

# **PART I**

## **Technical Notes on the International Input-Output Table Japan-Taiwan, 2016**

## I. General Outline

The 2016 Japan-Taiwan International Input-Output Table is designed to depict the industrial network between Japan and Taiwan and gives a minute picture of input composition and output distribution of each domestic industry relative to home as well as foreign countries' industries.

The 2016 Japan-Taiwan International Input-Output Table is compiled on the same framework as the Asian International Input-Output Tables, which are made available for years 1985, 1990, 1995, 2000, and 2005.

An extended version of the 2016 Japan-Taiwan International Input-Output table is also provided by subdividing transactions of manufacturing sectors and trade flow into exporting and non-exporting firms to attempt to explicitly introduce some kinds of firm heterogeneity into the input-output table.

## II. Schematic Image of the 2016 Japan-Taiwan International Input-Output Table

### 1. Non-Extended Version

The whole picture of the 2016 Japan -Taiwan International Input-Output table is given in Figure 1. As seen in column-wise, each cell in the table shows the input composition of industries of respective countries.  $A^{JJ}$ , for example, shows the input composition of the industries relative to domestically produced goods and service.  $A^{NJ}$  on the other hand, shows input compositions of Taiwanese industries for the imported goods and services from Taiwan.<sup>1</sup>

The transaction values thus tabulated are all given at producer's price of the countries of origin. International freight and insurance paid by Japanese Industries for these imported transactions are all recorded in the row vectors  $BA^J$ .  $C^{IJ}$ ,  $C^{MJ}$ ,  $C^{PJ}$ ,  $C^{SJ}$ ,  $C^{TJ}$ ,  $C^{CJ}$ ,  $C^{KJ}$ ,  $C^{UJ}$ ,  $C^{GJ}$ ,  $C^{HJ}$ ,  $C^{OJ}$ ,  $C^{WJ}$  are input composition of Japanese Industries vis-à-vis imported goods and services from Indonesia, Malaysia, Philippines, Singapore, Thailand , China, Korea, United States, India, Hong Kong, EU and Rest of

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<sup>1</sup> For imports of services, only imports of "wholesale and retail trade" and "Transportation" are recorded in each country's import matrix. All other imports of services are treated as imports from the Rest of the World.

the World, presented in CIF value.<sup>2</sup> Import duties and import commodity taxes levied on all Japanese imports are recorded in the row vector  $DA^J$ .

Turning to the 3<sup>rd</sup> column, from the left side of the table, it shows the compositions of goods and services that have gone to final demand sectors of Japan.  $F^{JJ}$  and  $F^{JN}$ , for example, maps the inflow into Japanese final demand sectors of goods and services domestically produced and of those imported from Taiwan, respectively.

Seen in row-wise direction, the table shows the output distributions of the commodities produced by domestic industries, to Taiwanese industries.  $F^{JJ}$  is the distribution of Japanese goods and services to final demand sectors of Japanese, and  $F^{JN}$  is to the final demand sectors of Taiwanese.

$L^{IJ}$ ,  $L^{MJ}$ ,  $L^{PJ}$ ,  $L^{SJ}$ ,  $L^{TJ}$ ,  $L^{CJ}$ ,  $L^{KJ}$ ,  $L^{UJ}$ ,  $L^{GJ}$ ,  $L^{HJ}$ ,  $L^{OJ}$ ,  $L^{WJ}$  are Japanese export to Indonesia, to Malaysia, to Philippines, to Singapore, to Thailand, to China, to Korea, to United States, to India, to Hong Kong, to EU, and to the Rest of the World.  $Q^J$  is the statistical discrepancies and  $X^J$  shows the gross outputs of Japanese industries.

The column and rows of the other countries can be read in the same manner.

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<sup>2</sup> EU(O) in the 2016 Japan-Taiwan table consists of 28 member countries in 2016: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech, Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.

Figure 1. The Schematic Image of the 2016 Japan-Taiwan International Input-Output Table: Non-extended Version

