CHAPTER 9.

CALCULATING INDICATORS OF SUPPORT FOR THE OECD AS A WHOLE

347. This chapter explains the procedure for calculating indicators of support for the OECD as a whole through the aggregation of support indicators for individual OECD countries. Two steps must be followed. First, monetary transfers and values of production are converted from national currencies into a common currency. Once this is done, two methods are used to aggregate the country values together, in order to validate the results. Once absolute indicators have been estimated at the OECD level, the relative indicators can be derived.

9.1. Conversion into a common currency

348. To obtain OECD total support indicators, the value of transfers and production in national currencies must be converted into a common currency. The choice of the common currency has an important impact on the results in terms of how the absolute indicators: (a) compare between countries, and (b) change from year to year. For this reason, OECD total support indicators are calculated in both US dollars and in Euros. However, the relative indicators are the same whatever common currency is chosen.

349. The conversion of local currency values into US dollar values is done as follows:

$$MV_C^{USD} = \frac{MV_C^{LC}}{XR^{LC/USD}} \qquad [9.1]$$

where: MV_C – Monetary value, whether transfers or value of production, for country C

USD – US dollars

LC – Local currency

$XR^{LC/USD}$ – exchange rate between local currency and USD

350. In the case of the PSE, for example, it becomes:

$$PSE_C^{USD} = \frac{PSE_C^{LC}}{XR^{LC/USD}} \qquad [9.1a]$$

351. The Euro values are derived as:

$$MV_C^{EUR} = MV_C^{USD} \times XR^{EUR/USD} \qquad [9.2]$$

where: $XR^{EUR/USD}$ – exchange rate between Euro and USD

352. Again, in the case of the PSE, it becomes:

$$PSE_C^{EUR} = PSE_C^{USD} \times XR^{EUR/USD} \qquad [9.2a]$$

9.2. Aggregation to OECD totals

353. Once the values of transfers and production have been converted into US dollars and Euros, aggregation into OECD totals is carried out. There are two complementary methods of performing the aggregation for the PSE (Diagram 9.1).

354. The first ("left-hand side") aggregation uses the PSE categories; the second ("right-hand side") uses the four indicators of commodity specificity that are derived from the PSE, *i.e.* summing together the producer single commodity transfers (SCT), groups of commodities transfers (GCT), all commodities transfers (ACT) and other transfers to producers (OTP). The two methods act as a cross-check validating the result of the aggregation, *i.e.* the OECD total PSE.

355. Each of these two methods can be applied in two ways: (a) aggregating monetary transfers into the OECD total at the (sub) category level and then deriving the indicators (labelled "for database" in Diagram 9.1); and (b) re-calculating the absolute indicators at the national level, this time in a common currency, and aggregating them into an OECD total (labelled "for cross-checking" in Diagram 9.1). The former provides all the necessary details to break down the OECD total absolute indicators into their components, such as PSE categories or indicators of commodity specificity. For this reason, it is used to derive the OECD total PSE, and is explained in detail below for each of the two methods. In practice, the second possibility is also used to cross-check the results of both methods.

9.2.1. Aggregation based on PSE categories

356. In this method, the PSE sub-categories and categories are summed up for all countries. Using values expressed in US dollars as the example, this can be expressed as:

