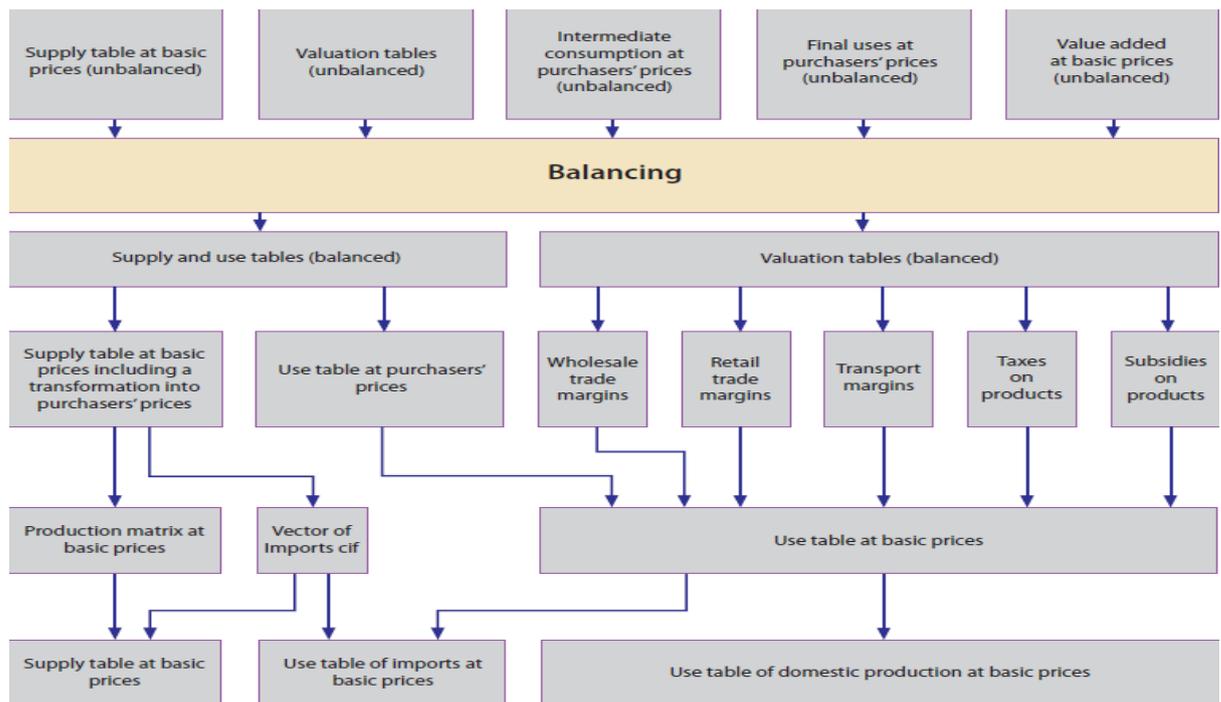


## Session 2 Supply, Use and Input-Output Tables

### Compilation Principles and Methods

#### Overview of the compilation procedure of supply and use tables



Source: Eurostat manual of supply, use and input – output tables

- The first step in compiling supply and use tables is to compile separate tables for supply, valuation, intermediate uses and final uses.
  1. Supply table at basic prices (Unbalanced): This consists of two sub – matrices: The table of domestic output and the table of imports.
  2. Valuation tables (Unbalanced): The valuation tables comprise information on taxes less subsidies on products, trade margins and transport margins. These valuation tables allow the transformation of total supply at basic prices into total supply at purchasers' prices.
  3. Table on intermediate consumption at purchasers' prices (Unbalanced): Shows the input requirements of goods and services for the production of the outputs of each industry.
  4. Table on final uses at purchasers' prices (unbalanced): The categories of final uses are final consumption expenditure by households, final consumption expenditure by non-profit institutions serving households (NPISH), final consumption expenditure by government, gross fixed capital formation, changes in valuables, changes in inventories and exports of goods and services. It is

evident that for each category of final use, separate compilation steps are needed. The table on final uses is based on data sources valued at purchasers prices.