code	Intermediate Demand (A)		Final Demand (F)		Export (L)											Statistical Discrepancy	Total Output	
	Japan (AJ) 001-007	Taiwan (AN) 001-007	Japan (FJ) 001	Taiwan (FN) 001	Indonesia (LI) 001	Malaysia (LM) 001	Philippines (LP) 001	Singapore (LS) 001	Thailand (LT) 001	China (LC) 001	Korea (LK) 001	U.S.A (LU) 001	Hong Kong (LH) 001	India (LG) 001	EU28 (LO) 001	R.O.W (LW) 001	(QL) 001	(XX) 600
Japan (AJ) 001-007	A <sup>JJ</sup>	A <sup>JN</sup>	F <sup>JJ</sup>	F <sup>JN</sup>	L <sup>JJ</sup>	L <sup>JM</sup>	L <sup>JP</sup>	L <sup>JS</sup>	L <sup>JT</sup>	L <sup>JC</sup>	L <sup>JK</sup>	L <sup>JU</sup>	L <sup>JH</sup>	L <sup>JG</sup>	L <sup>JO</sup>	L <sup>JW</sup>	Q <sup>J</sup>	X <sup>J</sup>
Taiwan (AN) 001-007	A <sup>NJ</sup>	A <sup>NN</sup>	F <sup>NJ</sup>	F <sup>NN</sup>	L <sup>NJ</sup>	L <sup>NM</sup>	L <sup>NP</sup>	L <sup>NS</sup>	L <sup>NT</sup>	L <sup>NC</sup>	L <sup>NK</sup>	L <sup>NU</sup>	L <sup>NH</sup>	L <sup>NG</sup>	L <sup>NO</sup>	L <sup>NW</sup>	Q <sup>N</sup>	X <sup>N</sup>
Freight and Insurance (BF) 001	BA <sup>J</sup>	BA <sup>N</sup>	BF <sup>J</sup>	BF <sup>N</sup>														
Indonesia (CI) 007	C <sup>J</sup>	C <sup>IN</sup>	F <sup>J</sup>	F <sup>IN</sup>														
Malaysia (CM) 007	C <sup>MJ</sup>	C <sup>MN</sup>	F <sup>MJ</sup>	F <sup>MN</sup>														
Philippines (CP) 007	C <sup>PJ</sup>	C <sup>PN</sup>	F <sup>PJ</sup>	F <sup>PN</sup>														
Singapore (CS) 007	C <sup>SJ</sup>	C <sup>SN</sup>	F <sup>SJ</sup>	F <sup>SN</sup>														
Thailand (CT) 007	C <sup>TJ</sup>	C <sup>TN</sup>	F <sup>TJ</sup>	F <sup>TN</sup>														
China (CC) 007	C <sup>CJ</sup>	C <sup>CN</sup>	F <sup>CJ</sup>	F <sup>CN</sup>														
Korea (CK) 007	C <sup>KJ</sup>	C <sup>KN</sup>	F <sup>KJ</sup>	F <sup>KN</sup>														
U.S.A (CU) 007	C <sup>UJ</sup>	C <sup>UN</sup>	F <sup>UJ</sup>	F <sup>UN</sup>														
Hong Kong (CH) 007	C <sup>HJ</sup>	C <sup>HN</sup>	F <sup>HJ</sup>	F <sup>HN</sup>														
India (CG) 007	C <sup>GJ</sup>	C <sup>GN</sup>	F <sup>GJ</sup>	F <sup>GN</sup>														
EU28 (CO) 007	C <sup>OJ</sup>	C <sup>ON</sup>	F <sup>OJ</sup>	F <sup>ON</sup>														
R.O.W (CW) 007	C <sup>WJ</sup>	C <sup>WN</sup>	F <sup>WJ</sup>	F <sup>WN</sup>														
Duties and Import Commodity Taxes (DT) 001	DA <sup>J</sup>	DA <sup>N</sup>	DF <sup>J</sup>	DF <sup>N</sup>														
Value Added (VV) 001	V <sup>J</sup>	V <sup>N</sup>																
Total Inputs (XX) 600	X <sup>J</sup>	X <sup>N</sup>																

(Source)Prepared by the author.

## 2. Extended Version

Figure 2 shows the schematic image of the extended version of the 2016 Japan - Taiwan International Input-Output table. This section presents the newly introduced concept of exporting and non-exporting firms. The definitions that distinguish whether a firm is an exporting or non-exporting firm are as follows. A firm is defined as exporting if it exports even a small amount of the goods it produces, while a non-exporting firm does not export at all. The extended table divides production in each manufacturing sector into production by exporting and non-exporting firms.

Same as the non-extended version of the table, each cell shows the input composition of industries of the respective countries. For example, the second column from the left side of the table  $A_D^{JJ}$  shows the input composition of Japanese non-exporting firms relative to domestically produced primary goods (/services).  $A_{DD}^{JJ}$  is the input composition of the Japanese non-exporting firms relative to domestically produced goods by the Japanese non-exporting firms.  $A_{ED}^{JJ}$  is also the input structure of the Japanese non-exporting firms relative to domestically produced goods by the Japanese exporting firms. On the other hand,  $A_D^{NJ}$  is the input composition of Japanese non-exporting firms for the imported primary goods (/services) from Taiwanese primary (/services) sectors.  $A_{ED}^{NJ}$  shows the input compositions of Japanese non-exporting firms for the imported goods from Taiwanese exporting firms.

The transaction values thus tabulated are all given at the producer's price of the countries of origin. International freight and insurance paid by Japanese non-exporting firms for these imported transactions are all recorded in the row vectors  $BA_D^I$ .  $C_D^{IJ}$ ,  $C_D^{MJ}$ ,  $C_D^{PJ}$ ,  $C_D^{SJ}$ ,  $C_D^{TJ}$ ,  $C_D^{CJ}$ ,  $C_D^{KJ}$ ,  $C_D^{UJ}$ ,  $C_D^{GJ}$ ,  $C_D^{HJ}$ ,  $C_D^{OJ}$ ,  $C_D^{WJ}$  are input composition of Japanese non-exporting firms vis-à-vis imported goods and services from Indonesia, Malaysia, Philippines, Singapore, Thailand, China, Korea, United States, India, Hong Kong, EU, and the Rest of the World, presented in CIF value. Import duties and import commodity taxes levied on all Japanese non-exporting firms are recorded in the row vector  $DA_D^J$ .

Turning to the intersection of the 2<sup>nd</sup> row and 9<sup>th</sup> column, from the left side of the table, it shows the compositions of manufacturing goods that have gone to final demand sectors of Japanese non-exporting firms.  $F_D^{JJ}$ , for example, maps the inflow into Japanese non-exporting firms' final demand of goods domestically produced. Since non-exporting firms do not export, no inflow in the next cell of  $F_D^{JJ}$ .

No  $L_D$  is in the table since non-exporting firms do not export any countries.  $L_E^{IJ}$ ,  $L_E^{MJ}$ ,  $L_E^{PJ}$ ,  $L_E^{SJ}$ ,  $L_E^{TJ}$ ,  $L_E^{CJ}$ ,  $L_E^{KJ}$ ,  $L_E^{UJ}$ ,  $L_E^{GJ}$ ,  $L_E^{HJ}$ ,  $L_E^{OJ}$ ,  $L_E^{WJ}$  are Japanese exporting firms' export to Indonesia, to Malaysia, to Philippines, to Singapore, to Thailand, to China, to Korea, to United States, to India, to Hong Kong, to EU, and to the Rest of the World.  $Q_D^J$  is the statistical discrepancies and  $X_D^J$  shows the gross outputs of Japanese non-exporting firms.

