

COMPILATION OF SUT IN ESCWA Member States

August 2018

Supply Tables

Methods and Data

Structure of Supply table

- It is a product X industries table (identical with use table)
 - Products in rows (CPC); and
 - Industries (ISIC) in columns
- It can be a square (products correspond to the characteristics products of industries) or a rectangular table (more products than industries)
- The supply table provides output of goods and services at their detailed commodity level (shown in rows) and by *domestic industries* and *imports* (shown in columns)
- Since the supply table is generally at basic prices, it has additional columns for transforming each product value at basic prices to its value at purchasers' prices
 - Freight Transport costs
 - Wholesale and retail trade margins
 - Taxes on products
 - Subsidies on products

Illustrative Supply and Use Table.										
	SUPPLY Table									
	Agriculture	Ming, Manf, utilities, constrn	Services	Total dom. supply	(total Imp. c.i.f.	f.o.b. c.i.f./ f.o.b. adjustment	Total supply at BP	Transport cost and trade margins	Taxes less subsidies on products	Total supply at PP
(1)	(2)	(3)	(4)	(5)=(2)+(3) +(4)	(6)	(7)	(8)=(5)+(6) +(7)	(9)	(10)	(11)=(8)+(9) +(10)
1. Agriculture	3245			3245	23		3268	30	10	3308
2. Ming, Manf, utilities, constrn		5163		5163	850		6013	100	-115	5998
3. Services			6594	6594	94	-10	6678	-130	885	7433
4. c.i.f./ f.o.b. adj.					-10	10	0			0
5. Purchases of residents abroad					10		10			10
6. Non-residents' purchases in the economy										
7. Total	3245	5163	6594	15002	967	0	15969	0	780	16749

Domestic Production

- Production is an activity, carried out under the responsibility, control and management of an institutional unit that uses inputs of labour, capital, and goods and services to produce outputs of goods and services
- The “Production Boundary” defines what activities are defined as productive.
- Includes both primary and secondary products produced by establishments
- Data needed for compiling the columns of domestic production is output of industries with product details
- Classifications used for industries and products are ISIC and CPC, respectively
- Valuation of output of industries is at basic prices
- The main data sources are the
 - Administrative data (for example, agriculture, mining, electricity, transportation, government services, accounts of companies, etc.)
 - Economic census or establishment surveys for mining, manufacturing and services
 - Population census (for dwellings)
 - Other surveys (household budget surveys for estimating output of some products from expenditures, labour force surveys for informal sector, paid domestic services, etc.) and other adhoc sources (such as research studies done on underground or illegal activities)

Imports and exports of Goods and services (1/4)

- Trade statistics on imports and exports of **goods** are available from customs authorities and certain government bodies that maintain trade statistics.
- Customs authorities follow HS classification (6-digit), whereas the other agencies compiling trade statistics follow the HS or SITC classification (5-digit);
- Imports of goods valued on c.i.f., total imports on f.o.b.; and exports on f.o.b.
- Data on imports and exports of **services** is available from the BoP statistics, mostly compiled by the central banks. The BoP shows imports and exports of goods generally in a single row, but trade in services is presented according to following 12 standard components of services:
 - a. Manufacturing services on physical inputs owned by others;
 - b. Maintenance and repair services n.i.e.;
 - c. Transport;
 - d. Travel;
 - e. Construction;
 - f. Insurance and pension services;
 - g. Financial services;
 - h. Charges for the use of intellectual property n.i.e.;
 - i. Telecommunications, computer and information services;
 - j. Other business services;
 - k. Personal, cultural and recreational services; and
 - l. Government goods and services n.i.e.

Imports and exports columns of SUTs (2/4)

- **Goods**
 - Source of data for goods is merchandise trade statistics
 - Data available according to HS/SITC needs to be converted to CPC. But, a simpler method is to use SUT product codes directly on the source data, as they are fewer in number
 - Data is available according to cif valuation, which is considered to be the basic price valuation in SNA. For the SUT, imports of goods should be on *c.i.f.*, but overall imports should be on *f.o.b.*, as it is considered to be at purchasers' prices
 - However, control figure for imports and exports of goods is the data given in the BoP. Therefore, it is necessary to understand the differences and make adjustments to import of goods in the supply table.
 - IMTS use a cif valuation for imports, while BoP uses fob valuation
 - The change of ownership basis used for the balance of payments means that goods entries will have a time of reporting consistent with the corresponding financial flows. In contrast, IMTS follow the timing of customs processing.
 - In the case of goods sent abroad for processing with no change of ownership, the values of goods movements are included in IMTS, but only service charges in BoP
 - IMTS data may not cover merchanting, nonmonetary gold, goods entering or leaving the territory illegally, goods procured in ports by carriers, but cover goods moving physically but where there has been no change of ownership.

