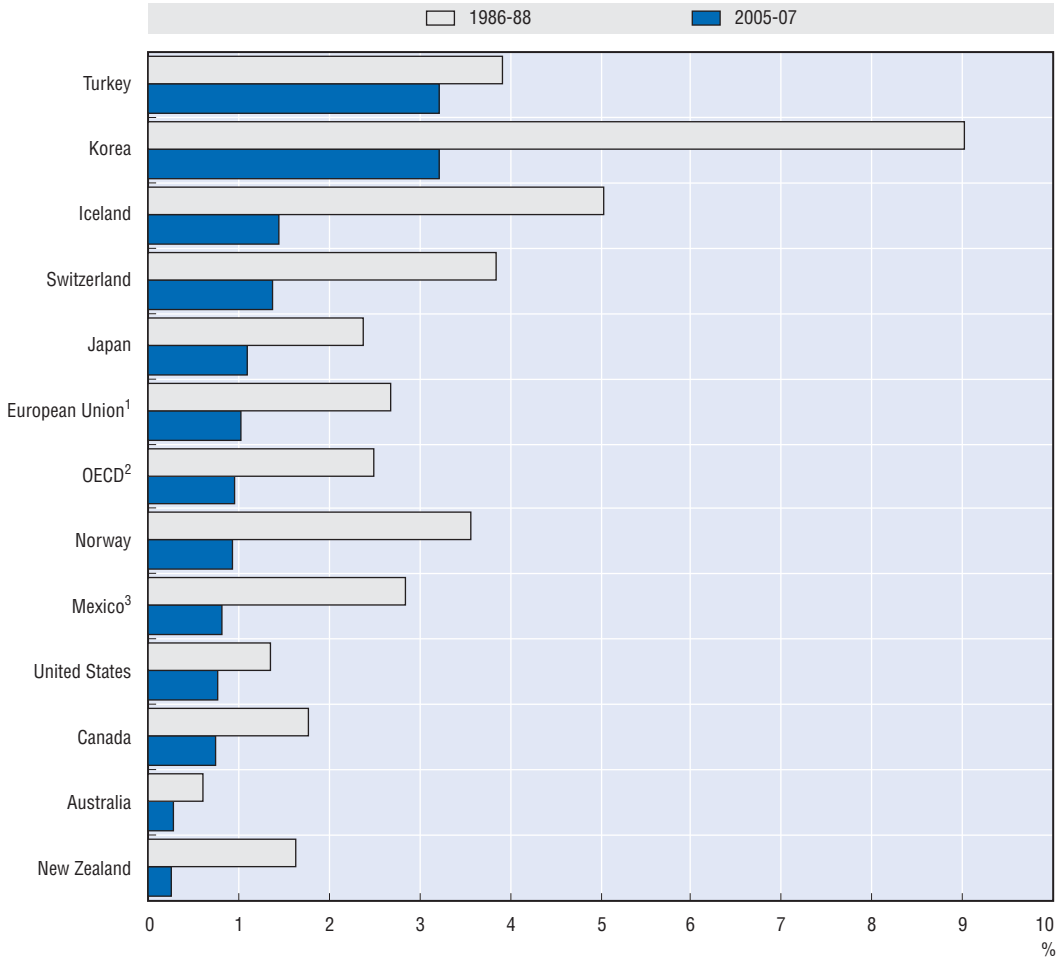
Assessment of reform progress

There has been a general move towards lesser policy distortions…

Progress since 1986-88 towards less production and trade distorting policies is assessed in terms of how much support is provided (support level) and how it is delivered (support composition). These two dimensions of support can be illustrated using the PSE, where support level is shown by the %PSE and support composition is characterised by the share of the most production and trade distorting forms in the total PSE. The latter is represented by the sum of PSE transfers based on output (market price support and

Figure 1.12. **Total Support Estimate by country**

Percentage of GDP



Note: Countries are ranked according to 2005-07 levels.

1. EU12 for 1986-94 including ex-GDR from 1990; EU15 for 1995-2003; EU25 for 2004-06 and EU27 from 2007.
2. Austria, Finland and Sweden are included in the OECD total for all years and in the EU from 1995. The OECD total does not include the non-OECD EU member states. TSE as a share of GDP for the OECD total in 1986-88 excludes the Czech Republic, Hungary, Poland and the Slovak Republic as GDP data is not available for this period.
3. For Mexico, 1986-88 is replaced by 1991-93.

Source: OECD, *PSE/CSE database* 2008.

StatLink http://dx.doi.org/10.1787/355688150051

payments based on output) and payments based on variable input use with no constraints attached.[3] Figure 1.13 juxtaposes these two dimensions of the PSE.

For the OECD as a whole, there has been a visible reduction in both the level of support and the share of the most distorting forms of support. In the majority of OECD countries, there was reform of support policies in both dimensions; however the degree and the pace of change have been uneven and each country faces further challenges:

Australia: the level of support is the second lowest amongst OECD countries, and use of the most distorting forms is limited; repeated droughts have triggered more direct assistance in recent years.

