



TOWARDS A RETURN OF INDUSTRIAL POLICY?
ARTNeT SYMPOSIUM
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ESCAP, BANGKOK

Diversification versus Polarization: Role of industrial policy in Asia and the Pacific

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***The views expressed in this presentation are those of the author and do not necessarily reflect the views of the UNCTAD Secretariat or its members.**

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Outline

Industrial policy, trade and development

A comparative scale:

World, Asia-Pacific and Sub-regions in manufacturing

Measuring Export Diversification and Polarization

Results and analysis

Way forward



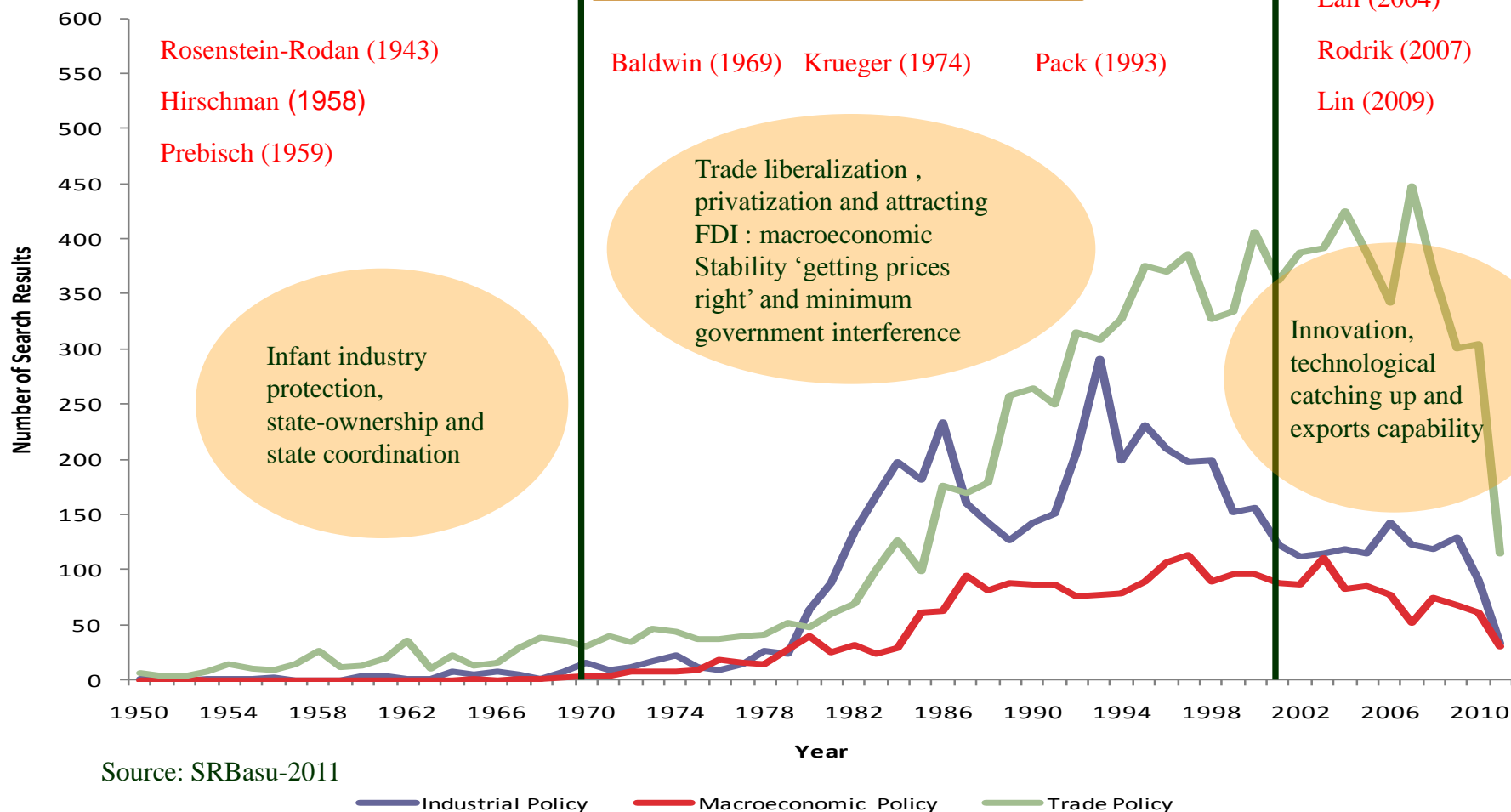
Industrial policy, trade and development



Searching for Industrial Policy (IP)

(web accessed as on 25 June 2011)

Government Policy Design



Components of IP

Policy intervention

Productive capacity development

Enterprise development

- Import tariffs, quotas & licences
- Export subsidies, trade financing
- Tax breaks
- Special economic zones
- Privatization of firms
- Physical capital

- Human capital
- Labour training & skill formation
- Innovation policies
- R&D investment
- Developing high-tech products, innovation
- FDI incentives

- Domestic financing
- Public-private partnership
- SME cluster formation
- Management capacity development
- Competition policy
- Marketing and promotion

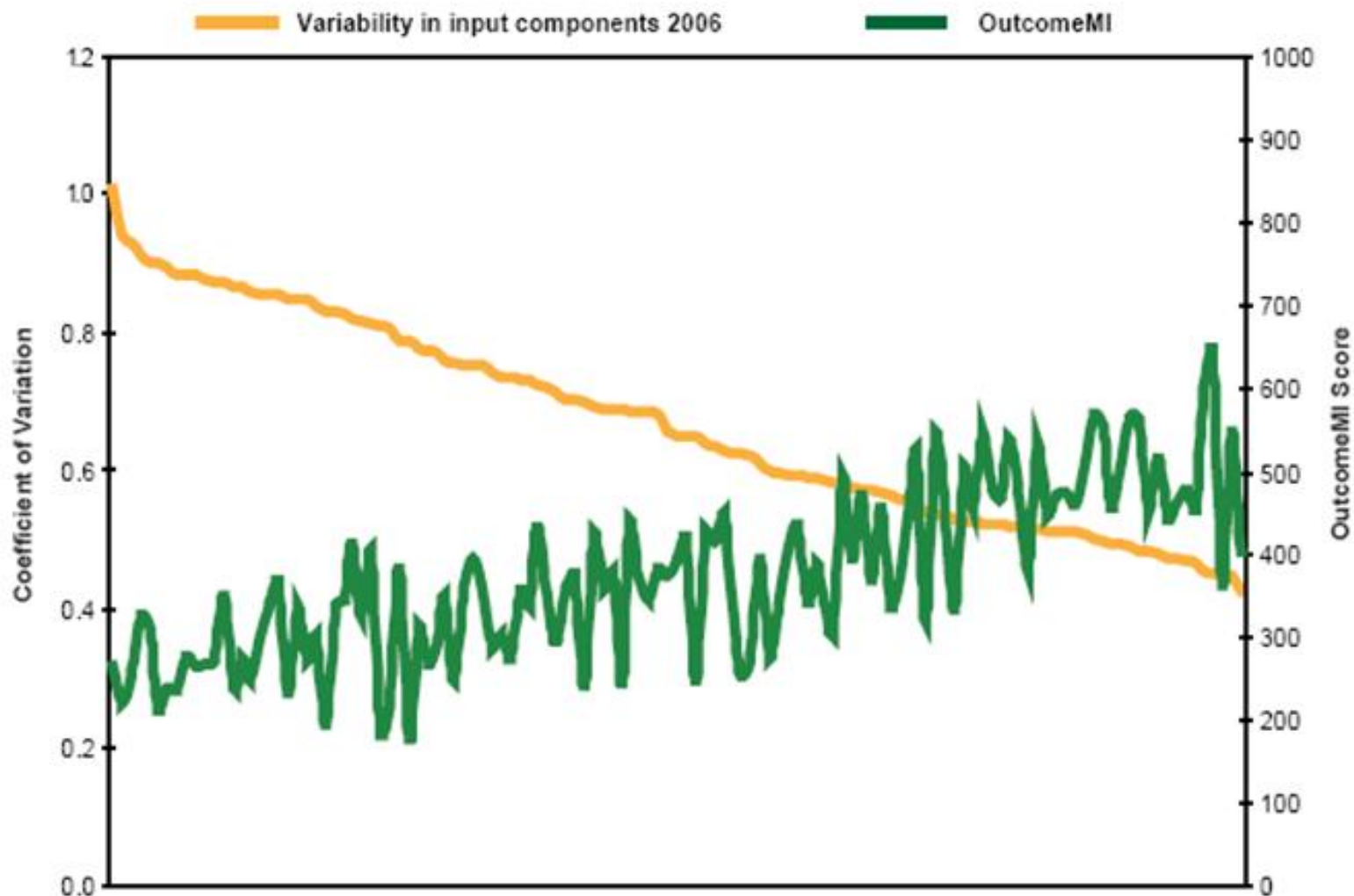
- *Structural change and Export diversification*

- **Welfare impacts:** economic growth and employment creations
- **Sectoral implications:** Depending on the institutional linkages and stages of development, welfare implications tend to be higher in high skilled/technology content industries, and new issues related to intensive and extensive margin
- **Domestic economic linkages:** Forward and backward linkages with domestic firms leading to a productive capacity and expand structure

- *Recent papers*

- Lall (2000), *Wood and Mayer (2001)*, Lederman and Maloney (2003), Imbs and Wacziarg (2003), Hausman and Rodrik (2003), *Collier (2003)*
- *Sachs et al. (2004)* , Hausman, Hwang and Rodrik (2005), Melitz and Ottaviano(2005), Rodrik (2006), *UN Africa (2007)*
- Cadot, et al (2008) , World Bank (2009) , *UN DESA (2006, 2010)*
- *UNCTAD (2002, 2008, 2009 and 2010)* ,Basu and Das (2010), Basu (2011)

Policy and Outcomes



Source: UNCTAD 2007

A comparative scale: World, Asia-Pacific and Sub- regions in manufacturing



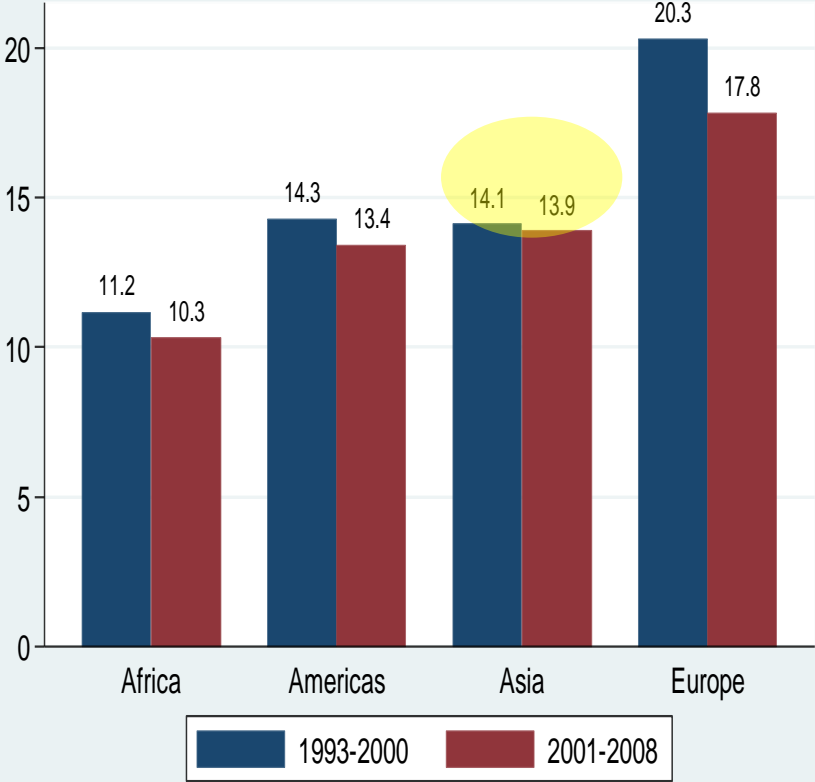
Key descriptive findings

- Benchmarking outcomes: Asia-Pacific to RoW
 - Share of manufacturing/GDP
 - Comparing Asia-Pacific with other regions
- Sub-regional outcomes for regional coordination
 - Process of catching-up across regions
- Manufacturing and GDP
 - Positive correlation of manufactures with GDP per capita
- Composition of exports
 - Climbing-up skill and technology contents of exports
- Dynamic shifts of quality of exports

Benchmarking Asia-Pacific

Manufacturing contributions to GDP

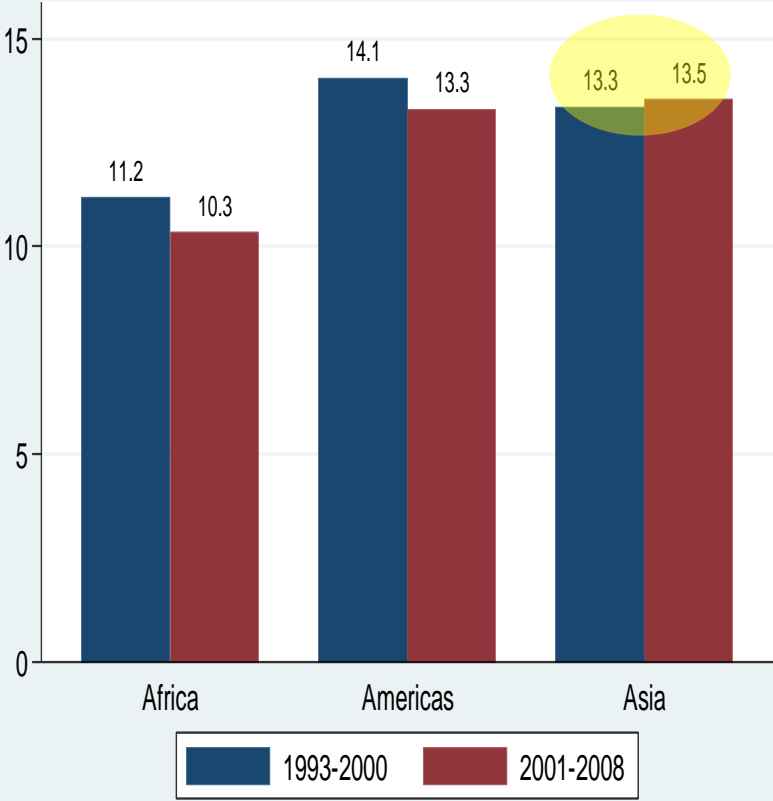
(% of GDP, world by regions, averages)



