

**Asian International
Input-Output Project
Institute of Developing Economies
Japan External Organization**

**ASIAN INTERNATIONAL
INPUT-OUTPUT TABLE
2005**

- TECHNICAL NOTES -

Institute of Developing Economies
Japan External Trade Organization
Japan

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I. GENERAL OUTLINE

The *2005 Asian International Input-Output Table* is designed to depict the industrial network extended over the ten countries, namely, China, Indonesia, Korea, Malaysia, Taiwan, the Philippines, Singapore, Thailand, Japan and the United States of America, and gives a minute picture of input composition and output distribution of each domestic industry vis-à-vis home as well as foreign countries' industries.

On the assumption of stable (or linear) technical correlation between input and output, the table also serve as an effective tool for the study of economic repercussion and forward and backward linkages among the countries of concern. Since the *Asian International Input-Output Table* was already made available for years of 1985, 1990, 1995 and 2000, and partly available even for the year of 1975 (China and Taiwan excluded), the 2005 table is expected to contribute to the studies on technological changes that took place among these countries for decades.

II. SCHEMATIC IMAGE OF THE ASIAN INTERNATIONAL INPUT-OUTPUT TABLE

The whole picture of the *2005 Asian International Input-Output Table* is given in Figure 1. As seen column-wise, each cell in the table shows the input composition of the industries of respective country. \mathbf{A}^{II} , for example, shows the input compositions of Indonesian industries vis-à-vis domestically produced goods and services. \mathbf{A}^{MI} , on the other hand, shows input composition of Indonesian industries for the imported goods and services from Malaysia.¹ The cells \mathbf{A}^{PI} , \mathbf{A}^{SI} , \mathbf{A}^{TI} , \mathbf{A}^{CI} , \mathbf{A}^{NI} , \mathbf{A}^{KI} , \mathbf{A}^{JI} and \mathbf{A}^{UI} allow the same interpretation for imports from other countries.

The transaction values thus tabulated are all given at producers' prices of the countries of origin. International freight and insurance paid by Indonesian industries for these imported transactions are all recorded in the row vectors \mathbf{BA}^I . \mathbf{A}^{GI} , \mathbf{A}^{HI} , \mathbf{A}^{OI} and \mathbf{A}^{WI} are input compositions of Indonesian industries vis-à-vis imported goods and services from India, from Hong Kong, from EU and from the Rest of the world, presented in CIF value.² Import duties and import commodity taxes levied on all Indonesian imports are recorded in the row vector \mathbf{DA}^I .

Turning to the 11th column from the left side of the table, it shows the compositions of goods and services that have gone to final demand sectors of Indonesia. \mathbf{F}^{II} and \mathbf{F}^{MI} , for example, maps the inflow into Indonesian final demand sectors, of goods and services domestically produced and of those imported from Malaysia, respectively. The rest of the column is read in the same manner as is done for the 1st column of the table.

Seen in row-wise direction, the table shows the output distributions of the commodities produced by domestic industries, to Malaysian industries, to the Philippines industries, and so on. \mathbf{F}^{II} is the distribution of Indonesian goods and services to final demand sectors of Indonesia, and \mathbf{F}^{IM} is to the final demand sectors of Malaysia, and so on.

¹ 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.

² EU (O) in the 2005 Asian table consists of 25 member countries in 2005: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

L^G , L^H , L^O and L^W are Indonesia's export to India, to Hong Kong, to EU, and to the Rest of the world. Q^I is the statistical discrepancies and X^I shows the gross outputs of Indonesian industries. The column and rows of the other countries can be read in the same manner.

