

ANNEX 3. MEASURING AGRICULTURAL SUPPORT

1. RECENT DEVELOPMENTS IN THE OECD PRODUCER SUPPORT ESTIMATES

Introduction

1. Each year since the mid-1980s the OECD has been measuring 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. They have established a sound basis for international policy dialogue on agriculture, and contributed to the multilateral trade negotiations in the WTO.

2. Over the years, while the fundamental methodology to measure support has not changed, the breakdown of the component parts of the overall PSE, other indicators derived from the PSE, and the ways in which these indicators have been used in policy analysis, have evolved. In particular, following a two-year period of discussion, OECD member countries have decided, as from the 2007 report on *Agricultural Policies in OECD Countries: Monitoring and Evaluation*, to adopt a new classification of the generic policy categories in the PSE, the attribution of support to commodities, and the presentation of the relevant indicators. *These changes reflect the evolution of agricultural policies in OECD countries, and thus should enhance the ability to monitor and evaluate those policies.* This chapter explains the new PSE classification, and how the data and indicators can be used to monitor policy developments.

Measuring agricultural support

3. The Producer Support Estimate (PSE) measures 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*).
- 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the quantity of a commodity produced, the amount of inputs used, the number of animals kept, the area farmed, an historical reference period, or farmers' revenue or income (*budgetary payments*).
- Provide implicit budgetary support through lowering farm input costs, for example for investment credit, energy, and water (*budgetary revenue foregone*).

4. The measurement of support resulting from agricultural policies is based on how policies are actually *implemented* – and not on the intended *objectives* or *impacts* of those policies. 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 *budgetary revenues* foregone, and support provided through higher prices resulting from border measures (calculated as a *price gap* for farm goods between

domestic and world markets). The latter element, market price support, represents in many countries the largest component of the PSE. Other OECD indicators of support are described in Box A.3.1.1.

Box A.3.1.1. Other OECD indicators of support

Consumer Support Estimate (CSE) is the annual monetary transfers to *consumers* from policy measures that:

- Maintain domestic prices paid by first *consumers* (measured at the farm gate) at levels higher (an implicit tax on consumers) or lower (an implicit subsidy to consumers) than those on world markets at the country's border. It is the mirror image of market price support to farmers.
- Provide subsidies to keep prices of commodities consumed by certain groups in the economy lower than would otherwise be the case, such as cheap food for poor people, public institutions and some processors.
- In general the CSE is negative because the implicit tax on consumers from market price support more than offsets that from consumer food subsidies.

General Services Support Estimate (GSSE) is the annual monetary transfers to *agriculture* but not to individual producers that:

- Provide budgetary-financed expenditures for the provision of such services as research, development, training, inspection, marketing and promotion.

Total Support Estimate (TSE) is the overall monetary *cost* of the transfers in a country from policy measures calculated by:

- Adding the PSE, the taxpayer cost of consumption subsidies and the provision of general services, and subtracting import tariff receipts.

Nominal Protection Coefficient (NPC) is the ratio between producer and border prices.

Nominal Assistance Coefficient (NAC) is the ratio between farm receipts (including support) and those generated in the market without support.

5. 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 amount of support to farmers irrespective of the sectoral structure and inflation rate of a country, making this indicator the most widely acceptable and useful indicator for comparisons of support across countries and time.

6. The main purpose of the estimates of support is to compare across countries and through time the extent to which OECD countries are making progress in policy reform to which all OECD governments are committed. This monitoring and evaluation exercise is complemented by using the indicators of support to inform policy makers about the efforts made to meet their various objectives, and to analyse the effects of different policy instruments on production, trade, farm incomes and the environment.

Previous classification of PSE and related indicators

7. The PSE classification that has been used in recent years (including the 2006 report on *Agricultural Policies in OECD Countries: at a Glance*) is shown in Box A.3.1.2, with the definitions of the various elements shown in Box A.3.1.3. 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 to

respective 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).