Source: UN, SRBasu-2011

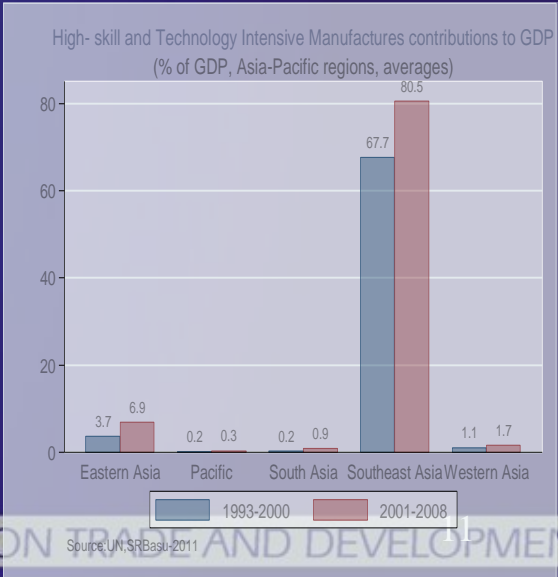
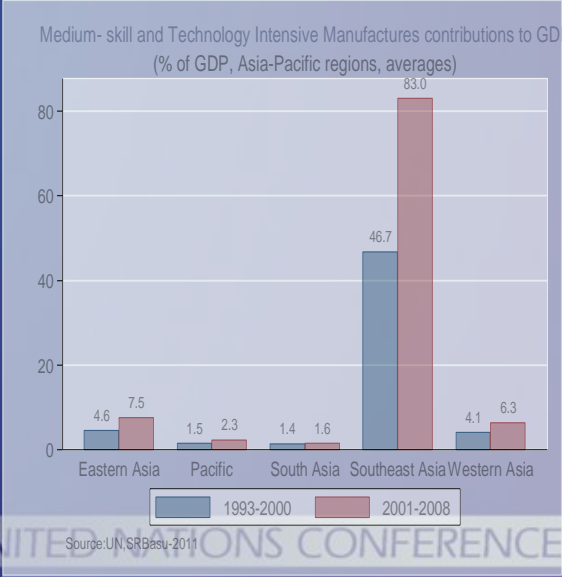
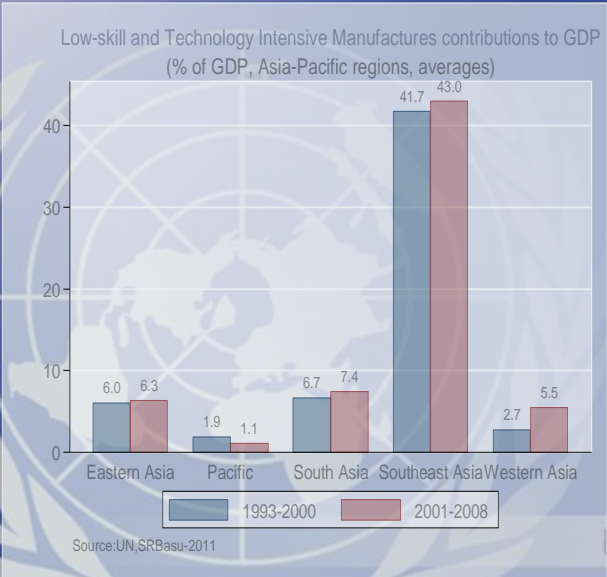
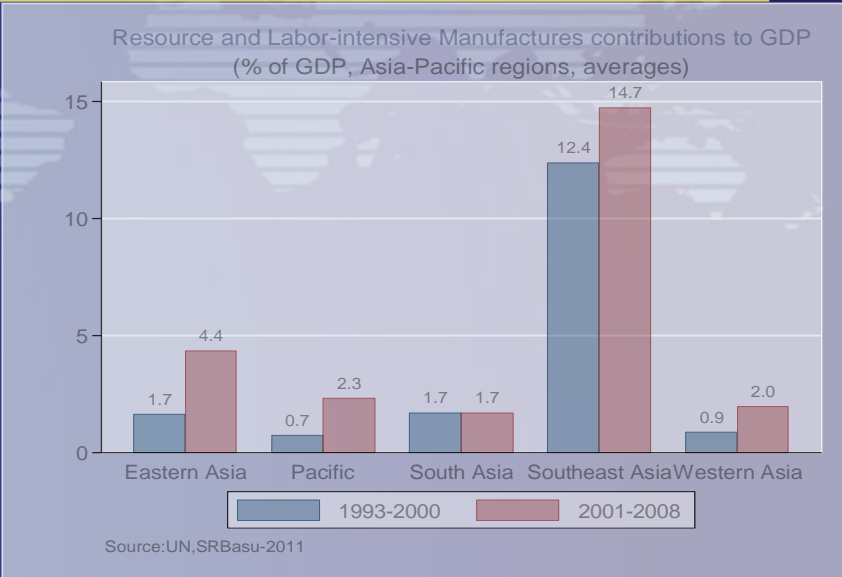
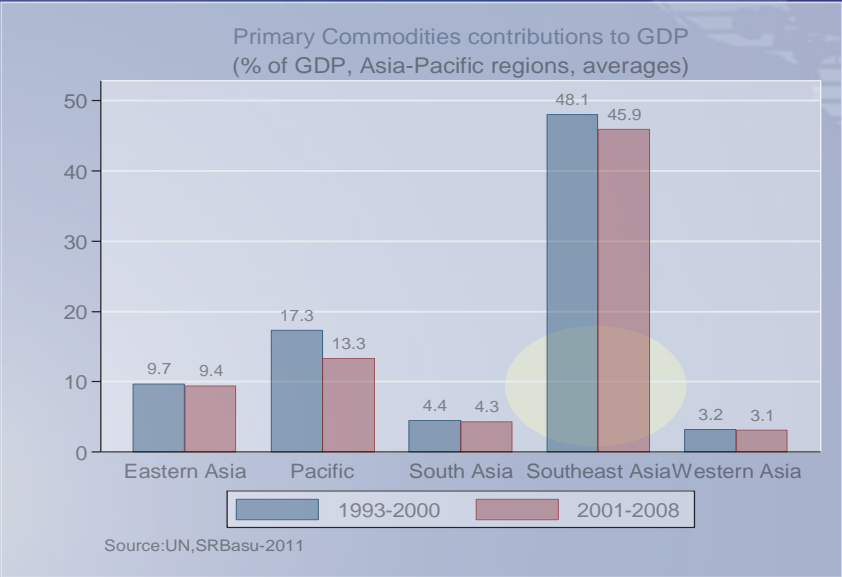
Manufacturing contributions to GDP

(% of GDP, developing world by regions, averages)



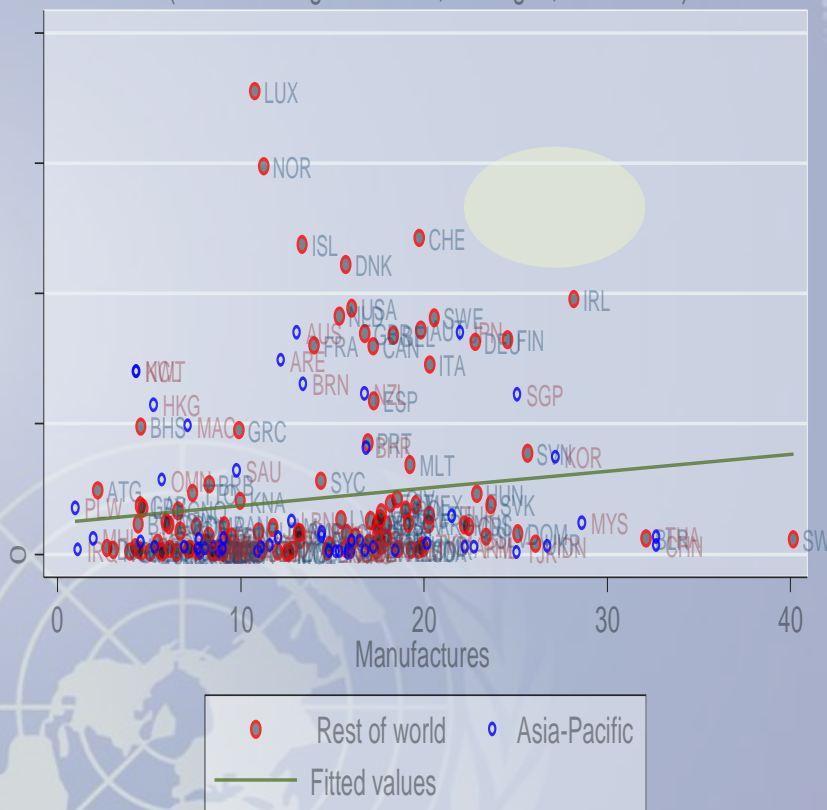
Source: UN, SRBasu-2011

Sub-regions in Manufacturing



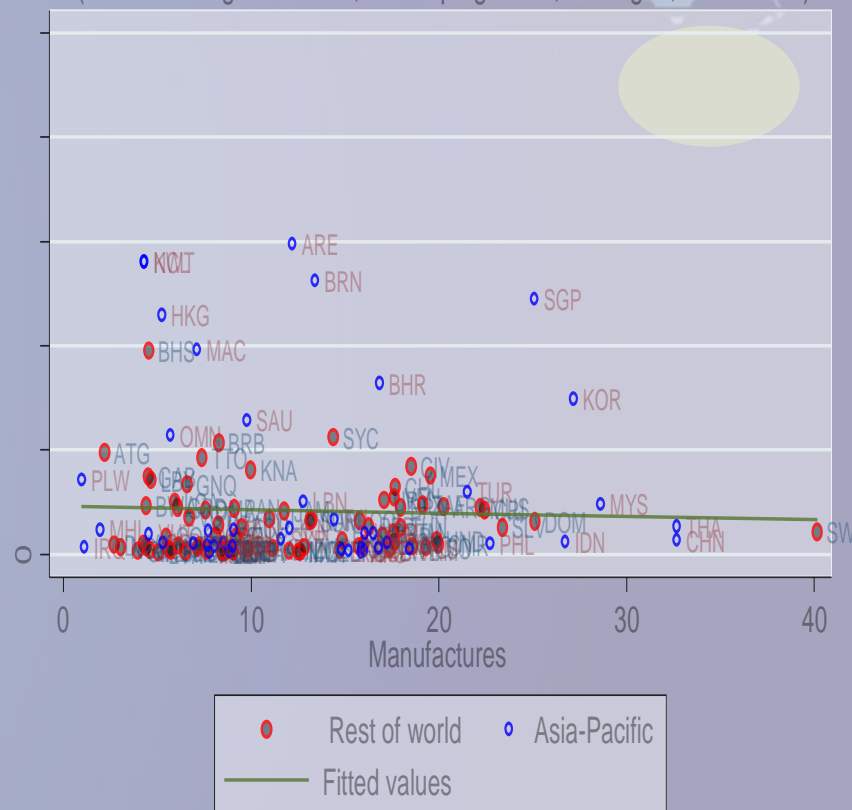
GDP and Manufacturing

GDP per capita and Manufactures
(Manufacturing % of GDP, averages, 1993-2008)



Source: UN, SRBasu-2011

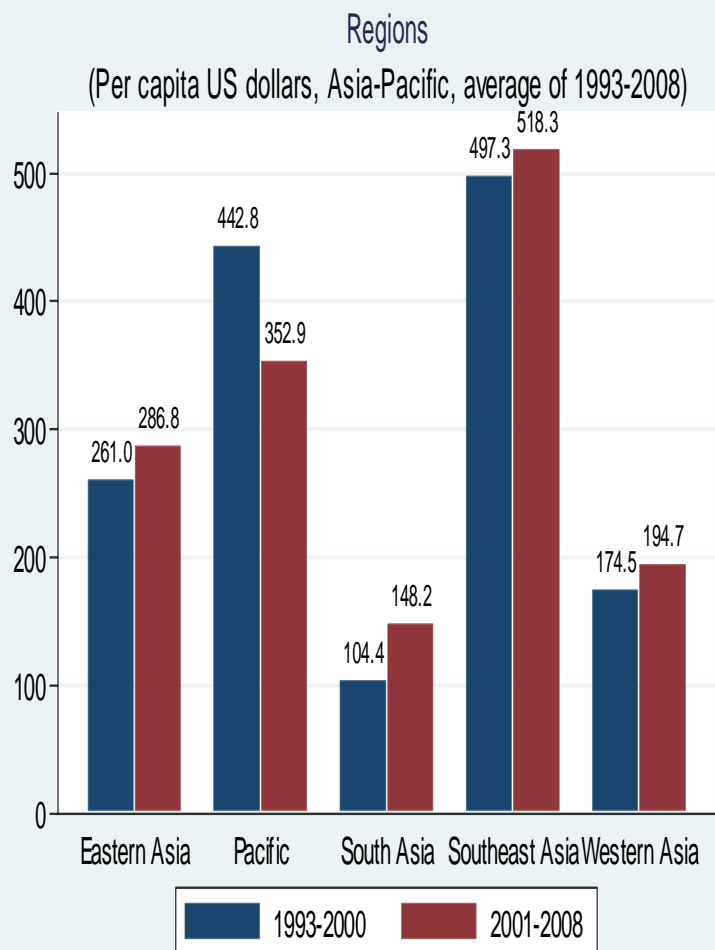
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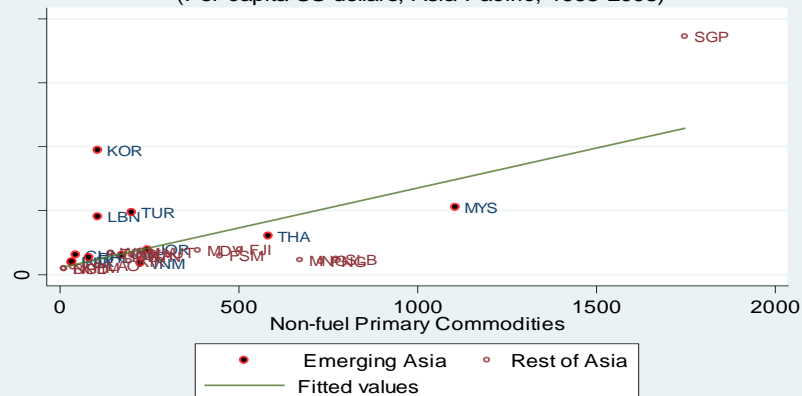
Sub-regional variations

(per capita exports, ppp \$)



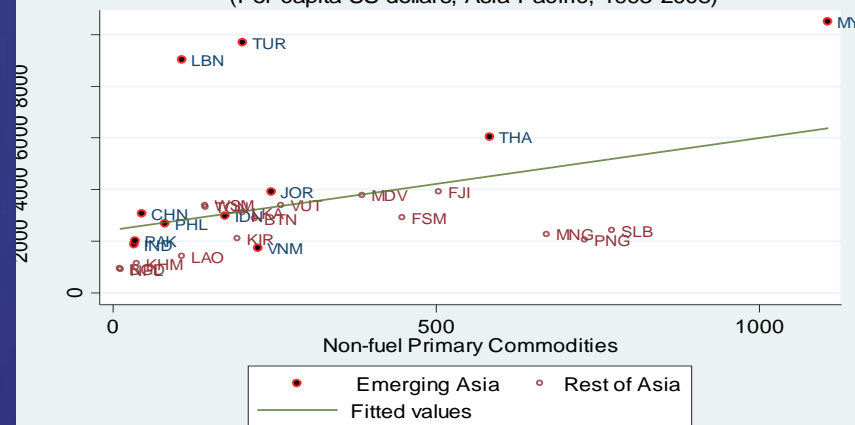
Source: UN, SRBasu-2011

GDP and Non-fuel Primary Commodities
(Per capita US dollars, Asia-Pacific, 1993-2008)



Source: UN, SRBasu-2011

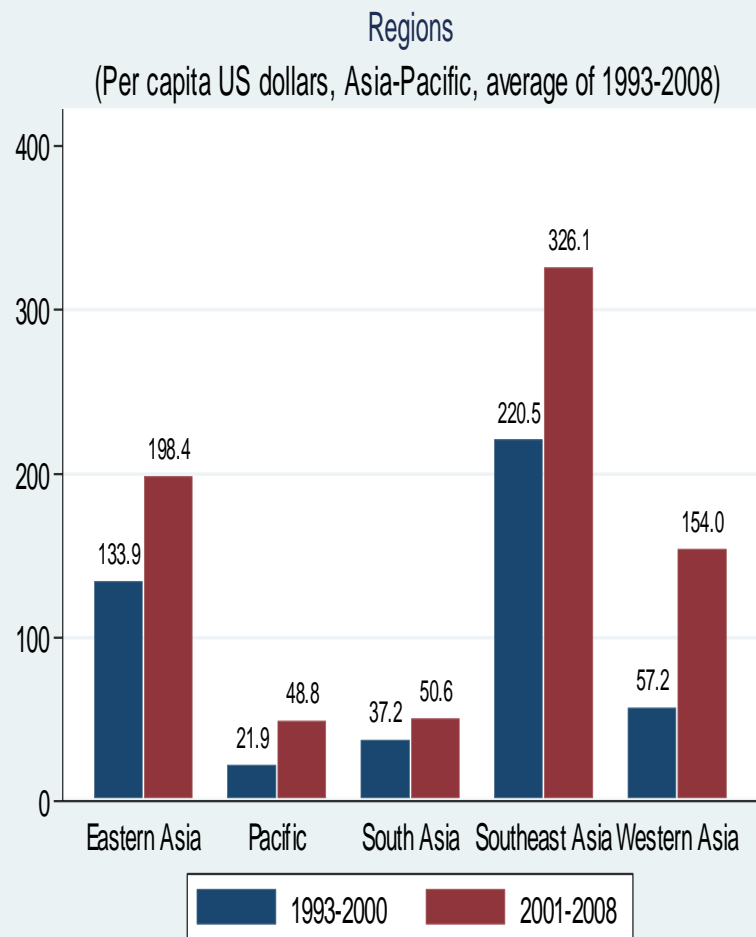
GDP and Non-fuel Primary Commodities
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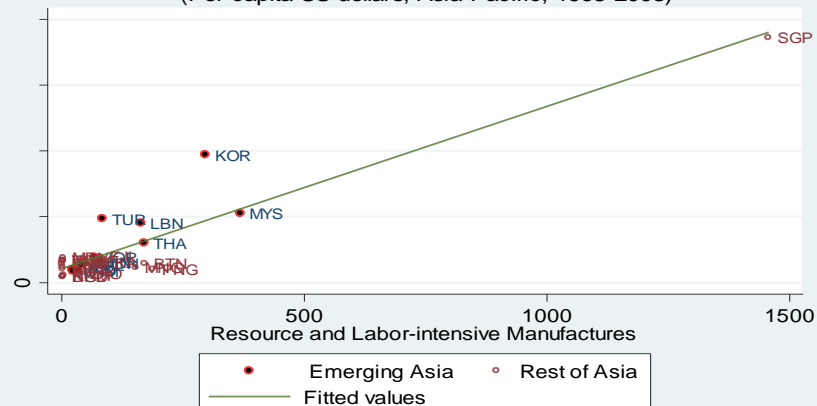
Source: UN, SRBasu-2011