The column and rows of the other countries can be read in the same manner.

Figure 2. The Schematic Image of the 2016 Japan-Taiwan International Input-Output Table: Extended version

code	Intermediate Demand (A)				Final Demand (F)		Export (L)										Statistical Discrepancy (QL)	Total Output (XX)		
	Japan				Taiwan		Japan (FJ)	Taiwan (FN)	Indonesia (LI)	Malaysia (LM)	Philippines (LP)	Singapore (LS)	Thailand (LT)	China (LC)	Korea (LK)	U.S.A (LU)			Hong Kong (LH)	India (LG)
(AJ) 001	A <sup>JJ</sup>	A <sup>JJ</sup>	A <sup>JJ</sup>	A <sup>JJ</sup>	A <sup>JN</sup>	A <sup>JN</sup>	F <sup>JJ</sup>	F <sup>JN</sup>	L <sup>JJ</sup>	L <sup>JM</sup>	L <sup>JP</sup>	L <sup>JS</sup>	L <sup>JT</sup>	L <sup>JC</sup>	L <sup>JK</sup>	L <sup>JU</sup>	L <sup>JH</sup>	L <sup>JO</sup>	L <sup>JW</sup>	X <sup>J</sup>
(AJD) 002-004	A <sup>DD</sup>	A <sup>DD</sup>	A <sup>DD</sup>	A <sup>DD</sup>	A <sup>JN</sup>	A <sup>JN</sup>	F <sup>DD</sup>	F <sup>JN</sup>	L <sup>JJ</sup>	L <sup>JM</sup>	L <sup>JP</sup>	L <sup>JS</sup>	L <sup>JT</sup>	L <sup>JC</sup>	L <sup>JK</sup>	L <sup>JU</sup>	L <sup>JH</sup>	L <sup>JO</sup>	L <sup>JW</sup>	X <sup>D</sup>
(AJE) 004	A <sup>ED</sup>	A <sup>ED</sup>	A <sup>ED</sup>	A <sup>ED</sup>	A <sup>JN</sup>	A <sup>JN</sup>	F <sup>ED</sup>	F <sup>JN</sup>	L <sup>JJ</sup>	L <sup>JM</sup>	L <sup>JP</sup>	L <sup>JS</sup>	L <sup>JT</sup>	L <sup>JC</sup>	L <sup>JK</sup>	L <sup>JU</sup>	L <sup>JH</sup>	L <sup>JO</sup>	L <sup>JW</sup>	X <sup>E</sup>
(AJ) 005-007	A <sup>JJ</sup>	A <sup>JJ</sup>	A <sup>JJ</sup>	A <sup>JJ</sup>	A <sup>JN</sup>	A <sup>JN</sup>	F <sup>JJ</sup>	F <sup>JN</sup>	L <sup>JJ</sup>	L <sup>JM</sup>	L <sup>JP</sup>	L <sup>JS</sup>	L <sup>JT</sup>	L <sup>JC</sup>	L <sup>JK</sup>	L <sup>JU</sup>	L <sup>JH</sup>	L <sup>JO</sup>	L <sup>JW</sup>	X <sup>J</sup>
(AN) 001	A <sup>NJ</sup>	A <sup>NJ</sup>	A <sup>NJ</sup>	A <sup>NJ</sup>	A <sup>NN</sup>	A <sup>NN</sup>	F <sup>NJ</sup>	F <sup>NN</sup>	L <sup>NJ</sup>	L <sup>NM</sup>	L <sup>NP</sup>	L <sup>NS</sup>	L <sup>NT</sup>	L <sup>NC</sup>	L <sup>NK</sup>	L <sup>NU</sup>	L <sup>NH</sup>	L <sup>NO</sup>	L <sup>NW</sup>	X <sup>N</sup>
(AND) 002-004	A <sup>DD</sup>	A <sup>DD</sup>	A <sup>DD</sup>	A <sup>DD</sup>	A <sup>NN</sup>	A <sup>NN</sup>	F <sup>DD</sup>	F <sup>NN</sup>	L <sup>DD</sup>	L <sup>DM</sup>	L <sup>DP</sup>	L <sup>DS</sup>	L <sup>DT</sup>	L <sup>DC</sup>	L <sup>DK</sup>	L <sup>DU</sup>	L <sup>DH</sup>	L <sup>DO</sup>	L <sup>DW</sup>	X <sup>D</sup>
(ANE) 002-004	A <sup>ED</sup>	A <sup>ED</sup>	A <sup>ED</sup>	A <sup>ED</sup>	A <sup>NN</sup>	A <sup>NN</sup>	F <sup>ED</sup>	F <sup>NN</sup>	L <sup>EJ</sup>	L <sup>EM</sup>	L <sup>EP</sup>	L <sup>ES</sup>	L <sup>ET</sup>	L <sup>EC</sup>	L <sup>EK</sup>	L <sup>EU</sup>	L <sup>EH</sup>	L <sup>EO</sup>	L <sup>EW</sup>	X <sup>E</sup>
(AN) 005-007	A <sup>NJ</sup>	A <sup>NJ</sup>	A <sup>NJ</sup>	A <sup>NJ</sup>	A <sup>NN</sup>	A <sup>NN</sup>	F <sup>NJ</sup>	F <sup>NN</sup>	L <sup>NJ</sup>	L <sup>NM</sup>	L <sup>NP</sup>	L <sup>NS</sup>	L <sup>NT</sup>	L <sup>NC</sup>	L <sup>NK</sup>	L <sup>NU</sup>	L <sup>NH</sup>	L <sup>NO</sup>	L <sup>NW</sup>	X <sup>N</sup>
(BF) 001	BA <sup>J</sup>	BA <sup>J</sup>	BA <sup>J</sup>	BA <sup>J</sup>	BA <sup>N</sup>	BA <sup>N</sup>	BF <sup>J</sup>	BF <sup>N</sup>	L <sup>BA</sup>	L <sup>BM</sup>	L <sup>BP</sup>	L <sup>BS</sup>	L <sup>BT</sup>	L <sup>BC</sup>	L <sup>BK</sup>	L <sup>BU</sup>	L <sup>BH</sup>	L <sup>BO</sup>	L <sup>BW</sup>	X <sup>N</sup>
(CI) 001-007	C <sup>IJ</sup>	C <sup>IJ</sup>	C <sup>IJ</sup>	C <sup>IJ</sup>	C <sup>IN</sup>	C <sup>IN</sup>	F <sup>IJ</sup>	F <sup>IN</sup>	L <sup>IJ</sup>	L <sup>IM</sup>	L <sup>IP</sup>	L <sup>IS</sup>	L <sup>IT</sup>	L <sup>IC</sup>	L <sup>IK</sup>	L <sup>IU</sup>	L <sup>IH</sup>	L <sup>IO</sup>	L <sup>IW</sup>	X <sup>N</sup>
(CM) 001-007	C <sup>MJ</sup>	C <sup>MJ</sup>	C <sup>MJ</sup>	C <sup>MJ</sup>	C <sup>MN</sup>	C <sup>MN</sup>	F <sup>MJ</sup>	F <sup>MN</sup>	L <sup>MJ</sup>	L <sup>MM</sup>	L <sup>MP</sup>	L <sup>MS</sup>	L <sup>MT</sup>	L <sup>MC</sup>	L <sup>MK</sup>	L <sup>MU</sup>	L <sup>MH</sup>	L <sup>MO</sup>	L <sup>MW</sup>	X <sup>N</sup>