Canada: a marked reduction in both the level of support and the reliance on the most distorting forms and a visible shift towards payments with no link to single commodities; however, progress varies across sectors with milk policies least reformed.

European Union: considerable progress in decoupling support from production following full implementation of single payment schemes that impose no requirement to produce and extension of reform to more commodity sectors, with the share of support tied to single commodities almost halved. Currently, the producer support level exceeds the OECD average by 3 percentage points, but the share of the most distorting types of support is below the OECD average.

Iceland: some reduction in the level of support and in the share of most distorting support, but both parameters remain the highest in the OECD; and there was no progress observed in shifting away from support to single commodities.

Japan: the level of support has fallen, but only a small reduction has been achieved in the share of the most distorting forms; some progress was made in moving away from single commodity support, and recent reforms may add momentum.

Korea: support is the second highest among the OECD countries; there have been relatively small improvements in both dimensions of support; however, some progress in de-linking support from single commodity has been made; the recent reform of the rice sector which introduced more decoupled payments is a noteworthy development.

Mexico: substantial reduction in the level of support, good progress in moving away from the most distorting transfers, although with some rise in input-based payments occurring in the last ten years; policies are to a growing degree allowing flexibility to producers in their production choices.

New Zealand: support has been brought to the lowest level among the OECD countries and domestic prices are closely aligned to border prices; as a consequence it is the only OECD country where support to general services dominates, with a share reaching approximately two-thirds of total support to the sector.

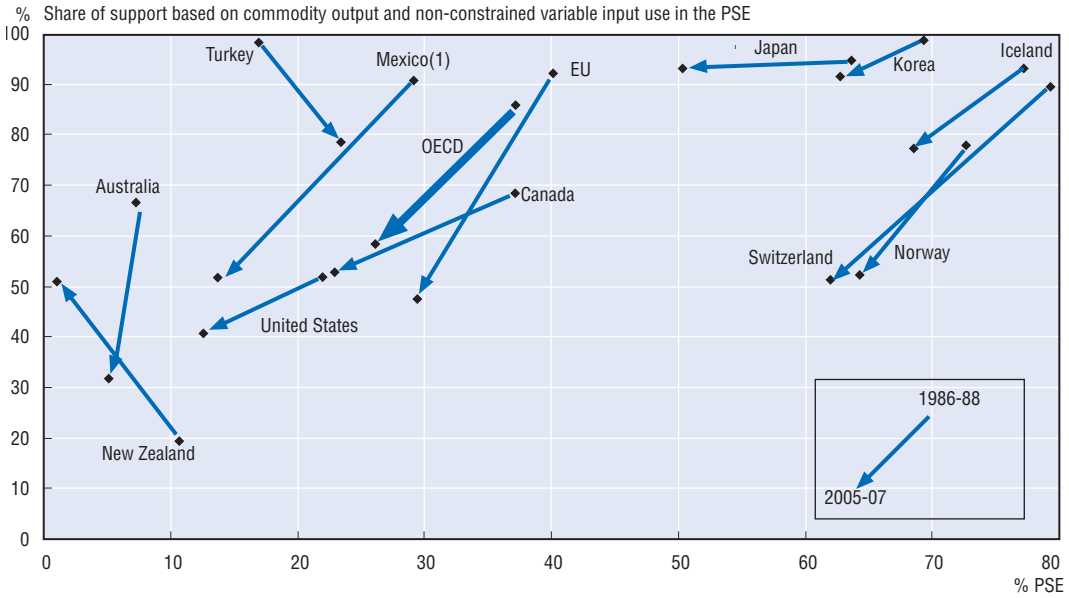
Norway: the level of support and the share of the most distorting forms of support have been reduced; steps have been taken towards provision of more targeted policy measures and the importance of transfers to single commodities has fallen; Norway, however, ties with Korea with the second highest support level among OECD countries.

Switzerland: the level of support has fallen considerably, but remains one of the highest in the OECD; at the same time, there has been substantial progress in moving away from the most distorting forms of support, along with a marked increase in transfers that do not require production and a strong shift away from support linked to single commodities; the policy package adopted for 2008-11 can be expected to consolidate improvements.

Turkey: while below the OECD average, the level of producer support increased over time; although there has been an improvement in the composition of support since 1986-88, more reliance on output and single commodity-based support in the most recent period is a step back from improved market orientation; the burden placed by agricultural support on the overall economy (as reflected by the %TSE) is the highest among OECD countries.

United States: producer support is currently one of the lowest in the OECD, helped by the fact that several policies are countercyclical to market prices; reliance on the most distorting forms of support has been reduced and the use of payments directed to single

Figure 1.13. **OECD: Changes in the level and composition of producer support**



Note: The level of support is presented by the percentage PSE. The composition of support is presented by the share in gross farm receipts of Market Price Support, Payments based on output and Payments based on input use (without constraints).

1. For Mexico, the change is measured between 1991-93 and 2005-07.

Source: OECD, *PSE/CSE database* 2008.

StatLink http://dx.doi.org/10.1787/355700622060

commodities diminished considerably, however the milk and sugar sectors continue to receive high price support.