Sub-regional variations

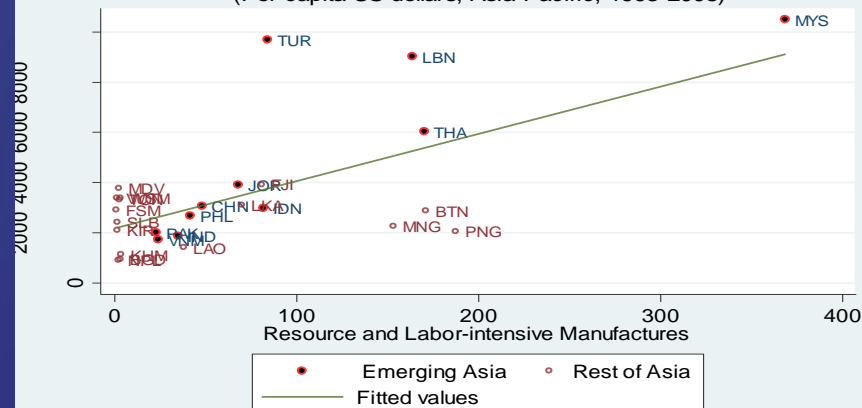
(per capita exports, ppp \$)



GDP and Resource and Labor-intensive Manufactures
(Per capita US dollars, Asia-Pacific, 1993-2008)

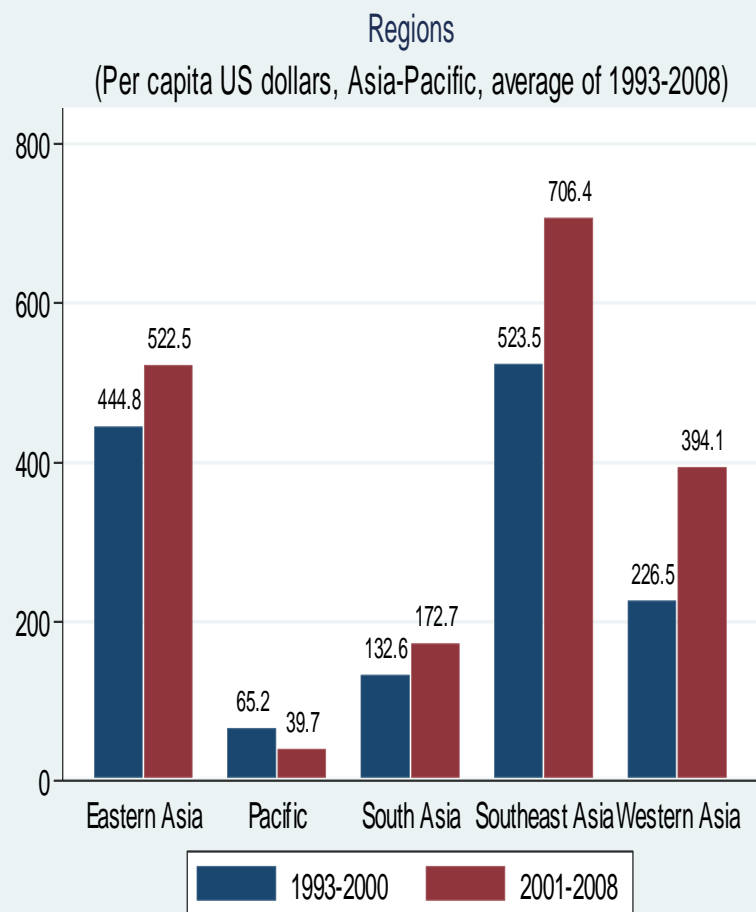


GDP and Resource and Labor-intensive Manufactures
(Per capita US dollars, Asia-Pacific, 1993-2008)



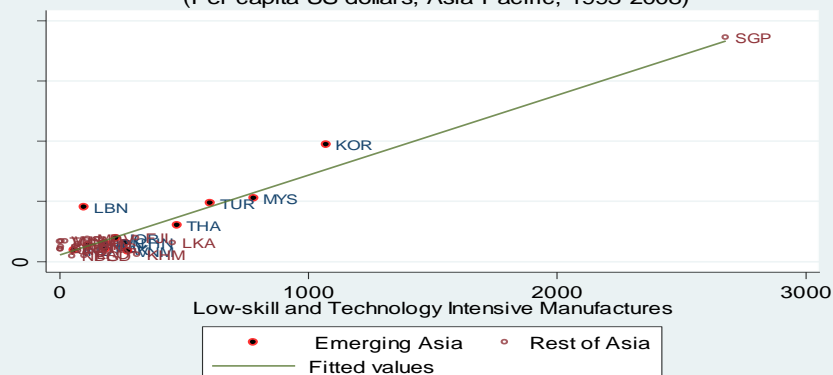
Sub-regional variations

(per capita exports, ppp \$)



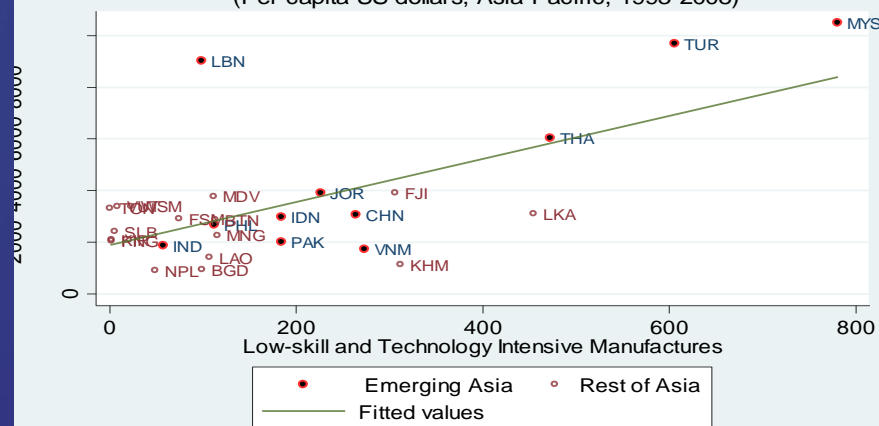
Source: UN, SRBasu-2011

GDP and Low-skill and Technology Intensive Manufactures
(Per capita US dollars, Asia-Pacific, 1993-2008)



Source: UN, SRBasu-2011

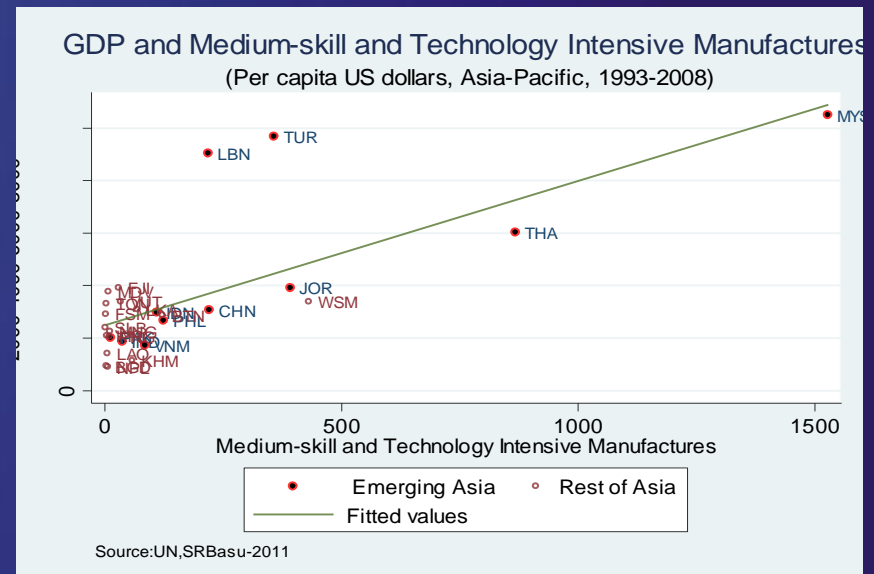
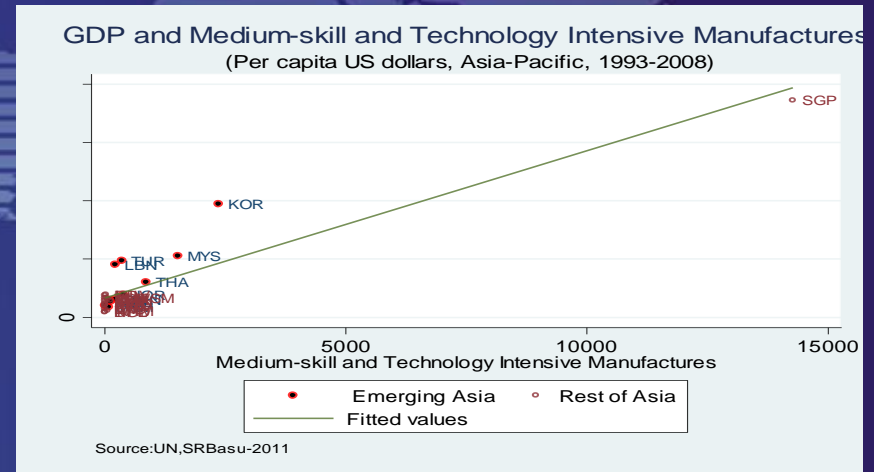
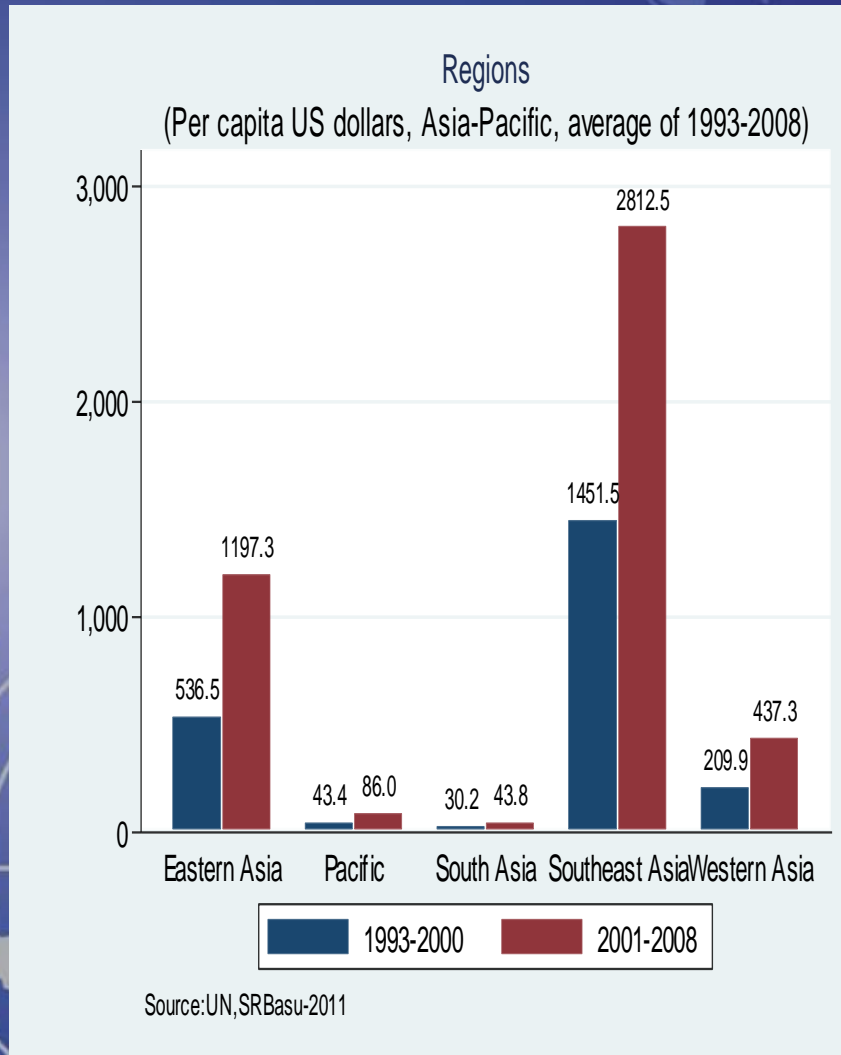
GDP and Low-skill and Technology Intensive Manufactures
(Per capita US dollars, Asia-Pacific, 1993-2008)



Source: UN, SRBasu-2011

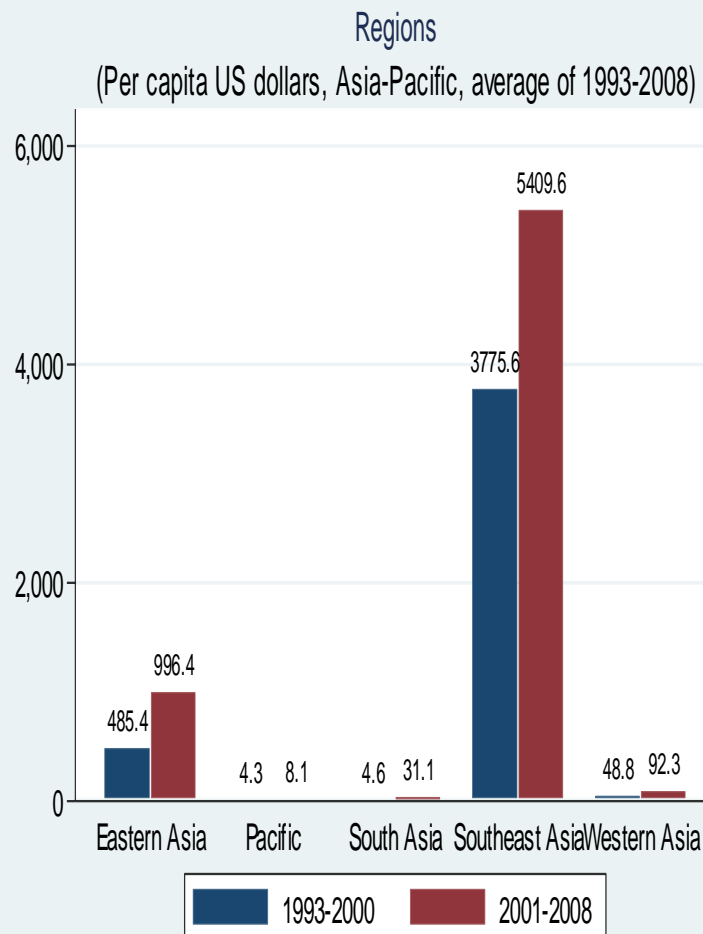
Sub-regional variations

(per capita exports, ppp \$)



