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ENVIRONMENTALLY HARMFUL SUBSIDIES

OECD WORK ON DEFINING AND MEASURING SUBSIDIES IN AGRICULTURE

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TABLE OF CONTENTS

Boxes

OECD WORK ON DEFINING AND MEASURING SUBSIDIES IN AGRICULTURE

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1. Introduction

1.   A *subsidy* can be seen as a benefit provided to individuals or businesses as a result of government policy that raises their revenues or reduces their costs and thus affects production, consumption, trade, income, and the environment. The benefit generated by policy may take different forms such as an increase in output-price, a reduction in input-price, a tax rebate, an interest rate concession, or a direct budgetary transfer. There are different terms used for "subsidies": e.g. transfers, payments, support, assistance, and aid. The term used is often associated with the purpose for which the subsidy is measured: e.g. for trade distortion and negotiation, or for domestic efficiency and equity. Although sometimes these names are applied as synonymous, very often they imply the calculation of different indicators. The purpose of this paper is to present the terminology, concepts and methods of subsidy measurement used by OECD in its work on the evaluation of *agricultural policies*.

1.1.   *General description and definitions*

2.   The 1982 Ministerial Trade Mandate (MTM) called for OECD Member governments to pursue a balanced and gradual reduction of protection for agriculture. In order to monitor and evaluate progress relative to that goal the Mandate also called on the Secretariat to develop a method for measuring protection and the associated impacts on trade, all with a view to finding less trade distorting ways of achieving agricultural policy objectives[1]. The method chosen was to estimate the *producer and consumer subsidy (tax) equivalents* of agricultural policy measures and the associated production, consumption and trade effects using a model - the MTM model.[2]

3.   The idea of estimating subsidy and tax equivalents of the various policy measures used in agriculture by OECD Member governments was based on the economic theory of protection first applied to evaluating the effects of tariffs in the 1960s. According to this theory the *producer subsidy-equivalent of a tariff* is the payment per unit of output a government would have to pay to a producer to generate the same production effect as the tariff. Symmetrically, the *consumer tax equivalent of a tariff* is the per unit tax a government would have to impose to yield the same reduction in consumption as the tariff[3]. The

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[1].   For more details see OECD (1982), Council at Ministerial Level, Communiqué, PRESS/A(82)25 (11th May), and OECD (1987), *National Policies and Agricultural Trade*.

[2].   OECD (1990), *The Ministerial Trade Mandate Model*. OECD Economic Studies, Special Issue on Modelling the Effects of Agricultural Policies, N°13/Winter 1989-1990.

[3].   See Corden, W.M. (1971), *The Theory of Protection*, Oxford University Press, London.

concept was first applied to agricultural policies by Tim Josling who calculated producer and consumer subsidy equivalents for selected countries and commodities in the 1970s.[4]

4.   Although there are different consumption impacts and consumer tax equivalents, an import tariff and a payment per tonne that both raise the price received by producers by $10/tonne of a commodity will have the same impacts on production (revenue and income). Thus, converting a tariff to a producer *subsidy equivalent* or a payment (subsidy) to a producer *tariff equivalent* are two ways of expressing the same level of production and protection effect. More generally then, the **producer subsidy equivalent of a policy measure** *(*e.g. import tariff, export subsidy, payment per tonne or per hectare, etc.) is the amount of the payment per unit of output a government would have to pay to producers to create the same impact on production as the amount of the payment provided under that policy measure. Likewise, the **consumer tax equivalent of a policy measure** is the per unit tax that a government would have to impose to create the same effect on current consumption or consumer expenditure as that policy measure[5].

5.   The "producer" and "consumer" designation of these subsidy and tax equivalents indicate who receives and who finances the subsidy. They could also be denominated as production subsidy and consumption tax equivalents because they are defined relative to their impacts on the levels of production and consumption respectively. However, other than in terms of the production and consumption impacts, subsidy/tax equivalents of a tariff or any other policy measure can also be defined in terms of the impacts on trade, revenue, income or environment.[6] Such subsidy-equivalents could be named trade, revenue, income and environmental-based subsidy equivalent respectively.

6.   It should be noted that policy measures providing the same amount of *monetary* transfers to producers have the same *revenue* subsidy-equivalent, but may have different production and income subsidy-equivalents, which depend on the way measures are implemented (e.g. per unit of output or per hectare of land producing the same output). The same can be said for the consumer subsidy equivalent relative to the level of consumption and the amount of consumption expenditure.

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[4]   The concept was used by Professor Tim Josling in a paper prepared for the FAO and was initially presented in a FAO document entitled *Agricultural Protection: Domestic Policy and International Trade,* Rome, 1973, and further elaborated in another FAO document entitled *Agricultural Protection and Stabilisation Policies: A Framework of Measurement in the Context of Agricultural Adjustment*, Rome 1975.

[5]   The impact on production (consumption) or on farming income (consumption expenditure) is the same because such an impact is either a shift along the supply and/or demand curves, which raises (reduces) farming receipts (consumption expenditure); or a shift to the right of these two curves, which reduces farming costs (e.g. payment per hectare of land, inputs subsidies) or consumption expenditure (e.g. food aid).

[6]   Revenue (receipts) is not the same as income, which is revenues *less* costs.

Box 1. Definitions of the OECD indicators of support

Producer Support Estimate (PSE) is an indicator of the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm-gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on farm production or income. It includes market price support and budgetary payments, i.e. gross transfers from taxpayers to agricultural producers arising from policy measures based on: current output, area planted/animal numbers, historical entitlements, input use, input constraints, and overall farming income.

Market Price Support (MPS) is an indicator of the annual monetary value of gross transfers from consumers and taxpayers[7] to agricultural producers arising from policy measures that create a gap between domestic market prices and border prices of a specific agricultural commodity, measured at the farm-gate level.

Producer Nominal Protection Coefficient (NPCp) is an indicator of the nominal rate of protection for producers measuring the ratio between the average price received by producers (at farm gate), including payments per tonne of current output, and the border price (measured at farm gate level).

Producer Nominal Assistance Coefficient (NACp) is an indicator of the nominal rate of assistance to producers measuring the ratio between the value of gross farm receipts including support and gross farm receipts valued at world market prices without support.

