INTRODUCTION
TO THE OECD PRODUCER SUPPORT ESTIMATE
AND RELATED INDICATORS OF AGRICULTUAL SUPPORT

Governments provide support to agriculture in the form of transfers through a wide variety of policy measures. Policy makers and analysts, researchers, academics, and other stakeholders are interested in knowing how much and in what form support is provided to agriculture, how this has changed over time, and how support compares between countries. The OECD has addressed these and similar issues by developing a set of indicators designed specifically to monitor and evaluate the level and composition of support provided to agriculture. While initially calculated for OECD countries, this analysis has been used subsequently for a number of non-OECD countries that include Brazil, China, Indonesia, Kazakhstan, Russia, South Africa, and Ukraine.

For a detailed explanation of the methodology and calculation of the support indicators, see *OECD's PSE Manual*.

For a general idea on the methodology to calculate OECD support indicators, see:

- The six basic principles for estimating support in Section 1.

- The concept of policy transfers between economic agents can help to understand how the indicators are constructed in Section 2

- How the monetary value of policy transfers is estimated in Section 3.

To know how most frequently used support indicators are calculated and interpreted, see Section 4.

To know how the indicators are used to interpret changes in the composition of support, see Section 5.

For a quick grasp of the whole set of support indicators, see:

- Complete list of support indicators, including name, abbreviation, definition and formula of each calculation in Section 6.

- Name and definition of the PSE and GSSE categories and the PSE labels which are used to classify policy measures in Section 7.

To know how the data is organised in the OECD PSE/CSE database, see Section 8.

ABBREVIATIONS

ACT	All Commodity Transfers
BOT	Budgetary and Other Transfers
BP	Border Price
BT	Budgetary Transfers
C	Sub-script denoting country level
CIF	Cost, Insurance and Freight
CSE	Consumer Support Estimate
DP	Domestic Price
EFC	Excess Feed Cost
FOB	Free on Board
GDP	Gross Domestic Product
GFR	Gross Farm Receipts
GCT	Group Commodity Transfers
GR	Gross Receipts (for a commodity)
GSSE	General Services Support Estimate
$GSSE_{CATEGORY}$	Transfers under a specific GSSE category
i	Sub-script denoting individual commodity
MP	Import Price
MPD	Market Price Differential
MPS	Market Price Support
NAC	Nominal Assistance Coefficient
NPC	Nominal Protection Coefficient
LV	Price Levies
LVO	Price Levies based on output
OTC	Other Transfers from Consumers
OTP	Other Transfers to Producers
PP	Producer Price
PO	Payments based on output
PSE	Producer Support Estimate
$PSE_{CATEGORY}$	Transfers under a specific PSE category
QC	Quantity of Consumption
QP	Quantity of Production
RP	Reference Price
RF	Revenue Foregone
SCT	Single Commodity Transfers
TCT	Transfers to Consumers from Taxpayers
TPC	Transfers to Producers from Consumers
TPT	Transfers to Producers from Taxpayers
TSE	Total Support Estimate

| VC | Value of Consumption |
| VP | Value of Production |

1.   General principles of the methodology

Principles 1 to 3 determine the scope of policy measures to be considered in estimating agricultural support and provide criteria to identify agricultural policies in a complex mix of government actions. Principles 4 to 6 define the method for measuring support and are important for interpreting the indicators.

Principle 1: generation of transfers to agricultural producers as a key criterion for inclusion of policy in the measurement of support

This principle sets out two requirements. First, the policy must deliver a transfer which can be explicit or implicit, and in the form of money, goods or services. Agricultural policies which do not generate transfers are not included. Regulations would be a prime example, although if the government compensates some of the costs of complying with regulations these transfers are included. Second, policies must deliver transfers to agricultural producers. Policy measures that result in transfers from producers, such as taxes on inputs or the cost of purchasing tradable permits, are not considered. Also not included are policy measures implemented by an agricultural ministry but related to non-agricultural activities, *e.g.* forestry or fisheries.

Principle 2: there is no consideration of the nature, objectives or economic impacts of a policy measure beyond an "accounting" for transfers

This complements principle 1 in that the stated objectives or economic impacts of a policy measure are not used as alternative or additional criteria to determine the inclusion or exclusion of a policy measure in the estimation of agricultural support. The word "support" recognises that some transfers are received by producers for the provision of services and positive externalities rather than to "subsidise" the production of agricultural commodities. It also means that the government body responsible for the policy measure giving rise to the transfer does not determine the decision to include the policy in the estimation or not. Policy measures supporting agriculture may be under the responsibility of many different government ministries and not just the ministry formally responsible for agriculture, and at different levels of government – central, provincial, state, etc. For example, agri-environmental payments received by farmers may be implemented by and financed through ministries or agencies responsible for environmental issues.

Principle 3: general policy measures available throughout the entire economy are not considered in the estimation of agricultural support, even if such measures create transfers to/from agriculture

This principle restricts the range of policy measures to those specific to agriculture. The term "agriculture" designates primary agricultural producers as an economic group. For example, a tax concession available to all small businesses or to all self-employed people would not be included because it is not specific to or directed mainly at agriculture even though it benefits farmers, perhaps even significantly.

Principle 4: transfers generated by agricultural policies are measured in gross terms

This principle means that no adjustment is made for costs incurred by producers in order to receive support, *e.g.* the costs of increasing production or meeting compliance conditions attached to certain payments. Any additional cost incurred by producers because input markets are protected is also not accounted for. The only costs taken into consideration are specific contributions that producers make to finance the transfers they are receiving, such as contributions to stockholding,

marketing measures or export subsidies. It also emphasises that the indicators reveal the *effort* made by governments as implied by their agricultural policies rather than their *effect*. The indicators are not intended to and do not measure the impact of policy effort on production, trade, income or the environment. The impact of policy measures on such factors depends on, among other things, the basis upon which support is provided (such as per tonne of output or per land unit), the level of support and the responsiveness of farmers to changes in support.

Principle 5: transfers to individual producers are measured at the farm gate level

This principle follows from the objective to measure support provided only to primary producers of agricultural commodities. Consequently, the word "consumer" in the definitions and methodology is understood as a first-stage buyer of agricultural commodities who purchases from the farmer, *e.g.* flour mills, sugar refineries and dairy factories.

Principle 6: policy measures supporting individual producers are classified according to implementation criteria (i.e. the conditions under which the associated transfers are provided to farmers, or the conditions of eligibility for the payment)

This principle recognises that a large variety of policy measures are used to support agriculture and that the basis upon which support is provided has an impact on production, trade, income and the environment. While not measuring the effects of policy measures, the classification system recognises that different policy measures will have different impacts. The various *categories* have been constructed to identify the implementation criteria that are considered to be the most significant from an economic perspective and which reflect policies applied in OECD countries. The categories identify:

- the ***transfer basis*** for support: output (Category A), input (Category B), Area/Animal numbers/Receipts/Income (Categories C, D and E), non-commodity criteria (Category F);

- whether the support is based on a ***current*** (Categories A, B, C and F) or ***non-current (historical or fixed)*** basis (Categories D and E);

- whether ***commodity production is required*** (Categories A, B, C and D) or ***not*** (Categories E and F).