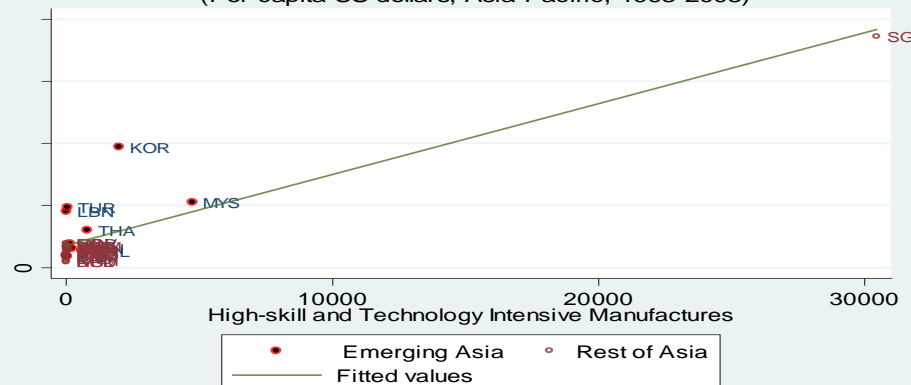
Sub-regional variations

(per capita exports, ppp \$)

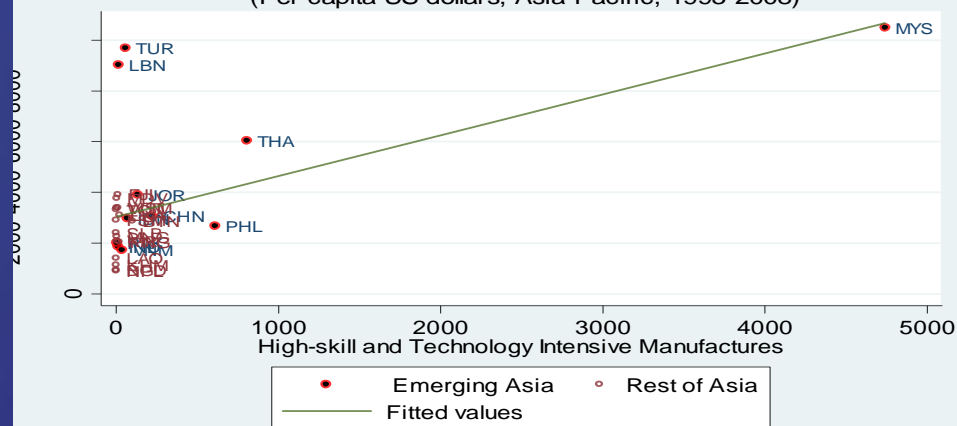


Source: UN, SRBasu-2011

GDP and High-skill and Technology Intensive Manufactures
(Per capita US dollars, Asia-Pacific, 1993-2008)



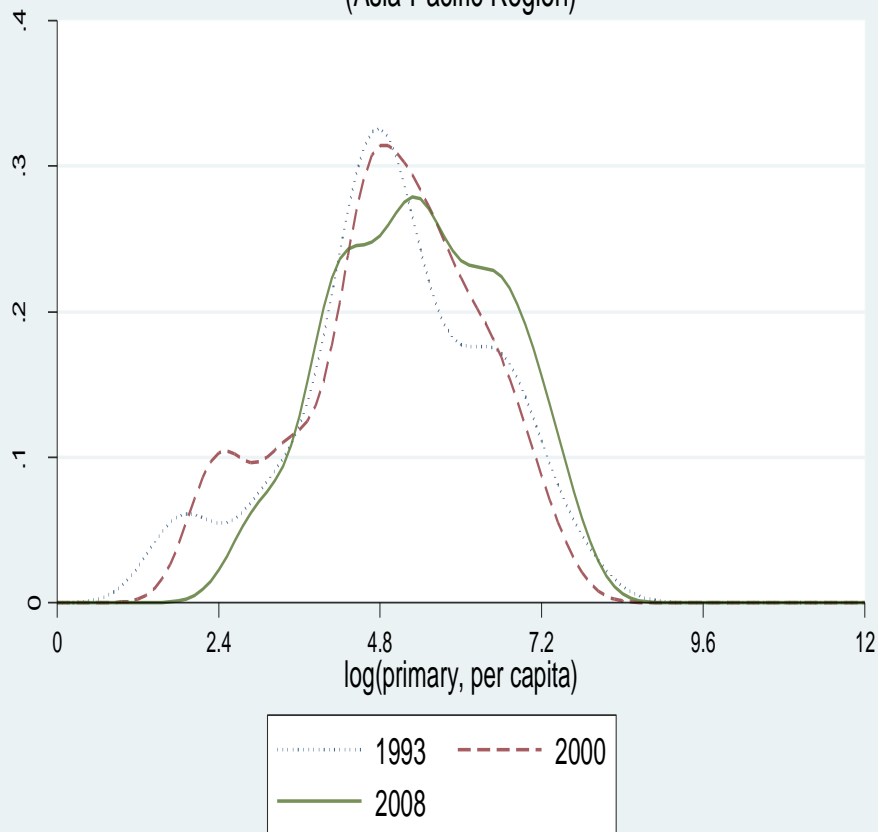
GDP and High-skill and Technology Intensive Manufactures
(Per capita US dollars, Asia-Pacific, 1993-2008)



Density estimates

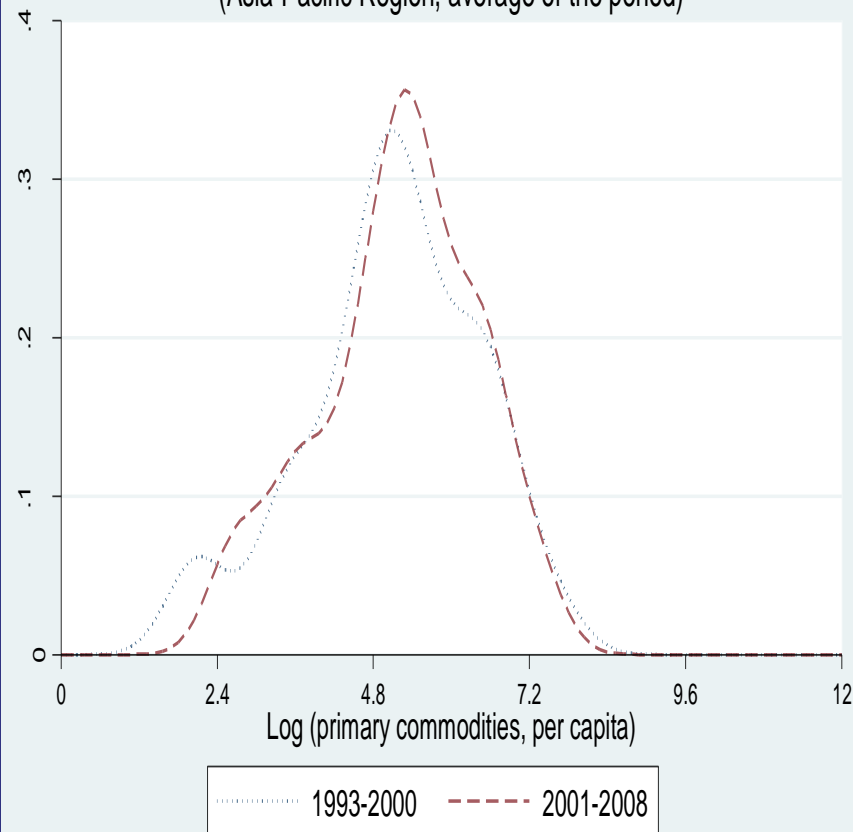
(per capita exports, ppp \$)

Density curves for Non-fuel primary commodities
(Asia-Pacific Region)



Source: UN, SRBasu-2011

Density curves for Non-fuel primary commodities
(Asia-Pacific Region, average of the period)



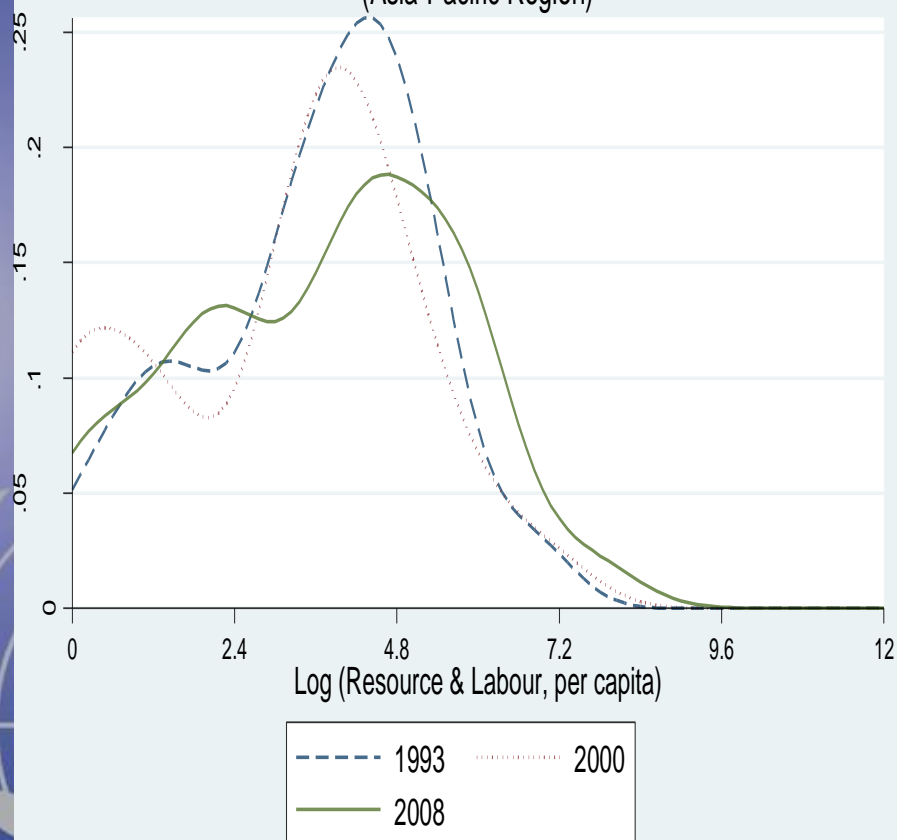
Source: UN, SRBasu-2011

Density estimates

(per capita exports, ppp \$)

Density curves for Resource & Labour-intensive manufactures

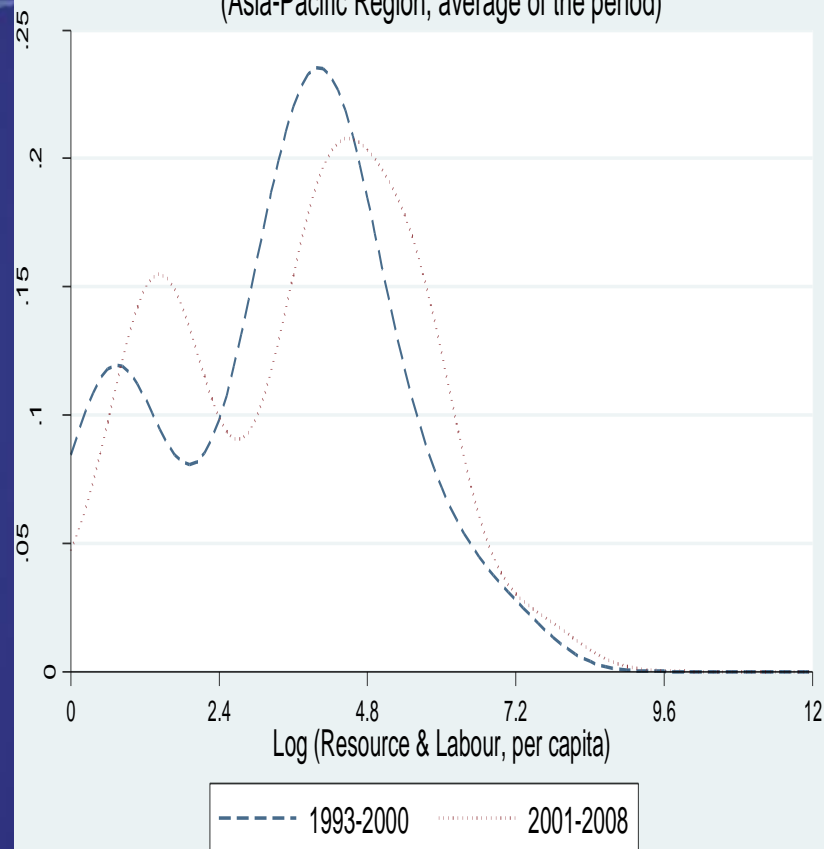
(Asia-Pacific Region)



Source: UN, SRBasu-2011

Density curves for Resource & Labour-intensive manufactures

(Asia-Pacific Region, average of the period)

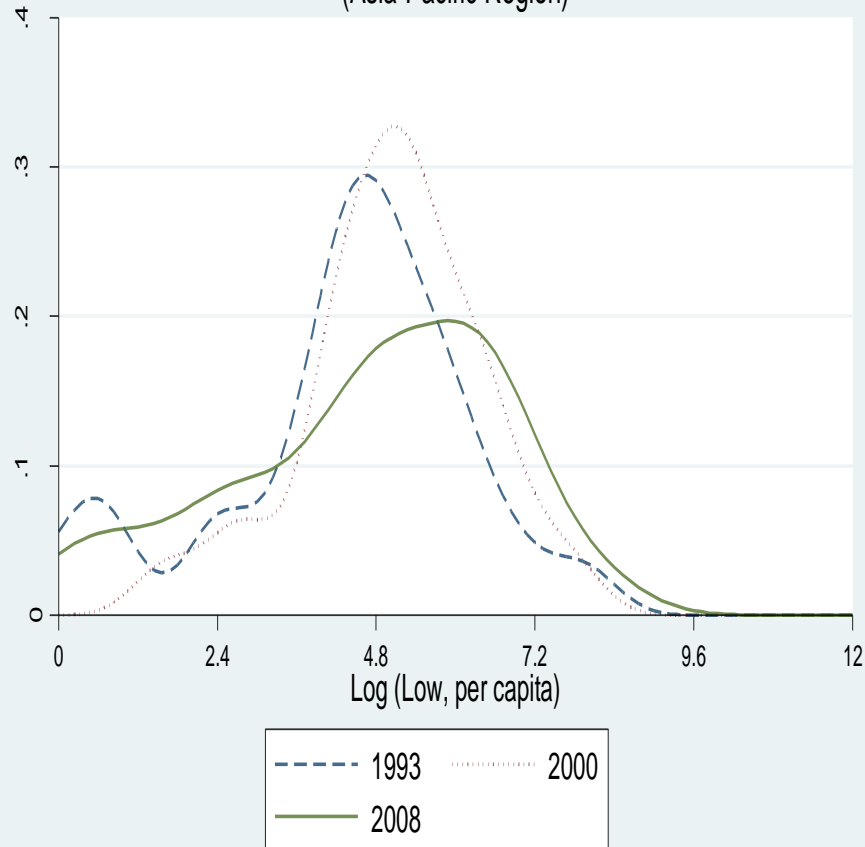


Source: UN, SRBasu-2011

Density estimates

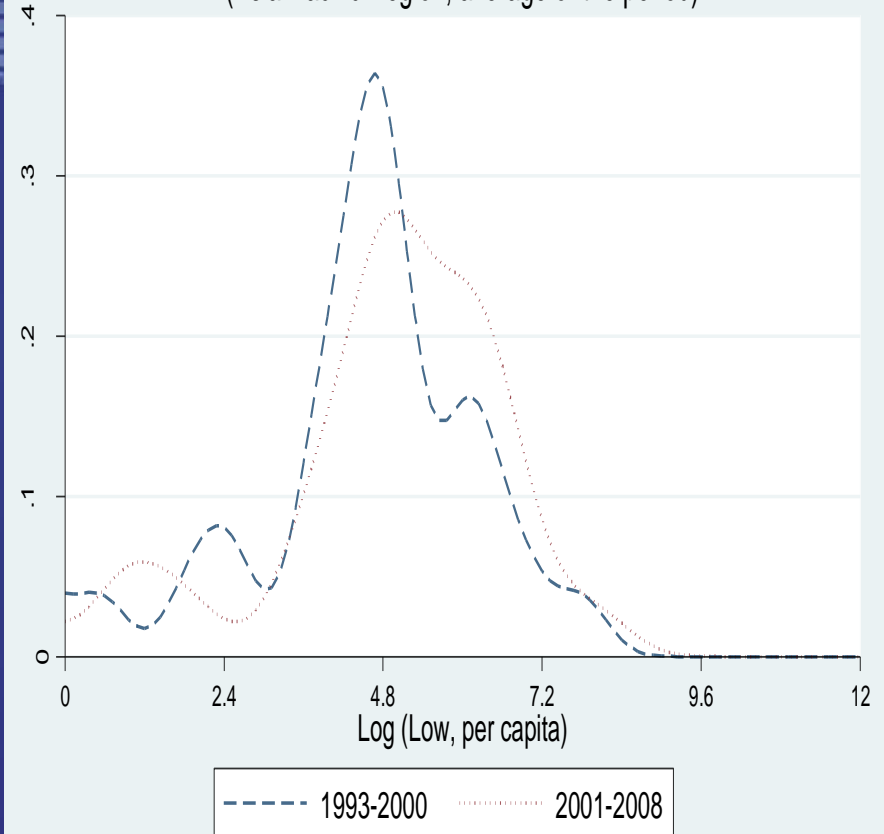
(per capita exports, ppp \$)