In assessing progress in policy reform it should be taken into account that the levels and the composition of support reflect not only explicit reform efforts, but also market conditions in which policies operate. As stressed throughout this chapter, the current period is marked by historically high world agricultural prices. For the majority of countries the falling PSE in the most recent period has not been so much a consequence of changes in the policy settings, as of rising world prices. Should the latter decline from their current high levels, domestic measures to support prices and related border protection could be activated again and support would increase. Unless policy reform efforts strengthen market orientation of the agricultural sector, the current reductions in support level and improvements in its composition will not be sustained.

... higher prices provide an opportunity for further reform

The current situation with high world prices could offer opportunities to reform policies that would impact on international markets. In so far as the increase in world prices is a long-term structural phenomenon, current price related support policies do not create additional incentives to enhance production in cases where world prices are above administered price levels. Moreover, if higher prices persist governments also have the opportunity and the time to design and implement alternative safety-net type measures that are no more trade distorting than necessary. Where world prices are high enough to generate a domestic production response, it may also be opportune to consider lifting production controls where they exist (unless they are targeted to environmental or other non-market

concerns). Low world prices have been held responsible in the past for preventing some developing countries from realising their full agricultural potential and many of these countries now rely on food imports. Improving the terms of trade by a permanent reduction of import barriers and export restrictions would contribute to incentives for producers in countries that have the longer term potential to increase production.

High food prices also have implications for consumer expenditures. This factor is of greater importance in low-income countries where food assumes a more significant share in consumer expenditures than in OECD countries. Some of these low-income countries have already responded by suspending or reducing import barriers. Some non-OECD exporting countries have already put in place export restricting measures in order to boost domestic supplies and reduce prices, while other countries are contemplating such measures. Such policy responses tend to put a larger burden of the imbalances on those countries and those people who are least able to carry them, while further limiting the integration of international and domestic markets as a mechanism to match supply and demand (Box 1.5).

Biofuel policies in OECD and non-OECD countries have stimulated an expansion of crop area for biomass production. While there are some support payments for biomass production, most biofuel policies do not entail direct budgetary transfers to farmers. Policies such as mandated minimum shares of biomass-generated fuels in liquid fuels or investment subsidies to processing plants do not constitute a direct support to farmers and are not registered in the PSE, although some appear in the CSE. Only the indirect element of these policies will to some extent be captured as they impact on market prices, with prices increasing for crops that are substitutes in biofuel production and knock-on effects for livestock products that see rising prices for intermediate inputs. The complete picture of the extent of subsidisation of parts of the farming sector and taxation of the others and of the consumer is as yet unclear.

High prices also pave the way to improve domestic policy performance. While most OECD countries have re-instrumented some of their most production and trade distorting policies towards systems that are more decoupled from production, additional gains in terms of efficiency and equity can be realized through decoupling, improved targeting and tailoring of policies.

More decoupled instruments are playing an important role in the reform process of agricultural support policies. Careful policy design granting farmers the greatest possible freedom to respond to market signals will reduce many of the distortions associated with the previous policy set and allow farmers to become more innovative and competitive. However, untying policies dealing with income objectives from policies dealing with market failures has still a long way to go. Targeting of policies towards alleviating specific, and often local, market failures is key to improving effectiveness, efficiency and equity of policies (OECD, 2008).

A successful conclusion of the on-going WTO Doha round of multilateral negotiations can help reinforce the process of agricultural policy reforms. Although progress is slow, WTO members are narrowing down the parameters of an eventual agreement that would impose stricter discipline on domestic support payments and on all forms of export competition and would significantly improve market access. All these elements play a key role in the process whereby the farming sector in OECD countries adjusts to a more economically efficient sector.

Box 1.5. **Policy responses to high food prices**

The present spike in global food prices has caught many observers by surprise. As discussed in the *OECD-FAO Agricultural Outlook 2008-2017* (OECD, 2008), the explanation has several parts. Some supply factors are of a short term nature and related to bad weather conditions that have led to lower production and yield shortfalls in key exporting countries. High energy prices and speculative activity have also played a role. More long term impacts stem from growing populations and incomes leading to higher food demand and to a shift towards more animal proteins in diets in large emerging economies, specifically China and India, which play a key role in medium-to long term price projections. While those factors are essentially beyond the realm of policies, the partly policy-induced demand for biofuels produced from agricultural feed stocks has also contributed to the rising prices. Expectations are that agricultural commodity prices will eventually decline from their current peak, but will remain higher over the next decade compared to the previous one.

The spectacular rise in prices for staple food severely restricts access to food for the poor in some developing countries, especially those who depend on food imports. Since they are typically food buyers, the urban poor (as well as many of the rural poor who are net food buyers) are most severely hit by high food prices. These developments have sparked a debate on the appropriate direction of future agricultural and food policies.

Beyond short term food aid, preferably in cash or vouchers, to those suffering from hunger, policies in OECD countries should address the supply response of farmers that affects the global food supply – at least in the medium term. High prices, and the expectation that they will remain high, are a powerful incentive for farmers to expand production. As argued in this Monitoring report, current policies in many OECD countries prevent price signals from being fully transmitted to producers and this tends to impede adjustments to re-allocate resources to their most economically efficient use. More reliance on market forces, and creating a market environment that allows farmers to respond to the opportunities provided by high prices, should guide policy responses.