III. CODING SYSTEM AND SECTOR CLASSIFICATION

1. Coding System

Row	Column	Description
AI001	AI001	
		Intermediate sectors, Indonesia
AI076	AI076	
AI900	AI900	Sub-total (AI001 to AI076)
AM001	AM001	
		Intermediate sectors, Malaysia
AM076	AM076	
AM900	AM900	Sub-total (AM001 to AM076)
AP001	AP001	
		Intermediate sectors, Philippines
AP076	AP076	
AP900	AP900	Sub-total (AP001 to AP076)
AS001	AS001	
		Intermediate sectors, Singapore
AS076	AS076	
AS900	AS900	Sub-total (AS001 to AS076)
AT001	AT001	
		Intermediate sectors, Thailand
AT076	AT076	
AT900	AT900	Sub-total (AT001 to AT076)
AC001	AC001	
		Intermediate sectors, China
AC076	AC076	
AC900	AC900	Sub-total (AC001 to AC076)
AN001	AN001	
		Intermediate sectors, Taiwan
AN076	AN076	
AN900	AN900	Sub-total (AN001 to AN076)
AK001	AK001	
		Intermediate sectors, Korea
AK076	AK076	
AK900	AK900	Sub-total (AK001 to AK076)

1. Coding System (Continued)

Row	Column	Description
AJ001	AJ001	
		Intermediate sectors, Japan
AJ076	AJ076	
AJ900	AJ900	Sub-total (AJ001 to AJ076)
AU001	AU001	
		Intermediate sectors, U.S.A.
AU076	AU076	
AU900	AU900	Sub-total (AU001 to AU076)
BF001		International freight and insurance
CG001		
		Intermediate input from India (C.I.F. prices)
CG076		
CG900		Sub-total (CG001 to CG076)
CH001		
		Intermediate input from Hong Kong (C.I.F. prices)
CH076		
CG900		Sub-total (CH001 to CH076)
CO001		
		Intermediate input from European Union (C.I.F. prices)
CO076		
CO900		Sub-total (CO001 to CO076)
CW001		
		Intermediate input from the Rest of the World (C.I.F. prices)
CW076		
CW900		Sub-total (CW001 to CW076)
DT001		Import duties and import commodity taxes
ET900	ET900	Total intermediate input or total intermediate output

1. Coding System (Continued)

Row	Column	Description
VV001		Wages and salary ^{*1}
VV002		Operating surplus
VV003		Depreciation of fixed capital ^{*2}
VV004		Indirect taxes less subsidies
VV900		Sub-total (VV001 to VV004)
	FI001	
		Final demands ^{*3} , Indonesia
	FI004	
	FI900	Sub-total (FI001 to FI004)
	FM001	
		Final demands, Malaysia ^{*4}
	FM005	
	FM900	Sub-total (FM001 to FM005)
	FP001	
		Final demands, Philippines ^{*5}
	FP005	
	FP900	Sub-total (FP001 to FP005)
	FS001	
		Final demands, Singapore ^{*4}
	FS005	
	FS900	Sub-total (FS001 to FS005)
	FT001	
		Final demands, Thailand
	FT004	
	FT900	Sub-total (FT001 to FT004)
	FC001	
		Final demands, China ^{*6}
	FC005	
	FC900	Sub-total (FC001 to FC005)

1. Coding System (Continued)

Row	Column	Description
	FN001	
		Final demands, Taiwan
	FN004	
	FN900	Sub-total (FN001 to FN004)
	FK001	
		Final demands, Korea
	FK004	
	FK900	Sub-total (FK001 to FK004)
	FJ001	
		Final demands, Japan
	FJ004	
	FJ900	Sub-total (FJ001 to FJ004)
	FU001	
		Final demands, U.S.A.
	FU004	
	FU900	Sub-total (FU001 to FU004)
	LG001	Export to India
	LH001	Export to Hong Kong
	LO001	Export to European Union
	LW001	Export to the Rest of the World
	LX900	Sub-total (LH001 to LW001)
	QX001	Statistical Discrepancies
XX600	XX600	Total input or total output

- Notes: *1 In Malaysia part, VV001 includes “Wages and Salary” and VV002 include “Operating surplus”, “Depreciation” and “Indirect taxes less subsidies”.
- *2 In U.S.A. part, “VV003 Depreciation” is included in “VV002 Operating surplus” as the “Gross operating surplus” and not recorded independently.
- *3 Common final demand items are as follows:
- 001 Private consumption expenditure
 - 002 Government consumption expenditure
 - 003 Gross fixed capital formation
 - 004 Changes in stocks
 - 005 Adjustment item (This item exist for China, Malaysia, the Philippines and Singapore)
- *4 FM005 for Malaysia and FS005 for Singapore are the balancing items in converting the valuation of transactions from basic price to producer’s price. Specifically, they are balanced for (1) domestic commodity taxes and GST, which came out of the adjustment process of domestic transactions

from basic price to producer's price; and (2) domestic trade margins and domestic transport cost (TTM) on exported goods, which came out of the adjustment process of export vector from F.O.B. to producer's price.

