

# China and India: a Comparison of Two Trade Integration Approaches By Przemyslaw Kowalski

Discussion

Matthieu Bussière

European Central Bank

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Note: The views expressed in this presentation are those of the author and do not necessarily reflect those of the ECB.

# Main assessment of the paper

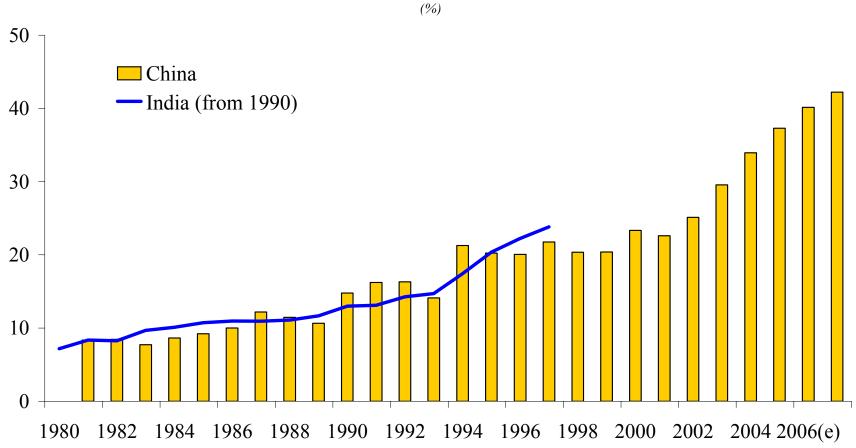
- A very nice overview of a key topic
  - ➤ Useful comparison China/India
  - > A valuable effort to collect relevant data
- Two main assets: discussion of trade policy and model simulations
- Main suggestion: refocus the paper on the latter
  - Other suggestion: flesh out the conclusions

# Three possible views on India's development

- 1. Is India a new China in the making? India =  $L^{10}$ (China)
- 2. Is India simply in a lower league? India < China
- Is India converging towards a different model?Lim (India) ≠ Lim (China)

# India = $L^{10}(China)$

Exports of goods and services relative to GDP

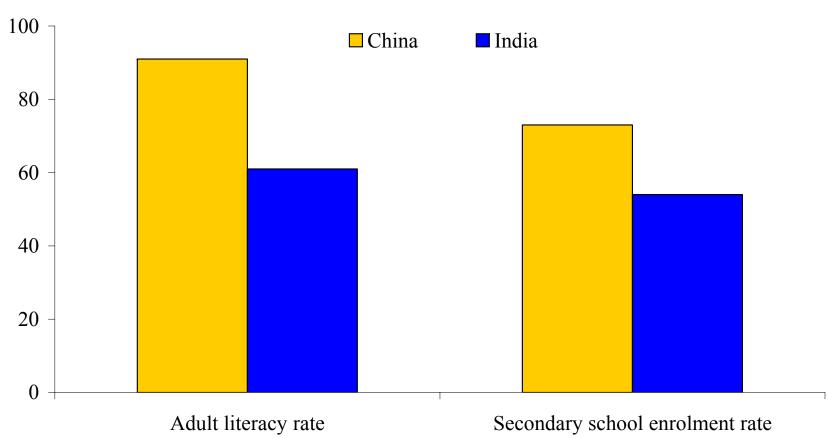


Sources: World Economic Outlook and ECB staff calculations.

# No. I challenge for future growth: education

## Human capital indicators

(%, in 2004)



Source: World Development Indicators.

## Focus of the discussion on three main topics

- 1. Trade openness and the effect of trade policy
- 2. The role of services (for India, China and RoW)
- 3. Trade specialisation (high-tech v. low-tech)
- Not covered: (Net) trade integration
- ...and what to conclude from that?