Consumer Support Estimate (CSE) is an indicator of the annual monetary value of gross transfers to (from) consumers of agricultural commodities, measured at the farm-gate level, arising from policy instruments that support agriculture, regardless of their nature, objectives or impacts on consumption of farm products. If negative, the CSE measures the implicit burden placed on consumers by agricultural policies, from higher prices and consumer charges or subsidies that lower prices to consumers. The %CSE measures the implicit tax (or subsidy, if CSE is positive) on consumers due to agricultural policy as a share of expenditure at the farm gate.

Consumer Nominal Protection Coefficient (NPCc) is an indicator of the nominal rate of protection for consumers measuring the ratio between the average price paid by consumers (at farm gate) and the border price (measured at farm gate level).

Consumer Nominal Assistance Coefficient (NACc) is an indicator of the nominal rate of assistance to consumers measuring the ratio between the value of consumption expenditure on agricultural commodities domestically produced including support to producers and that valued at world market prices without support to consumers.

General Services Support Estimate (GSSE) is an indicator of the annual monetary value of gross transfers to general services provided to agriculture collectively, arising from policy measures which support agriculture regardless of their nature, objectives and impacts on farm production, income, or consumption of farm products. When expressed as a percentage of TSE (the %GSSE), it gives an indication of the importance of support to general services provided to agriculture, such as research, marketing and promotion, and infrastructure, in the total support to agriculture (TSE).

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

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

7.   A comprehensive estimation of all forms of subsidy-equivalents of policy measures requires: (i) the classification of policy measures according to the way in which they are implemented together with the measurement of the amount of the monetary transfers involved; and (ii) supply and demand elasticities to estimate the associated impacts on production, consumption, and income. The OECD measurement of the revenue-based *Producer Support Estimate* (PSE) and *Consumer Support Estimate* (CSE) - as defined

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[7].   Transfers from taxpayers occur, for example, when subsidies are used to finance exports.

in Box 1 - fulfils the first requirement[8], while the MTM model and the PEM (**Policy Evaluation Matrix**)[9] were developed by OECD to fulfil the second. OECD publishes only *revenue-based* subsidy equivalents[10], although the models used to evaluate the production, consumption, trade and income impacts of agricultural policies in Member countries calculate the impacts.[11]

8.   The PSE measures the revenue subsidy-equivalent, or the costs (monetary transfers) for consumers and taxpayers of support to producers arising from policies directed at agriculture. Although the PSE is measured *net* of any producer contributions to help to finance a support policy (*e.g.* through a levy on production) it is fundamentally a *gross* concept because any costs associated with the response to those policies that are incurred by individual producers are not deducted.[12] The PSE is also a measure of *nominal assistance* in the sense that increased costs associated with import any duties on farm inputs are not deducted.[13]

9.   The PSE includes both implicit and explicit payments, such as price gaps on outputs or inputs, tax exemptions and budgetary payments, including those for remunerating non-marketed goods and services. The PSE can be expressed in absolute (monetary) terms and in relative (percentage) terms measuring the amount of transfers received by producers and the share of these transfers in total gross farm receipts (%PSE), which is the producer subsidy equivalent in terms of revenue.[14] The production, consumption, trade and income-based subsidy-equivalents could be derived using the transfers in the PSE weighted by their impacts on production, consumption, trade and income respectively.

1.2.   *Why estimate farm support?*

10.   Since 1987, the PSE/CSE and related derived indicators (Box 1) have been used by OECD as the principal tools to monitor and evaluate agricultural policy developments in the light of the 1987 Ministerial policy reform principles. *These indicators are estimates of the level of support (transfers) arising from agricultural policies, but do not themselves quantify the impacts of policy measures on such variables as production, consumption, trade, farm income or the environment.* Those impacts, which are important for any policy evaluation, depend on the *level of support*, the *nature of support* in terms of the way policy measures are implemented, and the *responsiveness* of those variables to changes in support.

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

[9].   See OECD (2001), *Market Effects of Crop Support Measures*.

[10].   PSE and CSE by country and commodity are published in the OECD annual report on *Agricultural Policies in OECD countries: Monitoring and Evaluation.*

[11].   For example, the "income transfer efficiency" and the "income subsidy-equivalent" of a policy measure are two ways of expressing the same effect on income. OECD (2002), *The Incidence and Income Transfer Efficiency of Farm Support Measures.*

[12].   In order to receive a given payment, producers may have to produce or plant a specific commodity, or use a specific input, and therefore incur costs. As these costs are not deducted from the amount of the payment, although they may absorb part of the payment, the PSE can be seen as a gross concept.

[13].   When the increased costs associated with import duties on inputs are deducted the indicator of support is a measure of *effective assistance*.

[14].   This is why prior to 1999, the PSE and CSE were referred to as Producer Subsidy Equivalent and the Consumer Subsidy Equivalent.

11. Moreover, policy measures are rarely applied in isolation and their impacts depend also on the policy mix or *composition of support*. The impacts or distortions associated with agricultural support are also the result of different *rates of support* among agricultural commodities and between commodity and non-commodity based support. Finally, the extent of such impacts and distortions may be limited through constraints imposed on production, on factors of production or on farming methods and technologies. The quantification of these impacts (distortions) requires the estimation of subsidy equivalents through economic models such as the PEM framework developed by OECD.

12. To contribute to a better quantitative or qualitative evaluation of policy impacts, the policy measures included in the measurement of overall support to agriculture - the ***Total Support Estimate*** (TSE) - are grouped according to the conditions under which the associated support is provided, *i.e.* to producers (PSE), to consumers (CSE), or to general services provided to agriculture as a whole (GSSE). Policy measures within the PSE are classified in terms of how the resulting support is provided (i.e. implementation) (see Box 2). This classification of support measures allows a ranking of categories of PSE measures according to their *potential* impacts on production, consumption, trade, income, or the environment. The relative impacts of the different categories of PSE measures on each of these variables are important elements used to evaluate policy developments in OECD countries.

