



A Survey of National Accounts in Asia for Cross-Country Productivity Comparison

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- APO's Works on Productivity Measurement
 - Construction of harmonized database covering Asian countries
 - Assessment of data quality and availability
 - Effort to improve the country data
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 - Result of our metadata survey
 - GDP estimates and its coverage
 - Wealth
 - Labor

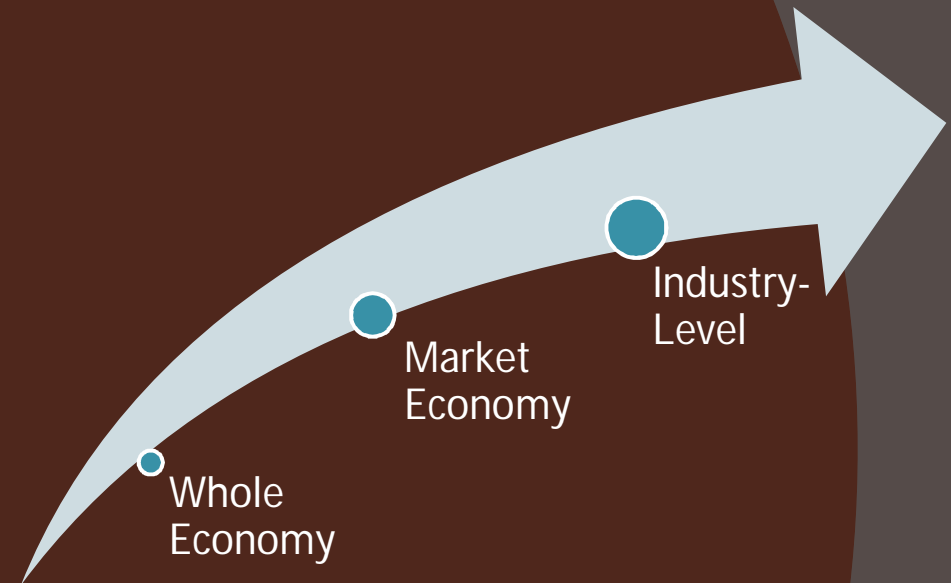
APO Productivity Database Project

- In September 2007, Asian Productivity Organization launched a project to construct the harmonized productivity database covering the APO 19 member countries and non-member Asian countries as China, in joint research with Keio Economic Observatory, Keio University.