- *5 FP005 for the Philippines is established to record the discrepancy between production and expenditure in the national account statistics.
- *6 FC005 for China represents the statistical error which is included in China's original national input-output table.

2. Sector Classification of the 2005 Asian International Input-Output Table

7 Sectors		26 Sectors		76 Sectors (2000, 2005)		78 Sectors (1985*, 1990, 1995)	
Code	Description	Code	Description	Code	Description	Code	Description
INTERMEDIATE SECTORS							
001	Agriculture, livestock, forestry and fishery	001	Paddy	001	Paddy	001	Paddy
		002	Other agricultural products	002	Other grain	007A	Other grain
				003	Food crops	002	Cassava
						004	Sugar cane and beet
						005	Oil palm and coconuts
		007B	Other food crops				
		004	Non-food crops	003	Natural rubber		
006	Fiber crops						
008	Other commercial crops						
003	Livestock and poultry	005	Livestock and poultry	009	Livestock and poultry		
004	Forestry	006	Forestry	010	Forestry		
005	Fishery	007	Fishery	011	Fishery		
002	Mining and quarrying	006	Crude petroleum and natural gas	008	Crude petroleum and natural gas	012	Crude petroleum and natural gas
		007	Other mining	009	Iron ore	015A	Iron ore
				010	Other metallic ore	013	Copper ore
						014	Tin ore
		015B	Other metallic ore				
011	Non-metallic ore and quarrying	016	Non-metallic ore and quarrying				
003	Manufacturing	008	Food, beverage and tobacco	012	Milled grain and flour	018	Milled rice
						019	Other milled grain and flour
				013	Fish products	021A	Fish products
				014	Slaughtering, meat and dairy products	021B	Slaughtering, meat and dairy products
				015	Other food products	017	Oil and fats
						020	Sugar
						021C	Other food products
		016	Beverage	022A	Beverage		
		017	Tobacco	022B	Tobacco		
		009	Textile, leather, and the products thereof	018	Spinning	023	Spinning
				019	Weaving and dyeing	024	Weaving and dyeing
				020	Knitting	025	Knitting
				021	Wearing apparel	026	Wearing apparel
022	Other made-up textile products			027	Other made-up textile products		
023	Leather and leather products			028	Leather and leather products		

2. Sector Classification of the 2005 Asian International Input-Output Table (Continued)

7 Sectors		26 Sectors		76 Sectors (2000, 2005)		78 Sectors (1985*, 1990, 1995)	
Code	Description	Code	Description	Code	Description	Code	Description
INTERMEDIATE SECTORS							
003	Manufacturing	010	Wooden furniture and other wooden products	024	Timber	029	Timber
				025	Wooden furniture	030A	Furniture
				026	Other wooden products	030B	Other wooden products
		011	Pulp, paper and printing	027	Pulp and paper	031	Pulp and paper
				028	Printing and publishing	032	Printing and publishing
		012	Chemical products	029	Synthetic resins and fiber	033A	Synthetic resins and fiber
				030	Other basic industrial chemicals	033B	Other basic industrial chemicals
				031	Chemical fertilizers and pesticides	034	Chemical fertilizers and pesticides
				032	Drugs and medicine	035A	Drugs and medicine
				033	Other chemical products	035B	Other chemical products
		013	Petroleum and petrol products	034	Petroleum and petrol products	036	Refined petroleum and its products
		014	Rubber products	036	Tires and tubes	037	Tires and tubes
				037	Other rubber products	038	Other rubber products
		015	Non-metallic mineral products	038	Cement and cement products	039	Cement and cement products
				039	Glass and glass products	040	Glass and glass products
				040	Other non-metallic mineral products	041	Other non-metallic mineral products
		016	Metals and metal products	041	Iron and steel	042	Iron and steel
				042	Non-ferrous metal	043	Non-ferrous metal
				043	Metal products	044	Metal products
		017	Industrial machinery	044	Boilers, engines and turbines	045E	Engines and turbines
				045	General machinery	045C-2	Ordinary industrial machinery
				046	Metal working machinery	045B-1	Specialized industrial machinery
						045C-2	Ordinary industrial machinery
047	Specialized machinery			045A	Agricultural machinery		
		045B-2	Specialized industrial machinery				