Box 2. Classification of policy measures included in the OECD indicators of support

   I.   **Producer Support Estimate (PSE) [Total of A - H]**
          A.   *Market Price Support*
          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 farming income*
          H.   *Miscellaneous payments*

   II.   **General Services Support Estimate (GSSE) [Total of I - O]**
          I.   *Research and development*
          J.   *Agricultural schools*
          K.   *Inspection services*
          L.   *Infrastructure*
          M.   *Marketing and promotion*
          N.   *Public stockholding*
          O.   *Miscellaneous*

   III. Consumer Support Estimate (CSE) [Total of P - S]
          P.   *Transfers to producers from consumers*
          Q.   *Other transfers from consumers*
          R.   *Transfers to consumers from taxpayers*
          S.   *Excess Feed Cost*

   IV.   **Total Support Estimate (TSE) [I + II + III R]**
          T.   *Transfers from consumers*
          U.   *Transfers from taxpayers*
          V.   *Budget revenues*

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

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13.   The GSSE *transfers* are collectively provided to the sector as a whole, while the PSE/CSE *transfers* are provided to individual farmers/consumers. Contrary to the PSE transfers, GSSE transfers do not depend on any individual framers' decisions or actions to produce goods or services, or use factors of production, and do not affect farm receipts directly. Therefore, all other things equal, although GSSE transfers can in the long run contribute to improve or expand the sector's production capacity, in the short run their commodity production, trade and farmers' income impacts are potentially lower than those associated with PSE transfers. However, environmentally targeted measures implemented through GSSE measures may be an example of the most effective and less costly way to achieve specific environmental goals.

14.   In summary, the OECD measurement of support associated with agricultural policy measures is undertaken primarily to evaluate policy changes in Member countries. There is no single indicator to evaluate a policy change. The PSE/CSE, NPC, NAC, GSSE and TSE are interrelated indicators of the main elements of agricultural support, which determine the impacts of policies on production, consumption, trade, income, and the environment. Any quantitative or qualitative evaluation of policies needs to use all these indicators.

2.   Method of calculation

2.1.   *What does the PSE/TSE cover?*

15.   The PSE is a static measure of support provided to agricultural producers in a given time period (*e.g.* one year or season) in the context of general macro-economic conditions and economy-wide policies. A situation of zero support to agriculture would occur when there are only general economy-wide policies in place with no policies specifically altering the transmission of the general macroeconomic developments to agriculture. In such a situation, current total farm receipts (revenues) would entirely be generated in the market without any policy-linked transfers to farmers.

16.   To improve welfare, address market failure, or achieve any other objective, agricultural policies provide transfers although their efficiency depends on their effects on production, consumption, trade, incomes and the environment in agriculture. These effects depend on the way policies are implemented, which is the criterion used to group transfers under the PSE, CSE, GSSE and TSE (Box 2). Therefore, the comprehensiveness of the coverage and classification of policies is important as they are the basis for any cost/benefit analysis of agricultural policies.

17.   For example, to protect the natural habitat, one country might apply SPS measures to avoid infestation with pests or diseases that do not exist in the country. A second country might grant a payment to farmers to share the costs of changing farming practices, and a third country might finance collective actions in favour of such protection. In the first case, SPS measures *may* create transfers from consumers to producers *if* they allow a domestic price higher than the export price, which is included in MPS in the PSE. In the second case, the transfers are also included in the PSE, but under payments based on input constraints while, in the third case, the transfers are included under the GSSE. Although all these measures can be effective in protecting the natural habitat, they involve different impacts on production, consumption, trade and farm income.

18.   There are several categories of policies affecting price transmission to farmers directly[15]. Concerning output prices, these categories are payments based on output ("deficiency payments") and

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[15].   For example, a "double price" occurs when the f.o.b./c.i.f. border price is adjusted for an exchange rate variation, while the domestic price or the price received by farmers is not adjusted. This can happen only if a specific policy exists for allowing it.

MPS and both are included in the PSE. While deficiency payments do not affect domestic consumers and are explicit transfers included in the budget, MPS includes a wide range of measures generating implicit transfers paid by consumers, which are included in the PSE and CSE. Policies affecting input prices take often the form of tax rebates, interest concessions, or subsidies to input suppliers to reduce the prices paid by farmers. The following section gives more examples of policies covered by the PSE/TSE and shows how the associated transfers are measured.

2.2. *How are transfers measured?*

19.   Border measures on imports and exports, together with government intervention through stockholding, domestic and foreign food-aid measures, and consumption subsidies create a price gap between domestic and border prices.[16] Transfers to producers (from consumers), created by a situation in which domestic prices for commodities are maintained at a higher level than border prices (price gap), are included (+) under the PSE, and (-) under the CSE.[17] Transfers to producers (from taxpayers) through export subsidies (the same price gap) are included in the PSE.

20.   While transfers from taxpayers for **on-farm stockholding** are transfers to producers, and are included in the *PSE*, transfers from taxpayers for the operational costs of public purchasing agencies and the depreciation and disposal costs associated with *public stocks* are *not* in themselves transfers to producers[18]. Such transfers are, therefore, included in the *GSSE*. **Transfers to processors** (first consumers) to compensate them for paying domestic prices higher than border prices, and **consumption subsidies** in cash or in kind to support various consumption levels, are included under the *CSE*.

21.   **Input subsidies** are typically explicit or implicit payments reducing the price paid by farmers for variable inputs (for example, fertilisers, feed, seeds, energy, water, transportation, insurance), which are provided to farmers through policy instruments, including interest concessions, tax rebates and budgetary transfers to input industries to provide lower input prices paid by farmers. In the absence of such instruments, and with input industries (or services) providing inputs at prices fully reflecting depreciation and operational costs, there are neither input subsidies (in the PSE) nor transfers for infrastructure (in the GSSE).

22.   PSE transfers to producers associated with the input subsidies are, for example, the *budget receipts forgone* in the case of **energy tax rebates** and **interest concessions** (implicit payment), or the annual budgetary expenditure (explicit payment) to compensate industry (banks) for losses associated with lower input prices paid by farmers. Such transfers can also be measured by the gap between the price (interest or tax rate) actually paid by farmers and the price (rates) paid by others in the domestic market.[19]

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[16]   Border prices are f.o.b. for exported commodities and c.i.f. for imported commodities.

[17]   When domestic prices are lower than the border prices due to policies (for example those limiting exports), price gaps are included as negative in the PSE and positive in the CSE.

[18]   Whatever the cost of the public stockholding of a given commodity, farmers only receive the associated price gap which is included in Market Price Support.

[19]   Sometimes, part of the budgetary transfer is retained by industry or the service sector (*e.g.* banks) and not transferred to farmers. This part should, strictly speaking, be included in the GSSE. However, as it is not always possible to identify the part that does not accrue to producers, the PSE (GSSE) is over (under)-evaluated to some extent. The same could also be said in the case of other programmes, such as certain deficiency payments schemes. That is one of the reasons why a price-gap calculation would, in many cases, be the most appropriate. However, the choice of the method used will often be dictated by data quality and availability .