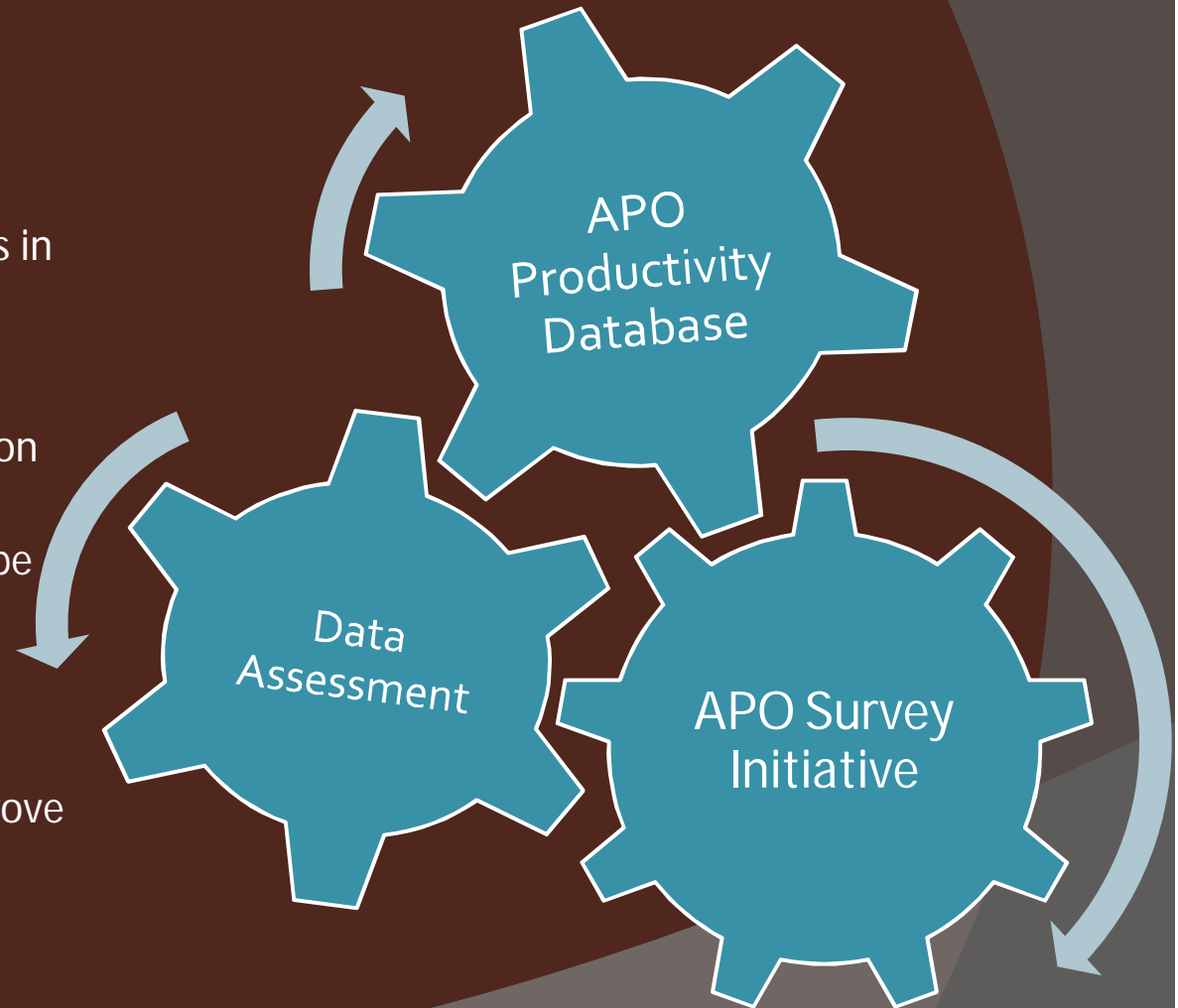
APO Productivity Database

- Develop harmonized productivity database
- Assess comparability and feasibility
- Construct consistent long-term data series
- Estimate harmonized measures of capital services and TFP
- Estimate labor input and quality