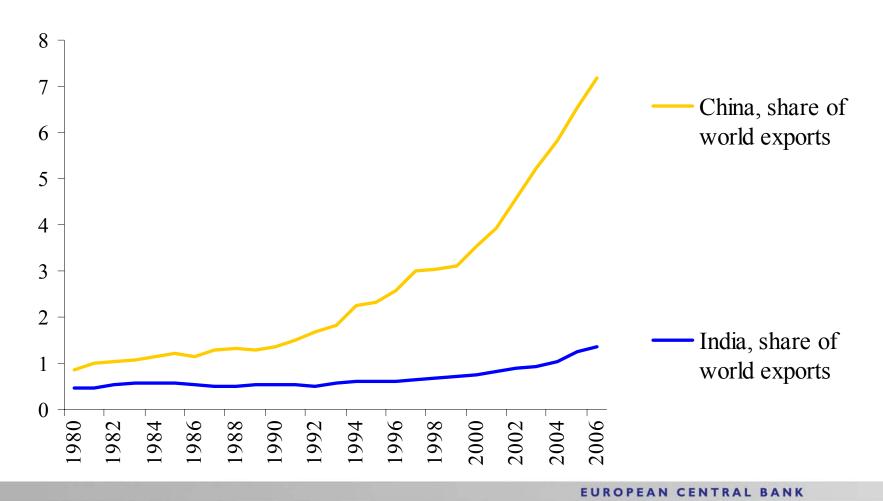
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## Chart 3 p. 28: share in world exports

#### China and India, shares in world exports and world output

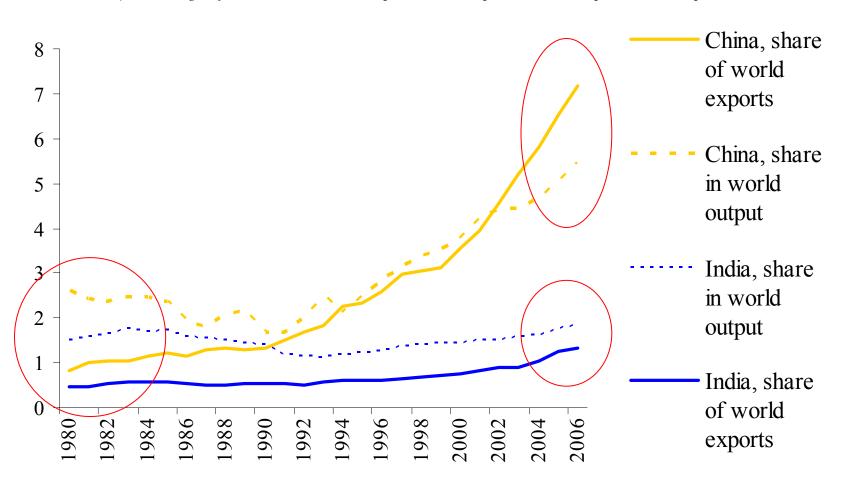
(Percentage of China and India's exports and output in world exports and output)



# Results: overall degree of trade intensity

#### China and India, shares in world exports and world output

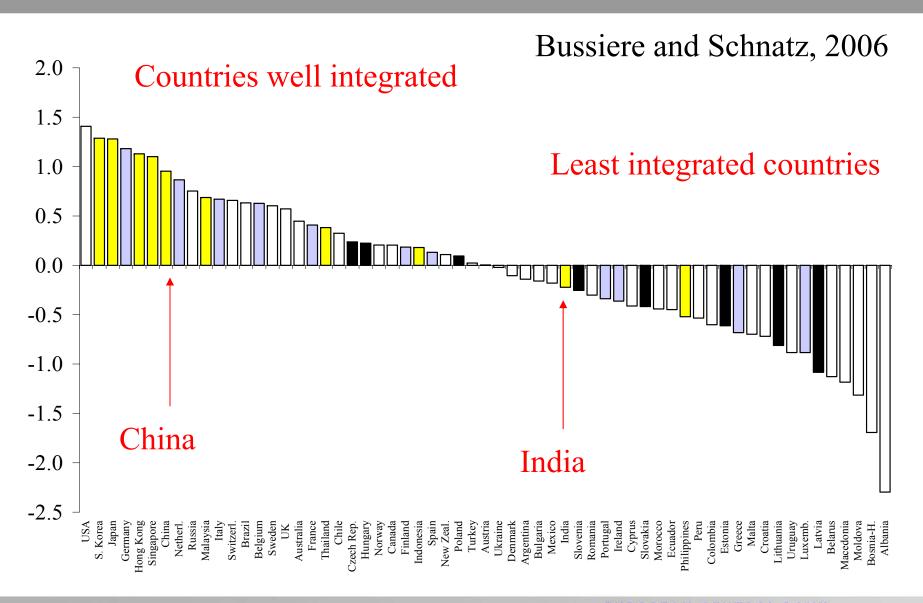
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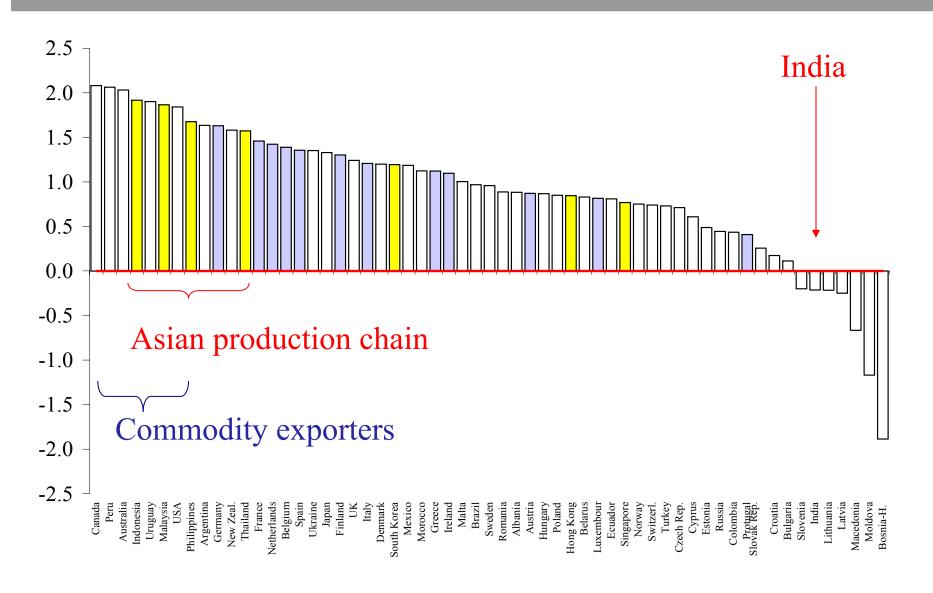
## Comparison China/India openness