23.   However, public expenditure is sometimes also used with the intention of increasing the competitiveness of the sector as a whole through improving infrastructure related to input, processing and marketing industries. It is, for example, the case that EU Regulation 355/77 (replaced by Regulations 866/90 and 867/90) is designed to improve the infrastructure related to processing and marketing of agricultural products in the European Union. Such transfers are not received as such by farmers and are included in *infrastructures* in the GSSE.

24.   While most agricultural inputs in the OECD are provided through private enterprises, the off-farm provision of *water for irrigation* is usually provided through public enterprises. Although, in this case, the initial investment is financed by taxpayers, it is not included in the PSE or GSSE. In both cases of public or private investment — and as for any other input — the question is whether the price for water paid by farmers covers all the industry costs or not.[20] If the answer is no, the annual budgetary expenditure to compensate industry for operational costs associated with lower input prices for farmers is included in the PSE. However, information and data on water subsidies has been very poor and difficult to obtain.

2.3.   How are taxes, levies and externalities treated?

25.   The PSE and CSE are defined as *net* of producer contributions which help finance policy measures providing support to them. This is one of the reasons why the *excess feed cost*[21] is calculated and deducted from the market transfers to producers and to (from) consumers. The PSE and CSE are calculated relative to total production and consumption— *i.e.* including quantities domestically produced and used as feed. Therefore, the MPS for feed crops domestically produced and consumed by livestock producers is *negative* in the PSE for livestock and included in the CSE for crops. This avoids double counting when aggregating the PSE and CSE for crops and livestock.[22]

26.   In the same way, the receipts from *production taxes and levies* which finance a given policy measure are also deducted from the total amount of payment provided to producers through such policy measures. However, the receipts from taxes and levies on purchases of inputs or penalties on farmers resulting from economy-wide regulations — for example, for *reducing environmental pollution* — are not considered in the PSE calculation. This is because the PSE is used to measure the transfers and associated effects of agricultural policies and not those associated with all policies.

27.   Where achieving the level of *environmental quality* (through good agricultural practices) is required by regulations this should be at the expense of farmers, and a payment by a government for reducing pollution is considered as a support to help farmers to reach the required environmental quality (Box 3). A payment by a government for enhancing environmental benefits linked to agricultural production is also considered as a support to help farmers to reach a given environmental quality. Independently of the environmental effectiveness of these payments, they have impacts on farm production, trade and income, and so many subsidy-equivalents. The calculation of these

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[20]   Sometimes, part of the price gap for farmers is paid by other consumers of the input. For example, other consumers of water finance the price gap for farmers through higher water prices. That is another reason why the price gap calculation is, in many cases, the most appropriate.

[21]   Excess feed costs for livestock producers due to market price support on domestically produced coarse grains and oilseeds used as animal feed.

[22]   The CSE for crops is therefore calculated net of producer contributions or, in other words, does not include the share of domestic production used as feed in the sector. In the same way, the aggregate PSE for crops and livestock does not include the share of domestic production used as feed in the sector, but the method shows that the associated support to crops is an implicit tax on livestock products.

subsidy-equivalents may therefore be an important element for the evaluation of the economic efficiency of the associated governmental policies.

Box 3. The case of negative support and externalities

The concept of the PSE as a *gross* measure allows for some cases of negative support. This is the case of agricultural policy measures that act as a tax on producers relative to the situation in the absence of such measures — *i.e.* if only general economy-wide policies were in place. The typical example of negative support is an export tax, or any other agricultural policy measure discouraging exports and resulting in a domestic price lower than the world price.

Given that the PSE is also a *nominal assistance* measure, taxes on producers in the context of general economy-wide policies applied in a country are not included as negative support. For example, V.A.T., or other general taxes on purchases of inputs, and taxes on salaries for social protection, or taxes on inputs for environmental protection are not considered as negative support. This is the case unless the rates applied to agricultural producers differ from those resulting from the general tax, or from social and environmental policies. In such a case, the difference between a lower rate for producers and the general rate would mean positive support, while the difference between a higher rate and the general rate would mean negative support. A consistent and comprehensive PSE coverage of such cases would need more work on taxation and on social and environmental policies.

Therefore, a producer, who bears the costs incurred in eliminating pollution caused by his production activity is respecting the *polluter-pays-principle* and is not being penalised through negative support. This is also the case of a producer who pays a pollution tax or penalty, which represents the cost of the pollution. But if a payment is received to compensate for the costs incurred in eliminating pollution, which the producer has caused, such a payment is considered as support.

2.4   *How are results expressed?*

28.   The PSE and CSE are calculated by country covering the agricultural sector overall, and by commodity. The latter are calculated for a number of commodities commonly produced in most OECD countries and for country specific commodities with a particularly important share of the total value of production of the country in question. These indicators are expressed in both absolute (value) and relative terms, i.e. in percentage of the value of gross farm receipts (%PSE) and the value of consumption at the farm gate level (%CSE). The PSE is also expressed by hectare of farmland and number of farmers (in fulltime equivalent).

29.   The overall PSE monetary value is influenced by the size and structure of the country's agricultural sector, as well as the country's rate of inflation. However, the PSE expressed in relation to the number of farmers or area of farmland is influenced by differences among countries in factor endowment and the number, type, and size of farm holdings. By contrast, support expressed as percentage of gross farm receipts (%PSE) shows the amount of support to farmers, irrespective of the sectoral structure and inflation rate of a given country. For these reasons, the %PSE is the most widely used indicator for comparisons of support across countries, commodities and time.

30.   For the same reasons, the GSSE and TSE are not only expressed in monetary value but also in relative terms. Expressed as a percentage of the TSE, the %GSSE gives an indication of the importance of support to general services provided to agriculture, such as research, marketing and promotion, and infrastructure, in the total support to agriculture (TSE). Finally the %TSE is defined as the share of total support to agriculture in total GDP. Although the %TSE depends not only on the size of the agricultural sector but also on the size of the other sectors of the economy, it gives an indication of the share of the national income used to support agriculture.

