CHAPTER 5.

ESTIMATING POLICY TRANSFERS: OTHER TRANSFERS

211. This chapter completes the discussion of policy transfers, focusing on transfers that emerge from policies other than those affecting market prices for agricultural commodities. These policies provide support based on: (a) actual *budgetary transfers*; and (b) *revenue foregone* by the government and other economic agents.

5.1. Budgetary transfers

- Budgetary transfers through all government institutions, both national and sub-national, are included.
- Budgetary transfers associated with the administration of policies (design, implementation and evaluation) are not included in the estimates of support.
- Care should be taken to avoid double counting of support, in particular in treating budgetary transfers associated with market price support policies.
- Budgetary transfers are allocated to calendar years; in cases where agricultural, fiscal and calendar years do not coincide, various procedures are needed to attribute transfers appropriately.

212. Budgetary transfers are the most "visible" policy transfers. They are observed and do not need to be estimated as is the case with the price transfers or support based on revenue foregone. The measurement of direct budgetary transfers is an accounting task, which consists of the appropriate use of information on budgetary spending. This section details the main procedures for accounting for budgetary transfers in support estimation.

5.1.1. Complete coverage of institutions, administrative levels and financing instruments

213. The first step is to identify all budgetary expenditures underlying policies which support agricultural production – whether provided to producers individually, producers collectively, or consumers of agricultural commodities. The principle of complete identification of all publicly financed transfers has three aspects:

- First, all financing through public institutions involved should be captured, paying attention to the fact that implementation and funding of some agricultural measures may be outside the remit of agricultural ministries. This often concerns general services for agriculture, such as agricultural education, research, pest and disease control, or infrastructural development. Another example is agri-environmental measures, which may be implemented by and financed through the ministries and agencies specifically responsible for environmental issues.

- Second, funding from all administrative levels should be covered. Agricultural policy measures are financed at multiple levels of government. For example, in a country with a federal government structure, support from national as well as state, province or prefecture level should be covered, as well as measures that are financed more locally, for example from counties, communes or townships. By convention, all expenditures beneath the national level are termed *sub-national*. Also by convention, EU-level expenditures are considered as the national level, with EU country expenditures (including those made at regional levels) as at the sub-national level. Some EU policies, such as elements of its rural development policy, are co-financed across several levels of government, with the EU budget financing part of the costs of a programme, augmented by expenditure from an EU country government's budget, with the possibility of additional expenditure by a regional or local government entity within that country.

- Third, all public finance instruments should be covered. In some non-OECD countries, for example Brazil and Russia, agricultural support may also be financed from the so-called extra-budget funds – instruments which do not formally constitute part of the national budgets. Such funds may be created at the national or regional level and are usually used for implementation of specific programmes.

5.1.2. Accounting of effectively disbursed funds

214. Data on effectively disbursed – as opposed to planned or budgeted funds – should be used. The principle is to capture transfers that actually affect producer revenues. The difference between budgeted and effectively disbursed outlays can be large, for example when emergency assistance is provided over and above the initial budget appropriation, or in the case of deficiency payments, when there is considerable under- or over-spending due to favourable or unfavourable market conditions. It is important to ensure that all spending items are accounted for consistently in terms of amounts effectively disbursed. However, if the estimations are done on an annual basis, such information may not be available in time for the latest year – in this case data on budgeted expenditures are used, which are then adjusted the following year to reflect actual spending.

5.1.3. Treatment of policy administration costs

215. Administration costs include those associated with the design, implementation and evaluation of agricultural policies. It is important to distinguish different types of budgetary expenditures related to administration of agricultural policies:

- Administrative expenditures by ministries, including staff salaries, material, building and other costs.
- Salaries and wages of those employed in research, inspection, extension and other services.
- Payments to banks, insurance companies, producer organisations or commodity boards, to cover their costs associated with implementing support policies.