- What explains the striking difference between
   China and India in terms of trade integration?
- Need to control for obvious elements
  - → gravity model
- Role of regional trade integration
- Role of trade liberalization / trade policy

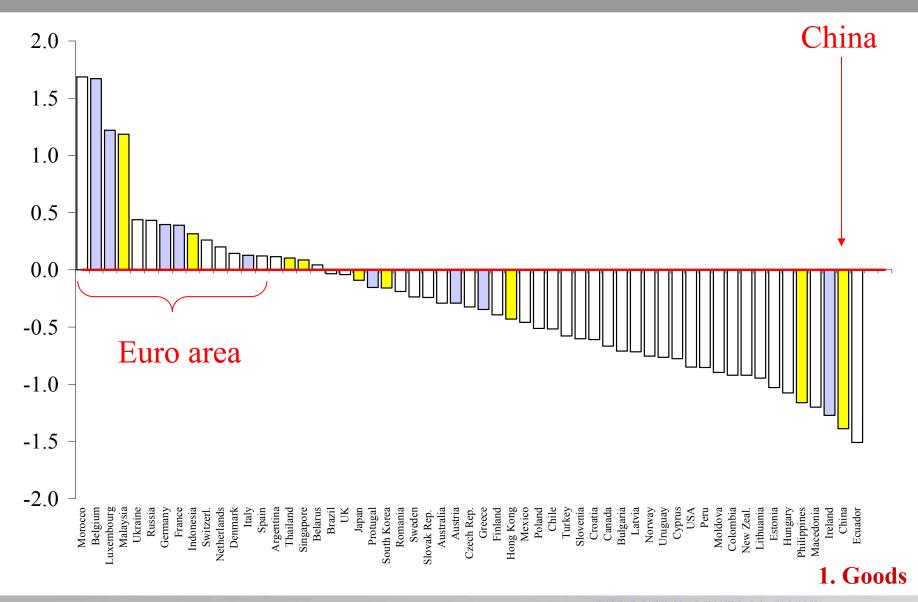
# Gravity model: overall degree of trade intensity