(CP) 001-007	C <sup>PJ</sup>	C <sup>PJ</sup>	C <sup>PJ</sup>	C <sup>PJ</sup>	C <sup>PN</sup>	C <sup>PN</sup>	F <sup>PJ</sup>	F <sup>PN</sup>	L <sup>PJ</sup>	L <sup>PM</sup>	L <sup>PP</sup>	L <sup>PS</sup>	L <sup>PT</sup>	L <sup>PC</sup>	L <sup>PK</sup>	L <sup>PU</sup>	L <sup>PH</sup>	L <sup>PO</sup>	L <sup>PW</sup>	X <sup>N</sup>
(CS) 001-007	C <sup>SJ</sup>	C <sup>SJ</sup>	C <sup>SJ</sup>	C <sup>SJ</sup>	C <sup>SN</sup>	C <sup>SN</sup>	F <sup>SJ</sup>	F <sup>SN</sup>	L <sup>SJ</sup>	L <sup>SM</sup>	L <sup>SP</sup>	L <sup>SS</sup>	L <sup>ST</sup>	L <sup>SC</sup>	L <sup>SK</sup>	L <sup>SU</sup>	L <sup>SH</sup>	L <sup>SO</sup>	L <sup>SW</sup>	X <sup>N</sup>
(CT) 001-007	C <sup>TJ</sup>	C <sup>TJ</sup>	C <sup>TJ</sup>	C <sup>TJ</sup>	C <sup>TN</sup>	C <sup>TN</sup>	F <sup>TJ</sup>	F <sup>TN</sup>	L <sup>TJ</sup>	L <sup>TM</sup>	L <sup>TP</sup>	L <sup>TS</sup>	L <sup>TT</sup>	L <sup>TC</sup>	L <sup>TK</sup>	L <sup>TU</sup>	L <sup>TH</sup>	L <sup>TO</sup>	L <sup>TW</sup>	X <sup>N</sup>
(CC) 001-007	C <sup>CJ</sup>	C <sup>CJ</sup>	C <sup>CJ</sup>	C <sup>CJ</sup>	C <sup>CN</sup>	C <sup>CN</sup>	F <sup>CJ</sup>	F <sup>CN</sup>	L <sup>CJ</sup>	L <sup>CM</sup>	L <sup>CP</sup>	L <sup>CS</sup>	L <sup>CT</sup>	L <sup>CC</sup>	L <sup>CK</sup>	L <sup>CU</sup>	L <sup>CH</sup>	L <sup>CO</sup>	L <sup>CW</sup>	X <sup>N</sup>
(CK) 001-007	C <sup>KJ</sup>	C <sup>KJ</sup>	C <sup>KJ</sup>	C <sup>KJ</sup>	C <sup>KN</sup>	C <sup>KN</sup>	F <sup>KJ</sup>	F <sup>KN</sup>	L <sup>KJ</sup>	L <sup>KM</sup>	L <sup>KP</sup>	L <sup>KS</sup>	L <sup>KT</sup>	L <sup>KC</sup>	L <sup>KK</sup>	L <sup>KU</sup>	L <sup>KH</sup>	L <sup>KO</sup>	L <sup>KW</sup>	X <sup>N</sup>
(CU) 001-007	C <sup>UJ</sup>	C <sup>UJ</sup>	C <sup>UJ</sup>	C <sup>UJ</sup>	C <sup>UN</sup>	C <sup>UN</sup>	F <sup>UJ</sup>	F <sup>UN</sup>	L <sup>UJ</sup>	L <sup>UM</sup>	L <sup>UP</sup>	L <sup>US</sup>	L <sup>UT</sup>	L <sup>UC</sup>	L <sup>UK</sup>	L <sup>UU</sup>	L <sup>UH</sup>	L <sup>UO</sup>	L <sup>UW</sup>	X <sup>N</sup>
(CH) 001-007	C <sup>HJ</sup>	C <sup>HJ</sup>	C <sup>HJ</sup>	C <sup>HJ</sup>	C <sup>HN</sup>	C <sup>HN</sup>	F <sup>HJ</sup>	F <sup>HN</sup>	L <sup>HJ</sup>	L <sup>HM</sup>	L <sup>HP</sup>	L <sup>HS</sup>	L <sup>HT</sup>	L <sup>HC</sup>	L <sup>HK</sup>	L <sup>HU</sup>	L <sup>HH</sup>	L <sup>HO</sup>	L <sup>HW</sup>	X <sup>N</sup>
(CG) 001-007	C <sup>GJ</sup>	C <sup>GJ</sup>	C <sup>GJ</sup>	C <sup>GJ</sup>	C <sup>GN</sup>	C <sup>GN</sup>	F <sup>GJ</sup>	F <sup>GN</sup>	L <sup>GJ</sup>	L <sup>GM</sup>	L <sup>GP</sup>	L <sup>GS</sup>	L <sup>GT</sup>	L <sup>GC</sup>	L <sup>GK</sup>	L <sup>GU</sup>	L <sup>GH</sup>	L <sup>GO</sup>	L <sup>GW</sup>	X <sup>N</sup>
(CO) 001-007	C <sup>OJ</sup>	C <sup>OJ</sup>	C <sup>OJ</sup>	C <sup>OJ</sup>	C <sup>ON</sup>	C <sup>ON</sup>	F <sup>OJ</sup>	F <sup>ON</sup>	L <sup>OJ</sup>	L <sup>OM</sup>	L <sup>OP</sup>	L <sup>OS</sup>	L <sup>OT</sup>	L <sup>OC</sup>	L <sup>OK</sup>	L <sup>OU</sup>	L <sup>OH</sup>	L <sup>OO</sup>	L <sup>OW</sup>	X <sup>N</sup>
(CW) 001-007	C <sup>WJ</sup>	C <sup>WJ</sup>	C <sup>WJ</sup>	C <sup>WJ</sup>	C <sup>WN</sup>	C <sup>WN</sup>	F <sup>WJ</sup>	F <sup>WN</sup>	L <sup>WJ</sup>	L <sup>WM</sup>	L <sup>WP</sup>	L <sup>WS</sup>	L <sup>WT</sup>	L <sup>WC</sup>	L <sup>WK</sup>	L <sup>WU</sup>	L <sup>WH</sup>	L <sup>WO</sup>	L <sup>WW</sup>	X <sup>N</sup>
(DT) 001	DA <sup>J</sup>	DA <sup>J</sup>	DA <sup>J</sup>	DA <sup>J</sup>	DA <sup>N</sup>	DA <sup>N</sup>	DF <sup>J</sup>	DF <sup>N</sup>	L <sup>DA</sup>	L <sup>DM</sup>	L <sup>DP</sup>	L <sup>DS</sup>	L <sup>DT</sup>	L <sup>DC</sup>	L <sup>DK</sup>	L <sup>DU</sup>	L <sup>DH</sup>	L <sup>DO</sup>	L <sup>DW</sup>	X <sup>N</sup>
(VV) 001	V <sup>J</sup>	V <sup>J</sup>	V <sup>J</sup>	V <sup>J</sup>	V <sup>N</sup>	V <sup>N</sup>	V <sup>N</sup>	V <sup>N</sup>	L <sup>VJ</sup>	L <sup>VM</sup>	L <sup>VP</sup>	L <sup>VS</sup>	L <sup>VT</sup>	L <sup>VC</sup>	L <sup>VK</sup>	L <sup>VU</sup>	L <sup>VH</sup>	L <sup>VO</sup>	L <sup>VW</sup>	X <sup>N</sup>
(XX) 600	X <sup>J</sup>	X <sup>D</sup>	X <sup>E</sup>	X <sup>J</sup>	X <sup>N</sup>	X <sup>D</sup>	X <sup>N</sup>	X <sup>E</sup>	X <sup>N</sup>	X <sup>D</sup>	X <sup>E</sup>	X <sup>N</sup>	X <sup>D</sup>	X <sup>E</sup>	X <sup>N</sup>	X <sup>D</sup>	X <sup>E</sup>	X <sup>N</sup>	X <sup>D</sup>	X <sup>E</sup>