International trade is an essential mechanism to match the demand for food and agricultural products with supply capacities of regions and nations. Trade restricting policies – whether they restrict exports or imports – may have domestic objectives, but often have undesirable and unintended impacts, especially in the medium and long term. Export taxes and embargos may in the short term provide some relief to domestic consumers, but they impose a burden on domestic producers and limit their supply response. Shielding domestic markets from international price movements, be it through import protection or export barriers, limits the adjustment of producers in the country concerned as well as in other countries and may add to world price volatility and uncertainty.

Productivity growth in agriculture has historically been a main driver behind the enormous expansion of global food production. In the OECD countries public funding of agricultural research grew at an average annual rate of 2.3% between 1986 and 2007, with slower growth in the 1990s. Perhaps with the exception of Brazil, China and India, most developing countries are under-investing in agricultural R&D and are dependent on developed countries for science and technology spillovers OECD countries can play a key role in creating mechanisms to improve investments in technology development and adoption of tailored agricultural technologies that can enhance the long-run supply capacity of developing countries (OECD, 2005).

Notes

1. Annex 1.A1 to this chapter contains policy principles and operational criteria adopted by OECD Agriculture Ministers in 1998; Annex 1.A2 provides full definitions of support indicators and Annex 1.A3 contains a description of the OECD methodology for measurement of support to agriculture.
2. The main contributors to the rising MPS in the United States were milk and sugar. Domestic milk prices rose more (by 42%) than border prices adjusted for marketing margins (by 30%), leading to an increase in the measured price gap for that commodity, which alone accounts for 64% of the MPS of the United States. For sugar the situation was that international sugar prices slumped in 2007, following increased production in exporting countries. The US import prices for sugar dropped by 23%, but domestic producer prices stayed almost constant. Consequently, the price gap increased, leading to a larger MPS for sugar. In Turkey, the pattern of MPS variations was mixed, with increases occurring for some commodities (wheat, sugar, beef, sheep, poultry and eggs, fruits, cotton and tomatoes) and reductions for others (maize and other grains, sunflower seeds, milk and tobacco).
3. The remaining part of the PSE, not presented in the "most distorting" forms of support, includes a portion of payments based on variable inputs, whose provision is conditioned by various constraints on input use or production practices; all payments provided for fixed capital formation and on-farm services; as well as all support based on area, animal numbers, receipts or income; support based on non-commodity criteria and miscellaneous payments.

ANNEX 1.A1

Policy Principles and Operational Criteria

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.

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;

*The full text from the relevant Ministerial Communiqués can be found in *www.oecd.org/agr/ministerial*

- 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.

ANNEX 1.A2

Definitions of OECD Indicators of Agricultural Support

Nominal indicators used in this report*

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, budgetary payments and budget revenue foregone, *i.e.* gross transfers from consumers and taxpayers to agricultural producers arising from policy measures based on: current output, input use, area planted/animal numbers/receipts/incomes (current, non-current), and non-commodity criteria.

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. MPS is also available by commodity.

Producer Single Commodity Transfers (producer SCT): the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level, arising from policies linked to the production of a single commodity such that the producer must produce the designated commodity in order to receive the payment. This includes broader policies where transfers are specified on a per-commodity basis. Producer SCT is also available by commodity.

Consumer Single Commodity Transfers (consumer SCT): the annual monetary value of gross transfers from (to) consumers of agricultural commodities, measured at the farm gate level, arising from policies linked to the production of a single commodity. Consumer SCT is also available by commodity.

Consumer Support Estimate (CSE): the annual monetary value of gross transfers from (to) 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 (implicit tax) on consumers through market price support (higher prices), that more than offsets consumer subsidies that lower prices to consumers.

*Only indicators actually used in this report are defined here. Additional indicators, mainly relating to commodity specificity, are defined in OECD 2007b and in the "PSE Manual" (*OECD's Producer Support Estimate and Related Indicators of Agricultural Support: Concepts, Calculation, Interpretation and Use*, available on the web site *www.oecd.org/tad/support/psecse*).

General Services Support Estimate (GSSE): the annual monetary value of gross transfers to general services provided to agricultural producers collectively (such as research, development, training, inspection, marketing and promotion), arising from policy measures that support agriculture regardless of their nature, objectives and impacts on farm production, income, or consumption. The GSSE does not include any payments to individual producers.

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.

Ratio indicators and percentage indicators

Percentage PSE (%PSE): PSE transfers as a share of gross farm receipts (including support in the denominator).

Percentage SCT (%SCT): is the commodity SCT expressed as a share of gross farm receipts for the specific commodity (including support in the denominator).

Share of SCT in total PSE (%): share of Single Commodity Transfers in the total PSE. This indicator is also calculated by commodity.

Producer Nominal Protection Coefficient (producer NPC): 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). The Producer NPC is also available by commodity.