The criteria for classifying a policy measure into a specific PSE category are expressed through a standard sequence of questions. These are asked of each policy measure in order to correctly classify them. Although a policy measure may be conditional on several of the criteria, it is classified under the first applicable criterion. Information on how each policy measure is classified in individual countries is contained in the "Definitions and Sources" document available on the web site. See Section 7 for a detailed list of categories and labels

Each policy measure is also assigned several *labels* that provide additional details on policy implementation. The six labels contain information on whether constraints are placed on output and payment levels or input use. They also further specify the basis of transfer, its commodity specificity and variability of payment rates. The alternatives offered by each label are exhaustive so that only one of the available options can be attributed to a given policy measure. However, not all labels are applicable to all PSE categories. For example, the label specifying whether a payment is based on a single, group or all commodities is by definition not applicable to policies for which production is not required (Categories E and F).

2.   Schematic presentation of the policy transfers included in the indicators

The concept of "transfers" presumes both a source and a recipient. The indicators identify three economic groups: taxpayers (government), consumers and agricultural producers; the latter are considered both as individual entrepreneurs and collectively (Figure 1). The arrows represent the flow of transfers from one group to another arising from policy measures that support agriculture. An important distinction between the indicators is made on the basis of the *recipient* of the transfer.

- Producer Support Estimate (PSE) represents transfers to producers *individually*. These transfers require that an individual farmer takes actions to produce goods or services, to use factors of production, or to be defined as an eligible farming enterprise or farmer, to receive the transfer.

- General Services Support Estimate (GSSE) includes budgetary transfers that create enabling conditions for the primary agricultural sector through development of private or public services, institutions and infrastructure.

- Consumer Support Estimate (CSE) captures the value of transfers to consumers. The CSE is almost always negative because transfers from consumers due to market price support policies outweigh any consumption subsidies from taxpayers that might be provided to consumers.

- Total Support Estimate (TSE) represents the sum of all three components, adjusting for double-counting given that some market price transfers are accounted for in both the PSE and CSE.

Figure 1. Flow of transfers estimated in the OECD indicators of agriculture support
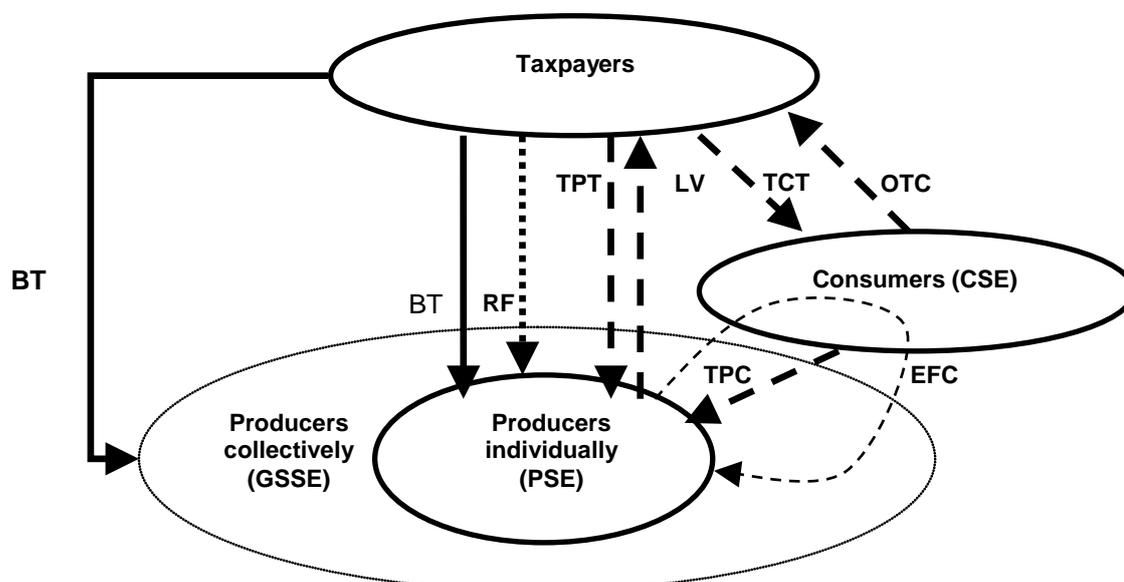
The concept of "transfers" is also used to show that the indicators include more than just explicit *budgetary transfers* (solid lines labelled BT) such as payments based on area farmed or the number of animals kept. They also include the value of transfers from policies that provide implicit budgetary support through tax concessions or fee reductions that lower farm input costs; for example, for investment credit, energy or water, referred to as *revenue foregone* (dotted line labelled RF). Importantly it also includes *market price transfers* (dashed lines with the remaining six acronyms) arising from policy measures that create a gap between the domestic market price and the border price of a commodity. These include trade policies – both import (*e.g.* tariffs, tariff quotas and licensing

requirements) and export measures (*e.g.* export subsidies, export credits and quantitative restrictions) – and domestic price support measures (*e.g.* production quotas, administered prices and intervention purchases).

3. Estimating the monetary value of transfers arising from policy measures

Market price transfers

Market price transfers arise from policy measures that create a gap between the domestic market price and the border price of a commodity.[1] This gap is called *market price differential* (MPD) and is the building block for estimating the price transfers that flow between producers, consumers and taxpayers. In general, policies affecting domestic market prices are implemented by governments with the intention of increasing the price received by producers of a commodity, creating a positive MPD. The benefit of calculating the value of market price transfers through a MPD is that it captures in a single measure the combined impact on market prices of a potentially complete set of price support policies.

Figure 2 illustrates the transfers arising from policy measures that induce a positive MPD using a partial equilibrium framework and assuming markets are competitive. Panel A presents the case of an imported commodity. In the absence of these policies, equilibrium occurs in the domestic market at the import price (MP), with the difference between domestic demand (QC_1) and supply (QP_1) met by imports. Policies that increase the domestic market price are now introduced, *e.g.* a tariff. Producers benefit from a higher price, encouraging them to produce more (QP_2); consumers respond by reducing consumption (QC_2). Domestic market equilibrium is reached at price DP, resulting in a positive MPD and a fall in the volume of imports. Panel B presents the case when the commodity is exported. The introduction of policy measures that increase the domestic market price results in an increase in exports to $QP_2 - QC_2$.