Three Gears in APO Project

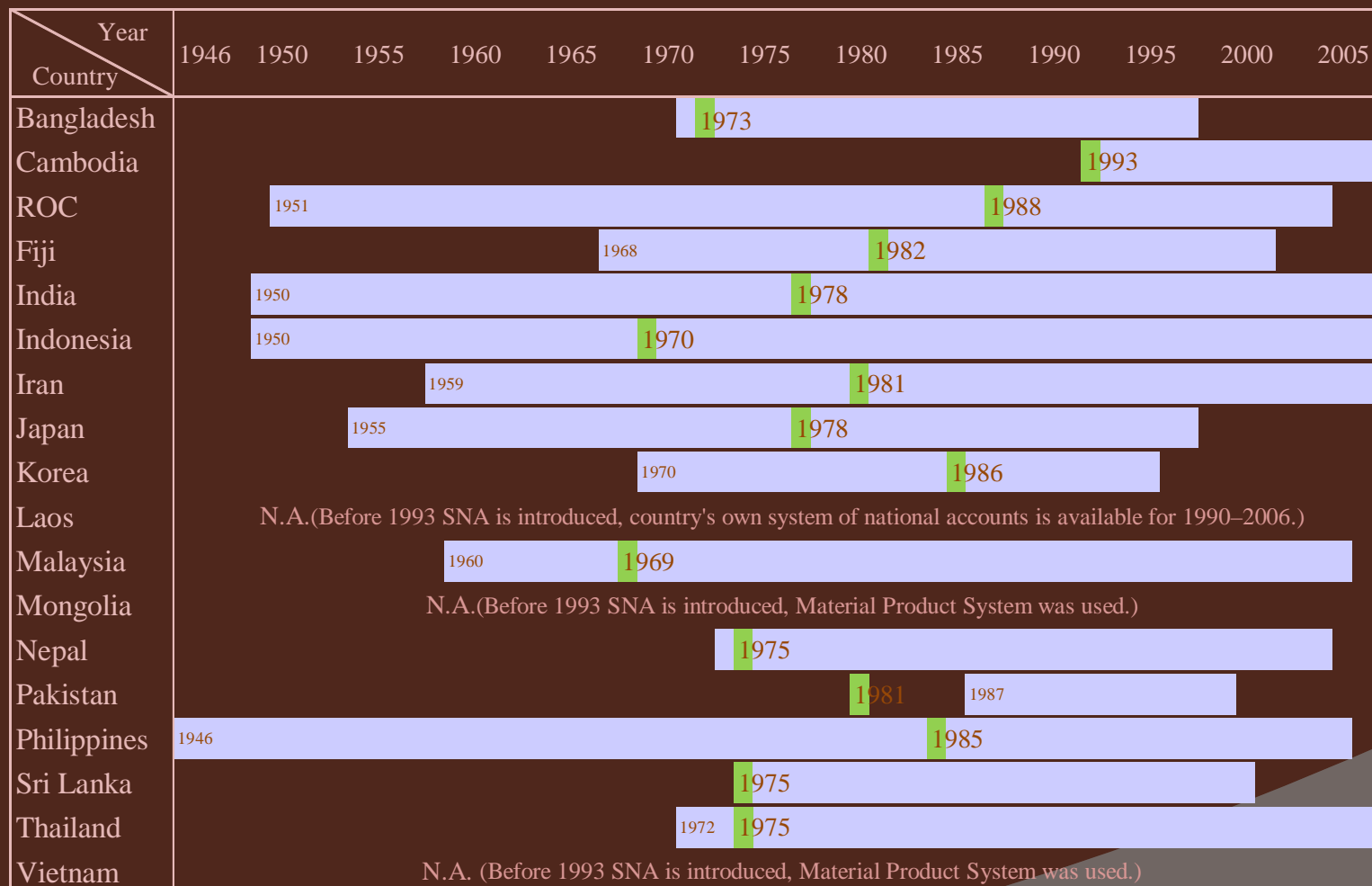
- **Productivity Database**
- **Data Assessment**
 - to illuminate the differences in definitions, coverage and methodology in compiling national accounts, for cross-country productivity comparison (APO Productivity Database)
 - to highlight weak areas to be improved in country's data (APO Survey Initiative)
- **Survey Initiative**
 - APO's support scheme to improve the official data in member countries



Metadata Questionnaire on National Accounts

- The 1st questionnaire development: February/March 2008
- Implementation period of the 1st Survey: April-July 2008
- Survey objects: NSO (National Statistical Office) expert who joined in our project
- Frequency: Annually
- The 1st result:
 - Nomura, Lau and Mizobuchi "A Survey of National Accounts in Asia for Cross-country Productivity Comparison", 2008

Data Availability and Implementation year of 1968 SNA





Implementation year of 1968 SNA

Data Availability (including backward estimates)

Data Availability and Implementation year of 1993 SNA

Year \ Country	1951	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005
Bangladesh							1979				2000	
Cambodia	N.A.(Some definitions of 1993 SNA are introduced.)											
ROC	1951											2005
Fiji										1995	2003	
India											1999	2007
Indonesia	NA (Some definitions of 1993 SNA are introduced.)											
Iran											1988	2006
Japan							1980				2000	
Korea					1970							2004
Laos										1997	2002	
Malaysia											2000	2007
Mongolia										1995	1999	
Nepal											2000	2006
Pakistan											2000	
Philippines									1991			2008
Sri Lanka										1998	2001	
Thailand											2000	2009
Vietnam							1986			1996		