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

Percentage CSE (%CSE): CSE transfers as a share of consumption expenditure on agricultural commodities (at farm gate prices), net of taxpayer transfers to consumers. The %CSE measures the implicit tax (or subsidy, if CSE is positive) placed on consumers by agricultural price policies.

Consumer Nominal Protection Coefficient (consumer NPC): the ratio between the average price paid by consumers (at farm gate) and the border price (measured at farm gate). The Consumer NPC is also available by commodity.

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

Percentage TSE (%TSE): TSE transfers as a percentage of GDP.

Percentage GSSE (%GSSE): share of expenditures on general services in the Total Support Estimate (TSE).

ANNEX 1.A3

The PSE Classification

Introduction

Each year since the mid-1980s the OECD has measured the monetary transfers (support) associated with agricultural policies in OECD countries (and increasingly, in non-OECD countries), using a standard method. For this purpose the OECD has developed several indicators of transfers, the most important and central one being the Producer Support Estimate (PSE). The results, published annually by the OECD, are the only available source of internationally comparable and transparent information on support levels in agriculture. The support estimates have provided an important contribution to the international policy dialogue on agriculture and trade.

Over the years, while the fundamental methodology to measure support has not changed, policy measures have evolved. This has been partially reflected in the component parts of the overall PSE, which are categorised to improve the evaluation of policy reform and for use in policy analysis. With the further evolution of policies, following a two-year period of discussion among experts, OECD countries decided to adopt significant changes in the classification of the generic policy categories in the PSE, to change the measure of support to commodities, and to improve the presentation of the relevant indicators. These changes reflect the evolution of agricultural policies in OECD countries and are incorporated into the 2007 report on *Agricultural Policies in OECD Countries: Monitoring and Evaluation*. This chapter explains the new PSE classification, and how the data and indicators can be used to monitor policy developments.

Measuring agricultural support

The Producer Support Estimate (PSE) estimates the annual monetary transfers to farmers from three broad categories of policy measures that:

- Maintain domestic prices for farm goods at levels higher (and occasionally lower) than those at the country's border (market price support (MPS) estimation).
- Provide payments to farmers based on, for example, the quantity of a commodity produced, the amount of inputs used, the number of animals kept, the area farmed, an historical (fixed) reference period, or farmers' revenue or income (budgetary payments).
- Provide implicit budgetary support through tax or fee reductions that lower farm input costs, for example for investment credit, energy, and water (budgetary revenue foregone estimation).

A crucial point to emphasise is that support not only comprises budget payments that appear in government accounts (which is often the popular understanding of support), but also estimations of budgetary revenues foregone, and estimation of the gap between domestic and world market prices for farm goods – market price support.

The PSE indicators are expressed in both absolute monetary terms (in national currencies, in US dollars and in Euros) and in relative terms – in the case of the %PSE as a percentage of the value of gross farm receipts (including support payments) in each country for which the estimates are made. The %PSE shows the degree to which farmers are supported in a way that is not influenced by the sectoral structure and inflation rate of the country concerned, making this estimate the most widely acceptable and useful indicator for comparisons of support across countries and time.

Additional indicators are derived from the PSE, such as the Producer Nominal Assistance Coefficient (producer NAC) and the Producer Nominal Protection Coefficient (producer NPC). The producer NAC is expressed as a ratio between the value of gross farm receipts (including all forms of measured support) and the gross farm receipts valued at border prices (without support). The producer NPC is defined as a ratio between the average price received by the producers (including payments based on current output) and the border price. The complete set of OECD indicators of support is described in Annex 1.A2.

The main purpose of the calculations is to show the estimates and composition of support each year, and to compare the trends across countries and through time, in order to monitor and evaluate the extent to which OECD countries are making progress in policy reform to which all OECD governments are committed. The PSE data (various indicators of support) are also used as inputs in models used by the OECD (PEM, GTAP, SAPIM) to analyse the effects of different policy instruments on production, trade, farm incomes and the environment.

Changes in the PSE methodology implemented in 2007

In its work on monitoring and evaluating agricultural policy developments, the OECD has always not only estimated the overall level of support, but also shown how that support was composed of different categories of agricultural policy measures. The classification of support into the different categories under the PSE is based on how policies are actually implemented – and not on the objectives or impacts of those policies. Changes in the composition of support have over time become an increasingly important element in assessing progress towards reforming agricultural policies. Yet, as the nature of agricultural policies continues to evolve, the policy categories used for classifying support may have to adjust as well. This is why the nature of the policy categories shown under the PSE has now been revised, as described in the following. It should be noted that the number and definition of policy categories under the PSE, and hence the breakdown of support according to its composition, is the only change to the PSE methodology that has been made – the overall PSE level is not affected by that change.

Previous classification of PSE and related indicators

The PSE classification that has been used before 2007 (including the 2006 report on *Agricultural Policies in OECD Countries: At a Glance*) is shown in Box 1.A3.1.