Box A.3.1.2. Previous classification of PSE and related support indicators

A. Producer Support Estimate (PSE) (A1-A8)

- A.1. Market price support
of which MPS commodities
- A.2. Payments based on output
- A.3. Payments based on area planted/animal numbers
- A.4. Payments based on historical entitlements
- A.5. Payments based on input use
- A.6. Payments based on input constraints
- A.7. Payments based on overall farm income
- A.8. Miscellaneous payments

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

Producer Nominal Protection Coefficient (NPC)

Producer Nominal Assistance Coefficient (NAC)

B. General Services Support Estimate (GSSE)

C. Consumer Support Estimate (CSE)

Transfers to producers from consumers

Other transfers from consumers

Transfers to consumers from taxpayers

Excess feed costs

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

Consumer NPC

Consumer NAC

D. Total Support Estimate (TSE) (A+B+C - budget receipts)

Transfers from consumers

Transfers from taxpayers

Budget receipts

Percentage TSE (as a share of GDP)

Box A.3.1.3. Definitions of categories in the current classification

Market Price Support (MPS) - transfers from consumers and taxpayers to farmers 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 farmers from policy measures based on current output of a specific agricultural commodity or a specific group of agricultural commodities.

Payments based on area planted/animal numbers - transfers from taxpayers to farmers from policy measures based on current plantings, or number of animals, in respect of a specific agricultural commodity or a specific group of agricultural commodities.

Payments based on historical entitlement - transfers from taxpayers to farmers from policy measures based on historical support, area, animal numbers or production of a specific agricultural commodity, or a specific group of agricultural commodities, without any obligation to continue planting or producing such commodities.

Payments based on input use - transfers from taxpayers to farmers from policy measures based on the use of a specific fixed or variable input, or a specific group of inputs or factors of production.

Payments based on input constraints - transfers from taxpayers to farmers from policy measures based on constraints on the use of a specific fixed or variable input, or a specific group of inputs, through constraining the choice of production techniques.

Payments based on overall farming income - transfers from taxpayers to farmers from policy measures based on overall farming income (or revenue), without constraints or conditions to produce specific commodities, or to use specific fixed or variable inputs.

Miscellaneous payments - all transfers from taxpayers to farmers that cannot be disaggregated and allocated to the other categories of transfers to producers.

New classification of PSE and related indicators

8. In recent years in the process of policy reform, policies in many OECD countries have been moving – to different degrees and speeds – towards providing support that is less dependent on producing a specific commodity. However, in some cases policies provide support to groups of commodities or on the condition (“first layer criteria”) that some commodity is produced, even if it is not specified as to what it should be. Policies are also increasingly providing support based on farm area or on historical 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 commodity production is required or support is provided for the production of non-commodity outputs (such as environmental goods and services). In many cases, there are “second layer 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”.

9. The thrust of many of the changes in policies has been to move in the direction of decoupling the provision of support from specific commodity production and “re-coupling” the provision of support to 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 although the aggregate PSEs remain essentially unchanged, as policies have become more varied and complex, they have also become more difficult to group into the previous PSE classification in ways that would permit a more refined monitoring and evaluation of policy reform and use in quantitative policy analysis.

10. In reflecting these policy developments, the new PSE classification, which will be implemented in the 2007 report on *Agricultural Policies in OECD Countries: Monitoring and Evaluation* and the 2008 report on *Agricultural Policies in non-OECD Countries: Monitoring and Evaluation*, is presented in Box A.3.1.4.

Box A.3.1.4. New PSE classification

A. Support based on commodity output

A.1. Market price support

A.2. Payments based on output

B. Payments based on input use

B.1. Variable input use

B.2. Fixed capital formation

B.3. On-farm services

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

C.1 of a single commodity

C.2 of a group of commodities

C.3 of all commodities

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 each programme in the above categories of policy measures:

-- *With/without L* (with or without current commodity production limits).

-- *With V/F rates* (with variable or fixed payment rates).

-- *With/without C* (with or 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).

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

11. The definitions of the categories and labels in the new PSE classification (including the information which labels are used in the specific categories) are show in Box A.3.1.5.