216. The principle is to exclude administrative expenditures of the ministries from the estimation of support as they represent expenditures on operations common to any public structure and are not policy transfers as such. However, when the policy measure is actually delivering a service that benefits producers individually (*e.g.* extension) or collectively (*e.g.* research and inspection), expenditures associated with the delivery of the service, mainly the salaries of extension advisors, inspection officers, researchers, etc., are included in the PSE and the GSSE respectively.

217. In some countries, the government grants to other agencies (public, mixed or private bodies) responsibility for implementing some agricultural policy measures. Commodity boards can be in charge of intervention and storage measures. Producer organisations may be involved in policy implementation. Banks may deliver agricultural investment loans with preferential conditions (generally interest concessions), and in many countries, insurance companies deliver subsidised insurance programmes. Consulting companies or NGOs can help farmers prepare applications for project-based measures.

218. When policies are delivered by semi-public or private companies, the government may compensate them for part or all of the costs associated with implementing the policy measure, in addition to channelling financial support to farmers through these organisations. As in the case of direct delivery by ministry officials, these implementation costs are excluded from the PSE. In the case of investment and insurance programmes, the government may pay for two components: support to farmers (*e.g.* interest concession on loans, or a subsidy to insurance *premia*), as well as the programme administration costs, which are transfers to the implementation agencies. Those two cost components are usually identified in the programme. The first one is included in the PSE, while the other is not.

5.1.4. Avoiding double-counting of support: an example of outlays on price regulation

219. In working with budgetary expenditures, special care should be taken to avoid double-counting of support in the PSE. This risk exists when budgetary expenditures underlie support which has already been included elsewhere. The clearest example is budgetary expenditures related to domestic price interventions. Several such expenditures can be distinguished: (a) intervention purchases; (b) export subsidisation (outlays on export subsidies, export credits or food aid); (c) price subsidies (deficiency payments); (d) payments for on-farm stockholding; (e) outlays for public stockholding, which include operational costs of public purchasing agencies and depreciation and disposal costs associated with public stocks; (f) compensatory payments to consumers, *e.g.* subsidies to the first purchasers of agricultural commodities – mills, dairies, slaughterhouses, etc. – provided to reduce the burden imposed on them by agricultural price support.

220. When the Market Price Differential (*MPD*) and consequently the price transfers are estimated by comparing domestic and border prices, outlays for intervention purchases (group a above) or export subsidies (group b), if they are applied, should not be included in the PSE. The purpose of these expenditures is to raise the level of domestic prices and this support is already captured through the price gap. Inclusion of groups (a) and (b) in the budgetary part of support in this case would create double-counting with price transfers. When the *MPD* is estimated based on per tonne deficiency payments (group c) or per tonne export subsidies (group b) these budgetary items represent direct input into estimation of price transfers, and also should not appear in the budgetary transfers. The groups that should be accounted in the budgetary transfers are: payments for on-farm stockholding (group d), classified in PSE category *A2. Payments based on output*; expenditures on public stockholding (group e), classified in GSSE category *M. Public stockholding*; and compensatory payments to consumers (group f), classified in the CSE as a Transfers to Consumers from Taxpayers (*TCT*).

5.1.5. Attribution of budgetary allocations to calendar years

221. Support estimates are made on a calendar-year basis and, as such, budgetary expenditures should be allocated to calendar years. This may not be straightforward, as some support programmes have cycles that correspond to crop (agricultural) years, while the budgetary funding is based on fiscal years. These calendar, crop and fiscal years may not fully coincide, *i.e.* they may cover different time

laps. The principle is to allocate a payment of a particular crop year to the calendar year to which the production of that crop year is attributed. For example, suppose that a crop year *t* starts in calendar year *t*, and the crop is harvested in that same calendar year *t*. However, payments with respect to crop year *t* are made on the basis of the fiscal year and may fall mostly into calendar year *t+1*. In this case, payments made in calendar year *t+1* (regardless of fiscal year) should be allocated to calendar year *t* because the crop for which the payment was made is attributed to that calendar year. With "decoupled" payments, the rule is extended to cover payments with respect to land in agricultural use at given dates or for environmental actions taken over specific periods. For example, if a payment is based on land in agricultural use or animals held at a given date, it would be assigned to the calendar year in which this date occurs.