(Source) Prepared by the author.

## 1. Coding system

<b>Row</b>	<b>Column</b>	<b>Description</b>
AJ001	AJ001	Intermediate sectors, Japan
AJ007	AJ007	
AN001	AN001	Intermediate sectors, Taiwan
AN007	AN007	
BF001		International Freight and Insurance
CI001	CI001	Intermediate input from Indonesia (CIF price)
CI007	CI007	
CM001	CM001	Intermediate input from Malaysia (CIF price)
CM007	CM007	
CP001	CP001	Intermediate input from Philippines (CIF price)
CP007	CP007	
CS001	CS001	Intermediate input from Singapore (CIF price)
CS007	CS007	
CT001	CT001	Intermediate input from Thailand (CIF price)
CT007	CT007	
CC001	CC001	Intermediate input from China (CIF price)
CC007	CC007	
CK001	CK001	Intermediate input from Korea (CIF price)
CK007	CK007	
CU001	CU001	Intermediate input from United States (CIF price)
CU007	CU007	
CG001	CG001	Intermediate input from India (CIF price)
CG007	CG007	
CH001	CH001	Intermediate input from Hong Kong (CIF price)
CH007	CH007	

Row	Column	Description
CO001   CO007	CO001   CO007	Intermediate input from European Union (CIF price)
CW001   CW007	CW001   CW007	Intermediate input from Rest of the World (CIF price)
DT001		Duties and Import Commodity Taxes
VV001		Value Added
	FJ001	Final Demand of Japan
	FN001	Final Deman of Taiwan
	LI001	Export to Indonesia
	LM001	Export to Malaysia
	LP001	Export to Philippines
	LS001	Export to Singapore
	LT001	Export to Thailand
	LC001	Export to China
	LK001	Export to Korea
	LU001	Export to United States
	LH001	Export to Hong Kong
	LG001	Export to India
	LO001	Export to European Union
	LW001	Export to Rest of the World
	QL0001	Statistical Discrepancies
XX600	XX600	Total Input, Total Output