3. Coverage, data collection and results release

3.1. Country and time coverage

31.   The PSE and related indicators are annually calculated for the EU as a whole, the other OECD countries, and a number of non-member countries, i.e. Bulgaria, Estonia, Latvia, Lithuania, Romania, Russia, and Slovenia. In the case of the EU they cover policy measures at EU, national and sub-national levels, while the latter two levels of policies are covered in all other countries. The calculations cover the period starting in 1986 and are updated every year in light of the most updated information available in the Secretariat. The calculation for the year on which the calculations are made is always preliminary or provisional. Although results are presented in a calendar year basis, they generally cover crop season for crop specific data, and budget year for other data, which often cover parts of two consecutive calendar years.

3.2. Data collection

32.   Data on budgetary expenditures, output domestic and border prices, and values and volumes of production and consumption are, as far as possible, taken from official published statistics, or provided by countries. For example, data adjustments from budget year to season year are made by the countries themselves. Calculations on revenue forgone such as taxes rebates, interest concessions, or input price reductions are calculated by countries themselves or by the Secretariat on the base of relevant official data. Income tax concessions are among the policies to be included, but they are included only in the four countries which provide data. Although the PSE for most of the countries include estimations on input under-pricing, for example for water irrigation, there is not enough information for ensuring transparency and consistency among countries. The same could be said for the data on sub-national (state, regional, prefectural or provincial) policy measures.

3.3. Results use and release

33.   Results of the annual calculation of PSE and related indicators are used and published in the annual report on *Agricultural Policies in OECD countries: Monitoring and Evaluation*. This report contributes to improving transparency on policy developments in Member countries, and to share country experiences in achieving specific policy objectives. The main goal is to analyse policies in view of identifying and give advice on the characteristics of effective and efficient policy measures, i.e. able to achieve domestic and international concerns with the least economic and trade distortions.

34.   This report includes tables per country and for the OECD as a whole with the full decomposition of the Estimate of support to agriculture (see example in Annex Table 1). It also includes summary tables with PSEs and CSEs by country and commodity (see examples in Annex Tables 2 and 3). A description of the policies covered, and the detailed results for all countries, as well as the documentation of the data sources, are available in the annual *OECD PSE/CSE Database* (CD-Rom). Moreover, work is currently underway to build an inventory of policy measures addressing environmental issues in agriculture, which will complement the information and data currently available in the PSE/CSE database.

4. Identifying environmentally harmful subsidies

35.   The environmental impacts of policy measures very much depend on how they affect farming practices, which in turn depend on the way policies are implemented. PSE/PEM work has allowed a

ranking of support measures according to their impacts on *production*[23]. Work on agri-environmental indicators has provided contextual information on the overall trends and current state of the environment in agriculture[24]. A recent report on how to improve the environmental performance of agriculture[25], shed light on a number of key questions related to policy design such as: on which principles should policies be based? Who should pay or be paid for ensuring environmental quality? When could market approaches be harnessed for charging and remunerating environmental quality? And when might policy action be needed?

36.   This work has contributed to a better understanding of the linkages between agricultural activities, policies and environment, and a progressive extension of the evaluation of agricultural policy measures to their impacts on the environment. Although still only in qualitative terms, this evaluation has consisted in identifying the nature of the environmental impacts (harmful or beneficial), and defining the relative potential impacts of agricultural support measures on the environment. The ranking of such potential impacts helps to identify potentially environmentally harmful subsidies.

4.1   Environmental impacts of agricultural policies: harmful or beneficial?

37.   All production and consumption activities have an impact on the environment, which are accentuated or attenuated by policies. Impacts of agricultural policy measures on the environment largely depend on the degree to which such measures affect production techniques encouraging (discouraging) the use of inputs (specially farm chemicals and machinery), environmentally sensitive land, or farm practices and systems.

38.   The natural environment has a "carrying capacity" in relation to the economic activities on which it depends, but is dynamic and changes through time, including through the influence of technologies. The sustainability of agriculture may be considered as the process in which food and fibre is produced in economically efficient ways within the evolving carrying capacity of the environment. The state of the environment may be measured through indicators defining a scale of values of environmental quality or sustainability/unsustainability in a given area or region.

39.   Defining and evaluating the environmental quality of agriculture in principle needs as many indicators as environmental features or qualities defined in terms of for example erosion, soil or water nutrient loading, chemical run-off, leaching, and biodiversity or wildlife habitats. For each indicator there is a *point* in the scale of values defining the frontier between environmental sustainability and unsustainability, or a *band* of sustainable (or unsustainable) values, which depend on specific ecological states.

40.   No environmental feature should be seen as intrinsically harmful/unsustainable (e.g. soil erosion or water pollution) or beneficial/sustainable (e.g. biodiversity, landscape) as it depends on the degree and direction of change in the quality (indicator) of the particular environmental feature. However, the introduction of (or change in) a policy measure influences farming practices and thus has a beneficial or harmful environmental impact as it reduces or increases environmental pressure. In other words, it enhances or damages the *existing* state of the environment corresponding to a certain degree of environmental quality or sustainability.

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[23]   OECD (2002), *Agricultural Policies in OECD Countries: Monitoring and Evaluation.*

[24]   See OECD (2001), *Environmental Indicators for Agriculture: Volume 3 - Methods and Results.*

[25]   OECD (2001), *Improving the Environmental Performance of Agriculture: Policy Options and Markets Approaches.*

4.2   *Relative impacts of producer support measures on the environment*[26]

41.   The impacts of producer support (PSE) measures on the environment largely depend on their effects on farm-level decision-making concerning the *intensive* (input use) or *extensive* (land use) degree of agricultural production. These impacts result from the relationships linking land quality, production practices, input use, and environmental quality defined in terms of, for example erosion, chemical run-off, leaching, landscape and biodiversity or wildlife habitats.

42.   In general, the more a policy measure is production linked, i.e. provides an incentive to increase production of specific agricultural commodities — the greater is the incentive for *monoculture*, intensification (using more inputs to produce higher yields), or to bring more (environmental sensitive) land into production — and the higher is the pressure on the environment. On the other hand, with non production linked measures, the higher the level of support of non environmentally targeted measures — the greater is the incentive for keeping environmental sensitive land under production and the pressure on the environment.