## Results: depth of bilateral trade linkages for China



## Results: depth of bilateral trade linkages for India



## Some accounting

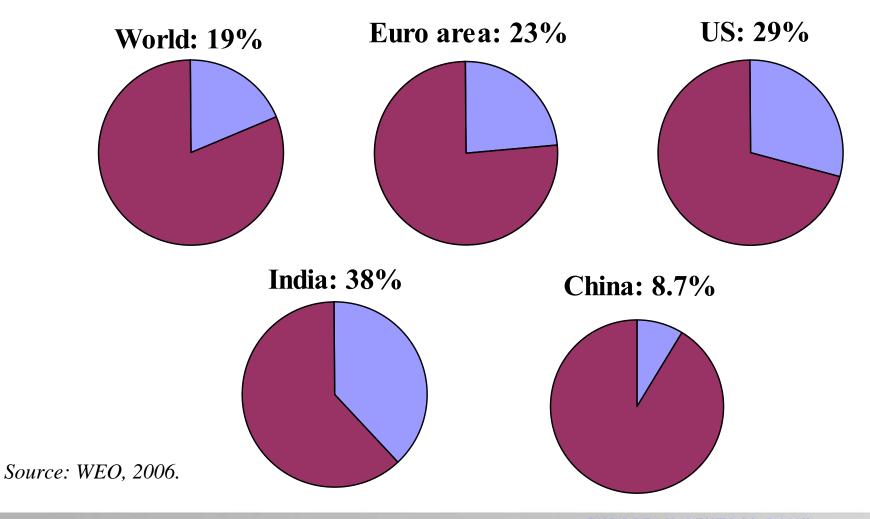
- Over the period 1994-2002, China's trade rose by 140%
- China's real GDP roughly doubled
- GDP of RoW rose by slightly over 40%
  - → Model predicts 150% rise
- <u>In 2003</u>, China's trade rose by 30%
- China's real GDP rose by 10%
- GDP of RoW rose by less than 5%
  - → Model predicts 9% rise
- → Can trade policy explain this gap?

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## Motivation: the importance of trade in services.

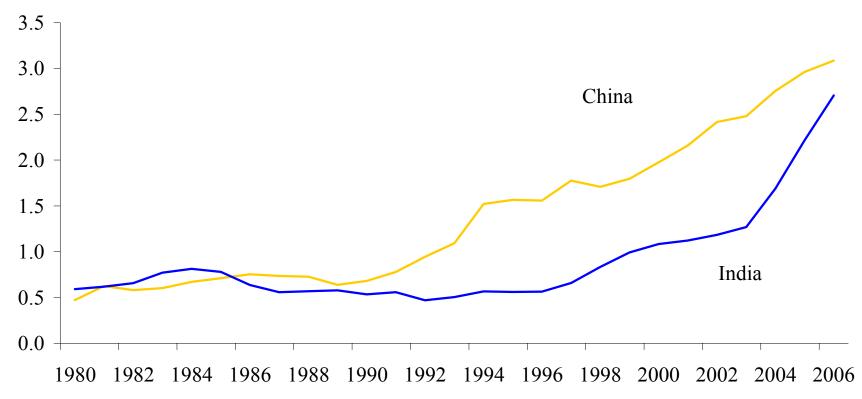
## Share of services in total exports (in blue)



## Motivation: the importance of trade in services.

#### Share of China and India in world trade (services)

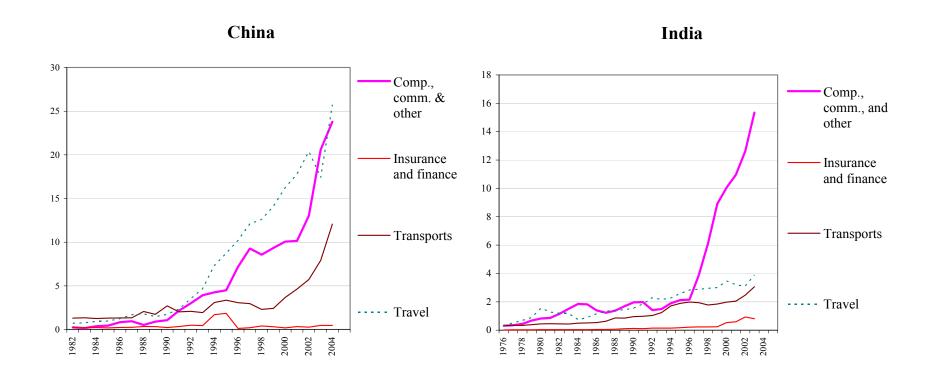
Percentage of China and India's exports in total world exports, value terms



Sources: World Economic Outlook and ECB staff calculations, trade refers to services only.