## 2. Sector Classification of the 2016 Japan-Taiwan International Input-Output Table

7 sectors		87 Sectors*	
code	Description	code	Description
<b>INTERMEDIATE SECTORS</b>			
001	Agriculture, livestock, forestry, fishery, and mining	001	Paddy
		002	Other grain
		003	Food crops
		004	Non-food crops
		005	Livestock and poultry
		006	Forestry
		007	Fishery
		008	Crude petroleum and natural gas
		010	Iron ore and other metallic ore
		011	Non-metallic ore and quarrying
		002	Food, beverage, textile, and pulp industry
013	Fish products		
014	Slaughtering, meat products and dairy products		
015	Other food products		
016	Beverage		
017	Tobacco		
018	Spinning		
019	Weaving and dyeing		
020	Knitting		
021	Wearing apparel		
022	Other made-up textile products		
023	Leather and leather products		
024	Timber		
025	Wooden furniture		
026	Other wooden products		
027	Pulp and paper		
028	Printing and publishing		
003	Petrochemicals, ceramic earth and metal industry		
		030	Basic industrial chemical
		031	Chemical fertilizers and pesticides
		032	Drugs and medicine
		033	Other chemical products
		034	Petroleum and petrol products
		036	Tires and tubes
		037	Other rubber products
		038	Cement and cement products
		039	Glass and glass products
		040	Other non-metallic mineral products
		041	Iron and steel
		042	Non-ferrous metal
		043	Metal products
		004	Machinery, electronics and other manufacturing
045	General machinery		
046	Metal working machinery		
047	Specialized machinery		
048	Semiconductor Manufacturing Equipment		
051	Electronic computing equipment		
052	Semiconductors and integrated circuits		
053	Other electronics and electronic products		
049	Heavy electric equipment		
050	Television sets, radio, audio and communication equipment		
054	Office machinery		
055	Household electrical equipment		
056	Lighting fixtures, batteries, wiring and others		

7 sectors		87 Sectors*	
code	Description	code	Description
		057	Motor vehicles
		058	Motor cycles
		059	Shipbuilding
		060	Rolling Stocks
		061	Aircraft
		062	Other transport equipment
		035	Plastic products
		063	Precision machines
		064	Medical equipment
		065	Other manufacturing products
005	Electricity, gas, water supply, and construction	066	Electricity and gas
		067	water supply, Sewerage, Waste Management, Remediation activities
		068	Construction
006	Trade and transport	069	Wholesale and retail trade
		070	Land transport
		071	Water transport
		072	Air Transport
		073	Warehousing and support activities for transportation
007	Services	074	Postal and courier activities
		075	Telephone and telecommunication
		076	Accommodation and food service activities
		077	Audiovisual and broadcasting activities
		078	Education
		079	Human health and social work activities
		080	IT and other information services
		081	Finance and insurance
		082	Real estate
		083	Professional, scientific, and technical activities
		084	Administrative and supportive activities
		085	Art, entertainment and recreation
		086	Other service activities
		088	Unclassified
		087	Public administration
<b>FINAL DEMAND SECTORS</b>			
001	Total Final Demand	001	Private Consumption Expenditure
		002	Government Consumption Expenditure
		003	Gross Domestic Fixed Capital Formation
		004	Changes in Stocks
<b>VALUE ADDED SECTORS</b>			
001	Total Value Added	001	Wages and Salaries
		002	Operating Surplus
		003	Depreciation of fixed capital
		004	Indirect Taxes less subsidies
600	Total output		

\*No sector number 009 is allocated in the 87 sector classification.

### 3. Sector Concordance between National I-O Classification and Japan-Taiwan I-O Classification:

Japan-Taiwan I-O classification*			National I-O classification		
code007	code087	Description	Japan (2015)	Taiwan (2016)	
001	001	Paddy	0111011	00110	
			0111012		
	002	Other grain	0111021	00210	
			0111022	00230	
			0115091	00290	
	003	Food crops	0112011	00220	
			0112012	00240	
			0112021	00250	
			0112029	00340	
			0113001	00390	
			0115011	00410	
0114011			00490		
0115021			00495		
0115029			00510		
0115099			00520 00590		
004	Non-food crops	0116011	00295		
		0116021	00310		
		0116031	00320		
		0116091	00330		
		0116092	00395		
		0116093	00595		
		0116099	00620 00630 00690		
		005	Livestock and poultry	0121011	00710
0121019	00720				
0121021	00795				
0121031	00810				
0121041	00820				
0121051	00830				
0121099	00840 00851 00859 00890				
006	Forestry			0151011	00610
		0152011	01010		
		0153011	01020 01030 01090		
		007	Fishery	0171011	01110
				0172001	01120
008	Crude petroleum and natural gas	0611012 0611013	01210 01220		
010	Iron ore and othe metallic ore	0629091 0629092	01320		
011	Non-metallic ore and quarrying	0629093	01230		
		0629094	01310		
		0621011	01330		
		0621021	01390		
		0629099			
		0611011			
002	012	Milled grain and flour	1113011	02010	
			1113019 1113021 1113029	02095 02110	
013	Fish products	1112011	01610		