43.   However, some restrictions or constraints on providing support (*e.g. environmental cross-compliance*[27] and regulations) may attenuate the environmental impacts of support measures. Moreover, the more a policy measure can be targeted to a specific environmental goal and situation, the greater is its potential *effectiveness* in achieving such a goal. However, the more a policy targeted to a specific environmental goal or situation offset damaging environmental effects of production-linked support measures, the lower the *efficiency* in improving environmental quality.[28]

44.   All other things being equal, the main categories of PSE measures may be ranked according to their *relative* impacts on the environment as follows:

-     *Market price support* and *payments based on output* both increase the price received by producers for a specific commodity such that the more the commodity is produced, the higher will be the support and the incentive to expand production. Thus, the higher the support, the greater is the incentive for monoculture, for increasing the use of inputs (such as chemicals), and/or for using environmentally sensitive land, and the greater is the pressure on the environment. Moreover, these payments have no built-in effectiveness in achieving environmental goals, as they are production-wide payments that can not be targeted to any environmental goal or situation, which are generally local in nature.

-     *Payments based on input use* reduce the cost of inputs used by producers such that the more the input is used the higher will be the support. Thus, the higher these payments, the greater the incentive to use the input, and the greater the impact on production and the environment. The more the payment is specific to a variable input (*e.g.* fertiliser, pesticide) the greater the incentive for production intensification, and the pressure on the environment. For example, the negative environmental impact of a credit subsidy for purchasing fertilisers or pesticides

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[26]   This section is consistent with the results of the work on *Improving the Environmental Performance of Agriculture: Policy Options and Market Approaches.* OECD 2001; and on *The Environmental Effects of Reforming Agricultural Policies*, OECD 1998.

[27]   Support conditional upon farmers undertaking some type of environmental compliance.

[28]   In other words, where policies addressing environmental performance offset damaging environmental effects of production-linked support, the costs of improving environmental quality are higher than they would be in the absence of such support measures.

is potentially higher than that of a general credit subsidy that could also be used for improving fix inputs such farm buildings. Therefore, these payments may have a higher, the same, or a lower effect on production and the environment than an output payment depending on the type of input on which the payment is based.

- *Payments based on area planted/animal numbers* reduce the cost of land/livestock for current plantings/ animal numbers. As producers have to plant a specific crop or own specific animals, these payments may be an incentive for keeping environmental sensitive land producing commodities non-environmentally-friendly in such land. Although these payments may be targeted to a specific environmental goal or situation, they provide an incentive to bring additional land or animals into specific production and encourage monoculture in the same way as the payments based on output. However, as producers are not encouraged to increase yields and to produce as intensively as they are with the forms of support outlined above, the negative environmental impact of these payments is potentially lower.

- *Payments based on historical entitlements* (*i.e.* based on past: support, area, animal numbers, production, or income) and *payments based on overall farming income* (paid on the condition that the overall level of farmers' income is below a pre-defined level) also have the potential for retaining environmentally sensitive areas under production. However, in receiving these payments producers are not obliged to plant, own animals, or produce any particular commodities, thus they allow for individual choices on environmentally friendly production techniques, and do not encourage production intensification and/or monoculture. Therefore, the negative impact of these payments on the environment is potentially lower than the previous forms of support.

- *Payments based on input constraints* are provided on the condition that farmers respect certain constraints (reduction, replacement or withdrawal) on the use of inputs often for environmental purposes. These payments may be targeted to address specific environmental issues associated with agriculture. Through constraining production intensity, these payments encourage production diversification, or remove environmentally sensitive land from production relative to what would otherwise occur. These payments may thus contribute to offset the harmful environmental impacts arising fully or partly from one or more of the previous forms of support. The environmental impacts of these payments depend on the type of constraint, but they have the potential for reducing environmental pressure and for being the most environmentally effective PSE measures.

45.   Work is ongoing to further refine the understanding and evaluation of the effects on the environment of different levels of support and ways in which different policy measures are implemented. Three major challenges for the future are: identifying those policies that are environmentally harmful, compared with those that are environmentally neutral or beneficial; analysing the environmental effects when there are complex policy packages, involving many different means, which can have different and conflicting environmental effects; and the trade-offs or synergies between the environmental, economic and social effects of policy measures.

Annex Table 1. OECD: Estimates of support to agriculture

	1986-88	1999-2001	1999	2000	2001p
Total value of production (at farm gate)	**575,578**	**672,389**	**686,807**	**667,579**	**662,782**
of which share of MPS commodities (%)	*71*	*68*	*69*	*68*	*68*
Total value of consumption (at farm gate)	**533,643**	**608,065**	**610,659**	**607,695**	**605,840**
Producer Support Estimate (PSE)	**238,936**	**248,302**	**272,563**	**241,599**	**230,744**
Market price support	184,539	160,142	181,767	153,390	145,268
of which MPS commodities	*130,379*	*109,603*	*124,821*	*104,825*	*99,163*
Payments based on output	11,742	16,012	16,437	17,395	14,203
Payments based on area planted/animal numbers	15,664	29,078	29,406	28,772	29,057
Payments based on historical entitlements	515	13,179	13,480	13,609	12,448
Payments based on input use	20,328	20,671	22,713	19,794	19,505
Payments based on input constraints	2,995	6,262	6,357	5,844	6,586
Payments based on overall farming income	2,853	3,000	2,669	3,089	3,241
Miscellaneous payments	300	-41	-266	-293	436
Percentage PSE	**38**	**33**	**35**	**32**	**31**
Producer NPC	**1.58**	**1.35**	**1.41**	**1.34**	**1.31**
Producer NAC	**1.62**	**1.49**	**1.54**	**1.47**	**1.45**
General Services Support Estimate (GSSE)	**41,439**	**55,077**	**57,448**	**53,943**	**53,838**
Research and development	3,989	5,627	5,907	5,479	5,497
Agricultural schools	759	1,608	1,531	1,603	1,688
Inspection services	1,140	1,830	1,792	1,885	1,814
Infrastructure	12,579	17,174	17,403	17,364	16,753
Marketing and promotion	13,384	22,036	23,858	20,726	21,525
Public stockholding	7,416	3,019	3,488	2,864	2,704
Miscellaneous	2,173	3,782	3,469	4,022	3,856
GSSE as a share of TSE (%)	**13.7**	**16.7**	**16.1**	**16.8**	**17.3**
Consumer Support Estimate (CSE)	**-168,704**	**-153,815**	**-176,184**	**-148,136**	**-137,124**
Transfers to producers from consumers	-184,734	-158,447	-182,390	-152,106	-140,844
Other transfers from consumers	-17,452	-24,076	-25,097	-23,774	-23,356
Transfers to consumers from taxpayers	21,703	26,185	26,618	25,562	26,376
Excess feed cost	11,779	2,522	4,685	2,182	699
Percentage CSE	**-33**	**-26**	**-30**	**-25**	**-24**
Consumer NPC	**1.62**	**1.43**	**1.51**	**1.41**	**1.37**
Consumer NAC	**1.50**	**1.36**	**1.43**	**1.34**	**1.31**
Total Support Estimate (TSE)	**302,078**	**329,564**	**356,629**	**321,104**	**310,959**
Transfers from consumers	202,186	182,522	207,487	175,880	164,200
Transfers from taxpayers	117,345	171,117	174,239	168,998	170,115
Budget revenues	-17,452	-24,076	-25,097	-23,774	-23,356
Percentage TSE (expressed as share of GDP)	2.3	1.3	1.4	1.3	1.3