 Implementation year of 1993 SNA

 Data Availability (including backward estimates)

Approaches to Estimate GDP in ANA

	Production approach	Expenditure approach	Income approach
Bangladesh	Yes (Base estimate)	Yes	No
Cambodia	Yes (Base estimate)	Yes	No
ROC	Yes (Base estimate)	Yes	No
Fiji	Yes (Base estimate)	Yes	No
India	Yes (Base estimate, depending on sectors)	Yes	Yes (Base estimate, depending on sectors)
Indonesia	Yes (Base estimate)	Yes	No
Iran	Yes (Base estimate)	Yes	No
Japan	Yes	Yes (Base estimate)	No
Korea	Yes (Base estimate)	Yes	No
Laos	Yes (Base estimate)	Yes	No
Malaysia	Yes (Base estimate)	Yes	No
Mongolia	Yes (Base estimate)	Yes	No
Nepal	Yes (Base estimate)	Yes	No
Pakistan	Yes (Base estimate)	Yes	No
Philippines	Yes (Base estimate)	Yes	No
Sri Lanka	Yes (Base estimate)	Yes	No
Thailand	Yes	Yes	Yes
Vietnam	Yes (Base estimate)	Yes	No

Approaches to Estimate GDP in QNA

	Production approach	Expenditure approach	Income approach
Bangladesh	NA	NA	NA
Cambodia	Yes (Base estimate)	Yes	No
ROC	Yes (Base estimate)	Yes	No
Fiji	NA	NA	NA
India	Yes (Base estimate, depending on sectors)	Yes	Yes (Base estimate, depending on sectors)
Indonesia	Yes (Base estimate)	Yes	No
Iran	Yes (Base estimate)	Yes	No
Japan	No	Yes	No
Korea	Yes (Base estimate)	Yes	No
Laos	NA	NA	NA
Malaysia	Yes (Base estimate)	Yes	No
Mongolia	Yes (Base estimate)	No	No
Nepal	NA	NA	NA
Pakistan	NA	NA	NA
Philippines	Yes (Base estimate)	Yes	No
Sri Lanka	Yes	No	No
Thailand	Yes (Base estimate)	Yes	No
Vietnam	Yes (Base estimate)	Yes	No