Japan-Taiwan I-O classification*			National I-O classification	
code007	code087	Description	Japan (2015)	Taiwan (2016)
			1112021 1112031 1112041 1112099	01620
	014	Slaughtering, meat products and dairy products	1111011 1111012 1111013 1111014 1111015 1111099 1111021 1111022	01410 01420 01430 01440 01495 01510 01520 01910 01920 01930 01990
	015	Other food products	1114011 1114021 1116021 1116041 1116042 1116044 1116051 1119011 1119021 1119031 6311031 6311041 1119099 1131011 2029031 2029032	01340 01710 01720 01790 01810 01820 01890 01895 02120 02190 02195 02200 02310 02320 02410 02420 02495 02510 02520 02530 02540 02590 02610 02630 02690
	016	Beverage	1121011 1121031 1129011 1129021 1129031	02620 02710 02790 02795 02810 02820 02890
	017	Tobacco	1141011	02910 02920 02990
	018	Spinning	1511011 1511011	03010 03110
	019	Weaving and dyeing	1512011 1512021 1512099 1514011	03020 03099 03120 03130 03140 03400
	020	Knitting	1513011	03200

Japan-Taiwan I-O classification*			National I-O classification	
code007	code087	Description	Japan (2015)	Taiwan (2016)
			1521021	
	021	Wearing apparel	1521011	03600 03700
	022	Other made-up textile products	1519091 1519099 1522099 1529011 1529021 1529091 1529099	03300 03510 03520 03590 03599
	023	Leather and leather products	2311011 2312011 2312012	03800 03900A 04010 04090
	024	Timber	1611011 1611011	04110 04199
	025	Wooden furniture	1621011	10310
	026	Other wooden products	1611021 1611031 1619091 1619099 1621031 1621099	04210 04220 04300 10390
	027	Pulp and paper	1631011 1631021 1632011 1632021 1633011 1633021 1641011 1641099 1649011 1649099	04410 04420 04499 04510 04520 04590
	028	Printing and publishing	1911011 5951021 5951031	04600 13110 13190
003	029	Synthetic resins and fiber	2051011 2051021 2051022 2051023 2051024 2051025 2051031 2051099 2061011 2061012	05210 05220 05230 05240 05250 05260 05270 05410 05420 05431 05432 05490 05510 05590
	030	Basic industrial chemical	2021011 2021012 2021013 2021019 2029021 2029099 2031011 2031012 2031012	04910 04920 04931 04932 04939 04940 04990 05011 05012

Japan-Taiwan I-O classification*			National I-O classification	
code007	code087	Description	Japan (2015)	Taiwan (2016)
			2031019 2031021 2031022 2031023 2031029 2041011 2041012 2041013 2041014 2041015 2041016 2041019 2041021 2041022 2041023 2041024 2041025 2041029 2042011 2049011 2049021 2049099	05013 05014 05020 05031 05032 05040 05050 05060 05090 05281 05282 05300
	031	Chemical fertilizers and pesticides	1131021 2011011 2084011	05110 05190 05600
	032	Drugs and medicine	2071011	06010 06020 06030 06040
	033	Other chemical products	2029011 2029012 2029019 2081011 2081012 2081013 2082011 2083011 2083021 2089021 2089011 2089091 2089099	05710 05720 05810 05820 05910 05990
	034	Petroleum and petrol products	2111011 2111012 2111013 2111014 2111015 2111016 2111017 2111018 2111019 2121011 2121019 2121021	04710 04720 04730 04740 04750 04760 04770 04780 04790 04800
	035	Plastic products	2211011 2211012 2211013 2211014 2211015	05283 05290 05299 06210 06220

Japan-Taiwan I-O classification*			National I-O classification	
code007	code087	Description	Japan (2015)	Taiwan (2016)
			2211016 2211017 2211019	06230 06240 06250 06290
	036	Tires and tubes	2221011	06110 06120
	037	Other rubber products	2229091 2229099	03900B 06130 06140 06190 06199
	038	Cement and cement products	2521011 2521021 2521031	06500 06610 06690
	039	Glass and glass products	2511011 2511012 2511021 2511091 2511099	06310 06320 06330 06390 06399
	040	Other non-metallic mineral products	2531011 2531012 2531013 2591011 2591099 2599011 2599021 2599099	06410 06420 06710 06720 06730 06790 06799
	041	Iron and steel	2611011 2611021 2611031 2611041 2612011 2621011 2621012 2621013 2621014 2621015 2621016 2622011 2622012 2623011 2623012 2623021 2631011 2631012 2631021 2631031 2631032 2699011 2699099	06810 06820 06831 06832 06899 06910 06920 06930 06940 06950 06960 06970 06980 06990 06999
	042	Non-ferrous metal	2711011 2711021 2711031 2711099 2712011 2729011 2729021 2729031 2729041	07010 07020 07030 07040 07099 07110 07120 07130

Japan-Taiwan I-O classification*			National I-O classification	
code007	code087	Description	Japan (2015)	Taiwan (2016)
			2729099	
	043	Metal products	1621021 2811011 2812011 2891011 2899011 2899021 2899031 2899032 2899033 2899091 2899092 2899099	07190 07199 07210 07310 07320 07490 07510 07590 07610 07620 07690 10400
004	044	Boilers, engines and turbines	2911011 2911021 2911031	07410 09710
	045	General machinery	2913011 2914011 2912011 2919091 2919011 2919099 3016031	09720 09730 09740 09750 09780 09790 09791 10710A 10730A
	046	Metal working machinery	3016011 3016021 3019011	07220 09510 09520 09590 09591 10710B 10730B
	047	Specialized machinery	3012011 3013011 3011011 3019021 3019031 3019099 3014011 3014012 3014013 3014014 3014015 3015011 3015021 3015022 3112011 3112012 3112019	09610 09620 09631 09632 09633 09634 09635 09690 09691 09770 10710C 10730C
	048	Semiconductor Manufacturing Equipment	3017011	09636
	049	Heavy electric equipment	3311011 3311012 3311021 3311031 3311099	08910 08920 10710D 10730D
	050	Television sets, radio, audio and communication equipment	3412011 3412021 3411041 3411011	08410 08420 08490 08510