Box 1.A3.1. **Classification of PSE and related support indicators applied until 2006**

Producer Support Estimate (PSE) (A-H)

A. Market price support
of which MPS commodities

B. Payments based on output

C. Payments based on area planted/animal numbers

D. Payments based on historical entitlements

E. Payments based on input use

F. Payments based on input constraints

G. Payments based on overall farm income

H. Miscellaneous payments

Percentage PSE (PSE as a % of gross farm receipts)

Producer Nominal Protection Coefficient (NPC)

Producer Nominal Assistance Coefficient (NAC)

General Services Support Estimate (GSSE)

Consumer Support Estimate (CSE)

Transfers to producers from consumers

Other transfers from consumers

Transfers to consumers from taxpayers

Excess feed cost

Percentage CSE (CSE as a % of farm-gate value of consumption)

Consumer NPC

Consumer NAC

Total Support Estimate (TSE)

Transfers from consumers

Transfers from taxpayers

Budget receipts

Percentage TSE (as a share of GDP)

New classification of PSE and related indicators

In recent years in the process of policy reform, policies in many OECD countries have been moving – to different degrees and at different speeds – towards providing support that is less dependent on producing specific commodities. Policies are also increasingly providing support based on farm area or on historical (fixed) criteria, which may be land, animal numbers, or income, for example. In some cases, production is required (but the actual commodities produced – currently or in the past – are not specified), in other cases no agricultural commodity production is required or support is provided for the production of non-commodity outputs. In many cases, there are other criteria that farmers must also meet in order to be entitled to support, such as implementing constraints on the use of inputs, or leaving land idle from commodity production but kept in "good agricultural or environmental condition".

The thrust of many of the changes in policies has been to move in the direction of decoupling support from specific commodity production, and to base support on other criteria. While there is increasingly more flexibility in what farmers can produce in order to be entitled to support, there is often less flexibility in how farmers manage their operations, with greater regulatory constraints or conditions. The consequence is that policies have become more varied and complex, and more difficult to group into the previous PSE classification in ways that would permit a more accurate monitoring and evaluation of policy reform and its use in quantitative policy analysis.

In reflecting these policy developments, a new PSE classification has been devised and agreed, as outlined in Box 1.A3.2 and 1.A3.3. The key underlying criteria for the new classification is that the policy measures continue to be classified according to the way they are implemented. The proposed categories differ depending on:

- The transfer basis for support: output (category A), input (category B), area/animal numbers/revenues/incomes (categories C, D and E), non-commodity criteria (category F).
- Whether the support is based on current (categories A, B, C, F) or historical (fixed) basis (categories D and E, as well as F, depending on implementation conditions).
- Whether production is required (categories C and D) or not (category E).

In addition to categories, the new PSE classification includes labels that may be applied to individual policies to provide further specification on the way each measure is implemented: with or without production limits or input constraints, whether payments are at fixed or variable rates (Box 1.A3.3). The applied labels are provided in the PSE database. Labels may be used alternatively as additional sub-categories of the classification as needed, either in the standard tables or for special purposes (*e.g.* production of "satellite" tables, use in further quantitative or empirical analysis).

The definitions of the categories and labels in the new PSE classification are shown in Box 1.A3.3.

Changes in the commodity indicators related to the PSE and CSE

Up until the 2005 report on *Agricultural Policies in OECD Countries: Monitoring and Evaluation* the data on PSEs and related indicators were also shown by commodity, in monetary values and in percentages (or ratios). These commodity data were calculated from adding the commodity specific levels of support (market price support and payments based on output of individual commodities) to the levels of support to commodities for all other policies estimated using various allocation keys (for example, on the basis of a given commodity's share in the value of total production of all commodities, or of crops or livestock only depending on the commodity coverage of a particular policy measure).

To reflect the way in which policies are evolving, with the gradual shift away from direct commodity-linked support, the ***total PSE*** will no longer be broken down into commodities. Instead the ***total PSE*** is broken down into four categories reflecting the flexibility given to farmers' production decisions within the various policy measures. In the current report only one of these categories is reported, namely the SCT, which is defined as follows:

- ***Single Commodity Transfers (SCT):*** the annual monetary value of gross transfers from policies linked to the production of a single commodity such that the producer must

Box 1.A3.2. **Classification of PSE applied from 2007**

A. Support based on commodity output

A.1. Market price support (MPS)

A.2. Payments based on output

B. Payments based on input use

B.1. Variable input use with input constraints

B.2. Fixed capital formation with input constraints

B.3. On-farm services with input constraints

C. Payments based on current A/An/R/I, production required

C.1. Based on current revenue/income

C.2. Based on current area/animal numbers with input constraints

D. Payments based on non-current A/An/R/I, production required

E. Payments based on non-current A/An/R/I, production not required

E.1. Variable rates

E.2. Fixed rates

F. Payments based on non-commodity criteria

F.1. Long-term resource retirement

F.2. Specific non-commodity output

F.3 Other non-commodity criteria

G. Miscellaneous payments

Labels to be attached to programmes in the above categories of policy measures:

- *With/without L (with or without current commodity production limits and/or payment limits).*
- *With V/F rates (with variable or fixed payment rates).*
- *With/without input constraints (C) (With Mandatory/With Voluntary/Without input constraints).*
- *With/without E (with or without any commodity exceptions).*
- *Based on A/An/R/I (based on area, animal numbers, receipts or income).*
- *Based on SC/GC/AC (based on a single commodity, group of commodities or all commodities).*

* A (area), An (animal numbers), R (receipts) or I (income).

produce the designated commodity in order to receive the transfer. This includes broader policies where payments are specified on a per-commodity basis.

