

# What do PPP Studies Tell us About the Economies of China and India?

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# A Comparative Perspective

- Normally Benchmark PPP Comparisons are done at a point in time, such as the 2005 ICP comparison to be released in exactly one week.
- However, it was recognized early on that such snapshots across space should be related to what goes on from year to year in countries.
- EU began annual comparisons in 1995 for this reason.
- And the Penn World Table was launched in 1980s.

# Implications of Time and Space Comparisons of Relative Prices and Real Product

- Growth Rates and levels of output, the China-India anomaly.
- What can we say about China and India's share of the World Economy?
- Do the ICP results have any implication for future growth?
  - Comparative structure and investment share
  - ICP and experience of other fast growing countries

# The China-India Anomaly

- Beginning with any snapshot year of China with respect to India or the US, official growth rates produce implausible results forward or backward in time
- Kravis numbers for 1982 extrapolated forward
- PWT 62 numbers back to 1980 or earlier
  - Inconsistent with Malenbaum, Eckstein or S. Swamy
- Skepticism about Chinese growth rates is met with well reasoned support or official statistics, so this is not a settled issue.

**Table 1: Per Capita GDP Levels at 2000  
Prices from PWT 6.2**

Year	China Per capita GDP in 2000 \$	India	India/ China	China % US	India
2000	4970	2990	0.60	14.3	8.6
1978	669	1318	1.97	3.2	6.0
1953	326	794	2.43	2.7	6.3

# Some Points of Supporters of Official Statistics

1. Great improvement of official statistics since 1978
  - Movement from official to collected prices
  - Many surveys launched on production, services, and the like
2. Anything before 1978 not meaningful
3. Reasons to think growth understated
  - Undercounting of certain sectors
  - Quality Improvements of products

# Position of the Skeptics

- One Group has argued
  - Price indexes have not reflected inflation
  - Self reporting of real output by producers
- Harry Wu position
  - Deflators a residual derived from value of production and growth targets
  - Recommended SNA method is to deflate value figures by deflators to obtain growth
  - If overall growth targets of Production are the control totals then some production sectors are likely out of line, like services: the Maddison-Wu position

## Table 2 A Thought Experiment

Year	Ratio of per capita GDP of India/China	
	Maddison-Wu	PWT 62
1952	1.00	2.43
1978	0.91	1.97
1990	0.69	1.13
2003	0.42	0.60

- Privileges Indian growth rates--incidental to illustration
- Would argue that Maddison-Wu better than Official



# Levels of GDP in China and India: A New World

- In July 2007 the ADB published a Preliminary Report on the 2005 ICP exercise in Asia with ensuing heated discussion involving Rawski, Keidel, and Maddison
- The report puts China at HK\$ 23,556, India at 12,070, and Hong Kong at 202,941 with no link to OECD countries
- A principal area of controversy is the extent of price collection in China, namely in 11 cities and surrounding rural areas.

# Rural-Urban and Regional Price Differences in PPP Studies

- Countries collect national average prices, usually adjusting collected urban prices by group factors from benchmarks
- Most differences in services and housing, not commodities
- The differences between rural and urban prices obtained for the 11 cities in China was very low
- In the US, differences are less between rural and urban than by regions, a range of 80-130.
- In the Brandt-Holz paper, these regional differences are quite large too, 43% and 63% between the 3 highest and lowest urban and rural areas and 94% between the 3 highest urban and 3 lowest rural provinces.

# Where does this leave us with respect to GDP levels?

1. Are other countries better than China in terms of treating regional and rural-urban?
2. China and India somewhat less, are also subject to increasing disparities arising from rapid growth
3. The bottom line is not as clear as one would like, but the levels being put forward this month in the ICP will suggest significant modification of our view of the world economy.
4. Partly this is appropriate dealing with a long standing ICP problem, comparing non-priced services like, health, education and administration

# Some Short Half-life Estimates in 2005 Dollars

	GDP pc \$	GDP total (billions)	Price Level
China	4920	6414	35
India	2357	2596	30
USA	29468	8738	100
	% USA		
China	16.7	73.4	
India	8.0	29.7	

# Relative Prices During Development

1. Relative Price of Investment Goods Higher in Developing Countries
  - Even for Exporters like China and India
  - Questions large contribution to growth of capital
2. Prices of services rise with income and demand increases, IT industries notwithstanding. Poses Problems for projecting future growth from past experience ala Baumol's disease
  - Another reason for questioning assumed productivity growth by China in service industries

# PPPs and Exchange Rates

- Do PPP studies have any implications for exchange rate policies?
  - Studies linking price levels PPP/XR to level of income find a systematic rise with pc GDP
  - True in every benchmark including 2005
  - However, there is much variation at the same level of pc GDP
  - From this standpoint PPP studies only allow us to conclude that China fits in with many countries at its level of per capita GDP with respect to the relationship of its exchange rate and PPPs.

# Implications for the Future

1. Per capita income gaps are certainly less than at exchange rates but probably more than in the WDI or PWT at present
  2. Important for projections of energy use , for example.
  3. In aggregate terms, it will take 15-20 years at 2% more growth for China to overtake the US.
  4. For India that would take significantly longer without higher growth
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