Density curves for Low skill & technology intensive manufactures
(Asia-Pacific Region)



Source: UN, SRBasu-2011

Density curves for Low skill & technology intensive manufactures
(Asia-Pacific Region, average of the period)

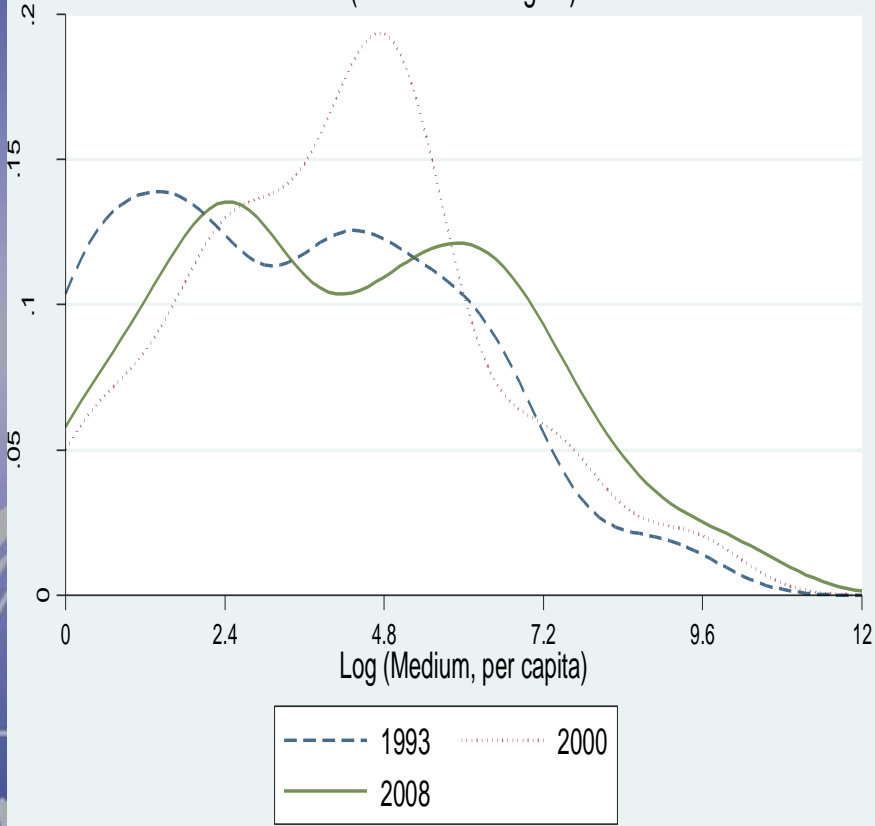


Source: UN, SRBasu-2011

Density estimates

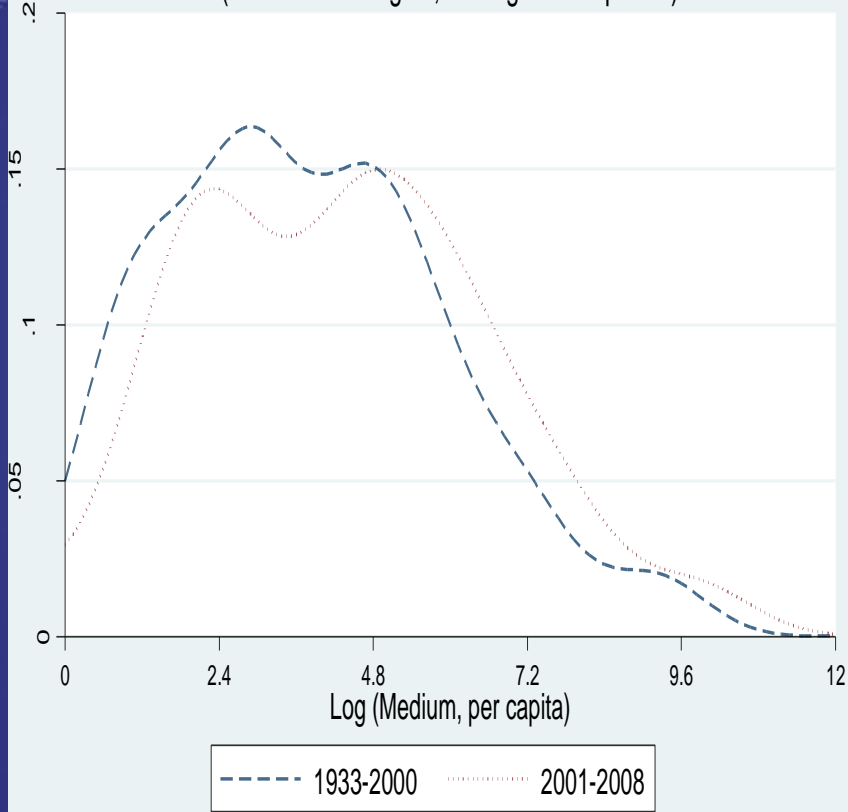
(per capita exports, ppp \$)

Density curves for Medium skill & technology intensive manufactures
(Asia-Pacific Region)



Source: UN, SRBasu-2011

Density curves for Medium skill & technology intensive manufactures
(Asia-Pacific Region, average of the period)

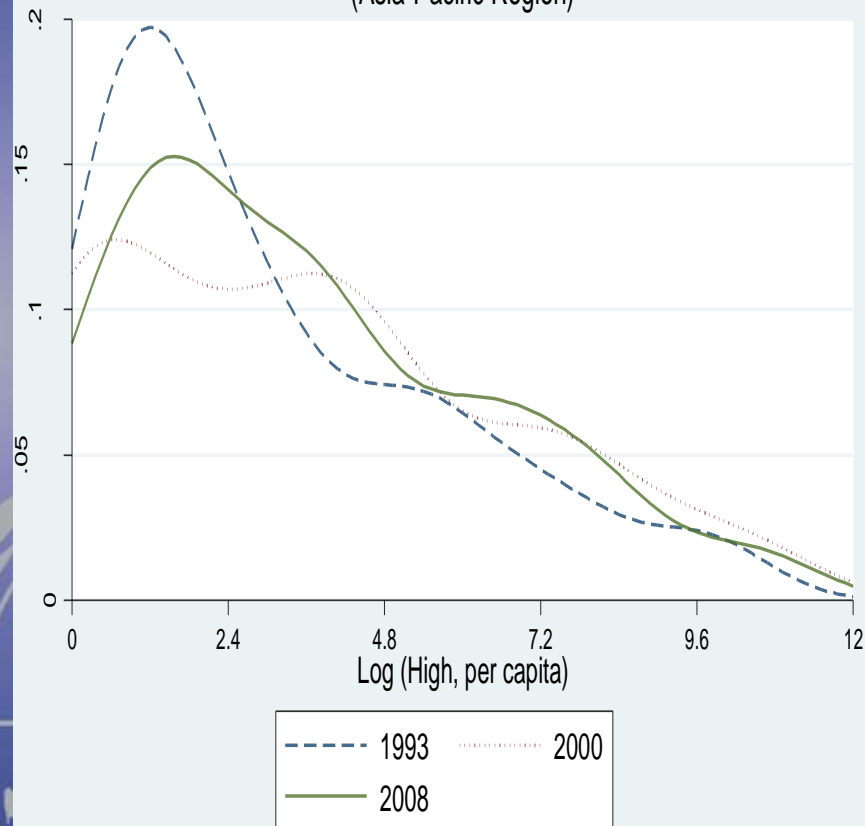


Source: UN, SRBasu-2011

Density estimates

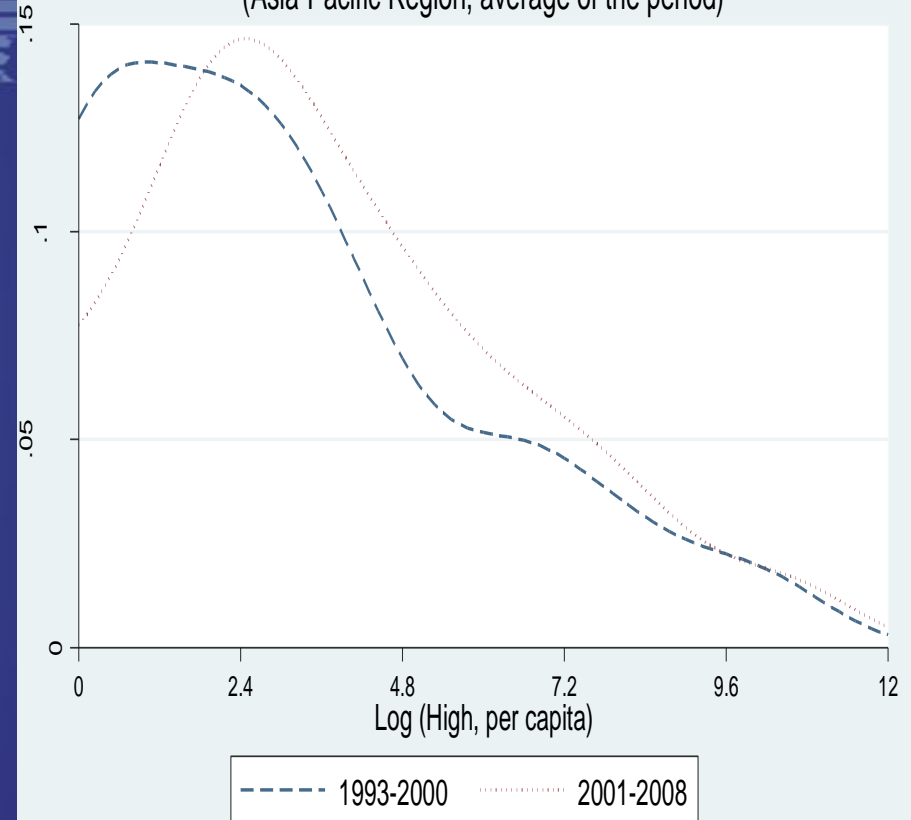
(per capita exports, ppp \$)

Density curves for High skill & technology intensive manufactures
(Asia-Pacific Region)



Source: UN, SRBasu-2011

Density curves for High skill & technology intensive manufactures
(Asia-Pacific Region, average of the period)



Source: UN, SRBasu-2011

Measuring Export Diversification and Polarization



Measuring Diversification (exports)

- *Understanding quality and composition of exports*
- *Skill and Technology contents of exports sectors*
- *Diversification index: 0=least diversified, and 1=most diversified*

Diversification index is computed by measuring absolute deviation of the country share from world structure, as follows:

$$S_j = \frac{\sum_i |h_{ij} - h_i|}{2}$$

where h_{ij} = share of product i in total exports or imports of country or country group j
 h_i = share of product i in total world exports or imports.

- Non-fuel Primary commodities
- Labour intensive and resource based manufactures
- Manufactures with low skill and technology intensity
- Manufactures with medium skill and technology intensity
- Manufactures with high skill and technology intensity
- Energy products
- Unclassified products

Inequality and Polarization

- Gini coefficient of inequality
- Generalized entropy class (GE)
 - to allow inequality across groups to be broken down into *within group* inequality and *between group* inequality
 - **Polarization index** as ratio of between group inequality in total inequality (within group inequality + between group inequality)
 - Basu, Fan and Zhang 2007 and Basu 2009
- Shorrocks decomposition
 - Total inequality into inequality contributions from each of the factors of total exports

Data sets

- Exports composition: Shifting exports from primary commodities to skill-technology manufactures
- Computations to estimate exports patterns:
 - Overall inequality
 - Spatial inequality
 - Sources of inequality
- *Data/Sample: 29 countries (21 Asia, 8 Pacific)*
 - *12 Emerging countries, 10 LDCs, 8 ASEAN, 18 Tropical*
- *Time periods: 1993 to 2008*
- *Trade database*
 - UNCTAD South-South Trade Information System (SSTIS)
 - Product Classification at HS-4 digit level and Basu (2010, 2011)

Results and Analysis



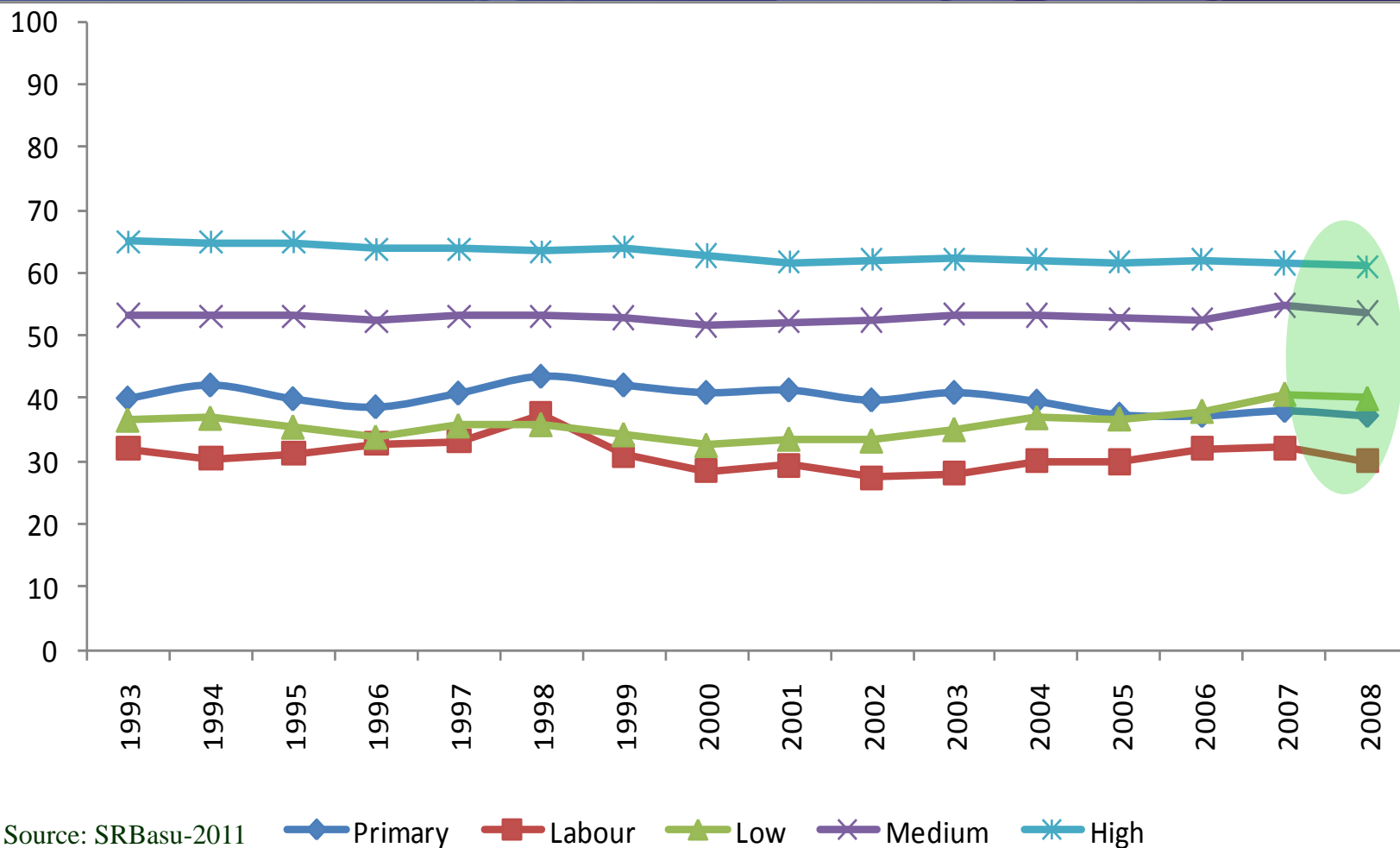
Explorative results

- Inequality:
 - Regions: Different sub-regions progress differently
 - Income level: LDCs, SIDS, ASEAN indicate
 - Sectors : Sectoral differences remain within sub-regions and income level
- Polarization:
 - Regions: Pacific, South East & East, South Asia
 - Income: Emerging, LDCs, SIDS
 - Geography: Tropical