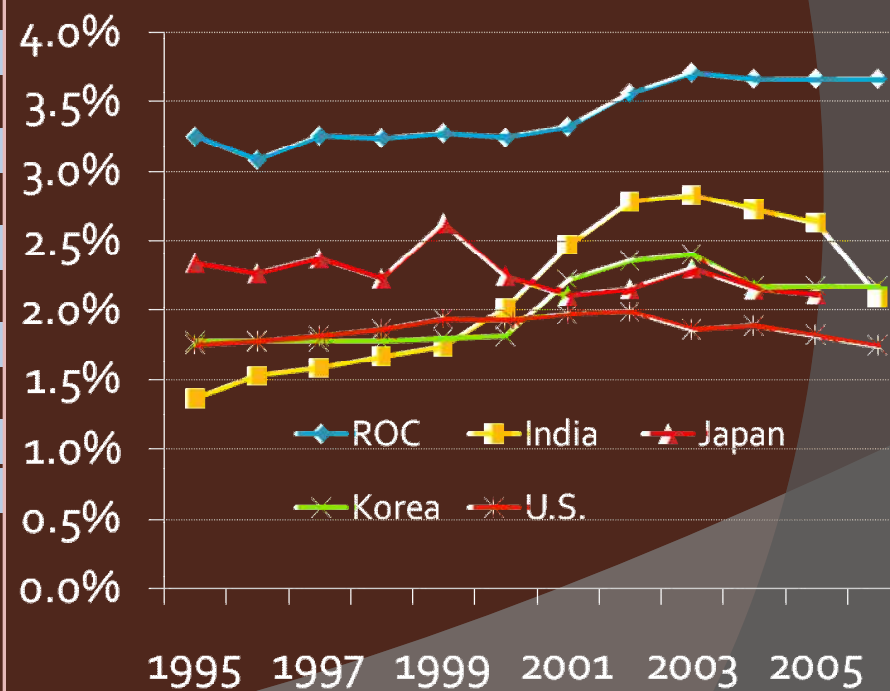
Price Concepts of GDP

	GDP at market price	GDP at basic price	GDP at factor cost
Bangladesh	Yes	No	No
Cambodia	Yes	No	No
ROC	Yes	No	Yes
Fiji	Yes	No	Yes
India	Yes	No	Yes
Indonesia	Yes	No	Yes
Iran	Yes	Yes	No
Japan	Yes	No	Yes
Korea	Yes	Yes	No
Laos	Yes	Yes	No
Malaysia	Yes	No	No
Mongolia	Yes	Yes	No
Nepal	Yes	Yes	No
Pakistan	Yes	No	Yes
Philippines	Yes	No	Yes
Sri Lanka	Yes	No	Yes
Thailand	Yes	No	Yes
Vietnam	Yes	No	No

Coverage of GDP (1): FISIM

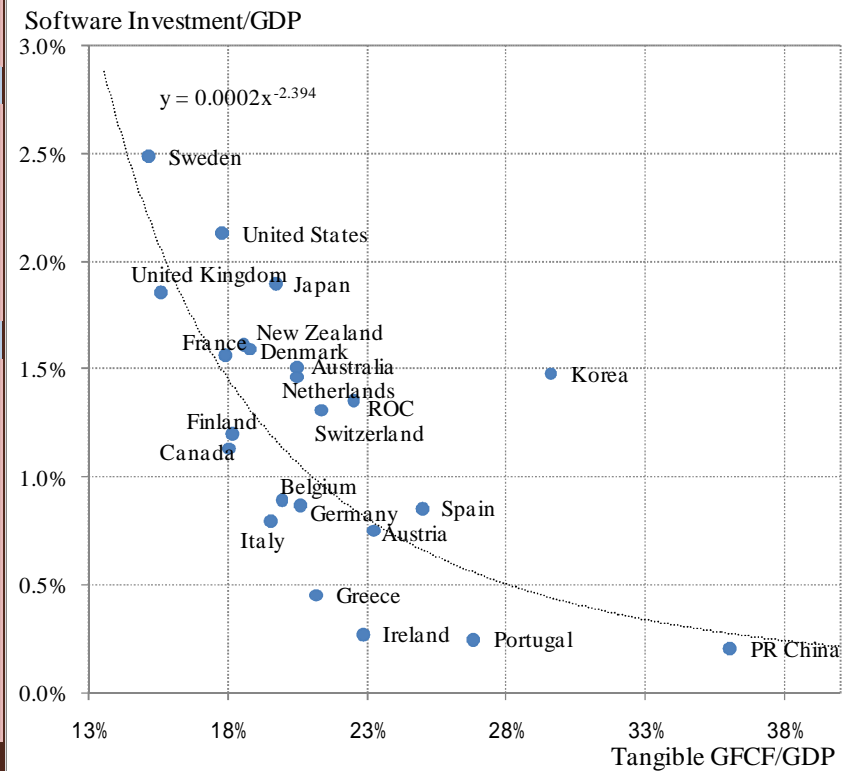
	FISIM (Financial intermediation services indirectly measured)
Bangladesh	No
Cambodia	No
ROC	Yes
Fiji	No
India	Yes
Indonesia	No
Iran	Yes
Japan	No(Trial estimates are available.)
Korea	Yes
Laos	No(Trial estimates are available.)
Malaysia	Yes
Mongolia	No
Nepal	Yes
Pakistan	Yes
Philippines	No
Sri Lanka	No
Thailand	No(Trial estimates are available.)
Vietnam	No