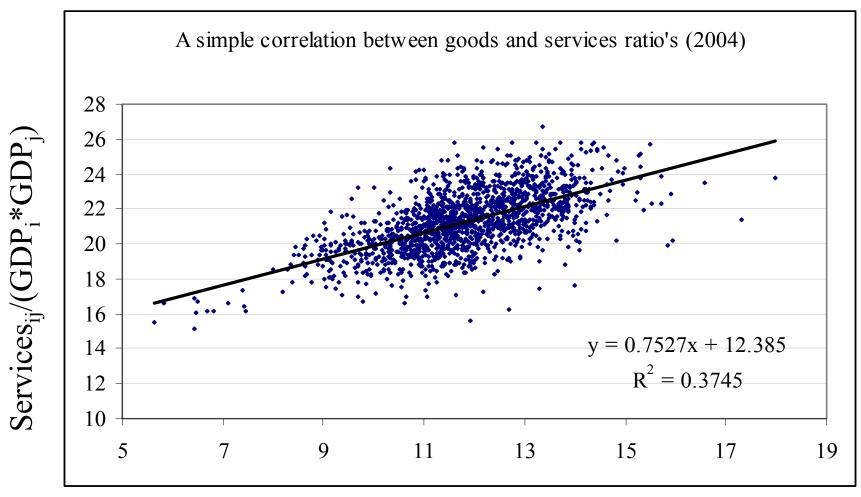
## A look at services components

## Exports of services, broad categories



Source: World Development Indicators

## Exports of goods and services are correlated



Data are in logs; 1600 obs

 $Goods_{ij}/(GDP_i*GDP_j)$ 

## Why would goods and services be complements?

- Direct effects (complements in the production):
  - Transports and goods exports
  - After-sale services
  - High-tech goods and patent exports
  - High-tech goods exports and patents imports
- Indirect effects:
  - Network effect (getting to know people and countries)
  - Complementary sectors in terms of skills (IT related goods, IT related services)

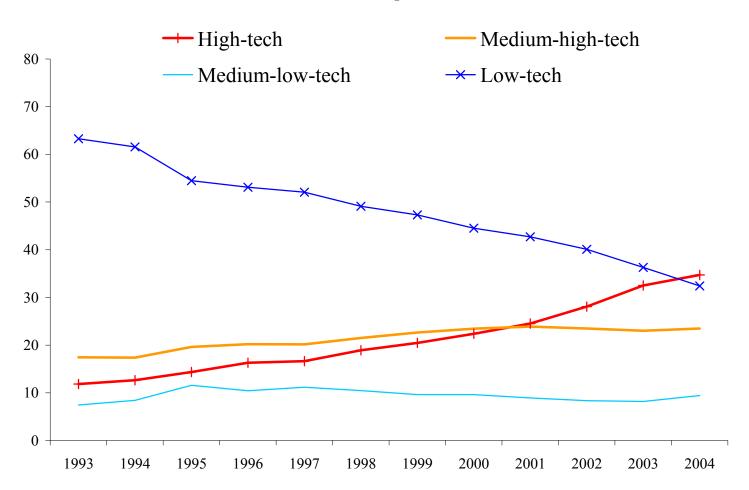
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# China climbing up the technological ladder...

#### Breakdown of China's Exports by Commodity

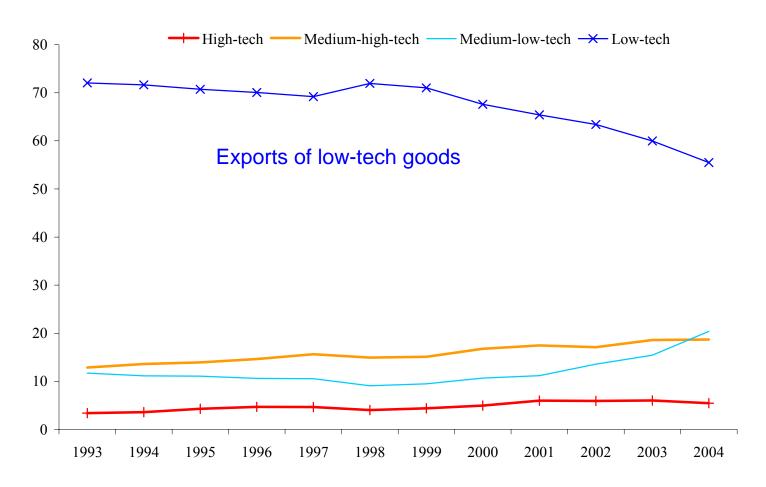
(% total exports)