Figure 2. Price transfers associated with policies that increase the domestic market price

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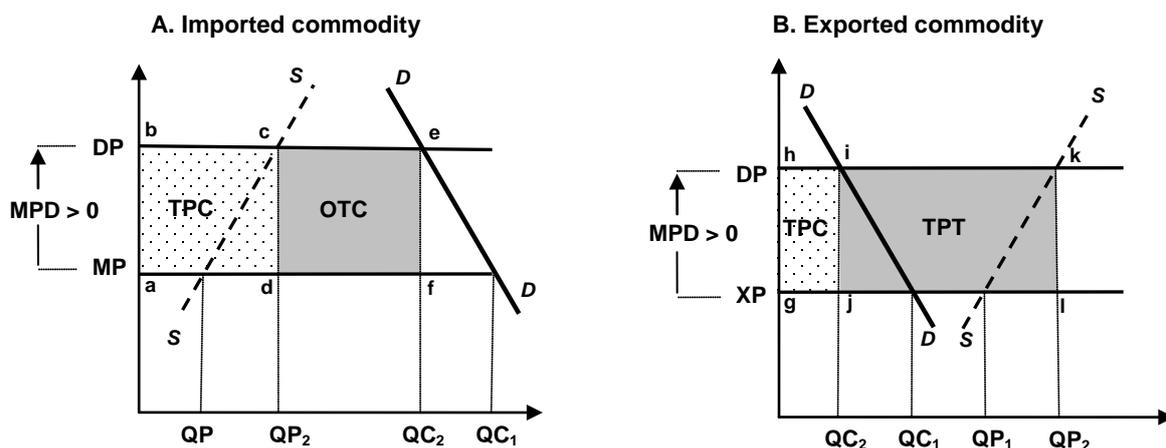
1. Policy measures which raise the price received by producers for a commodity through budgetary transfers without changing the market price of a commodity, *i.e.* without changing the consumer price, are included elsewhere within the PSE under Category A2.

In the *import situation*, policies which increase domestic market prices create:

- *Transfers to Producers from Consumers* (TPC), with the value corresponding to rectangle *abcd*:

$$TPC_i = MPD_i \times QP_i \qquad [1]$$

- *Other Transfers from Consumers* (OTC), with the value corresponding to rectangle *dcef*. These transfers occur when consumers pay the higher price (DP) for all consumption, whether the commodity is produced domestically or imported:

$$OTC_i = MPD_i \times (QC_i - QP_i) \qquad [2]$$

In the *export situation*, policies which raise domestic market prices create:

- *Transfers to Producers from Consumers* (TPC), with the value corresponding to rectangle *ghij*:

$$TPC_i = MPD_i \times QC_i \qquad [3]$$

- *Transfers to Producers from Taxpayers* (TPT), with the value corresponding to rectangle *jikl*. These transfers represent the part of producer price support borne by taxpayers in the form of budgetary outlays on export subsidisation, food aid or public stockholding:

$$TPT_i = MPD_i \times (QP_i - QC_i) \qquad [4]$$

Having established the price transfers that occur, these must be summed up appropriately. The value of price transfers to producers is called **Market Price Support (MPS)** and is defined as 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 by creating a gap between domestic market prices and border prices of specific agricultural commodities.

The MPS is found by adding together the price transfers to producers from consumers and taxpayers, minus the contribution that producers make to these transfers. Price Levies (LV) is an observed value, obtained from budgetary sources, including levies paid by producers to help finance export subsidies and penalties for exceeding production quotas. Excess Feed Cost (EFC) is a component accounting for the price transfers that go from livestock producers to cereal producers as a result of policies which alter the domestic market price for feed crops, and is included only in the calculation of MPS for livestock commodities. A general formula for the calculation of market price transfers to producers through policies which affect market prices for commodity *i* can be expressed as:

$$MPS_i = TPC_i + TPT_i - LV_i - EFC_i = (MPD_i \times QP_i) - LV_i - EFC_i \qquad [5]$$

Using this formula, MPS values are estimated for individual commodities constituting a representative sample of agricultural production in a country. A standard set of 15 commodities is first considered.[2] MPS values are then calculated for additional commodities to ensure that the value of production of the individual commodities for which MPS is calculated represents at least 70% of the total value of agricultural production on average over the preceding three years. The first step is to determine whether there are policies in place which create a price gap between domestic market and

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2.   Wheat, maize, barley, sorghum, oats, rice, rapeseed, soybean, sunflower, refined sugar, milk, beef and veal, sheepmeat, wool, pigmeat, poultry and eggs.

border prices of the commodity in question. If there are no policies in place that create a price gap, the MPD is set to zero. If there are, then a MPD is estimated for that commodity.

The common approach to calculating a MPD for a commodity is to estimate the difference between a producer price, *i.e.* a price received at the farm gate level, and a border price for that commodity that has been adjusted to make it comparable with the farm gate price. These adjustments are made because between the farm and the border, the commodity may have gone through a value added chain and it is essential to compare "like with like." These involve netting out marketing margins from the border price (transportation and processing costs) that may be applicable, technical weight adjustments so that prices are comparable on a quantity basis (*e.g.* converting product weight for meat to animal live weight), and adjustments for quality differences if relevant. These adjustments are important for commodities which have a significant degree of processing involved before being traded at the border, such as livestock commodities, sugar and wine grapes.

The appropriate border price for a given commodity is determined by the net trade position of the commodity concerned and data availability. If the country is a *net exporter* of the commodity, the most appropriate border price is an FOB (Free on Board) unit value. In the case of a large exporter of a commodity, if exports account for a significant share of domestic production and no export subsidy or other export enhancing measures is applied, the MPD is assumed to be zero. If the country is a *net importer* of the commodity, and if imports are regular and of a reasonable quantity then the most appropriate border price is a CIF (Cost, Insurance, Freight) unit value for imports into that country. However, if imports are irregular and/or of insignificant quantity, or if they vary in quality from one year to the other or are very different from those produced in the country, then other price sources need to be investigated. Alternatives include a CIF price of a major importer, particularly if it is located close by, or an FOB price of a major exporter with the cost of insurance and freight added.

Once MPS values have been calculated, a national (aggregate) MPS can be derived. This procedure is called "MPS extrapolation" and is based on the assumption that the ratio between the national (aggregate) MPS and the total value of production is equal to the ratio between MPS and the value of production for the commodities for which MPS has been calculated.

$$MPS_C = \frac{\sum MPS_i}{\sum VP_i} \times VP_C \qquad\qquad [6]$$

Budgetary transfers

The measurement of budgetary transfers is an accounting task, requiring the appropriate use of information obtained from official sources such as national budgets and annual reports of relevant paying agencies. Budgetary information is used to calculate the value of budgetary payments received by producers, the value of on-farm services provided to producers (*e.g.* salary of extension advisors), the value of general services provided to producers collectively (*e.g.* salary of researchers) and the value of transfers to consumers. Appropriate use involves:

- Identifying budgetary transfers which support agriculture in all government institutions at both national and sub-national levels, and not just the national ministry responsible for agriculture.

- Using values associated with actual expenditure as opposed to budgeted expenditure, although budgeted expenditure may be used when actual expenditure data are not yet available.

- Excluding administrative costs associated with the design, implementation and evaluation of policies.
- Excluding budgetary expenditures associated with policy measures accounted for in the measurement of market price transfers such as intervention purchases and export subsidisation.