Uneven development of manufacturing in Asia-Pacific

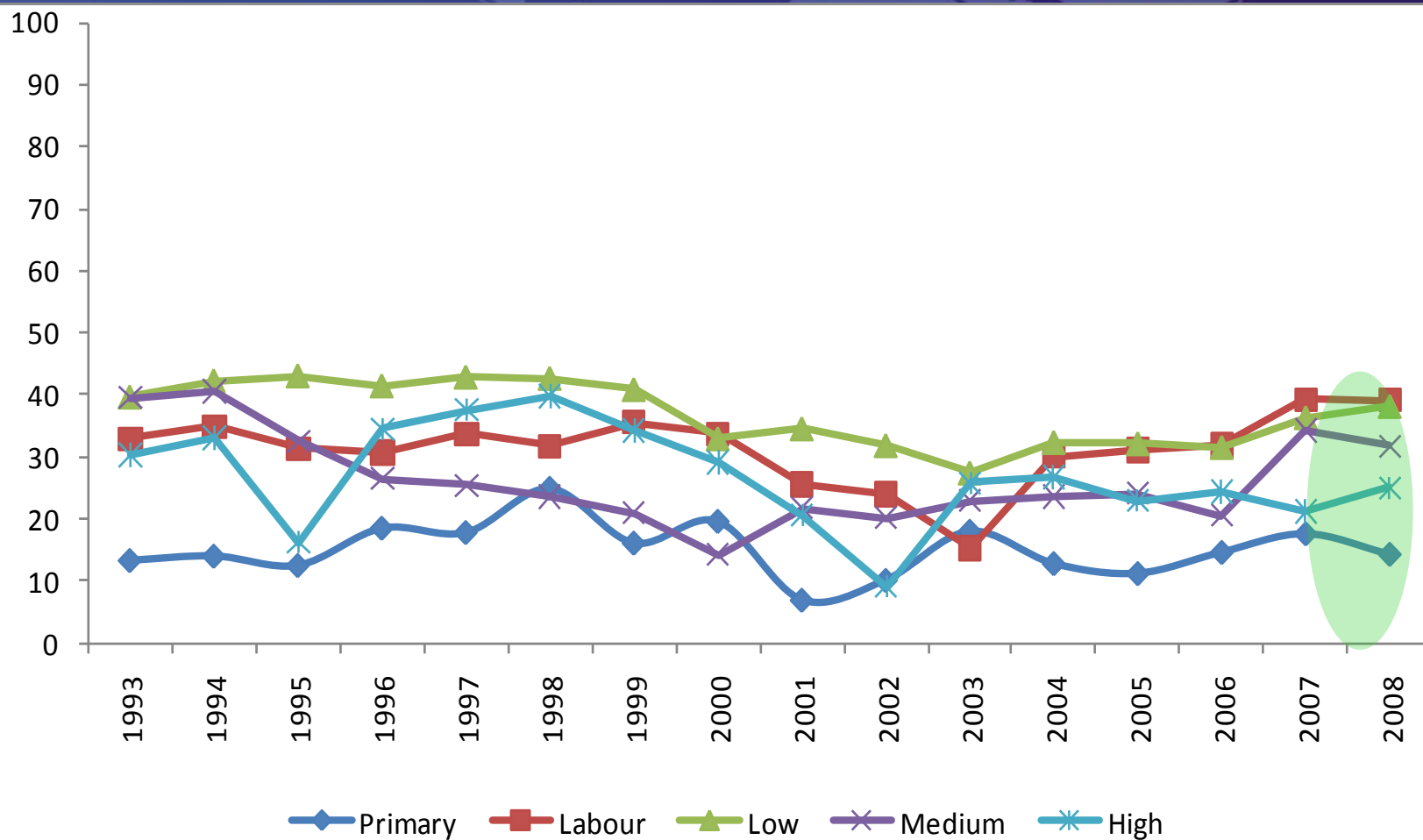
Asia-Pacific exports inequality (per capita, by skill and technology contents)

Percent



Pacific regions exports inequality (per capita, by skill and technology contents)

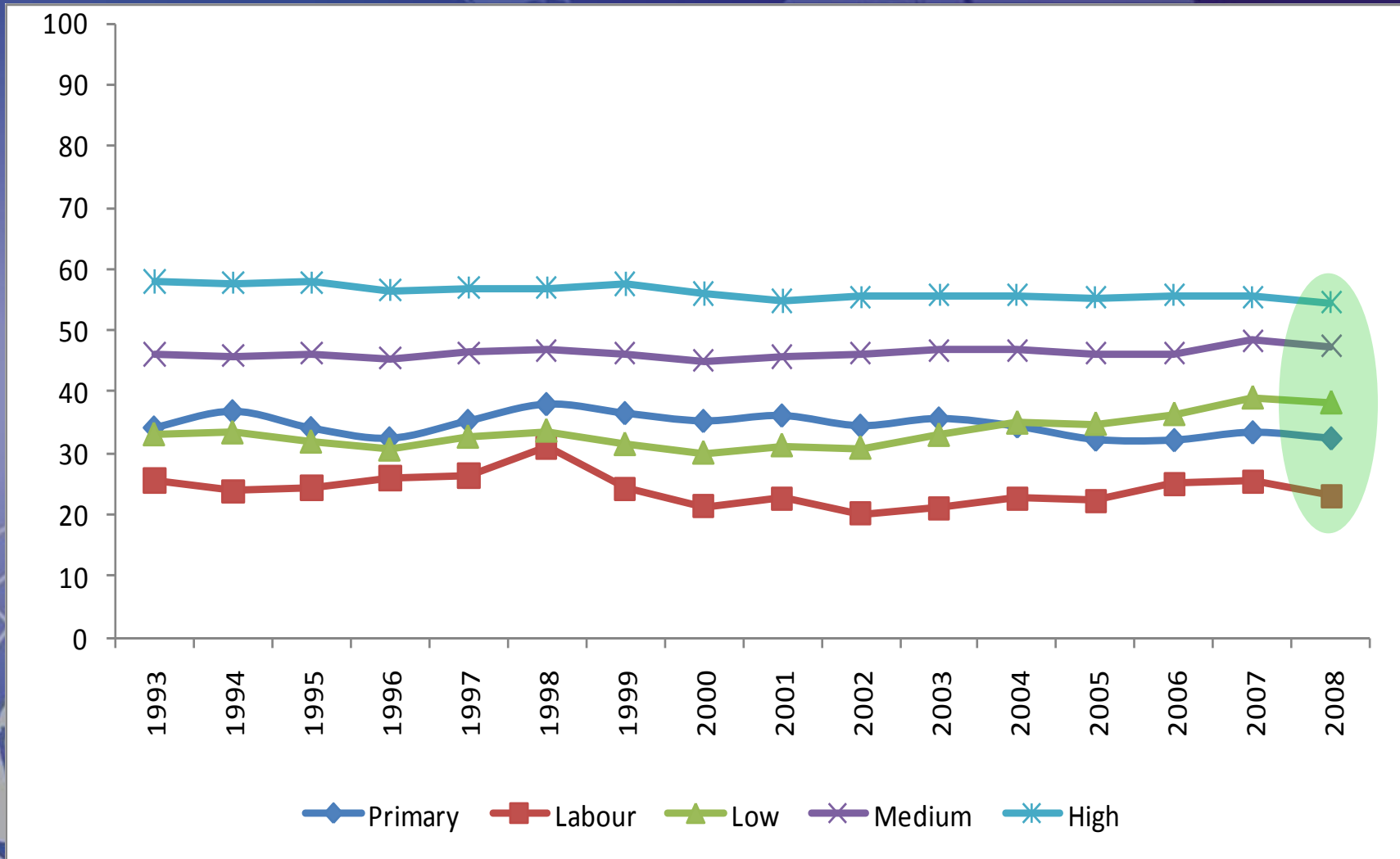
Percent



Emerging Asia's exports inequality

(per capita, by skill and technology contents)

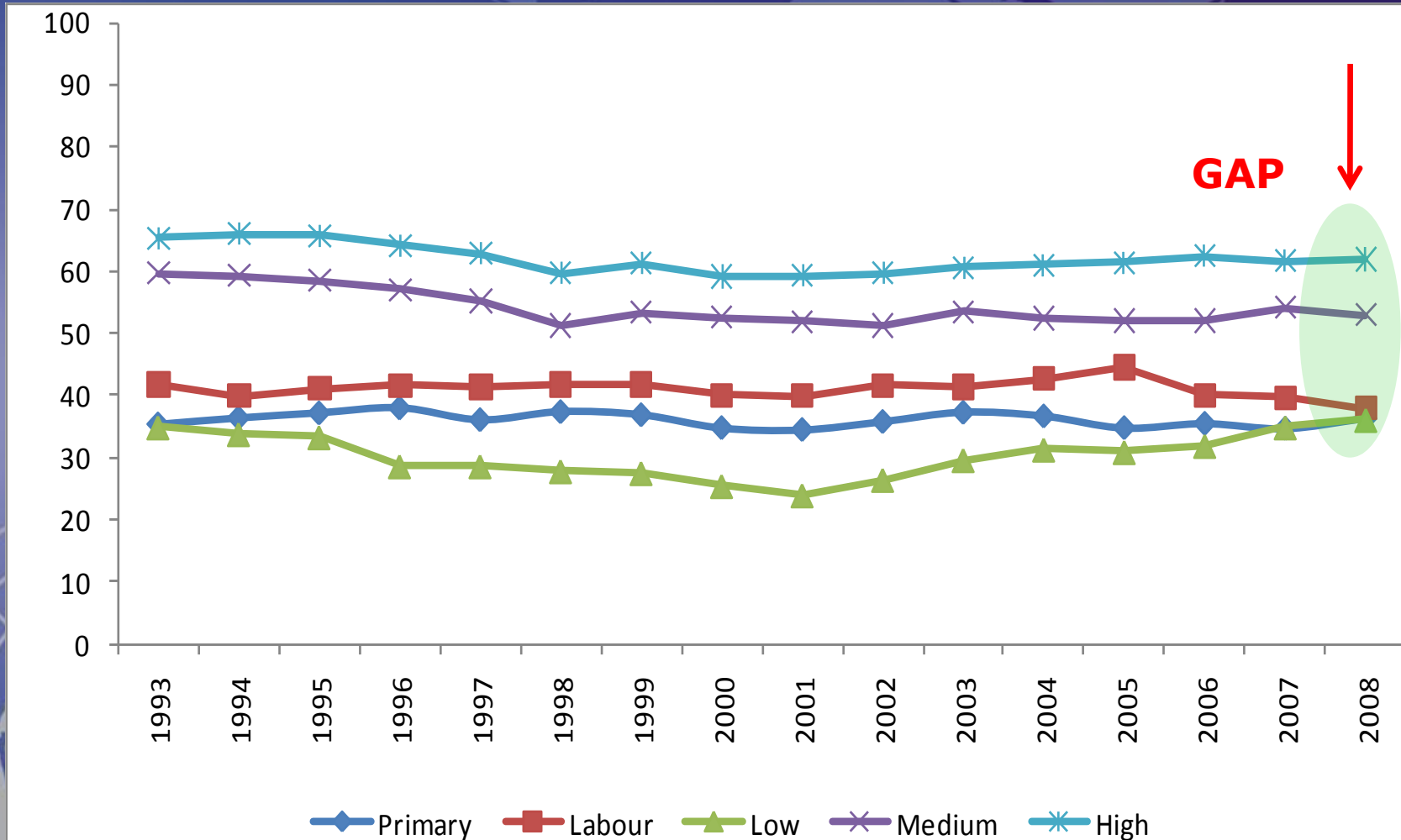
Percent



ASEAN exports inequality

(per capita, by skill and technology contents)

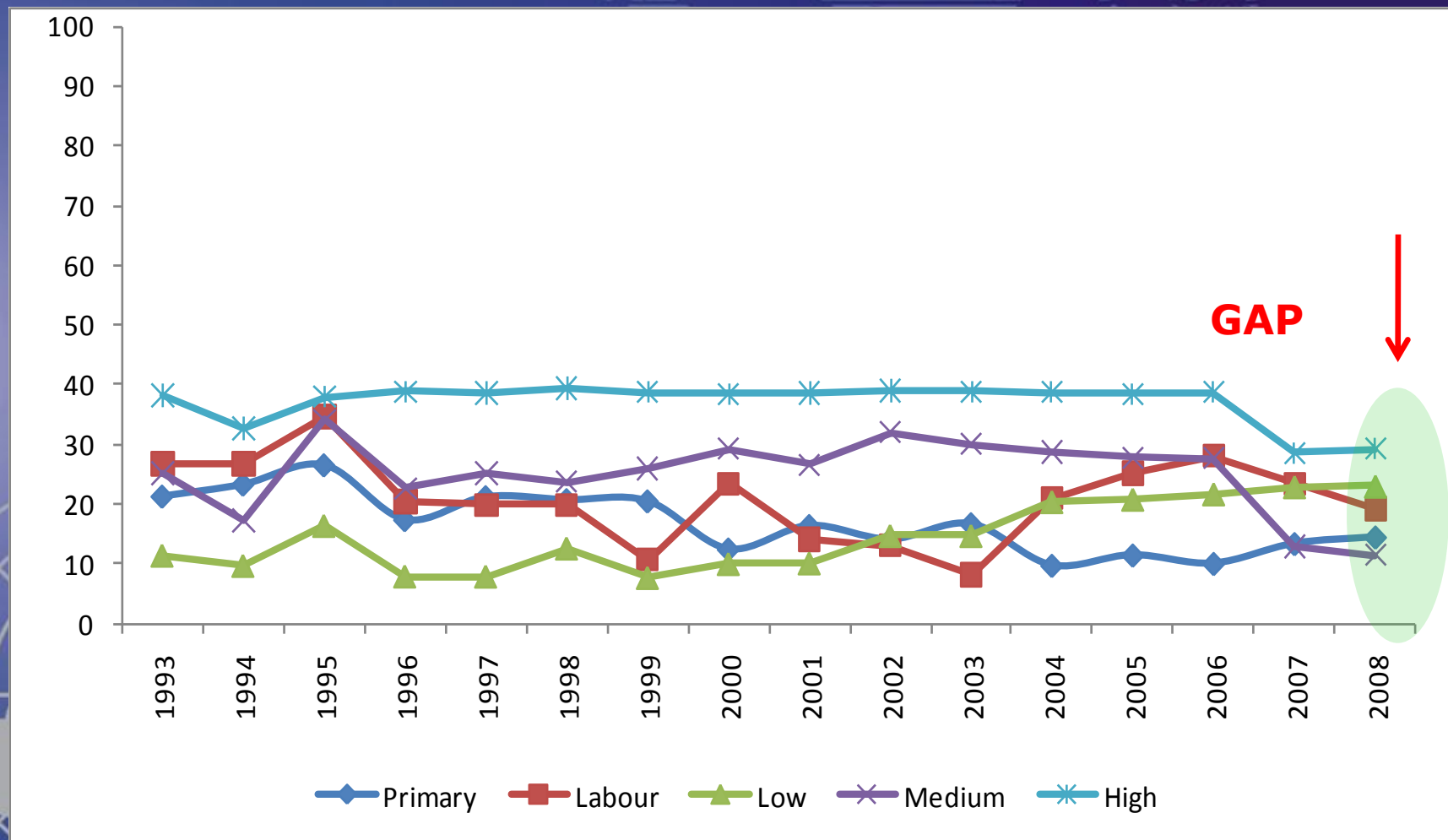
Percent



Low income

LDCs exports inequality (per capita, by skill and technology contents)