Imports and exports columns of SUT (3/4) *c.i.f./f.o.b.* adjustment

- Generally, data on imports is available at *c.i.f.* while exports are at *f.o.b.*
- SNA recommends imports are valued at *f.o.b.* prices, because the value of imported goods includes the transport and insurance services incurred in bringing them to the importing country, which are either provided by residents or by non-residents
- If provided by residents, it is already included in domestic production. If they are provided by non-residents, they are included in imports (under services)
- This gives rise to double counting, and hence there is a need to remove the insurance and freight components in the imports
- Therefore, imports column in the supply table is modified to show
 - each imported product at *c.i.f.* in the supply table since it is equivalent to the basic value of the same domestic goods; and
 - total value of imports must be valued *f.o.b.*, since this is the true value of imports
 - A row and a column are inserted in the supply table, for this adjustment

Imports and exports columns of SUT (4/4)

Adjustment for purchases by residents abroad and non-residents in the economy

- Residents make purchases abroad and non-residents in the economy, mainly for consumption purposes
- This information is generally available in the BoP statistics under the item travel. If not, adjustments should be made for these purchases.
- They are recorded as imports (for residents purchases) and exports (for non-resident purchases).
- If the product profile of these purchases is available, adjustment may be made in the corresponding products, otherwise, they are shown in an adjustment row in the supply and use tables under imports and exports (corresponding adjustment to be made for household consumption, if household consumption expenditure data is based on a retail trade survey)

Trade margins columns (1/2)

- Trade margins include
 - Output of traders (which is derived as the difference between the sale and purchase value of traded goods)
 - Secondary output of other industries (several industries (other than trade), sell some products in the same condition as they are purchased. The margin from such sales is trade product of these industries)
- Data required for supply table is trade margins by products for the total economy
- Usually, the enterprise surveys and business accounts provide data on total trade margins only
- Very few countries are able to collect information on trade margins by products through surveys
- Therefore, data on trade margins by products is mostly estimated through indirect methods.

Trade margins columns (2/2)

- The indirect method involves four steps:
 - estimating total output of trade (in the supply table), which is equivalent to the sum of
 - output of principal product of trading industry and
 - output of trade product of other industries;
 - estimating (or assuming) trade margin ratios for each product;
 - estimating trade margins for each product (only goods) by applying the trade margin ratios on the product's output at basic prices; and
 - finally, adjusting the trade margins for each product to the controlled figure, which is the total output of trade product
- These trade margin ratios for different products can be estimated on the basis of small surveys of wholesalers and retailers
- It is advisable to estimate trade margins by products separately for wholesale and retail trade, as trade margin ratios are different for the same product in the hands of wholesalers and retailers, especially for the agricultural and perishable goods

Columns of freight transport costs

- The requirement of data is transport costs by products for the total economy.
- As in the case of trade, the transport costs can also be estimated through indirect methods, in the absence of direct product-wise information on transport costs from the enterprise surveys.
- The procedure is exactly the same as mentioned under trade margins.
- It is also advisable to estimate transport costs by products, separately for each means of transport, namely, railways, road, air, and water, if feasible.

Columns of taxes and subsidies on products

- A tax on a product is a tax that is payable per unit of some good or services. The tax may be a specific amount of money per unit of quantity, or it may be calculated ad valorem as a specified percentage of the price per unit.
- A subsidy on a product is a subsidy payable per unit of output of a good or service. The subsidy may be a specific amount of money per unit of quantity, or it may be calculated ad valorem as a specific percentage of the price per unit.
- Data on taxes and subsidies on products are available from the government budget documents or tax authorities.
- Sometimes, product-wise tax data (excise duties, sales tax or VAT) may not be available.
 - In such cases, countries first need to estimate product taxes for each product on the basis of average tax rates (output at basic prices multiplied by average tax rate) and then adjust these to the control figure of total product taxes on pro-rata basis.
 - This may be done for each type of tax on product (excise, VAT, sales tax, import duties, etc.), as tax rates are different for different types of taxes on the same product.
 - Industry surveys may also provide information on taxes and subsidies paid/received by the producers, but the summation of these may not tally with the government records.

Discussion Points

- The importance of Statistical Business Registers to support coverage, coherence and integration objectives
- The need to utilize: surveys, administrative data, and new (big) data sources
- Statistical Units – Enterprise, Kind Of Activity, managing large business
- Is there scope for further cooperation in the region? (sharing of: trade data, multinational corp. data, other?)