Revenue forgone

Typical forms of support based on revenue forgone include tax concessions, preferential lending, debt concessions, and administered prices for input and services such as energy, irrigation water and transportation. Measuring the value of these transfers is an empirical task, involving the establishment of an appropriate reference level against which the actual (advantageous) situation can be compared. For example, the value of transfers arising from a tax concession can be measured by the difference between the tax liability with the concession and the counterfactual situation where no fiscal advantage is given. Because this a complex empirical task requiring a considerable amount of resources, a special effort has been made in the indicator database to estimate the value of fuel tax concessions for all countries where such policy exists. Similarly, transfers associated with preferential lending can be measured by multiplying the amount of credit provided by an interest rate differential, the gap between the preferential and a reference interest rate. Alternatively, when governments provide budgetary expenditure to compensate banks providing the preferential loans for lost interest, this can be used as a measure of policy transfers.

4.   Calculating and interpreting indicators that show the level of support

Three main indicators are used to show the level of support to ***individual producers at the national (aggregate) level***: %PSE, producer NAC and producer NPC. These are the most commonly used indicators. The first two are derived from the PSE.

Producer Support Estimate (PSE)

This indicator is found by adding the value of Budgetary and Other Transfers (BOT) to producers to the country (aggregate) MPS.

$$PSE_C = MPS_C + BOT_C = MPS_C + (BT_C + RF_C) \qquad\qquad [7]$$

This monetary value can be expressed either as a national currency or some common currency, such as the US dollars or euro.

> A PSE of USD 100 million signifies the monetary value of gross transfers from consumers and taxpayers to producers from policy measures supporting agriculture.

It may be tempting to conclude that farm incomes increase by this value, but this is not so as the PSE does not represent additional farm income due to support policies. The PSE shows the *policy effort* to provide support, while producer income is an *effect of support* (and of other factors). The extent to which gross transfers are translated into farm income can vary significantly according to the types of policies used to support agriculture, but it will always be lower than the increase in gross transfers. OECD analysis estimates that of each extra dollar (or euro) transferred though MPS, as little as 25 cents is actually retained by farmers as "income", with much of the increase in receipts paid to input suppliers or capitalised into land values. Another mistake to avoid is to suggest that aggregate producer gross receipts would decline by the PSE value if all agricultural policies were removed. The PSE captures support to producers in current world market conditions. These conditions are

themselves affected by current agricultural policies and would change – in particular, world prices – following the removal of all agricultural policies.

Because monetary indicators such as the PSE are influenced by the size of the agricultural sector, the relative importance of commodities within the sector and the rate of inflation, they cannot be used to compare levels of support over time, between countries and among commodities within a country. Such comparisons, however, are possible using percentage/ratio indicators as they relate the value of transfers to some other monetary base.

The %PSE, producer NAC and producer NPC show the importance of producer support relative to producer receipts or border prices. It should be noted that border prices vary across countries reflecting transport and other costs, so it is not a homogenous "world price".

Percentage Producer Support Estimate (%PSE)

The %PSE is calculated by expressing PSE transfers as a share of gross farm receipts (GFR):

$$\% PSE_C = \frac{PSE_C}{GFR_C} \times 100 = \frac{PSE_C}{PSE_C + VP_C - MPS_C} \times 100 \equiv \frac{PSE_C}{VP_C + BOT_C} \times 100 \qquad [8]$$

A %PSE of 20% means that the estimated value of transfers to individual producers from consumers and taxpayers is equivalent to 20% of gross farm receipts. A %PSE cannot by definition be higher than 100%, at which level all farm receipts come from policy measures, with no returns from the market. A %PSE of 0% does not necessarily indicate that there are no policy transfers to individual producers. It could be that transfers to producers through support policies in one sector are offset by transfers from producers that result from policies which implicitly tax producers in another sector.

GFR is calculated by adding the value of transfers to producers (PSE) and the value of production (VP), and subtracting market price transfers to producers (MPS) as this is included in both the PSE and VP values. It can also be calculated by summing the value of production and budgetary and other transfers to producers.

Producer Nominal Assistance Coefficient (producer NAC)

The producer NAC is calculated by the ratio between the value of gross farm receipts and gross farm receipts valued at border prices (measured at the farm gate), which is obtained by subtracting MPS from the total value of production, and is sometimes referred to as market receipts:

$$producerNAC_C = \frac{GFR_C}{VP_C - MPS_C} = \frac{PSE_C + VP_C - MPS_C}{VP_C - MPS_C} \qquad [9]$$

The producer NAC is algebraically related to the %PSE, and can be alternatively derived as:

$$producerNAC_C = 1 + \frac{\% PSE_C}{(100 - \% PSE_C)} \qquad [10]$$

A producer NAC of 1.2 indicates that the estimated value of transfers to individual producers from consumers and taxpayers increases gross farm receipts by 20% above what they would be if production is valued at border prices, *i.e.* with no transfers. A producer NAC of 1 indicates that the estimated value of transfers to individual producers is zero. A producer NAC of 4 indicates that gross farm receipts are four times, or 300%, higher than if production is valued at border prices.

Producer Nominal Protection Coefficient (producer NPC)

The producer NPC is calculated by the ratio between the price received by producers (including payments per tonne of current output and excluding price levies based on output) and the border price (measured at the farm gate). As prices and quantities cannot be aggregated for different commodities, the producer NPC for a country is calculated using the value of transfers based on commodity output:

$$producerNPC_C = \frac{(VP_C + PO_C - LVO_C)}{(VP_C - TPC_C - TPT_C)} \qquad [11]$$

> A producer NPC of 1.2 for a country indicates that domestic producer prices are on average 20% above border prices for the same commodities. A producer NPC of 1 indicates that prices received by producers (including payments per tonne of commodities produced) are on average the same as border prices. A producer NPC of 4 indicates that farm gate prices are on average four times, or 300%, higher than border prices. It shows the level of domestic market protection provided to agricultural producers.

The denominator of the producer NAC and producer NPC are very similar, and are identical when there are no levies or excess feed cost adjustments. The producer NPC shows the extent to which transfers arising from policy measures based on commodity output increase gross farm receipts while the producer NAC shows the extent to which transfers arising from all policy measures increase gross farm receipts.

Producer Percentage Single Commodity Transfers (producer %SCT)

The OECD uses two main indicators to show the level of support to individual producers at the **commodity level**: the producer NPC and %SCT. As the concept of the producer NPC is discussed above, this section will focus on the %SCT.

The %SCT for an individual commodity is found by dividing the value of producer Single Commodity Transfers (SCT) for that commodity by gross receipts (GR) for that commodity, and multiplying the result by 100%:

$$\%SCT_i = \frac{producerSCT_i}{GR_i} \times 100 = \frac{MPS_i + \sum BOT_i}{VP_i + producerSCT_i - MPS_i} \times 100 \qquad [12]$$

The producer SCT for a commodity is the sum of MPS support for that commodity and budgetary and other transfers to producers from policy measures that have been labelled as supporting that commodity. GR is calculated as the sum of market receipts and policy transfers to that commodity. As for the %PSE, MPS is subtracted to avoid double-counting.