2. Sector Classification of the 2005 Asian International Input-Output Table (Continued)

7 Sectors		26 Sectors		76 Sectors (2000, 2005)		78 Sectors (1985*, 1990, 1995)	
Code	Description	Code	Description	Code	Description	Code	Description
INTERMEDIATE SECTORS							
003	Manufacturing	018	Computers and electronic equipment	050	Electronic computing equipment	046A	Electronics and electronic products
				051	Semiconductors and integrated circuits		
				052	Other electronics and electronic products		
		019	Other electrical equipment	048	Heavy electrical equipment	045D	Heavy electric machinery
				049	Television sets, radios, audios and communication equipment	046A	Electronics and electronic products
				053	Household electrical equipment	046B	Other electric machinery and appliance
				054	Lighting fixtures, batteries, wiring and others		
		020	Transport equipment	055	Motor vehicles	047A	Motor vehicles
				056	Motor cycles	047B-1	Motor cycles and bicycles (Motor cycles)
				057	Shipbuilding	048B	Shipbuilding
				058	Other transport equipment	047B-2	Motor cycles and bicycles (Bicycles)
						048A	Aircrafts
						048C	Other transport equipment
		021	Other manufacturing products	035	Plastic products	050A	Plastic products
				059	Precision machines	049	Precision machines
060	Other manufacturing products			050B	Other manufacturing products		
004	Electricity, gas and water supply	022	Electricity, gas and water supply	061	Electricity and gas	051	Electricity, gas and water supply
				062	Water supply		
005	Construction	023	Construction	063	Building construction	052A	Building construction
				064	Other construction	052B	Other construction
006	Trade and transport	024	Trade and transport	065	Wholesale and retail trade	053A	Wholesale and retail trade
				066	Transportation	053B	Transportation

2. Sector Classification of the 2005 Asian International Input-Output Table (Continued)

7 Sectors		26 Sectors		76 Sectors (2000, 2005)		78 Sectors (1985*, 1990, 1995)	
Code	Description	Code	Description	Code	Description	Code	Description
INTERMEDIATE SECTORS							
007	Services	025	Other services	067	Telephone and telecommunication	054A	Telephone and telecommunication
				068	Finance and insurance	054B	Finance and insurance
				069	Real estate	054D-1	Other services
				070	Education and research	054C	Education and research
				071	Medical and health service	054D-2	Medical and health service
				072	Restaurants	054D-3	Restaurants
				073	Hotel	054D-4	Hotel
				074	Other service	054D-5	Other service
		076	Unclassified	056	Unclassified		
		026	Public administration	075	Public administration	055	Public administration
FINAL DEMAND SECTORS							
001	Private consumption expenditure	001	Private consumption expenditure	001	Private consumption expenditure	001	Private consumption expenditure
002	Government consumption expenditure	002	Government consumption expenditure	002	Government consumption expenditure	002	Government consumption expenditure
003	Gross fixed capital formation	003	Gross fixed capital formation	003	Gross fixed capital formation	003	Gross fixed capital formation
004	Changes in stocks	004	Changes in stocks	004	Changes in stocks	004	Changes in stocks
005	Adjustment item	005	Adjustment item	005	Adjustment item	-	-
VALUE ADDED SECTORS							
001	Wages and salaries	001	Wages and salaries	001	Wages and salaries	001	Wages and salaries
002	Operating surplus	002	Operating surplus	002	Operating surplus	002	Operating surplus
003	Depreciation	003	Depreciation	003	Depreciation	003	Depreciation
004	Indirect taxes less subsidies	004	Indirect taxes less subsidies	004	Indirect taxes less subsidies	004	Indirect taxes less subsidies

*1985 Asian table was compiled at 78 sectors. However, it is published at 24 sectors.