Source: OECD, Agricultural Policies in OECD Countries: Monitoring and Evaluation 2002, Paris.
Notes*:* p: provisional. MPS commodities: See notes to country tables. MPS is net of producer levies and excess feed costs. TSE as a share of GDP for 1986-88 for the OECD excludes the Czech Republic, Hungary, Poland and Slovak Republic as GDP data is not available for this period. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

Annex Table 2. OECD: Producer Support Estimate by country

		1986-88	1999-2001	1999	2000	2001p
Australia	USD mn	1 285	947	1 135	878	827
	EUR mn	1 181	980	1 066	953	923
	Percentage PSE	9	5	6	4	4
	Producer NPC	1.05	1.01	1.02	1.00	1.00
	Producer NAC	1.10	1.05	1.06	1.04	1.04
Canada	USD mn	5 667	3 930	3 709	4 153	3 928
	EUR mn	5 183	4 124	3 481	4 506	4 386
	Percentage PSE	34	18	18	19	17
	Producer NPC	1.40	1.13	1.14	1.13	1.11
	Producer NAC	1.51	1.22	1.22	1.23	1.21
Czech Republic	USD mn	1 670	655	849	532	585
(1)	EUR mn	1 353	676	796	578	653
	Percentage PSE	38	19	24	16	17
	Producer NPC	1.74	1.10	1.18	1.06	1.06
	Producer NAC	1.67	1.23	1.31	1.19	1.20
European Union	USD mn	93 719	99 343	115 330	89 617	93 083
	EUR mn	84 998	103 141	108 241	97 244	103 937
	Percentage PSE	42	36	39	34	35
	Producer NPC	1.87	1.38	1.47	1.33	1.33
	Producer NAC	1.76	1.56	1.63	1.51	1.54
Hungary (1)	USD mn	891	881	1 151	912	580
	EUR mn	725	906	1 080	989	648
	Percentage PSE	17	18	23	20	12
	Producer NPC	1.14	1.10	1.17	1.12	1.01
	Producer NAC	1.20	1.23	1.30	1.25	1.13
Iceland	USD mn	193	136	161	139	108
	EUR mn	174	141	151	151	121
	Percentage PSE	74	63	67	62	59
	Producer NPC	3.78	2.35	2.68	2.27	2.11
	Producer NAC	3.89	2.70	3.05	2.61	2.45
Japan	USD mn	49 498	51 980	53 809	54 888	47 242
	EUR mn	44 869	54 270	50 502	59 559	52 750
	Percentage PSE	62	60	61	61	59
	Producer NPC	2.51	2.42	2.46	2.45	2.36
	Producer NAC	2.62	2.53	2.56	2.56	2.46
Korea	USD mn	12 120	18 170	18 335	19 337	16 838
	EUR mn	10 882	18 997	17 208	20 982	18 801
	Percentage PSE	70	66	66	67	64
	Producer NPC	3.36	2.81	2.90	2.90	2.64
	Producer NAC	3.42	2.91	2.98	3.00	2.76
Mexico	USD mn	-266	5 694	4 515	6 032	6 537
	EUR mn	- 233	6 027	4 237	6 545	7 299
	Percentage PSE	-1	18	15	19	19
	Producer NPC	0.91	1.16	1.13	1.18	1.17
	Producer NAC	0.99	1.21	1.17	1.24	1.23

Annex Table 2. OECD: Producer Support Estimate by country (*continued*)

		1986-88	1999-2001	1999	2000	2001p
New Zealand	USD mn	476	67	77	71	52
	EUR mn	453	69	73	77	58
	Percentage PSE	11	1	1	1	1
	Producer NPC	1.02	1.01	1.01	1.01	1.00
	Producer NAC	1.13	1.01	1.01	1.01	1.01
Norway	USD mn	2 628	2 274	2 511	2 138	2 173
	EUR mn	2 377	2 368	2 357	2 320	2 427
	Percentage PSE	66	66	67	64	67
	Producer NPC	3.38	2.50	2.93	2.31	2.27
	Producer NAC	2.96	2.95	3.08	2.77	3.00
Poland (1)	USD mn	528	1 676	2 584	997	1 447
	EUR mn	449	1 708	2 426	1 082	1 616
	Percentage PSE	4	12	19	7	10
	Producer NPC	1.00	1.14	1.24	1.11	1.07
	Producer NAC	1.04	1.14	1.24	1.08	1.11
Slovak Republic (1)	USD mn	675	292	389	335	151
	EUR mn	549	299	365	364	169
	Percentage PSE	35	20	25	23	11
	Producer NPC	1.29	1.10	1.20	1.11	1.01
	Producer NAC	1.55	1.25	1.34	1.31	1.12
Switzerland	USD mn	5 063	4 480	4 869	4 356	4 214
	EUR mn	4 573	4 667	4 570	4 727	4 706
	Percentage PSE	73	70	72	70	69
	Producer NPC	3.85	2.76	3.17	2.71	2.39
	Producer NAC	3.66	3.37	3.61	3.30	3.21
Turkey	USD mn	2 779	6 522	7 707	7 882	3 978
	EUR mn	2 525	6 742	7 233	8 552	4 442
	Percentage PSE	14	21	23	24	15
	Producer NPC	1.15	1.25	1.28	1.31	1.15
	Producer NAC	1.17	1.26	1.30	1.32	1.18
United States	USD mn	41 839	51 256	55 433	49 333	49 001
	EUR mn	38 413	53 424	52 026	53 531	54 715
	Percentage PSE	25	23	25	22	21
	Producer NPC	1.19	1.16	1.19	1.14	1.15
	Producer NAC	1.34	1.30	1.34	1.28	1.27
OECD	USD mn	238 936	248 302	272 563	241 599	230 744
	EUR mn	217 270	258 540	255 811	262 160	257 649
	Percentage PSE	38	33	35	32	31
	Producer NPC	1.58	1.35	1.41	1.34	1.31
	Producer NAC	1.62	1.49	1.54	1.47	1.45

Source: OECD, Agricultural Policies in OECD Countries: Monitoring and Evaluation 2002, Paris.
Notes*:* p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.
EU-12 for 1986-94, EU-15 from 1995, EU includes ex-GDR from 1990. (1) For Czech Republic, Hungary, Poland and Slovak Republic: The figure in the first column refers to 1991-93. Austria, Finland, and Sweden are included in the OECD totals for all years and in the EU from 1995.