> The %SCT measures the extent to which production of individual commodities is supported by policy measures. A %SCT of 20% means that the estimated value of transfers to producers of that commodity represents 20% of gross receipts for that commodity. A %SCT value is therefore similar in interpretation to the %PSE, but the numerator only includes transfers from policy measures that are specific to that commodity.

Comparing %SCT values across a range of commodities provides an indication of the degree to which support is directly linked to production of these specific commodities. The higher a %SCT for a commodity, the stronger are the incentives to producers to retain production of this commodity. This does not mean that the commodity is only eligible for this support. It may also benefit from support which is provided to a group of commodities to which it belongs or support provided to all commodities. The distinction is that %SCT includes support for which only that commodity is eligible.

Percentage Total Support Estimate (%TSE)

The final indicator used by the OECD shows the level of support **to the agricultural sector**. The %TSE measures the value of the Total Support Estimate (TSE) – representing the sum of transfers to agricultural producers individually (PSE) and collectively (GSSE) as well as subsidies to consumers (TCT) – as a per cent share of a country's gross domestic product (GDP). Expressed in this way, it gives an indication of the financial cost to (or burden imposed on) the economy of the policy measures supporting agriculture.

$$\%TSE_C = \frac{PSE_C + GSSE_C + TCT_C}{GDP_C} \times 100 \qquad\qquad [13]$$

The %TSE of 2% indicates that the total value of transfers from consumers and taxpayers arising from policy measures that support agriculture amount to 2% of GDP of a country.

Some other important points for understanding of the indicators

While percentage/ratio indicators provide information on the level of support to individual producers and how this level has changed over time, they do not offer an explanation as to *why* the changes have occurred. One misinterpretation is to conclude that a change in the %PSE necessarily implies a change in policy settings. As seen above, support – in particular MPS – is measured against current market conditions. When border prices change due to variations in world market prices or exchange rates, domestic producer prices may not follow these changes in border prices due to policy measures in place. Consequently, the MPS component of the PSE will change. Such variation in the PSE is nevertheless an appropriate reflection of the nature of market price support policies. It indicates that these policies, *e.g.* the border regime in place, insulate domestic markets from changing world market conditions and provide an amount of support that varies over time in relation to world prices. This "working" of price policies is similar to that of deficiency payments, whose size also fluctuates depending on market conditions, resulting in an equivalent change in the PSE.

The percentage/ratio indicators are also affected by changes in the value of production (VP). A fall in output value may have various causes; for example, natural factors, such as weather changes or a climate-related disaster, or an outbreak of animal disease. It may also reflect policy developments; for example, it can be associated with a reduction in the level of support which results from policy reform and/or a change in composition of support, such as a shift away from payments directly coupled to output. In this respect, a reduction in the value of support (PSE) may not always lead to a smaller %PSE if the fall in the value of production is greater than the reduction in support.

It would be equally erroneous to conclude that an unchanged %PSE necessarily implies no change in policies. In fact, the policy settings may change but the overall amount of policy transfers to producers, as measured by the PSE, may not. For example, in order to pursue new objectives, *e.g.* improve agri-environmental sustainability, a government may introduce new payments to producers. However, this increase may be offset by a reduction in MPS if supported prices are cut simultaneously, with the result that the PSE value remains unchanged. Thus, the %PSE alone is not sufficient to indicate progress (or lack of it) in policy reform, particularly when the reform is characterised by re-instrumentation of support (towards less production and trade-distorting forms) than by a reduction in the support levels.

To help interpret changes in the level of producer support from one year to the next, the OECD undertakes a **contribution analysis** which identifies the principal elements of producer support and estimates how changes in these elements contribute to the overall change in the PSE and the MPS. The

principal elements taken into consideration include changes world market prices, exchange rates, volumes of production and policy settings.

5.   Calculating and interpreting indicators that show the composition of support

When the indicators were first developed in the mid-1980s, the vast majority of support was provided through policy measures such as import quotas, high tariffs, export subsidies and deficiency payments which create transfers to producers based on commodity output. Since then, agricultural policy has increased in complexity. Policies increasingly deliver transfers not on the basis of commodity output but, for example, on farmed area, overall farm income or non-commodity criteria. Many policies now provide transfers on the basis of a mixture of "current and past prices and production", often with constraints imposed on eligibility for payments. In addition, using the PSE database, OECD analysis of the impact of policy measures on production, trade, income and the environment has shown it is not just the level of support but the type of policy measure and the conditions attached to the granting of support that determines the effect of policy measures on such factors, and that these effects can vary widely between policy measures. Consequently, analysing the composition of support has become an equally important issue in the monitoring and evaluation process.

Composition of support to individual producers

There are two ways in which the composition of support to individual producers is shown. The first shows the share of support that falls into each of the PSE categories or sub-categories. The PSE category values can be expressed as shares of the PSE, with the sum of the category shares equalling 100%. Alternatively, they can be expressed as shares of gross farm receipts, summing to the %PSE. This approach has the advantage of showing both the level and composition of support together.

Some policy measures deliver support directly related to the amount of a specific commodity produced (market price support and payments based on output) (Category A) or variable inputs used (Category B1). As shown by the results of the OECD's Policy Evaluation Model (PEM) on decoupling, these policy measures are the ones that potentially (*ex ante*) have the strongest influence on production incentives, although this effect is weakened in those countries that place constraints on output produced, inputs used or farm practices adopted. Policy measures designed to deliver support based on the current parameters, such as area planted or animal numbers, and require commodity production (Category C) have a potentially 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, (Categories D and E) have potentially less influence on production decisions. Those that provide support based on non-commodity criteria (Category F), such as the planting of trees, construction of stone walls and hedges, have potentially the least influence on production incentives. Clearly, the actual impact (*ex post*) will depend on many factors that determine the aggregate degree of responsiveness of farmers to policy changes.

When policies are classified in the various PSE categories, they are also labelled according to certain policy characteristics relating to the provision of support. *Labels* are therefore used to analyse the composition of producer support, producing different aggregations of transfers that emphasis a specific implementation criteria used in the policies applied (see detailed definitions of labels in Section 7). For example, the label "with or without input constraints" (with/without C) can show what proportion of producer support is provided through policy measures which impose certain requirements on producers in order to be eligible for support.

Another label, indentifying support "based on a single commodity, a group of commodities or all commodities" (SCT/GCT/ACT) is used to analyse the commodity specificity of producer support. This label is used to breakdown the PSE into four separate indicators of support based on the degree to which policy measures deliver support on a commodity basis, *i.e.* whether the transfer is provided to a single commodity *e.g.* wheat (SCT), a group of commodities, *e.g.* cereals (GCT), all commodities (ACT), or whether producers are not required to produce commodities to receive the transfer (OTC). These four categories are mutually exclusive in the sense that transfers included in one category are not included in another. Transfers to single commodities or groups of commodities are further distinguished at the individual commodity or groups of commodities level.