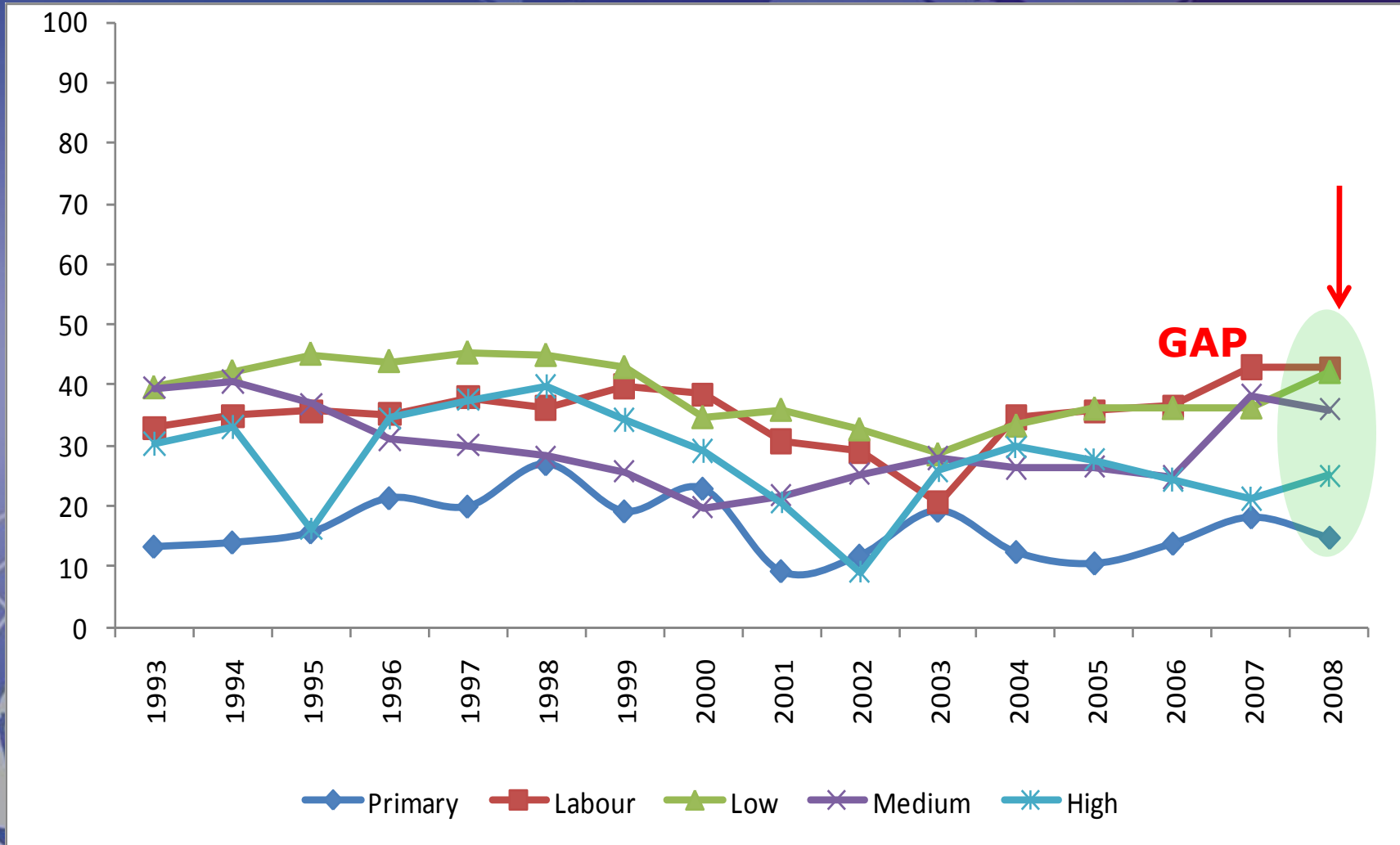
Percent



SIDS exports inequality

(per capita, by skill and technology contents)

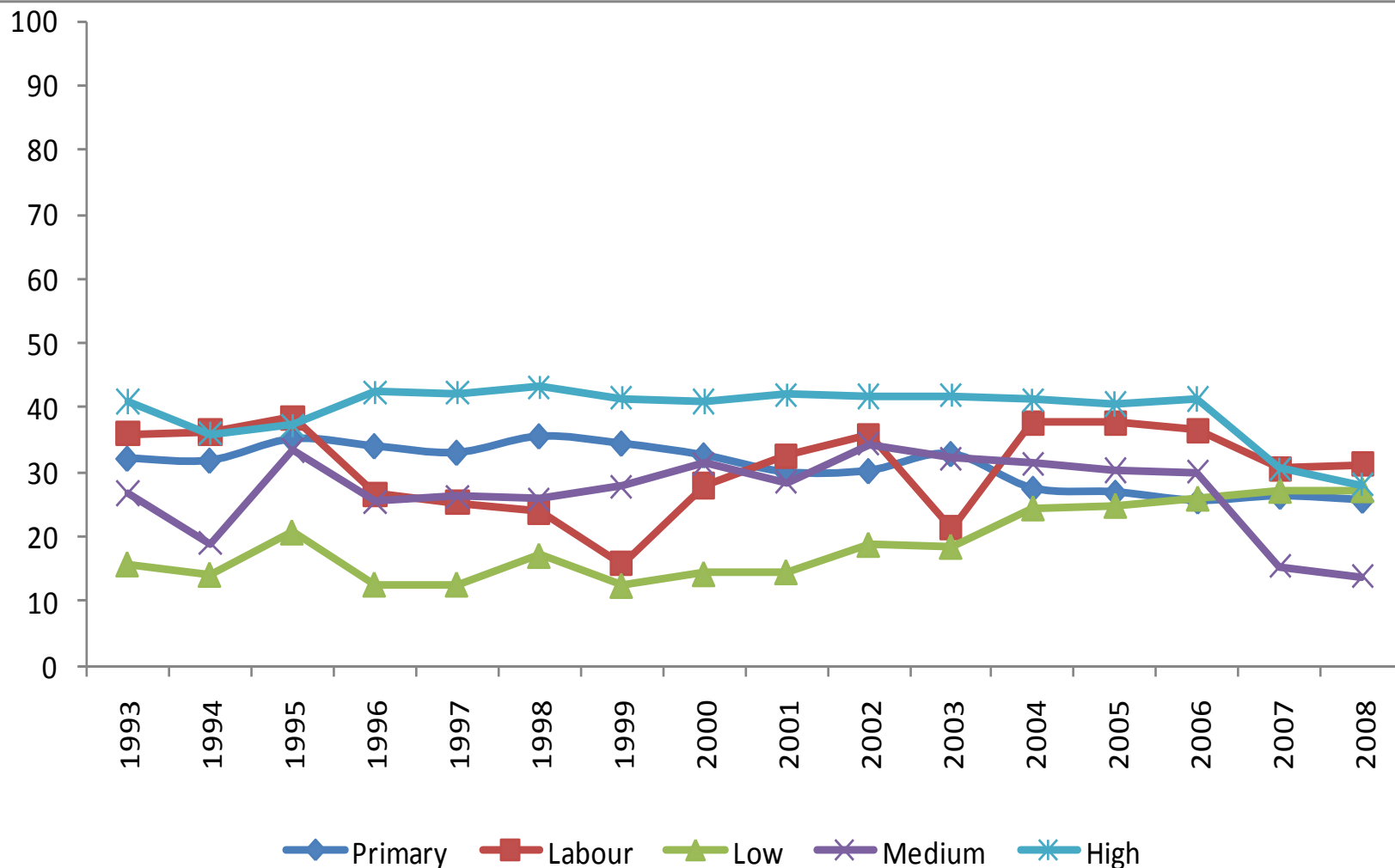
Percent



LDCs & SIDS exports inequality

(per capita, by skill and technology contents)

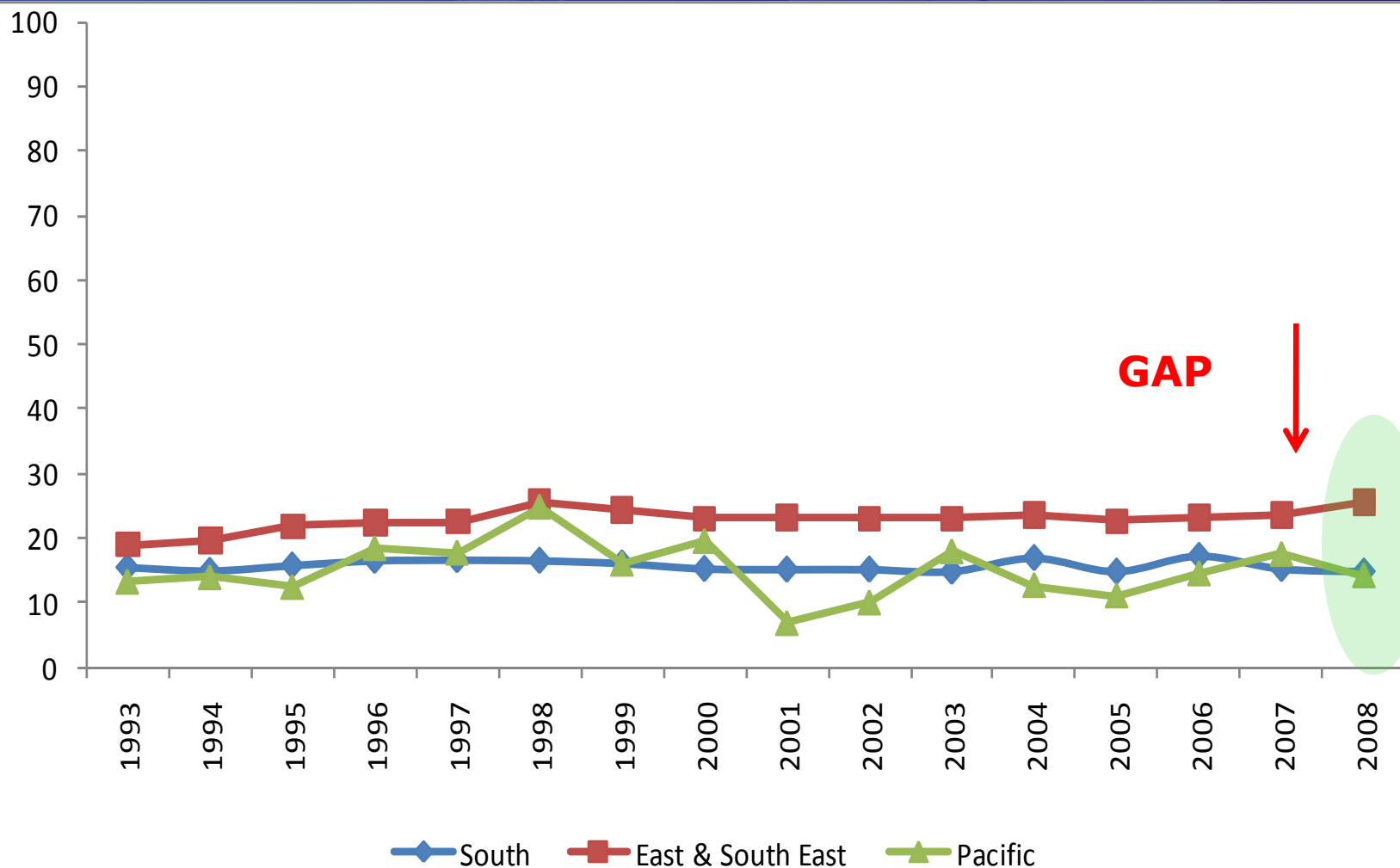
Percent



Primary

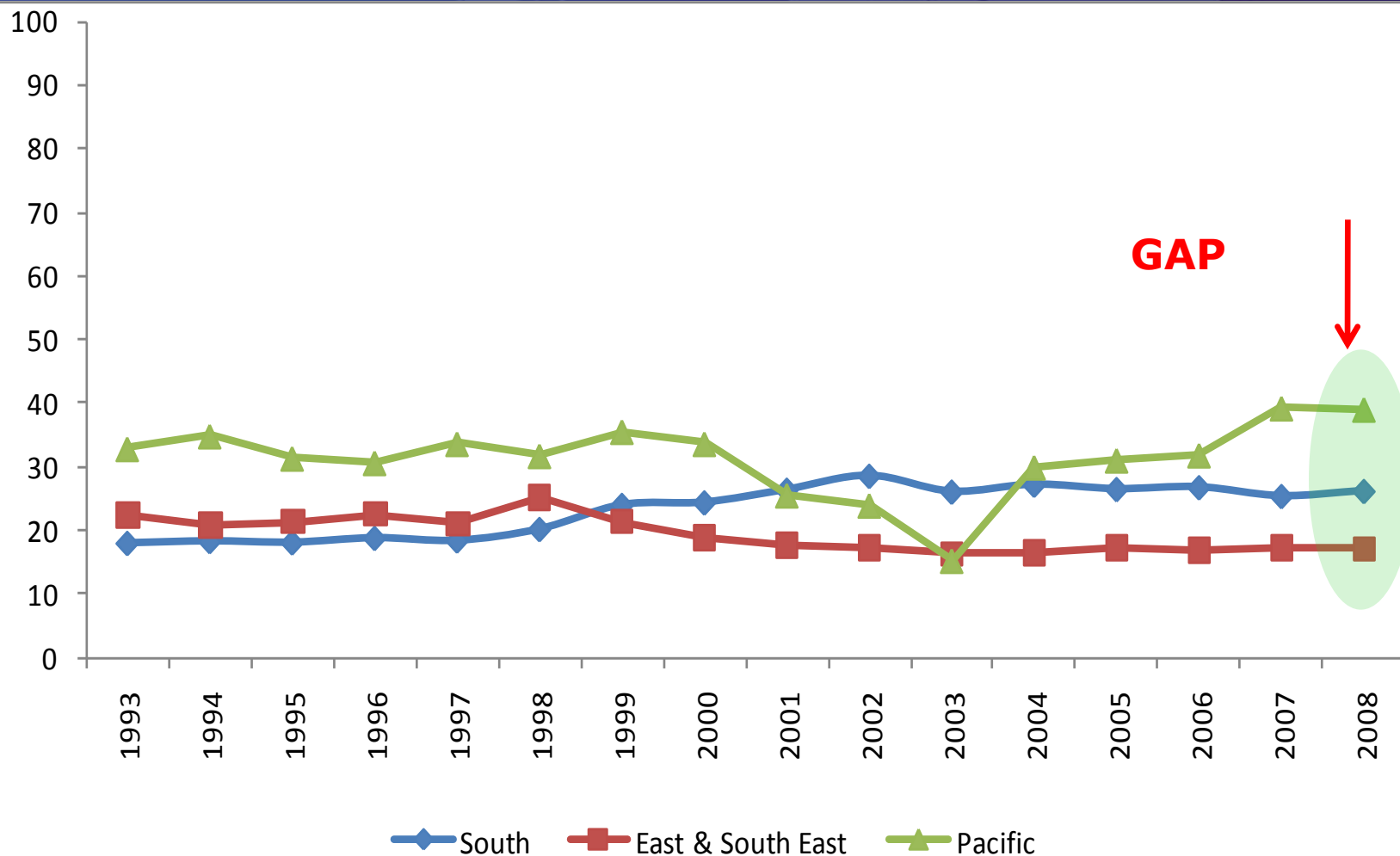
Asia-Pacific sub-regional exports inequality (per capita, by skill and technology contents)