5.1.6. Classification of budgetary spending

222. Once all budgetary spending items are identified, adjusted and allocated to appropriate years, they should be classified into the three main categories of support: support to producers individually (PSE), financing of general services to agriculture (GSSE), and support to consumers (CSE). This task is treated in detail in Chapter 3. One specific problem which may be encountered in classifying expenditures is that the budgetary data reported is too aggregated to be directly allocated to a particular category. For example, data may be presented by broad agricultural programmes or by implementing agencies – heterogeneous groupings that combine various types of expenditures. In such cases, it is important to make an attempt to obtain disaggregated data. If exact information is not available, then some reasonable approximation is required to allocate the spending items to individual policy measures, and hence to the appropriate support category. For example, some assumed percentage shares to distribute the aggregate spending can be used. This involves some error; however it is likely to be smaller than if the amount was omitted entirely.

5.2. Support based on revenue foregone

- Producers can be supported through policy measures whereby governments or other economic agents forego revenue that they would otherwise collect from or charge to producers.
- Typical forms of revenue foregone are tax concessions, preferential lending, debt restructuring, and administered prices for inputs and services.
- A price gap method, similar to that used to estimate MPD, is often the most appropriate method. However, selecting an appropriate reference variable may be difficult.

223. Support may be provided in forms that do not imply actual budgetary transfers, but at the cost of revenue foregone by the government or other economic agents. Such support creates implicit transfers to producers – and should also be identified and quantified. This section presents several types of support based on revenue foregone currently covered in support estimations. Approaches to quantifying the associated policy transfers are also discussed. The measurement of transfers based on revenue foregone is largely an empirical task, involving assumptions and judgement about the appropriate reference against which to measure the transfer. A good understanding is needed of both the implementation mechanisms underlying such policies and the broader economic context.

5.2.1. Tax concessions

224. Tax concessions are a common type of support to agricultural producers that generate budgetary revenue foregone. Concessions may apply to taxes on income, profits and capital gains, real estate and land. Agricultural producers may be granted preferential treatment on VAT (*e.g.* applied to purchased inputs), on fuel taxes, or on depreciation methods. Farm operators may benefit from

preferential treatment on taxes on payroll. The principle of consistent coverage of all policy measures supporting agriculture means that tax concessions should be included in estimated support when they are agriculture-specific or when agricultural producers are their principal beneficiaries. Tax concessions occur when a fiscal advantage is conferred on a group of individuals, or on a particular activity, by reducing tax liability rather than by direct cash subsidy (James and Nobles, 1992). Tax concessions can come in various forms of special treatment that relate to one of the basic features that characterise the structure of a tax. These can be formulated as follows:

- Exemptions: amounts excluded from the tax base.
- Allowances: amounts deducted from the benchmark to arrive at the tax base.
- Credits: amounts deducted from tax liability.
- Rate relief: a reduced rate of tax applied to a class of tax payers or taxable transactions.
- Tax deferral: a relief that takes the form of a delay in paying tax.

225. Each of these forms imply that some tax revenue is foregone and economic incentives are being provided, in much the same way as would happen with a programme involving budgetary expenditure.

226. The above definition of a tax concession presumes a counterfactual, *i.e.* the existence of a group of individuals or activity for which no such fiscal advantage is given. The support associated with preferential taxation can therefore be measured by establishing a counterfactual and quantifying the monetary value of the reduction in tax liability against that counterfactual.

227. A complete and reliable quantification of tax concessions is therefore a complex empirical task, requiring a considerable amount of resources and information. Very few countries themselves calculate the value of tax revenue foregone. An approach has been adopted to limit the coverage of tax concessions to those that unambiguously confer benefits on agriculture, and the value of which can be estimated at reasonable cost and with reasonable accuracy.