In interpreting policy developments, the share of Single Commodity Transfers (SCT) in the PSE is emphasised. The SCT includes, by definition, all MPS and output payments, and transfers to single commodities in other PSE categories, mostly involving payments based on specific crop area or animal type. This indicator conveys important information on the flexibility given to producers in their production choices. The lower the share of SCT in the PSE, the more flexibility farmers potentially have in terms of what they can produce in order to be entitled to support, and hence the more likely they are to respond to relative market prices for commodities rather than policy influences when making their production decisions.

Composition of support to general services

As for the PSE, the policies that are combined to calculate the GSSE are grouped into categories of expenditure which can be separately totalled to show the composition of support to general services. Unlike the PSE, GSSE policy measures are grouped according to the nature of the service rather than implementation criteria. There are six categories: agricultural knowledge and innovation system, inspection and control, development and maintenance of infrastructure, marketing and promotion, cost of public stockholding and miscellaneous items (see detailed definitions of the GSSE categories in Section 7). Changes in the composition of GSSE can reflect developments in agricultural policy reform and other factors.

Composition of support to total support to agriculture

There are two ways in which the composition of total support can be calculated. The first shows *to which* economic group the transfer is provided. In this case, the TSE can be separated into three components: the PSE, the GSSE, and transfers to consumers from taxpayers (TCT). The third component measures the value of transfers received by consumers and not the transfers from consumers in terms of higher prices, *i.e.* it is not the total CSE, but only one element of it. In interpreting policy developments, the share of GSSE in total support (the %GSSE) is emphasised as it shows the importance of transfers that are not received by individual farmers within the total value of agricultural support. An increase in the %GSSE would indicate that transfers to general services are an increasingly important form of transfer to producers.

The second method of calculation shows *from which* economic group the transfer originates, *i.e.* which group is bearing the cost of the support policies: transfers from consumers, transfers from taxpayers and budget revenues. The third component is negative, recognising that a part of the transfers from consumers is received by government in terms of tariff revenue which offsets some of the taxpayer cost. In most OECD countries, consumers have traditionally borne the largest share of the total support. Policy reforms have almost always emphasised a desire to reduce the consumer cost of agricultural policies and to offset the reduction in producer returns by increasing budgetary payments. This is demonstrated by a decrease in the value of transfers from consumers and an increase in

transfers from taxpayers. Analysis of the composition of total support reinforces the changes that are seen in the composition of producer support.

6. Names and definitions of the OECD indicators of agricultural support

The indicators are listed in such a way as to show the three distinctions between them. First, they are listed in separate tables according to the *intended recipient* of the transfer — producers individually, producers collectively, consumers, and all recipients. Then within each of these four tables, indicators are separated according to their *purpose* to measure either the level or composition of support. A further distinction is then made in relation to the *unit of measurement:* those expressed in monetary terms are listed first, followed by those expressed on a percentage or ratio basis.

No single indicator can capture all aspects of agricultural support. Each serves a purpose, highlighting a dimension of the support framework. The indicators are interlinked, mutually reinforcing, and when analysed together provide a comprehensive and comparable picture of the level and composition of support. All the indicators are calculated on an annual basis for each OECD country (the European Union is treated as a single entity because of the Common Agricultural Policy) and for the 34 OECD countries as an aggregate. Some are also calculated for individual commodities or groups of commodities, which helps to evaluate the structure of support within a country.

Indicators of Support to Producers

Level of support	Monetary	**PSE, Producer Support Estimate:** 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. $$PSE_C = MPS_C + \sum BOT = \sum PSE(sub)Category$$
	% / ratio	**%PSE, Percentage PSE:** PSE as a share of gross farm receipts (including support). $$\%PSE_C = \frac{PSE_C}{GFR_C} \times 100 = \frac{PSE_C}{VP_C + BOT_C} \times 100$$ **Producer NAC, Producer Nominal Assistance Coefficient:** the ratio between the value of gross farm receipts (including support) and gross farm receipts valued at border prices (measured at farm gate). $$producerNAC_C = \frac{GFR_C}{VP_C - MPS_C}$$ **Producer NPC, Producer Nominal Protection Coefficient:** the ratio between the average price received by producers at farm gate (including payments per tonne of current output and excluding price levies based on output) and the border price (measured at farm gate). $$producerNPC_i = \frac{\left(PP_i + \dfrac{PO_i}{QP_i} - \dfrac{LVO_i}{QP_i}\right)}{RP_i}$$ for an individual product and $$producerNPC_C = \frac{(VP_C + PO_C - LVO_C)}{(VP_C - TPC_C - TPT_C)}$$ for a country **Producer %SCT, Producer Percentage Single Commodity Transfers:** the commodity SCT as a share of gross farm receipts for the specific commodity. $$\%SCT_i = \frac{producerSCT_i}{GR_i} \times 100$$

| Composition of support | Monetary | *Producer SCT, **Producer Single Commodity Transfers**:* the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level, arising from policy measures directly linked to the production of a single commodity such that the producer must produce the designated commodity in order to receive the transfer.

$$producerSCT_C = MPS_C + \sum BOT_{SC}$$

GCT, Group Commodity Transfers: the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level, arising from policy measures whose payments are made on the basis that one or more of a designated list of commodities is produced, *i.e.* a producer may produce from a set of allowable commodities and receive a transfer that does not vary with respect to this decision.

$$GCT_C = \sum BOT_{GCT}$$

ACT, All Commodity Transfers: 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 place no restrictions on the commodity produced but require the recipient to produce some commodity of their choice.

$$ACT_C = \sum BOT_{AC}$$

OTP, Other Transfers to Producer: 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 do not require any commodity production at all.

$$OTP_C = PSEcategory(E) + PSEcategory(F) + PSEcategory(G)$$ |
| | % / ratio | ***Share of SCT in total PSE*** **(%):** Single Commodity Transfers as a share of total PSE.

$$ShareSCT = \frac{SCT_C}{PSE} \times 100$$ |

Indicators of Support to General Services

Level of support	Monetary	**GSSE, *General Services Support Estimate*:** the annual monetary value of gross transfers to general services provided to agricultural producers collectively (such as agricultural knowledge and innovation system, inspection and control, development and maintenance of infrastructure, marketing and promotion, cost of public stockholding and miscellaneous items), arising from policies that support agriculture regardless of their nature, objectives and impacts on farm production, income, or consumption. The GSSE does not include any transfers to individual producers. $$GSSE = \sum GSSECategory$$
	% / ratio	***%GSSE, Percentage GSSE:*** GSSE as a share of Total Support Estimate (TSE). $$\%GSSE = \frac{GSSE}{TSE} \times 100$$

Indicators of Support to Consumers

Level of support	Monetary	**CSE, *Consumer Support Estimate*:** 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. $$CSE_C = TCT_C - (TPC_C + OTC_C) + EFC_C$$
	% / ratio	***%CSE, Percentage CSE*:** CSE as a share of consumption expenditure (measured at farm gate) net of taxpayer transfers to consumers. $$\%CSE = \frac{CSE}{VC_C - TCT_C} \times 100$$ ***Consumer NAC, Consumer Nominal Assistance Coefficient*:** the ratio between the value of consumption expenditure on agricultural commodities (at farm gate) and that valued at border prices (measured at farm gate). $$consumerNAC = \frac{VC_C}{VC_C + CSE}$$ ***Consumer NPC, Consumer Nominal Protection Coefficient*:** the ratio between the average price paid by consumers (at farm gate) and the border price (measured at farm gate). $$consumerNPC_i = \frac{PP_i}{RP_i}$$