$$PSE(sub)Category_{OECD}^{USD} = \sum PSE(sub)Category_{C}^{USD} \qquad [9.3]$$

357. For example, in the case of PSE category A, payments based on commodity outputs (*CO*) are:

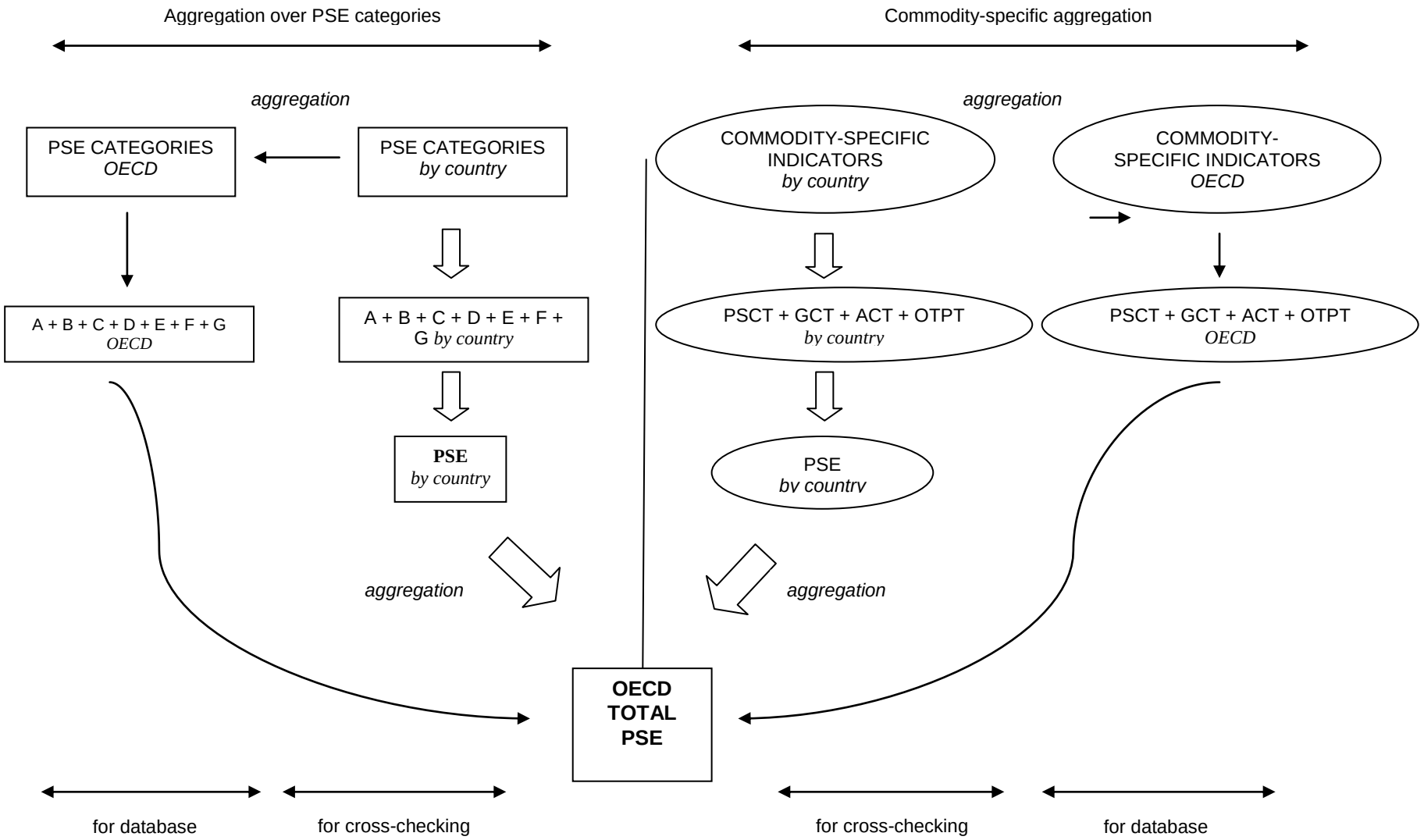
$$CO_{OECD}^{USD} = MPS_{OECD}^{USD} + PO_{OECD}^{USD} = \sum MPS_{C}^{USD} + \sum PO_{C}^{USD} \qquad [9.4]$$

358. Once all country sub-categories and categories have been aggregated together, the OECD total PSE is calculated using the same formula as for individual countries:

$$PSE_{OECD}^{USD} = \sum PSECategory_{OECD}^{USD} \qquad [9.5]$$

359. A similar procedure is followed for deriving the OECD total GSSE and CSE indicators, *i.e.* OECD values are first calculated for each of the various GSSE categories and for the various categories of transfers in the CSE, before being added together to derive the OECD total GSSE and CSE indicators.

Figure 1. Diagram 9.1. The procedure for calculating the OECD total PSE



9.2.2. Aggregation based on degree of commodity specificity

360. In this method, the four indicators of commodity specificity are aggregated over countries. This method does not apply to GSSE and CSE. The procedure begins by calculating an OECD total producer SCT value for each of the standard MPS commodities as follows:

$$producerSCT^{USD}_{SMC,OECD} = \sum producerSCT^{USD}_{SMC,C} \quad [9.6]$$

where: *SMC* – standard MPS commodity

361. An OECD total producer SCT for Other Commodities (producer SCT_{OC}) is also calculated by a similar process:

$$producerSCT^{USD}_{OC,OECD} = \sum producerSCT^{USD}_{OC,C} \quad [9.7]$$

362. From equations 9.6 and 9.7, the OECD total producer SCT is:

$$producerSCT^{USD}_{OECD} = \sum_{sc} producerSCT^{USD}_{SMC,OECD} + producerSCT^{USD}_{OC,OECD} \quad [9.8]$$

363. The OECD total GCT, ACT and OTP indicators are similarly calculated:

$$GCT^{USD}_{OECD} = \sum GCT^{USD}_{C} \quad [9.9]$$

$$ACT^{USD}_{OECD} = \sum ACT^{USD}_{C} \quad [9.10]$$

$$OTP^{USD}_{OECD} = \sum OTP^{USD}_{C} \quad [9.11]$$

364. Once all four indicators of commodity specificity are calculated, they can be summed to an OECD total PSE as follows:

$$PSE^{USD}_{OECD} = producerSCT^{USD}_{OECD} + GCT^{USD}_{OECD} + ACT^{USD}_{OECD} + OTP^{USD}_{OECD} \quad [9.12]$$

365. The final step is to compare and validate the results. If both methods result in the same OECD total PSE, the TSE for the OECD as a whole is calculated. Once the absolute indicators have been computed at the OECD level, the relative indicators are calculated, using the various formulas contained in Chapters 6, 7 and 8.