

Korea-Japan Workshop on the Industrial Productivity Database

Overview of the JIP Database

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1. Background

- **The Japan Industry Productivity Database (JIP Database) was originally compiled as part of the ESRI (Economic and Social Research Institute, Cabinet Office, Government of Japan) research project “Japan’s Potential Growth.”**

2. Documentation and Website

- The details of the database are explained in Fukao, Inui, Kawai, and Miyagawa, “Sectoral Productivity and Economic Growth in Japan, 1970-98: An Empirical Analysis Based on the JIP Database,” forthcoming in *Productivity and Growth: East Asia Seminar on Economics Volume 13*, in Takatoshi Ito and Andrew Rose eds., The University of Chicago Press, 2004,
and
“Sectoral Productivity and Economic Growth: 1970-98,” (in Japanese) Economic Analysis No. 170, ESRI, 2003.
- All data (English version) are downloadable for the time being at HI-STAT website, <http://hi-stat.ier.hit-u.ac.jp/> and will become downloadable at ESRI website, <http://www.esri.go.jp/> as the ESRI-HISTAT JIP Database.

2. Ongoing Projects 1

- **HI-STAT project team and ESRI will collaborate on**
 - 1. extension of the covered period from 1970-98 to 1970-2001 or 1970-2002.**
 - 2. revision from 1968 SNA base to 1993 SNA base,**

and

 - 3. revisions of labor input data and other data.**

2. Ongoing Projects 2

- The HI-STAT project team and RIETI (Research Institute of Economy, Trade and Industry) will collaborate on the compilation of the RIETI Manufacturing Database, which will contain annual industry-level data on output, employment, payroll and other input costs, investment, capital stocks, TFP, and various industry-specific price indexes.**

3. Overview of the JIP Database

- **The JIP database contains annual input-output tables in nominal and real (1990) prices as well as industry-level data on capital stock, labor input, and other additional data.**
- **Based on 1968 SNA. Computer software is not included in capital input.**
- **Land is not explicitly treated as a production factor.**

Table 1. Comparison of the JIP database, the KEO database, and various government statistics (National Accounts, SNA Input-Output tables, private capital s

		JIP database	KEO database	National accounts, SNA Input-Output Table, Private Capital Stock Statistics
Publishing organization		Economic and Social Research Institute, Cabinet Office, Government of Japan Research project "Japan's Potential Growth"	Institute for Economic and Industry Studies Keio University	Economic and Social Research Institute, Cabinet Office, Government of Japan, Department of National Accounts
Deflator		1990 constant prices	1985 constant prices	Price of base year
Consistency with SNA		No	Yes	-
Production and intermediate inputs	Industry	84 categories (including some categories of social capital)	43 categories (including waste recycling, crude oil, natural gas, steel, other non-competing imports)	National Accounts: 24 categories (table V), SNA Input-Output Table: 89 categories (68SNA-based, before 1980 there exist only 63 categories)
	Periods	1970, 1973-1998	1960-1995	National Accounts: 1970 onwards; SNA Input-Output Table: 1955, 60, 65, 70, 75, 80, 85-2000
	Estimation method	RAS	KEO-RAS	SNA Input-Output Table: RAS
	Derivation of real values	Linked real series of 1980, 1990, 1995 prices	Linked price indices of base years (1965, 1970, 1975, 1980, 1985) using the 1985 price index as	Fixed price index for the entire period
Labor	Industry	89 categories	43 categories	26 categories (23 categories for working hours)
	Sex	2 categories (male, female)	2 categories (male, female)	-
	Age	15 categories (15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85-)	11 categories (15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-)	-
	Status of employees	2 categories; Salaried employees (regular employees + executives), Non-salaried employees (self-employed + family workers)	3 categories; Employees (regular employees + executives), Self-employed (self-employed others + home workers), Family workers	-
	Educational attainment	4 categories; Junior high school (formerly: Elementary school); High school (formerly: Middle school); Higher professional school, Two-year college, or University undergraduate;	4 categories; Junior high school (formerly: Elementary school); High school (formerly: Middle school); Higher professional school, Two-year college, or University undergraduate;	-
	Period	1970-2000	1960-1992	1970 onwards
	Estimation method	RAS	KEO-RAS	-
Data	Number of workers, Working hours, Labor compensation	Number of workers, Working hours, Wages	Number of workers, Working hours	
Capital	Industry	84 categories (including some categories of social capital)	categories (including some categories of social cap	29 categories
	Capital goods	37 categories (capital goods categories of BEA)	78 categories	-
	Periods	1970-1998	1955-92	1955 onwards
	Treatment of fixed capital depreciation	Depreciation rate used by BEA	Estimated based on <i>National Wealth Survey</i> (1960) and <i>National Wealth Survey</i> (1970). Depreciation rates of some assets are newly	Estimated using information on replacement and loss in <i>Financial Statements Statistics of Corporations</i>
	Definition of capital stock	Net capital stock	Net capital stock	Gross capital stock
Estimation method	RAS, Single Benchmark year method	KEO-RAS (Double benchmark) perpetual inventory method	Double benchmark year method; other methods	
Supplementary tables		Trade statistics by industry and country; Inward and outward direct investment statistics; Service trade statistics by industry; Statistics on market structure, regulations, price differentials between import and domestic prices; Index of capacity utilization rate; R&D stock and cost of R&D stock	-	