Box A.3.1.5. Definitions of categories in the new PSE classification

Definitions of categories:

Market price support and **Payments based on output**: as in **Box A.3.1.3**.

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

-- **Variable input use** that reduce the on-farm cost of a specific input (e.g. fertilisers, seeds, animal feed, water, energy, hired labour) or a mix of inputs.

-- **Fixed capital formation** that reduce the on-farm investment cost of farm buildings, equipment, plantations, irrigation, drainage, and soil improvements.

-- **On-farm services** that reduce 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 parameters.

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) parameters, 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) parameters, 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 not based on commodity parameters, but based on:

-- **Long-term resource retirement**: transfers for the long-term retirement of factors of production from commodity production (e.g. highly erodible land, wetlands, and buffer zones not used for pasture). The payments in this subcategory are distinguished from those requiring *short-term resource retirement*, which is 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 (e.g. for planting and maintaining hedges or building and maintaining stone walls, or for farm practices to protect biodiversity or reduce nutrient run-off), which are voluntarily produced beyond what is required by existing regulations (property rights), are commensurate with the costs involved or benefits provided, and are monitored to establish that the agreed outputs and actions are actually delivered.

-- **Other non-commodity criteria**, transfers provided equally to all farmers, such as a flat rate or lump sum payment, not based on commodity production parameters, including input use.

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

Definitions of labels

With or without current commodity production limits: defines whether or not there is a specific limitation on current commodity production (output, area or animal numbers) that is eligible to receive payments or MPS.

With variable or fixed payment rates: defines whether payments rates are vary with respect to levels of current output or input prices or production yields and/or area (variable rates); or do not vary with respect to these parameters (fixed rates).

With or without input constraints: defines whether or not there are specific requirements concerning commodity production practices related to the programme in terms of the reduction, replacement, or withdrawal in the use of inputs that are eligible to receive payments.

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).

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.

Based on a single commodity, a group of commodities or all commodities: defines whether the payment is granted for production of a single commodity (e.g. wheat), a group of commodities (e.g. cereals) or all commodities.

12. To reflect the way in which many policies are evolving, with the gradual shift away from direct commodity-linked support, the *total* PSE will not be broken down into commodities (as was done in the previous classification through adding support from policy measures *specific* to each commodity and from other policy measures through the use of allocation keys, such as based on the share of the commodity in total production) but broken down into four categories. These categories are:

- Single commodity transfers (SCT), which are by definition granted by commodity.
- Group commodity transfers, shown as one (aggregate) figure and complemented by country specific *satellite* tables, which will provide more detailed information concerning country specific groups and transfers related to those groups.
- All commodity transfers, shown as one (aggregate) figure.
- Other transfers, shown as one (aggregate) figure.

13. However, the PSE database will continue to provide complete information on the list of commodities to which each policy measure applies, provide the PSE by commodity up to and including for 2004, and show the basis on which those commodity PSEs were calculated.

How will the new PSE classification enrich the monitoring and evaluation of policy reform?

14. Countries pursue a variety of goals with their policies. Although they use different mixes of policy measures to do so, it is the amount of support, the type of measure and the conditions attached to the granting of support (the ways in which the measures are implemented in the context of the conditions in each country) that determines the impacts on production, consumption, income, trade and the environment.

15. *The new classification of categories of policy measures, based 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.*

16. 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 inputs used. These policy measures are by design the ones that potentially 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.

17. 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 the shift towards less commodity production and trade distorting policies. 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 provide a rich source of data to help to evaluate progress in policy reform. Moreover, the data base can be marshalled to illustrate where specific policy interests within a country or across countries are important – such as the breakdown of payments based on area or animal numbers or farm income, or the share of payments subject to

constraints of one sort or another, or payments depending on commodity production or not. In the longer term, there is potential, through linking PSE data with farm structural data, to show for example the distribution of support across different farm (and farmer) types and land uses.

18. 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 data base provides a wealth of material to model the effects of different policy instruments, 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), the costs and benefits of those efforts (efficiency), and the implications for the distribution of income (equity). In addressing these issues, the PSE needs to be complemented with other data as well as the overall policy mix.