Composition of support	Monetary	***Consumer SCT, Consumer Single Commodity Transfers***: the annual monetary value of gross transfers from (to) consumers of agricultural commodities, measured at the farm gate level, arising from policy measures directly linked to the production of a single commodity. $consumerSCT_i = TCT_i - (TPC_i + OTC_i) + EFC_i$

Indicators of Total Support to Agriculture

Level of support	Monetary	***TSE, Total Support Estimate***: 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. $TSE = PSE + GSSE + TCT$
	% / ratio	***%TSE, Percentage TSE***: TSE as a share of GDP. $\%TSE = \dfrac{TSE}{GDP} \times 100$

7. Names and definitions of the PSE categories and labels and GSSE categories

Table 1. PSE categories and labels

CATEGORIES first-order	CATEGORIES detailed	Current commodity production and payment limits	Payment rates	Input constraints	Payment eligibility based on	Payment eligibility based on	Production exceptions
		Limit/ No Limit	Fixed/ Variable	With (mandatory)/ With (voluntary)/ Without	Single commodity/ Group of commodities / All commodities	Area/ animal number/ receipts/ income	With/ without
A. Support based on commodity output (CO)	A1. Market Price Support (MPS)	Y/N	F/V	n.a.	SC/GC/AC	n.a.	n.a.
	A2. Payments based on output (PO)	Y/N	F/V	M/V/No	SC/CG/AC	n.a.	n.a.
B. Payments based on input use (PI)	B1. Payments based on variable input use (PIV)	Y/N	F/V	M/V/No	SC/CG/AC	n.a.	n.a.
	B2. Payments based on fixed capital formation (PIF)	Y/N	F/V	M/V/No	SC/CG/AC	n.a.	n.a.
	B3. Payments based on on-farm services (PIS)	Y/N	F/V	M/V/No	SC/CG/AC	n.a.	n.a.
C. Payments based on current A/An/R/I, production required	C1. Payments based on current R/I, production required (PC)	Y/N	F/V	M/V/No	SC/CG/AC	R/I	n.a.
	C2. Payments based on current A/An, production required (PC)	Y/N	F/V	M/V/No	SC/CG/AC	A/An	n.a.
D. Payments based on non-current A/An/R/I, production required	D. Payments based on non-current A/An/R/I, production required (PHR)	Y/N	F/V	M/V/No	SC/CG/AC	A/An/R/I	n.a.
E. Payments based on non-current A/An/R/I, production not required	E1. Payments with variable rates (PHNR)	Y/N	V	M/V/No	n.a.	A/An/R/I	Y/N
	E2. Payments with fixed rates (PHNR)	Y/N	F	M/V/No	n.a.	A/An/R/I	Y/N
F. Payments based on non-commodity criteria (PN)	F1. Long-term resource retirement (PNLT)	Y/N	n.a.	With (vol)	n.a.	n.a.	n.a.
	F2. A specific non-commodity output (PNSO)	Y/N	n.a.	With (vol)	n.a.	n.a.	n.a.
	F3. Other non-commodity criteria (PNOP)	Y/N	n.a.	n.a.	n.a.	n.a.	n.a.
G. Miscellaneous (PM)	G. Miscellaneous (PM)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Y/N: Yes or no; F/V: Fixed or Variable; M/V/No: Mandatory constraint/Voluntary constraint/without constraint; A/An/R/I – Area/Animal numbers/Receipts/Income; "n.a." – PSE label not applicable to policy measures in a given category; "SC" and "With (vol)"– these PSE labels are applicable to policy measures in a given category by definition

1. Definitions of the PSE categories and labels are presented below.
2. Category abbreviations (in brackets) are those used in the PSE/CSE database.

PSE Categories

A. Support based on commodity output

A.1. Market price support (MPS): 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.

A.2. Payments based on output: transfers from taxpayers to agricultural producers from policy measures based on current output of a specific agricultural commodity.

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

B.1. Variable input use: transfers reducing the on-farm cost of a specific variable input or a mix of variable inputs.

B.2. Fixed capital formation: transfers reducing the on-farm investment cost of farm buildings, equipment, plantations, irrigation, drainage and soil improvements.

B.3. On-farm services: transfers reducing the cost of technical, accounting, commercial, sanitary and phyto-sanitary   assistance, and training provided to individual farmers.

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

D. 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.

E. 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..

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

F.1. Long-term resource retirement: transfers for the long-term retirement of factors of production from   commodity production. The payments in this sub-category are distinguished from those requiring short-term resource retirement, which are based on commodity production criteria.

F.2. 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.

F.3. Other non-commodity criteria: transfers provided equally to all farmers, such as a flat rate or lump sum payment.

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

PSE Labels

With or without current commodity production limits and/or limits to payments (with/without L): 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 these payments. Applied in categories A – F.

With variable or fixed payment rates (with V/F 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. For category E, these attributes are presented as additional sub-categories, not labels.

With or without input constraints (with/without C): 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.

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

- Payments requiring specific practices going beyond basic requirements and voluntary (**with voluntary** constraints). Within this label, a further distinction is introduced to identify the character of constraint, i.e. whether it concerns (i) environmental practices, (ii) animal welfare, or (iii) other practices. An example below illustrates these distinctions.

Based on area, animal numbers, receipts or income (based on A/An/R/I): defines the specific attribute (*i.e.* area, animal numbers, receipts or income) on which the payment is based. Applied in categories C – E. For Category C, these attributes are presented as additional sub-categories, nor labels.

Based on a single commodity, a group of commodities or all commodities (based on SC/GC/AC): 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. Applied in categories A – D.

With or without commodity production exceptions (with/without E): 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.

GSSE Categories

H. Agricultural knowledge and innovation system

H.1. Agricultural knowledge generation: budgetary transfers financing research and development (R&D) activities related to agriculture, irrespective of the institution (private or public, ministry, university, research centre or producer groups) where they take place, the nature of research (scientific, institutional, etc.), or its purpose

H.2. Agricultural knowledge transfer: budgetary expenditure to finance agricultural vocational schools and agricultural programmes in high-level education, training and advice to farmers that is generic (e.g. accounting rules, pesticide application), not specific to individual situations, and data collection and information dissemination networks related to agricultural production and marketing.

I. Food inspection and control

I.1. Agricultural product safety and inspection: budgetary transfers financing activities related to agricultural product safety and inspection. This includes only expenditures on inspection of domestically produced commodities at first level of processing and border inspection for exported commodities.

I.2. Pest and disease inspection and control: budgetary transfers financing pest and disease control of agricultural inputs and outputs (control at primary agriculture level) and public funding of veterinary services (for the farming sector) and phytosanitary services.