Indicators used in policy analysis

Indicators related to total support

The new PSE classification does not change the total PSE. The only change is its breakdown into new categories based on well-established implementation criteria (Box 1.A3.3). The relative indicators linked to the total PSE (%PSE, producer NPC and

Box 1.A3.3. **Definitions of categories in the new PSE classification**

Definitions of categories:

Market price support (MPS): transfers from consumers and taxpayers to agricultural producers 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.

Payments based on output: transfers from taxpayers to agricultural producers from policy measures based on current output of a specific agricultural commodity.

Payments based on input use: transfers from taxpayers to agricultural producers arising from policy measures based on on-farm use of inputs:

- ***Variable input use:*** transfers reducing the on-farm cost of a specific variable input or a mix of variable inputs.
- ***Fixed capital formation:*** transfers reducing the on-farm investment cost of farm buildings, equipment, plantations, irrigation, drainage, and soil improvements.
- ***On-farm services:*** transfers reducing the cost of technical, accounting, commercial, sanitary and phyto-sanitary assistance and training provided to individual farmers.

Payments based on current A/An/R/I, production required: transfers from taxpayers to agricultural producers arising from policy measures based on current area, animal numbers, receipts, or income, and requiring production.

Payments based on non-current A/An/R/I, production required: transfers from taxpayers to agricultural producers arising from policy measures based on non-current (*i.e.* historical or fixed) area, animal numbers, receipts, or income, with current production of any commodity required.

Payments based on non-current A/An/R/I, production not required: transfers from taxpayers to agricultural producers arising from policy measures based on non-current (*i.e.* historical or fixed) area, animal numbers, receipts, or income, with current production of any commodity not required but optional.

Payments based on non-commodity criteria: transfers from taxpayers to agricultural producers arising from policy measures based on:

- ***Long-term resource retirement:*** transfers for the long-term retirement of factors of production from commodity production. The payments in this subcategory are distinguished from those requiring short-term resource retirement, which are based on commodity production criteria.
- ***A specific non-commodity output:*** transfers for the use of farm resources to produce specific non-commodity outputs of goods and services, which are not required by regulations.
- ***Other non-commodity criteria***, transfers provided equally to all farmers, such as a flat rate or lump sum payment.

Miscellaneous payments: transfers from taxpayers to farmers for which there is a lack of information to allocate them among the appropriate categories.

Note: A (area), An (animal numbers), R (receipts) or I (income).

Definitions of labels

With or without current commodity production limits and/or limit to payments: defines whether or not there is a specific limitation on current commodity production (output) associated with a policy providing transfers to agriculture and whether or not there are limits to payments in the form of limits to area or animal numbers eligible for those payments. Applied in categories A – F.

Box 1.A3.3. **Definitions of categories in the new PSE classification** *(cont.)*

With variable or fixed payment rates: a payment is defined as subject to a variable rate where the formula determining the level of payment is triggered by a change in price, yield, net revenue or income or a change in production cost. Applied in categories A – E.

With or without input constraints: defines whether or not there are specific requirements concerning farming practices related to the programme in terms of the reduction, replacement, or withdrawal in the use of inputs or a restriction of farming practices allowed. Applied in categories A – F. The payments with input constrains are further broken down to:

Payments conditional on compliance with basic requirements that are mandatory (*with mandatory*);

Payments requiring specific practices going beyond basic requirements and voluntary (*with voluntary*).

With or without commodity exceptions: defines whether or not there are prohibitions upon the production of certain commodities as a condition of eligibility for payments based on non-current A/An/R/I of commodity(ies). Applied in Category E.

Based on area, animal numbers, receipts or income: defines the specific attribute (*i.e.* area, animal numbers, receipts or income) on which the payment is based. Applied in categories C – E.

Based on a single commodity, a group of commodities or all commodities: defines whether the payment is granted for production of a single commodity, a group of commodities or all commodities. Applied in categories A – D.

producer NAC) and CSE (%CSE, consumer NPC and consumer NAC) continue to be calculated as previously. The GSSE is also still expressed as a share of total TSE and the *%TSE* in relation to GDP. Annex 1.A2 provides definitions of these indicators.

Commodity specific indicators

The changes in the application of the methodology do not allow a breakdown of the *total* PSE by commodity. Therefore, the %PSE by commodity and the producer NAC by commodity are no longer calculated, but the producer and consumer NPCs remain.

The Producer Single Commodity Transfer (Producer SCT) is by definition available for specific commodities, as well as the derived relative indicator the %SCT. As mentioned above, the SCT is the sum of transfers to producers through policies granted to a single commodity, the most important element of which is in most cases the market price support. The %SCT is the commodity SCT expressed as a share of gross farm receipts for the specific commodity. Compared to the previously used commodity %PSE (which included all PSE support), the %SCT includes only support provided through commodity specific policies.