Comparison of Impacts of FISIM Inclusion on GDP



Coverage of GDP (2): Capitalization of Software

	custom software	pre-packaged software	own-account software
Bangladesh	NA	NA	NA
Cambodia	NA	NA	NA
ROC	Yes	Yes	Yes
Fiji	NA	NA	NA
India	Yes	Yes	NA
Indonesia	Yes	NA	NA
Iran	NA	NA	NA
Japan	Yes	Yes	NA
Korea	Yes	Yes	Yes
Laos	NA	NA	NA
Malaysia	Yes	Yes	NA
Mongolia	Yes	Yes	NA
Nepal	Yes	Yes	NA
Pakistan	Yes	Yes	NA
Philippines	NA	NA	NA
Sri Lanka	NA	NA	NA
Thailand	NA	NA	NA
Vietnam	NA	NA	NA



Coverage of GDP (3): Own-account production of goods and services by households

	Own Account Construction of Dwellings	Own Account Production of Agricultural Goods	Own Account Production of Household Goods	Imputed Rent of Owner-Occupied Dwellings	Production of Domestic Services by Paid Staff
Bangladesh	Yes	Yes	No	Yes	Yes
Cambodia	Yes	Yes	Yes	Yes	Yes
ROC	Yes	Yes	Yes	Yes	Yes
Fiji	Yes	Yes	Yes	Yes	No
India	Yes	Yes	No	Yes	Yes
Indonesia	Yes	Yes	Yes	Yes	Yes
Iran	No	No	No	Yes	No
Japan	No	Yes	No	Yes	No
Korea	Yes	No	No	Yes	Yes
Laos	Yes	Yes	Yes	Yes	Yes
Malaysia	No	No	No	Yes	No
Mongolia	Yes	Yes	Yes	Yes	No
Nepal	Yes	Yes	No	Yes	No
Pakistan	Yes	No	No	Yes	Yes
Philippines	Yes	Yes	Yes	Yes	No
Sri Lanka	Yes	Yes	Yes	Yes	Yes
Thailand	Yes	Yes	Yes	Yes	No
Vietnam	Yes	Yes	Yes	Yes	No

Wealth Account in National Accounts

	Net	Gross	Number of types of assets
Bangladesh	NA	NA	NA
Cambodia	Yes	NA	NA
ROC	NA	NA	NA
Fiji	Yes	Yes	6
India	Yes	Yes	2
Indonesia	Yes	NA	6
Iran	NA	Yes	2
Japan	Yes	NA	6
Korea	NWS	NWS	NA
Laos	NA	NA	NA
Malaysia	Yes	Yes	5
Mongolia	NA	NA	NA
Nepal	NA	NA	NA
Pakistan	NA	NA	NA
Philippines	Yes	Yes	4
Sri Lanka	NA	NA	NA
Thailand	Yes	Yes	6
Vietnam	NA	NA	NA

Labor Data in National Accounts and Labor Force Survey

	Labor data as a part of national accounts	Number of jobs/persons in Labor Force Survey		Hours worked in Labor Force Survey	
		Employees	Self-employed and family workers	Employees	Self-employed and family workers
Bangladesh	No	Yes	Yes	Yes	Yes
Cambodia	Yes	Yes	Yes	Yes	Yes
ROC	No	Yes	Yes	Yes	Yes
Fiji	No	Yes	Yes	Yes	Yes
India	Yes	Yes	Yes	No	No
Indonesia	No	Yes	Yes	Yes	Yes
Iran	No	No	No	No	No
Japan	Yes	Yes	Yes	Yes	Yes
Korea	No	Yes	Yes	Yes (only regular)	No
Laos	No	No	No	No	No
Malaysia	Yes	Yes	Yes	Yes	Yes
Mongolia	Yes	Yes	No	No	No
Nepal	No	Yes	Yes	Yes	Yes
Pakistan	No	Yes	Yes	Yes	Yes
Philippines	No	Yes	Yes	Yes	Yes
Sri Lanka	No	Yes	Yes	No	No
Thailand	Yes	Yes	Yes	Yes	Yes
Vietnam	No	Yes	Yes	No	No