Japan-Taiwan I-O classification*			National I-O classification	
code007	code087	Description	Japan (2015)	Taiwan (2016)
			3411021 3411031 3411099	08520 08590
	051	Electronic computing equipment	3421011 3421021 3421031	08110 08190 08200 08310 08390 16210
	052	Semiconductors and integrated circuits	3211011 3211021	07710 07720 07730 07740 07750
	053	Other electronics and electronic products	2721011 2721021 3331011 3332011 3211041 3211031 3299011 3299021 3299099 3299099	07800 07900 08030 08040 08090 08010 08020 08610 08690 09110
	054	Office machinery	3111011 3111099	09760
	055	Household electrical equipment	3321011 3321021	09310 09390 09391 16290
	056	Lighting fixtures, batteries, wiring and others	3311041 3311051 3399011 3399021 3399031 3399099	09000 09120 09210 09220 09291 09400
	057	Motor vehicles	3511011 3521011 3531011 3531021 6631101	09810 09820 09891 16110 16120
	058	Motor cycles	3522011	10010 10091 16220
	059	Shipbuilding	3541011 3541021 3541031 3541101	09910 09920 09990 09991 10720A
	060	Rolling Stocks	3591011 3591101	10220 10720B
	061	Aircraft	3592011 3592101	10210 10720C
	062	Other transport equipment	3599011 3599091 3599099	10110 10191 10290
	063	Precision machines	3115011 3919021 3113011	08710 08720 08820

Japan-Taiwan I-O classification*			National I-O classification	
code007	code087	Description	Japan (2015)	Taiwan (2016)
	064	Medical equipment	3114011	08810 10620
	065	Other manufacturing products	3911011 3911021 3919031 3919061 3919041 3919011 3919051 3116011 3919099	10510 10520 10530 10540 10610 10630 10640 10690
005	066	Electricity and gas	4611011 4611001 4611001 4611031 4621011 4622011	10810 10820 10900
	067	water supply, Sewerage, Waste Management, Remediation activities	4711011 4711021 4711031 4811011 4811021	11000 11100 11200 11300 11400
	068	Construction	4111011 4111021 4112011 4112021 4121011 4131011 4131021 4131031 4191011 4191021 4191031 4191099 6699021	11510 11520 11610 11620 11710 11721 11722 11723 11724 11730 11740 11750 11760 11770 11790 11810 11820 11830 11890
006	069	Wholesale and retail trade	5111011 5112011 3921011	11900 12000 12110 12120 12130
	070	Land transport	5711011 5712011 5721011 5721021 5722011	12210 12220 12230 12310 12320 12330
	071	Water transport	5741011 5742011 5742012 5743011	12410 12420 12430
	072	Air Transport	5751011 5751012 5751013	12510 12520

Japan-Taiwan I-O classification*			National I-O classification	
code007	code087	Description	Japan (2015)	Taiwan (2016)
			5751014	
	073	Warehousing and support activities for transportation	5761011 5771011 5781011 5789011 5789021 5789031 5789041 5789051 5789061 5789071	12610 12620 12630 12640 12650 12660 12670 12690 12710 12720
007	074	Postal and courier activities	5791011	12810 12820
	075	Telephone and telecommunication	5911011 5911021 5911031	13400
	076	Accommodation and food service activities	6721011 6721021 6711011	13000
	077	Audiovisual and broadcasting activities	5921011 5921021 5921031 5951011	13310 13320
	078	Education	6311011 6311021 6312011 6312021 6312031 6312041	15610 15620
	079	Human health and social work activities	6411011 6411021 6411031 6411041 6411051 6421011 6421021 6431011 6431021 6431031 6431041 6431051 6441011 6441021	15710 15810 15820
	080	IT and other information services	5931011 5931012 5941011	13120 13500 13610 13690 14620
	081	Finance and insurance	5311011 5311012 5311013 5311014 5312011 5312021	13710 13720 13730 13740 13750 13790 13810 13820 13890 13910 13920

Japan-Taiwan I-O classification*			National I-O classification	
code007	code087	Description	Japan (2015)	Taiwan (2016)
				13990 15520
	082	Real estate	5511011 5511021 5521011 5531011	14000 14110 14120 14190 14210 14220
	083	Professional, scientific, and technical activities	6321011 6321021 6321031 6321041 6321051 6321061 0131011 6799011 6621011 6621012 6699011	14320 14310 14500 14610 14820 14830 14890
	084	Administrative and supportive activities	5789099 6611011 6611012 6611013 6611014 6611015 6612011 6699041 6699031 6699051 6699099	11595 11695 14410 14420 14700 14810 14910 14920 14930 14940 15010 15020 15100 15200 15300
	085	Art, entertainment and recreation	6741011 6741021 6741051 6741031 6741041 6741099	13210 13220 13230 15910 15920 15930 15940 15950 15960 15990
	086	Other service activities	6599011 6599021 6731011 6731021 6731031 6731041 6731099 6799021 6799041 6799031 0131021 6799099	00900 16000 16300 16410 16420 16430 16490
	087	Public administration	6111011 6112011	15510
	088	Unclassified	6911000	

Japan-Taiwan I-O classification*			National I-O classification	
code007	code087	Description	Japan (2015)	Taiwan (2016)
<b>Final Demand</b>				
001	001	Private consumption expenditure	0721100	00810
			0721200	
	002	Government consumption expenditure	0731101	00820
			0731102	
0731103				
0731104				
003	Gross fixed capital formation	0741100	00830	
		0751100		
004	Changes in stocks	0761101	00840	
		0761102		
		0761103		
		0761104		
<b>Value Added</b>				
001	001	Wages and salaries	9111000	91110
			9112000	
			9113000	
	002	Operating surplus	9211000	92110
003	Depreciation	9311000	93110	
004	Indirect tax less subsidies	9511000	94110	
		9411000		
<b>Total Input</b>				
600	600		9700000	97000

\*No sector number 009 is allocated in the 87 sector classification.