

# Input-Output Tables Metadata

## 1. Disseminating & compiling agencies

- 1.1 Disseminating agencies : Department of Statistics, DGBAS (Statistic Bureau)
- 1.2 Data compiling unit : Industry Input-Output Accounts Section
- 1.3 Tel : (02) 2380-3512
- 1.4 Fax : (02) 2380-3520
- 1.5 E-mail : yuling@dgbas.gov.tw

## 2. Means of dissemination

- 2.1 Oral
  - ( ) Press conference or news conference
- 2.2 Hardcopy
  - ( ) News release ( ) Statement (v) Book and periodical : “The Report on 2016 Input-Output Tables”
- 2.3 Electronic media :
  - (v) Online book, periodical and database at  
<https://eng.stat.gov.tw/lp.asp?ctNode=1650&CtUnit=799&BaseDSD=7>
  - ( ) Floppy disk ( ) CD ( ) others

## 3. Data coverage, periodicity & timeliness

### 3.1 Geographical coverage and data coverage

The geographic coverage is the whole nationwide territory and the data coverage includes all sectors.

### 3.2 Reference period

Benchmark input-output tables are compiled for years that end with a 1 or 6. Annual input-output tables are compiled for every year. The standard survey time is the calendar year of the data year.

### 3.3 Definition(s)

#### 1. Coefficients Table

Input coefficients are obtained by dividing input with output. Input coefficients denote the input required under existing production technologies. It represents a certain production technological standard and is called technology coefficient.

#### 2. Impact Coefficients Table

The Impact coefficients in the Impact Coefficients Table are also named Inverse Matrix Coefficients, Interdependence Coefficients or Impact Effects Coefficients. “Coefficient” means the numbers of units that have yet to be bought, either directly or indirectly, from various

sectors for every additional unit needed of a given sectoral output. What is eventually needed to influence, either directly or indirectly, output, added value and input through industry linkage is called “Feedback Effects of the Final Demand.” Taiwan now uses  $B = [I - (I - \hat{M})A]^{-1} [I - D]^{-1}$  for the domestic inverse matrix to calculate the feedback effects on the final demand.  $\hat{M}$  D is the domestic goods and services matrix.

That uses input coefficient vector  $m$  as the diagonal. The various elements in vector  $m$  are  $m_i$ . It equals  $M_i / (X_i + M_i - E_i)$ .  $X_i$ ,  $M_i$  and  $E_i$  are the production, input and output of department  $i$  respectively.

### 3. Forward Linkage Effects and Sensitivity of Dispersion

When every sectoral final demands changes to one unit, the change in its demand for specific sectoral output is the Sensibility of specific departments, also named Forward Linkage Effects. Standardized Forward Linkage Effect is called Sensitivity of Dispersion.

### 4. Backward Linkage Effects and Power of Dispersion

When every department’s ultimate specific sectoral final demands changes to one unit, the total outputs of all sectors increase/decrease. Is also called Backward Linkage Effects. Standardized Backward Linkage Effect is called Power of Dispersion.

#### 3.4 Unit measures : NT\$ million

#### 3.5 Breakdown available

All sectors are classified according to the most recent base year Input Output Table whenever the Table is prepared. For benchmark IO tables, all sectors are classified according to products (major sectors) and products (minor sectors). In 2016, there were 164 major sectors. For annual IO tables, all sectors are classified according to industries and products.

#### 3.6 Release periodicity :

Benchmark IO tables (every 5 years), Annual IO tables (yearly).

#### 3.7 Window of period release :

Benchmark IO tables (3 years), Annual IO tables (1 year).

#### 3.8 History of survey and data changes

Input Output Table is revised every 5 years for consistency with the Standard Industrial Classification System, Industry, Commerce and Service Census.

## 4. Public access

### 4.1 Advance release calendar and means of dissemination

Results are published on the end of December three years after the data year (base year tables) or the year following the data year (annual

tables). There are no preliminary announcements.

#### **4.2 Simultaneous release to all interested parties**

Upon completion, data will be posted on the Internet at

<https://eng.stat.gov.tw/lp.asp?ctNode=1650&CtUnit=799&BaseDSD=7>

### **5. Data quality**

#### **5.1 Explanations for statistical methodology, data manipulation and data source**

##### **1. Benchmark IO tables**

Major types of statistics from government offices' annual reports, public enterprises' and different levels of governments' annual budgets and final accounts, surveys of agriculture, forestry, fishery and animal husbandry, Industry, Commerce and Service Census, commerce and service industries and industry production cost surveys accounts are expressed in the form of matrixes and reviewed and adjusted according to supply and demand before transaction tables of different pricing bases and product sources are prepared. Input Coefficients Table and Impact Coefficients Table are obtained through transaction table computations.

##### **2. Annual IO tables**

The data sources are mainly from survey statistics, government offices' annual reports, public enterprises' and different levels of governments' annual budgets and final accounts. The annual tables contain supply and use tables and they are compiled in purchasers' price and classified as commodity-by- industry (63x63) account.

#### **5.2 Cross-checking mechanism to ensure data reasonableness (only prepared in Benchmark year table)**

The preparation process and national income statistics are compared for their differences and the results include

##### **1. Transaction tables**

Transactions Table at Purchasers' Prices

Transactions Table at Producers' Prices

Transactions Table of Domestic Goods and Services

Transactions Table of Import Goods and Services

Trade Margin Table

Transportation Margin Table

##### **2. Coefficients Table**

Input Coefficients Table at Producers' Prices (A)

Input Coefficients Table of Domestic Goods and Services (D)

- Input Coefficients Table of Import Goods and Services (M)
3. Impact Coefficients Table :  $(I-A)^{-1}$ ,  $(I-D)^{-1}$ ,  $[I-(I-\hat{M})A]^{-1}$
  4. Supply Table
  5. Use Table
    - Use Table at Purchasers' Prices
    - Use Table at Producers' Prices
    - Use Table of Domestic Goods and Services
    - Use Table of Import Goods and Services

**6. Other descriptions helpful for users and explanation for data incongruence**

Announced data are the final results. There have been no significant changes in the preparation in recent years.