228. In this context, a special effort has been made to estimate the value of fuel tax concessions to cover all countries where such a policy exists. This choice reflects the fact that this policy occurs in many countries and is relatively easily measured. Other tax concessions covered in the current indicator database relate to income tax (*e.g.* in Australia, Mexico, Norway and the United States) and to property tax exemption (in Canada). The monetary estimates of related concessions are provided by the countries and are usually based on information from ministries of finance.

229. Agricultural producers are often treated differently from other citizens with respect to social security systems. The differences may concern the principles of participation (voluntary or compulsory), contribution rates, and entitlement. In some cases, this may result in preferential treatment for producers. However, by convention, these issues are not covered within the framework of measured support, because the level of special treatment is difficult to establish. For example, transfers may reflect the demographic structure of the farm population, rather than a concession as such. Therefore, no attempt is made to estimate transfers associated with differentiated social security treatment or with any other social benefits accorded to agricultural producers.

5.2.2. Preferential lending

230. Governments often intervene to reduce the cost of borrowing for agricultural producers. When agricultural producers are enabled to borrow at favourable terms compared to other businesses, transfers are created, and these need to be accounted for in producer support estimation.

231. Some governments subsidise interest rates charged to agricultural borrowers. The lending banks receive budgetary compensation which covers part of the interest rate due on agricultural loans. This describes preferential lending in a number of OECD and non-OECD countries. In these cases, government spending can be used as a measure of the related policy transfers.

232. In some cases, governments rely on mechanisms of credit support that do not generate budgetary spending. Special conditions may apply, such as fixed or minimum interest rates; or credit institutions may be required to direct certain amounts of credit to agriculture. When such policies are implemented through state-owned lending institutions, the interest lost is a form of budgetary revenue foregone. Sometimes private lenders are also obliged to apply reduced interest rates to agricultural loans and to allocate certain amounts of their credit for such lending. In this case, provision of preferential credit is based on administrative regulation, and the associated support to agricultural borrowers is provided at the cost of revenue foregone by private lenders (who most likely cross-subsidise these operations through other lending). This situation is characteristic of Brazil where a large share of agricultural loans is provided under administrative control. When governments set interest rates and direct resources for lending administratively, without compensation, the associated support needs to be estimated. For OECD countries the estimates are provided by member countries, while for non-OECD countries estimation is carried out by the OECD.

233. The approach used is similar to price gap measurement, with the preferential interest rate compared to a reference (opportunity cost) rate. The transfers arising from preferential lending (TPL) are equal to the interest rate differential multiplied by the amount of credit, more formally expressed as follows:

$$TPL_Y = \sum_t \left(i_t^r - i_t^p\right) \times L_t \qquad [5.1]$$

where TPL_Y – policy transfers from preferential lending accumulated over a year Y

i_t^r – reference interest rate at point of time t in year Y

i_t^p – preferential (controlled) interest rate at point of time t in year Y

L_t – value of outstanding preferential debt at point of time t in year Y

234. The value of the outstanding debt (L_t) is a stock value corresponding to a specific point in time. TPL_Y in equation 5.1 is the sum of discrete values of interest foregone estimated for a number of time points in a given year. In order to capture most accurately the annual value of *TLP*, as many time points as possible should be included, *e.g.* the monthly data on outstanding credit and interest rates.

235. Information on the value of the outstanding debt may only be available on a quarterly or annual basis. It is possible to interpolate these data to obtain monthly estimates of outstanding debt by applying some assumptions on the evolution of the debt between two known points in time. If data on outstanding debt is not available, information on the amount of new preferential loans may be used. It is possible to estimate the amount of outstanding credit by using these data and information on the standard time structure of these loans.

236. Estimation of transfers associated with preferential lending demands good knowledge of agricultural lending conditions, which may vary by lending programmes and types of beneficiaries and may be subject to frequent changes. It is also important to have adequate information on the values of outstanding debt and/or allocations of new preferential loans. A choice of appropriate reference

interest rate to represent the opportunity cost for preferential credit requires judgement based on overall knowledge of credit markets in a given country.