## ...while India remains very low tech

#### Breakdown of India's Exports by commodity

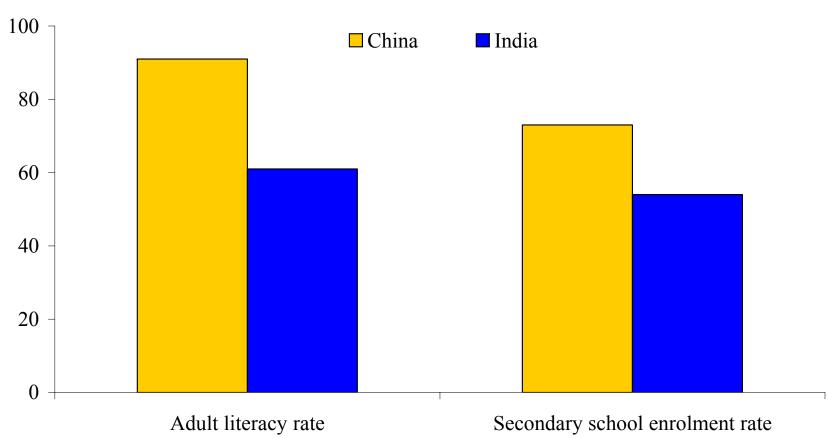
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# No. I challenge for future growth: education

## Human capital indicators

(%, in 2004)

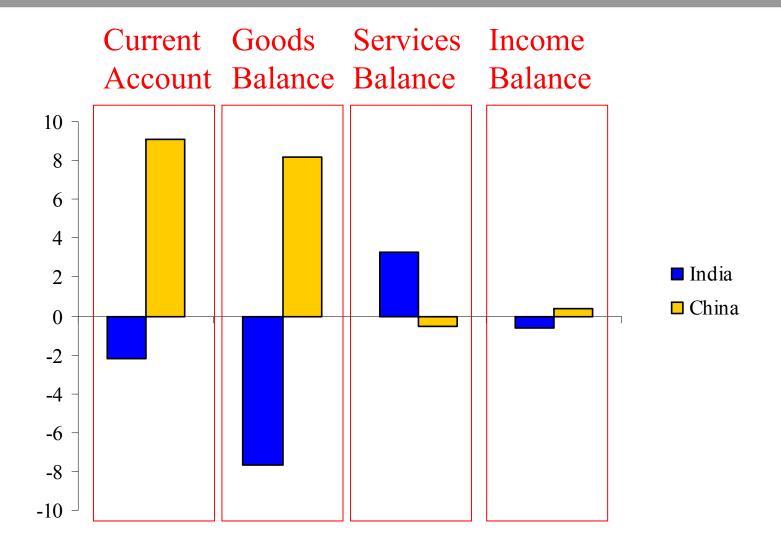


Source: World Development Indicators.

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## China and India: not in the same boat!



Source: WEO, April 2007; 2006, % of GDP.

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# Tentative conclusions and open questions

- The paper tackles an important issue and makes a contribution to the literature through:
  - 1. Systematic effort in data collection
  - 2. Discussion of trade policy and model simulations

• It could be further reinforced by focusing on the simulations and on the effect of trade reforms

# Three possible views on India's development

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   India < China</li>
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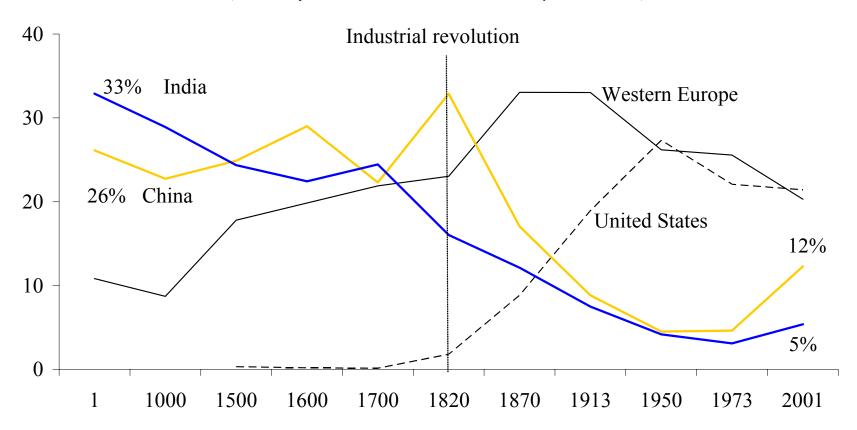
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## China and India.....back to normal?

### Share in World Output, 1-2001 AD

(%, with output data valued in 1990 international Geary-Khamis dollars)



Sources: Maddison (2003) and ECB staff calculations.