I.3. Input control: budgetary transfers financing the institutions providing control activities and certification of industrial inputs used in agriculture (e.g. machinery, industrial fertilisers, pesticides, etc.) and biological inputs (e.g. seed certification and control).

J. Development and maintenance of rural infrastructure

J.1. Hydrological infrastructure: budgetary expenditure financing public investments into hydrological infrastructure (irrigation and drainage networks).

J.2. Storage, marketing and other physical infrastructure: budgetary expenditure financing investments to off-farm storage and other market infrastructure facilities related to handling and marketing primary agricultural products (silos, harbour facilities – docks, elevators; wholesale markets, futures markets), as well as other physical infrastructure related to agriculture, when agriculture is the main beneficiary.

J.3. Institutional infrastructure: budgetary expenditure financing investments to build and maintain institutional infrastructure related to the farming sector (e.g. land cadastres; machinery user groups, seed and species registries; development of rural finance networks; support to farm organisations, etc.).

J.4. Farm restructuring: budgetary payments related to reform of farm structures financing entry, exit or diversification (outside agriculture) strategies.

K. Marketing and promotion

K.1. Collective schemes for processing and marketing: budgetary expenditures financing investments in collective, mainly primary, processing, marketing schemes and marketing facilities, designed to improve marketing environment for agriculture.

K.2. Promotion of agricultural products: budgetary expenditure financing assistance to collective promotion of agro-food products (e.g. promotion campaigns, participation on international fairs).

L. Cost of public stockholding: budgetary expenditure covering the costs of storage, depreciation and disposal of public storage of agricultural products.

M. Miscellaneous: budgetary payments financing other general services that cannot be disaggregated and allocated to the above categories, often due to a lack of information

8. Country PSE files, OECD Total files and the PSE Browser

Country PSE Files

The OECD calculates the indicators of support for each country within individual *Country PSE files* (in Excel format) along with the country-specific documentation, providing definitions of data series used and sources (*Definitions and Sources*). These data are available on Internet site (www.oecd.org/agriculture/pse).

There are 14 separate Country PSE files for the OECD countries and 7 Country PSE files for key emerging economies. [3] Each Country PSE file contains 30 or more worksheets. The European Union is treated as one entity.

There are four standard types of worksheets within each Country PSE file.

1) A worksheet named "**TOTAL**" in which most of the national (aggregate) indicators are calculated, such as the PSE, GSSE, CSE and TSE, as well as the %PSE, producer NAC, %CSE and consumer NAC. This worksheet contains all policy transfers included in the estimation of support for a country, shown under the appropriate PSE, GSSE and CSE categories. Labels are also attached to each transfer.

2) A worksheet named "**SCT GCT**" in which the individual commodity producer SCT values are combined to calculate national (aggregate) producer SCT and %SCT indicators. This worksheet is also used to identify the Group Commodity Transfers (GCT) and to calculate All Commodity Transfers (ACT) and Other Transfers to Producers (OTP) based on the labels given to each policy measure in the worksheet "TOTAL".

3) A group of standard worksheets named "**XX SCT**" in which the Producer Single Commodity Transfers (producer SCT) and %SCT indicators are calculated for each commodity, including a worksheet for "non-MPS commodities" named "XE SCT".

4) A group of standard worksheets named "**XX MPS**" in which the MPS is calculated for each commodity, where XX is a two-letter commodity abbreviation, *e.g.* WT stands for wheat and MK for milk. This worksheet also contains the data and formulas for calculating the Consumer Single Commodity Transfers (consumer SCT) as well as the producer NPC and consumer NPC for the commodities concerned.

Files with OECD Total data

The individual country data are combined using a SAS programme to derive indicators at the total OECD level, including the Total Support Estimate, Producer Single Commodity Transfers, Producer Support Estimate, Consumer Support Estimate, Total Support Estimate, Composition of Producer Support Estimate and General Services Support Estimate.

The OECD total includes only OECD countries, *i.e.* it excludes countries which are members of the EU27 but which are not members of the OECD.

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3.   The fourteen Country PSE files for OECD countries are for Australia, Canada, Chile, European Union (including 21 OECD countries), Iceland, Israel, Japan, Korea, Mexico, New Zealand, Norway, Switzerland, Turkey and the United States. The seven Country PSE files for the emerging economies are for Brazil, China, Indonesia, Kazakhstan, Russia, South Africa and Ukraine.

OECD total indicators are available as separate Excel files on the same Internet site, together with the individual Country PSE files.

PSE Browser

A considerable portion of the information contained within the Country PSE files along with the OECD totals has been incorporated into a single Excel spreadsheet that makes use of the PivotTable function.[4]. It is accessed by clicking on the *PSE Browser* hyperlink on the dedicated Internet site. An Excel spreadsheet can then be downloaded through a zip file. The spreadsheet contains three pairs of worksheets, each pair consisting of a worksheet containing the source data (**PSEdataXXX**) and a worksheet containing a PivotTable using that specific source data (**PSE XXX**). The three pairs of worksheets represent different monetary values: one pair expresses the value of transfers in national currencies (**PSEdataNat** and **PSE Nat**); the other two pairs express the value of transfers in a common currency, in euros (**PSEdataEUR** and **PSE EUR)** and in US dollars (**PSEdataUSD** and **PSE USD**).

The three worksheets containing PivotTables are almost identical in their layout and content. Rows display the value of transfers by country, PSE categories and individual policies; columns display the annual value of transfers beginning from 1986. The two common currency worksheets (PSE EUR and PSE USD) have three additional rows which provide data for OECD TOTAL, OTHER ECONOMIES and ALL COUNTRIES. The OECD TOTAL includes Australia, Canada, Chile, Iceland, Israel, Japan, Korea, Mexico, New Zealand, Norway, Switzerland, Turkey, United States and the European Union countries which are also OECD member countries (Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Netherlands, Poland, Portugal, Spain, Slovakia, Slovenia, Sweden, United Kingdom). The EU27 aggregate is progressive, i.e. it reflects the EU expansion in terms of member countries: EU12 for 1986-94, including ex- GDR from 1990; EU15 for 1995-2003; EU25 for 2004-2006; and EU27 from 2007. The OTHER ECONOMIES TOTAL includes Brazil, China, Indonesia, Kazakhstan, Russia, South Africa and Ukraine. The total for ALL COUNTRIES includes OECD members as well as non-members; it sums up information from OECD countries and from OTHER ECONOMIES. It would be inappropriate to have this feature when the value of transfers is expressed in national currencies.

When the file is first opened, the country rows display the total PSE transfer values for that country, *i.e.* for all PSE categories, labels and commodities. This is the default setting. The strength of the PivotTable function is that it provides the user with the ability to display specific information from the source data spreadsheets with a few simple clicks. There are two ways in which the data can be filtered: Row Labels (cell A13) filter the data by country, PSE category and individual policy; and Report Filters (located in cells A1-B10) filter the data by commodity and PSE label. Different combinations of Row Labels and Report Filters specifications can be applied at the same time.

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4.   Introductory tutorials on the Excel PivotTable function are available at http://office.microsoft.com/en-us/training/.