5. Value added at basic price: Here the components of value added are shown by industry. The components of value added contain information on compensation of employees, other net taxes on production, consumption of fixed capital and net operating surplus.

- There is a significant amount of interdependency in the compilation process of these basic tables.
- At this step of the compilation procedure these tables are not yet balanced. Thus neither the identity for each product is given that supply equals use nor is the identity valid for each industry that input equals output.

Starting point of the compilation process are four unbalanced supply and use tables. The balancing procedure is an iterative procedure integrating:

- Balancing of supply and use tables at purchasers' prices,
- Compilation of valuation matrices
- Transformation of supply and use tables into basic prices,
- Compilation of separate use tables for use of domestic output and use of imports,
- Balancing of supply and use tables at purchasers' prices and at basic prices, and
- Final balancing in both current and constant prices (preferably at previous years' prices).

Figure 2.1

Example 2.1

- For the supply and use tables at purchasers' prices two identities hold:
  1. total supply of products at purchasers' prices (supply table) equals total uses of products at purchasers' prices (use tables)
  2. total output of industries at basic prices (supply table) equals total input of industries at basic prices (use table).
- For the supply and use tables at basic prices the identities are:
  1. total supply of products at basic prices equals total uses of products at basic prices
  2. total output of industries at basic prices equals total input of industries at basic prices.

Before balancing,

- The various valuation matrices for product taxes, product subsidies, trade margins and transport margins need to be estimated.
- In addition, the use table of imports must be compiled.

These are explained in later sessions.

## **Lay out of national input – output framework**

One of the basic aspects before starting to compile the tables of the input-output framework is to set out the layout of the tables in terms of classifications and levels of detail

1. Classification
2. Level of details
3. Rectangular supply and use system

## **Lay out of national input – output framework contd.**

4. Functional classification
5. Supplementary information
6. Changes in inventories
7. Intra EU and extra EU foreign trade
8. National Accounts
9. Data processing
10. Confidentiality

## **National Database**

- In order to compile supply and use tables many data and other sources are necessary. For the compilation of the output table, data are required that show the output of products by industries.
- For the compilation of the intermediate consumption table, data are essential in identifying the input requirements for intermediate consumption by products for each industry.
- For the final uses table, disaggregated survey results will enable the elaboration of typical input structures by product for the various categories of final uses. Furthermore, specific data are needed to compile the various valuation matrices.
- Last but not least, data concerning each component of value added by industries are required.
- In general, the data needs for supply and use tables are in fact quite similar to those for national accounts. However, for the supply and use tables, data classified by products are of special importance.
- Even if there is certain harmonisation in the availability of economic statistics data in the Member States of the EU, the overall data situation may differ widely from country to country. ESA 1995 has brought a strong harmonisation in the use of the statistical classifications and – at least conceptually – a harmonisation in the definitions of the statistical units.
- However, harmonised economic data is still less common, except in areas where European Regulations currently force the Member States to provide such data. Such areas include foreign trade statistics, industrial production statistics, business cycle statistics and structural business statistics.

- It must be concluded that the European harmonised economic statistics system is not primarily designed to provide a comprehensive database for national accounts and the supply and use tables.
- It is therefore up to the Member States to design their system of economic statistics in order to be able to fulfil the requirements of the ESA Regulation.
- It has to be accepted that the economic statistics database of a given country will never meet all the requirements for compiling supply and use tables. However, there should be a continuous effort to improve the database and to better fulfil the needs.
- Countries that have compiled supply and use tables for a long time may have lesser need to expand and improve their data system than countries that are at the beginning of compiling supply and use tables and are facing crucial data shortages.
- Identified data shortages can be met in different ways. One possibility could be to enlarge the already existing surveys by introducing a larger sample size and or additional variables with greater coverage.
- Another way could be to create new regular surveys for areas not yet covered. A third method could be to run specific surveys for supply and use purposes.
- A further possibility would be to meet additional data needs by accessing administrative data sources.
- In general, the availability of existing data – also outside the official statistical system – should be explored before additional respondent burdens are enlarged. Further improvements would be achieved if the concepts and variables of data sources were close to concepts of national accounts.