Annex Table 3. OECD: Producer Support Estimate by commodity

		1986-88	1999-2001	1999	2000	2001p
Wheat						
	USD mn	18,699	17,331	20,135	17,524	14,332
	EUR mn	17 060	17 972	18,898	19,016	16,004
	Percentage PSE	48	41	46	41	36
	Producer NPC	1.68	1.16	1.26	1.15	1.07
	Producer NAC	1.94	1.70	1.85	1.68	1.57
Maize						
	USD mn	12,730	12,868	13,262	13,923	11,420
	EUR mn	11 666	13 435	12,447	15,108	12,752
	Percentage PSE	40	33	35	35	29
	Producer NPC	1.31	1.16	1.19	1.18	1.11
	Producer NAC	1.68	1.50	1.53	1.54	1.42
Other grains						
	USD mn	11,136	8,784	10,443	8,358	7,550
	EUR mn	10 180	9 100	9,801	9,069	8,431
	Percentage PSE	51	44	52	43	39
	Producer NPC	1.97	1.19	1.36	1.14	1.06
	Producer NAC	2.13	1.82	2.08	1.74	1.64
Rice						
	USD mn	26,908	26,350	26,654	28,057	24,340
	EUR mn	24 456	27 546	25,016	30,445	27,178
	Percentage PSE	81	81	79	82	81
	Producer NPC	4.91	4.91	4.45	5.28	5.01
	Producer NAC	5.22	5.19	4.74	5.54	5.29
Oilseeds						
	USD mn	5,384	7,069	6,452	7,642	7,114
	EUR mn	4 876	7 430	6,056	8,292	7,943
	Percentage PSE	26	28	25	30	28
	Producer NPC	1.27	1.20	1.18	1.22	1.21
	Producer NAC	1.36	1.39	1.34	1.42	1.40
Sugar						
	USD mn	5,751	6,351	7,626	6,240	5,189
	EUR mn	5 234	6 574	7,157	6,771	5,794
	Percentage PSE	54	52	59	51	45
	Producer NPC	2.33	2.19	2.58	2.11	1.87
	Producer NAC	2.18	2.11	2.44	2.05	1.83
Milk						
	USD mn	47,567	42,103	48,118	38,780	39,412
	EUR mn	43 445	43 749	45,160	42,080	44,007
	Percentage PSE	59	48	53	45	45
	Producer NPC	2.69	1.86	2.08	1.77	1.72
	Producer NAC	2.47	1.92	2.12	1.83	1.80
Beef and Veal						
	USD mn	23,825	27,184	29,821	24,318	27,413
	EUR mn	21 733	28 328	27,988	26,387	30,609
	Percentage PSE	33	35	38	32	36
	Producer NPC	1.44	1.33	1.39	1.29	1.31
	Producer NAC	1.50	1.54	1.60	1.46	1.56
Sheepmeat						
	USD mn	4,708	4,432	4,679	3,764	4,851
	EUR mn	4 236	4 631	4,392	4,085	5,417
	Percentage PSE	55	47	47	40	55
	Producer NPC	1.87	1.33	1.26	1.18	1.55
	Producer NAC	2.24	1.92	1.87	1.68	2.20

Annex Table 3. OECD : Producer Support Estimate by commodity (*continued*)

		1986-88	1999-2001	1999	2000	2001p
Wool						
	USD mn	291	119	131	124	104
	EUR mn	265	124	123	134	116
	Percentage PSE	7	6	7	6	6
	Producer NPC	1.01	1.02	1.02	1.02	1.02
	Producer NAC	1.07	1.07	1.08	1.06	1.06
Pigmeat						
	USD mn	6,935	10,125	13,750	8,119	8,504
	EUR mn	6 170	10 404	12,905	8,810	9,496
	Percentage PSE	14	21	31	17	16
	Producer NPC	1.23	1.26	1.46	1.18	1.15
	Producer NAC	1.18	1.28	1.45	1.20	1.19
Poultry						
	USD mn	4,133	5,664	4,865	6,458	5,668
	EUR mn	3 668	5 967	4,566	7,008	6,328
	Percentage PSE	16	16	13	19	16
	Producer NPC	1.27	1.16	1.14	1.20	1.15
	Producer NAC	1.20	1.19	1.15	1.23	1.19
Eggs						
	USD mn	2,444	1,600	1,899	1,343	1,557
	EUR mn	2 211	1 659	1,782	1,457	1,739
	Percentage PSE	16	10	12	8	10
	Producer NPC	1.20	1.09	1.12	1.07	1.08
	Producer NAC	1.18	1.11	1.14	1.09	1.11
Other Commodities						
	USD mn	68,426	78,322	84,727	76,949	73,292
	EUR mn	62 073	81 618	79,520	83,497	81,837
	Percentage PSE	32	25	26	25	24
	Producer NPC	1.47	1.27	1.30	1.27	1.25
	Producer NAC	1.49	1.33	1.35	1.33	1.32
All commodities						
	USD mn	238,936	248,302	272,563	241,599	230,744
	EUR mn	217 270	258 540	255,811	262,160	257,649
	Percentage PSE	38	33	35	32	31
	Producer NPC	1.58	1.35	1.41	1.34	1.31
	Producer NAC	1.62	1.49	1.54	1.47	1.45

Source: OECD, Agricultural Policies in OECD Countries: Monitoring and Evaluation 2002, Paris.
Notes: p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient. The PSE for "other commodities" is the residual of the PSE for all commodities minus the PSE for the commodities listed above. Austria, Finland and Sweden are included in the total for "all commodities" for all years, and in the commodity detail from 1995 (since joining the EU).