5.2.3. Agricultural debt concessions

237. Agricultural producers sometimes benefit from debt concessions provided by the government to overcome problems of bad debts, or as part of a reform package, etc. Agricultural debt forgiveness has occurred, for example, in Australia, Canada, Mexico, New Zealand, and some EU member states. Non-OECD countries, such as Brazil, Russia, Romania and Ukraine, saw severe farm finance crises in the period of transition to the market economy. The governments responded by large-scale restructurings of accumulated bad debt, often followed by further restructurings involving additional bad debts, and/or repackaging of previous schemes.

238. Debt concession schemes may also involve extensions of repayment periods, reduced interest on overdue debt, and partial write-offs. These concessions create transfers to debtors, which need to be quantified and included in the estimation of support, irrespective of what caused the accumulation of debt and the objectives which led the government to restructure it. For OECD countries, the estimates are usually provided by the countries themselves, while for non-OECD countries, estimation is carried out by the OECD.

239. The quantification of transfers associated with debt rescheduling, through the extension of the repayment period and/or reduced interest, is also based on estimating the interest foregone, as applied to preferential lending of the type discussed in sub-section 5.2.2, equation 5.1 can be used, where i_p is set at zero over the period of debt non-repayment, while for the period of repayment of the restructured debt the rate that is applied for such repayments (usually a preferential rate set below the financial market level) is used. The estimation requires the time series of outstanding overdue credit (L_t) and the relevant interest rates in order to calculate the interest rate differential. It is necessary to establish the time structure of overdue debt – the period over which it has accumulated and how its value has been evolving during the period, as well as the schedule adopted for the repayment. In addition, the interest rate set for the repayments (i_p) needs to be obtained and an adequate reference interest rate (i_r) selected.

240. As concerns the transfers associated with write-offs of capital, penalties and/or interest, these values are often officially reported and should also be captured in the measured support. However, care should be taken in the attribution of these amounts to particular years. It would be incorrect to allocate a sum written off to the one year when the writing-off is implemented, as this sum represents debt accumulated over a number of years. The debt forgiven should be allocated retrospectively to the period over which it is known (or assumed) to have built up. In the absence of sufficient detail, the written-off debt can be allocated back to previous years based on the time structure of the total overdue debt subject to restructuring, or based on some other appropriate allocation principle.

5.2.4. Administered input prices

241. Agricultural producers may also be supported through the administration of prices for inputs and services such as energy, irrigation water and transportation. Governments may impose upper price limits for inputs and services provided to agricultural buyers. Some inputs (*e.g.* electricity) may be supplied by state monopolies, which practise differentiated pricing, whereby agricultural buyers are charged prices below levels set for other users. Such policies are similar in nature to the provision of input subsidies. The associated transfer to producers per unit of input purchased is equivalent to the price reduction accorded to them compared to the price paid by a “reference” (alternative) buyer of the same input. This approach has been used in estimation of implicit support through reduced prices for

electricity provided to agricultural producers in Russia. The associated transfer (*TPEP*) is estimated as follows:

$$TPEP_Y = \left(PE_{in} - PE_{ag}\right) \times W_{ag} \qquad [5.2]$$

where $TPEP_Y$ – transfers to producers from preferential electricity price over a year *Y*

PE_{in} – average price per kwt/hour of electricity charged to industrial users in year *Y*

PE_{ag} – price per kwt/hour of electricity charged to agricultural users in year *Y*

W_{ag} – kwt/hours of electricity provided to agricultural users in year *Y*

242. The estimation of the implicit price discount depends on the establishment of a "reference buyer" and the extent to which prices charged to different buyers can be compared. Data quality and availability mean that estimating the value of transfers through the use of price gaps is not always possible. For example, in the case of support for water in agriculture, it is difficult to find a price charged to other sectors for water that has the same characteristics as water used for agriculture, *e.g.* in terms of quality, reliability or timing.