For the CSE, in the absence of transfers from taxpayers to consumers (*i.e.* the situation in most cases), the CSE is the mirror image of the MPS and hence by definition is commodity specific. By applying the same principle of not using allocation keys to distribute transfers from taxpayers to consumers to commodities the commodity %CSE and the consumer NAC by commodity is no longer calculated. However, in most cases the consumer NPC is equal to the consumer NAC by commodity and captures all the transfers to (from) consumers. Hence, the consumer NPC is the main tool used to analyse support to consumers by commodity.

Use of labels in the PSE database

The use of labels gives considerable flexibility to break down the total PSE into categories reflecting specific characteristics of policies in an ad hoc manner (*i.e.* whether the policy includes a constraint on input use or not, or whether it is applied with or without production limits – see the definition of labels in Box 1.A3.3). When desired, the labels in the database may be used alternatively as additional sub-categories in the main classification framework. Currently labels are used in this way as subcategories in category E.

The labels applied in the database can be used to produce specific aggregations of payments for the tables in the Monitoring and Evaluation report to give emphasis to a specific implementation criteria used in the policies applied. The label information can be used also in quantitative analyse based on the PSE database, *e.g.* PEM work or when linking policies with environmental issues (SAPIM).

The use of the new classification and related indicators in policy analysis

The new classification of categories of policy measures, based, as ever, on how the policies are implemented, has the potential to show the degree of flexibility that farmers have in their production choices and thus how different policies influence farmers' decisions to produce commodities and other goods and services using farm resources.

Some policy measures deliver support directly related to the amount of a specific commodity produced (market price support and payments based on commodity production) or variable inputs used. As shown by the results of the Policy Evaluation Model (PEM) on decoupling, these policy measures are the ones that potentially (*ex ante*) have the strongest influence on commodity production incentives although this effect is weakened in those countries that place constraints on output produced or inputs used. Policy measures that are designed to deliver support based on current parameters, such as area or animal numbers and require commodity production, have a potentially somewhat weaker influence on production incentives. Policy measures providing support based on historical parameters, such as the overall farm area or income situation of the farmer, have potentially much less influence on production incentives, while those that provide support based on non-commodity criteria (such as the provision of trees, stone walls and hedges), have potentially the least influence on production. Clearly, the actual impacts (*ex post*) will depend on many factors that determine the aggregate degree of responsiveness of farmers to policy changes – including any constraints on production. Neither the total PSE nor its composition in terms of different categories of policies can, therefore, be interpreted as indicating the actual impact of policy on production and markets. Policy analysis based on support composition can only provide information on the potential of some of the individual policy categories (A, part of B) to influence producer decisions, while for other categories (C) this potential is less clear, as they group more heterogeneous policies. It is only through model-based analysis (such as provided in the OECD'S PEM) or empirical analysis and the use of labels that firmer conclusions can be drawn regarding production and market impacts of given policy measures.

Against this background, the new classification of policy measures and the use of labels will be able to better reflect the evolution of the policy mix. It is thus possible to assess policy reform not only in terms of the trends in the overall level of support, but also in terms of whether there were shifts towards policies that have less potential to distort

commodity production and trade. Identifying policy measures that provide support based on a mixture of current and past production variables and those that deliver support not based on farm commodity production provides a rich source of data to help to evaluate progress in policy reform. Moreover, the data base can be marshalled to illustrate developments on matters where specific policy interests within a country or across countries are important.

Policies in the PSE are classified according to the basis on which support is delivered (implementation criteria) and not on policy objectives or impacts. The new PSE data base will provide a wealth of material to engage in model-based analysis of the effects of different policy instruments on variables such as production, trade and the environment. Increasingly, countries are interested in knowing the extent to which policy measures are targeted to achieve the range of policy objectives (effectiveness), assessing the costs and benefits of those efforts (efficiency), and understanding the implications for the distribution of income (equity). In addressing these issues, it is important to recognise that the PSE needs to be complemented with other data, as well as with information on the overall policy mix. Moreover, the use and interpretation of PSE and associated indicators in comparisons across countries and time needs to be undertaken with care.

References

FAO (2007), *Crop Prospects and Food Situation* No. 6, December, Rome.

FAO (2008), *Food Price Indices*, April, Rome, *www.fao.org/worldfoodsituation/FoodPricesIndex*.

OECD-FAO (2008), *OECD-FAO Agricultural Outlook 2008-2017*, Paris.

OECD (2005), *The Development Dimension, Agriculture and Development: The Case for Policy Coherence*, Paris.

OECD (2007a), *OECD Economic Outlook*, No. 82, December, Paris.

OECD (2007b), *Agricultural Policies in OECD Countries: Monitoring and Evaluation*, Paris.

OECD (2008), *Agricultural Policy Design and Implementation: A Synthesis*, Paris.

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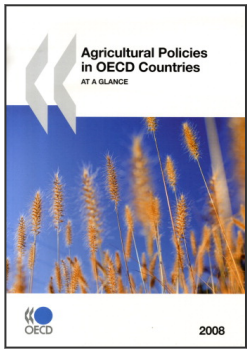

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