Percent



Asia-Pacific sub-regional exports inequality (per capita, by skill and technology contents)

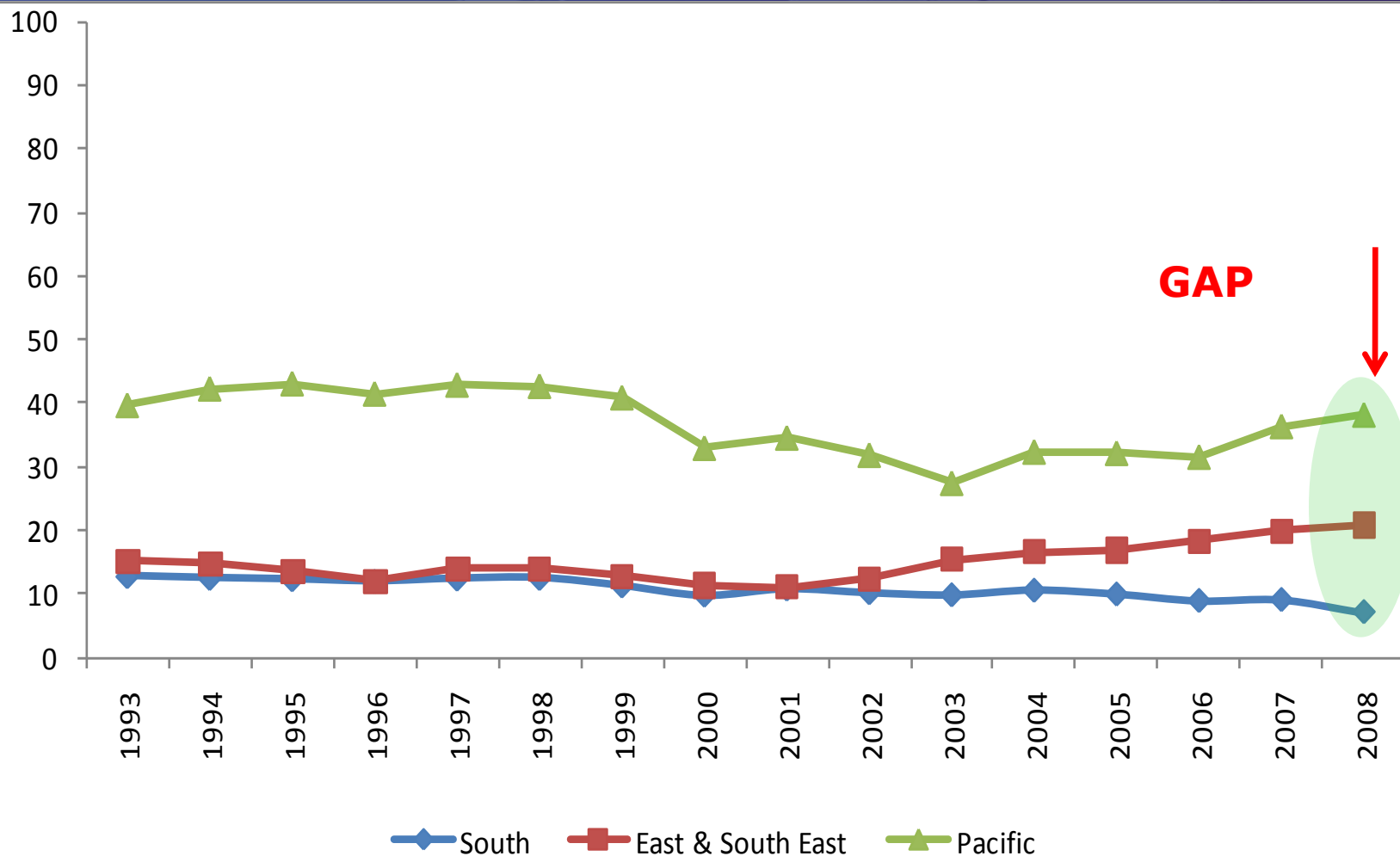
Percent



Low

Asia-Pacific sub-regional exports inequality (per capita, by skill and technology contents)

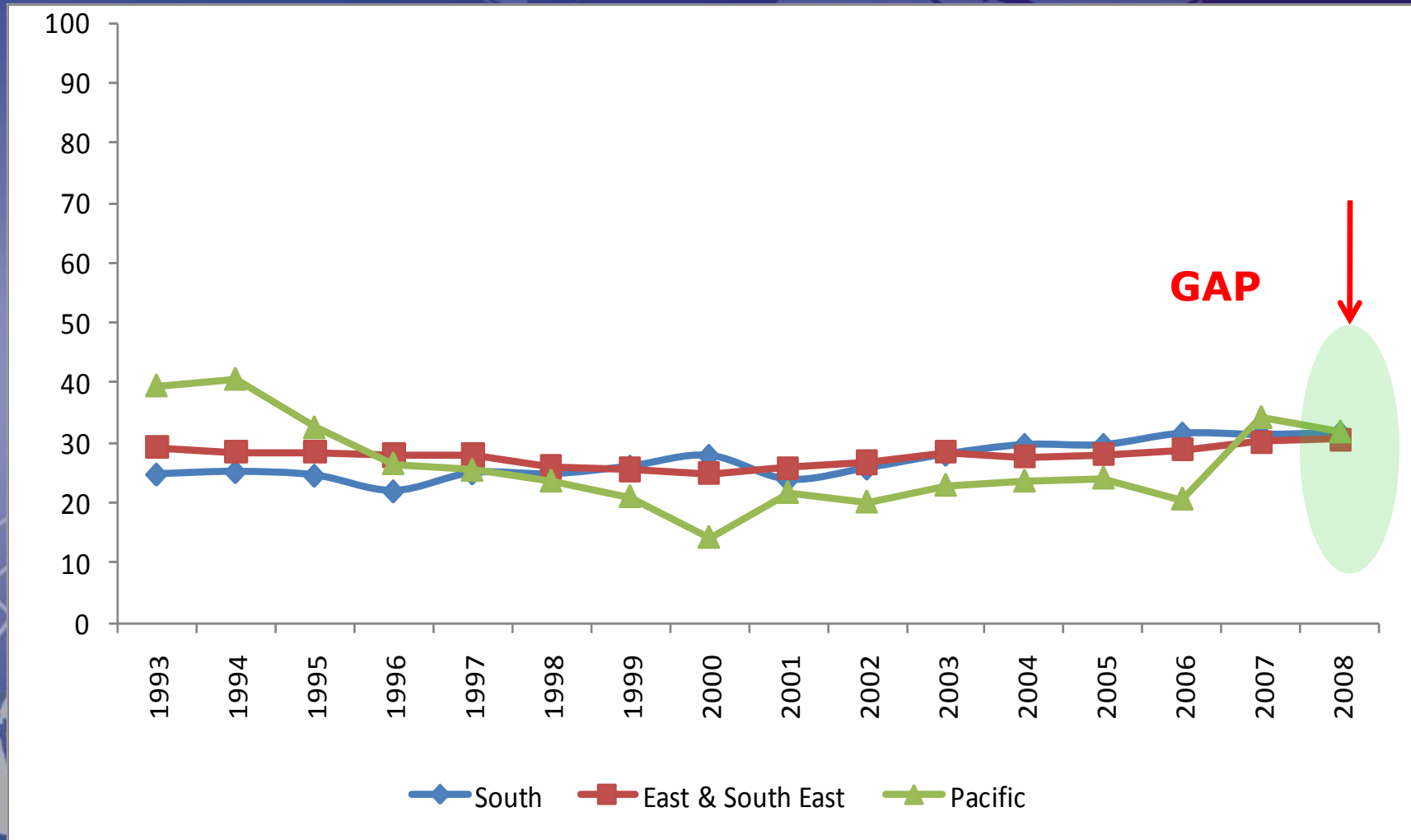
Percent



Medium

Asia-Pacific sub-regional exports inequality (per capita, by skill and technology contents)

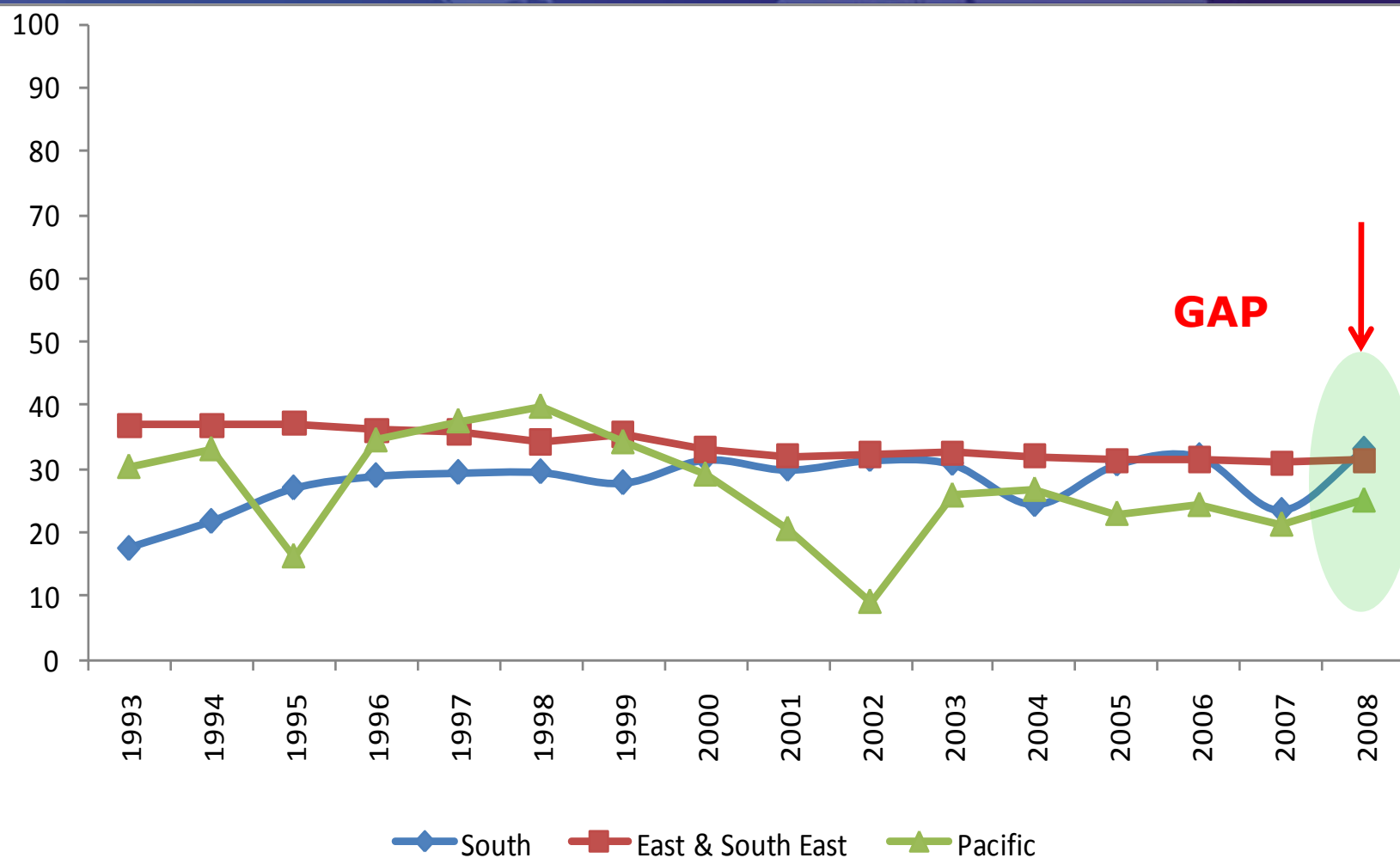
Percent



High

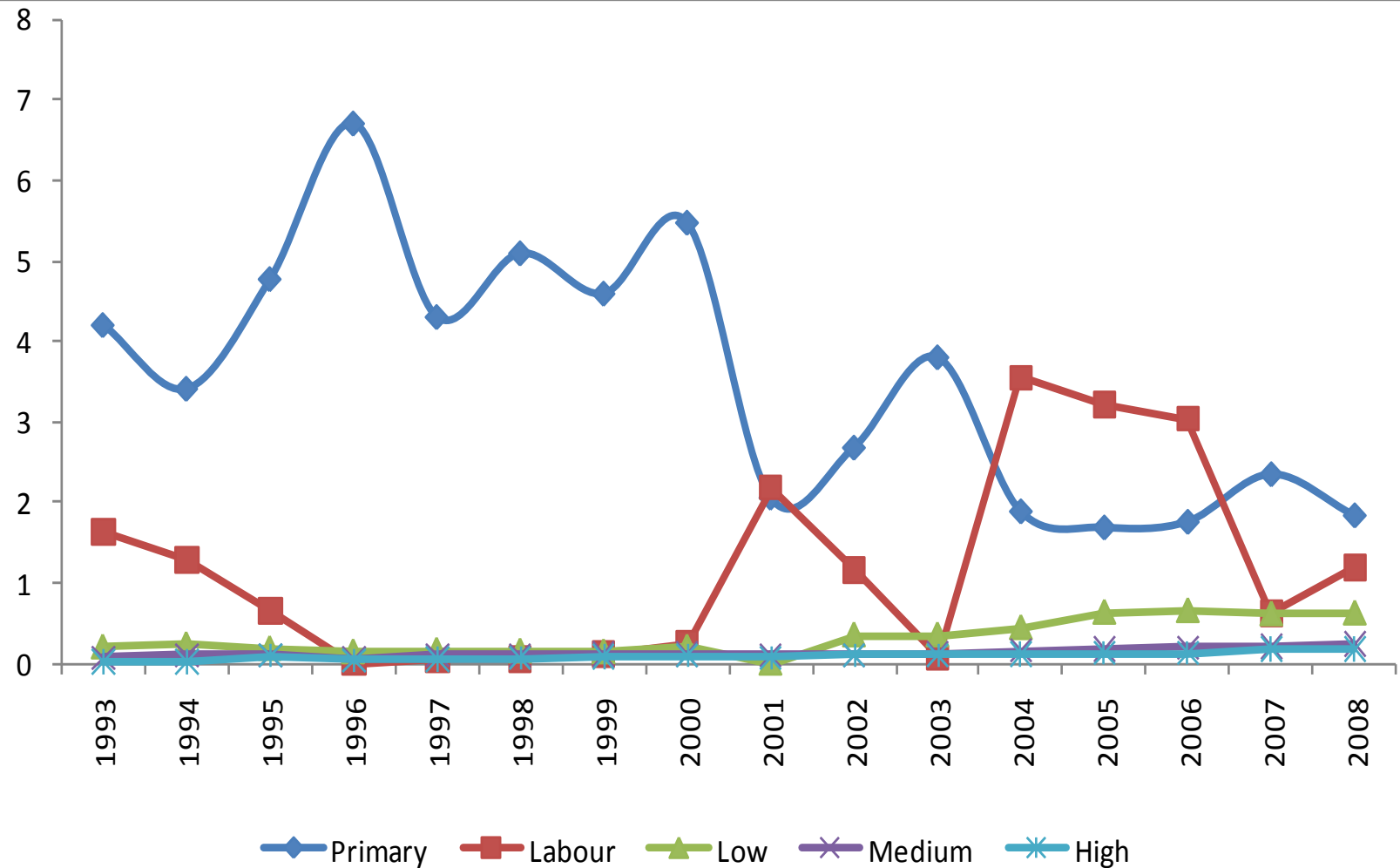
Asia-Pacific sub-regional exports inequality (per capita, by skill and technology contents)

Percent



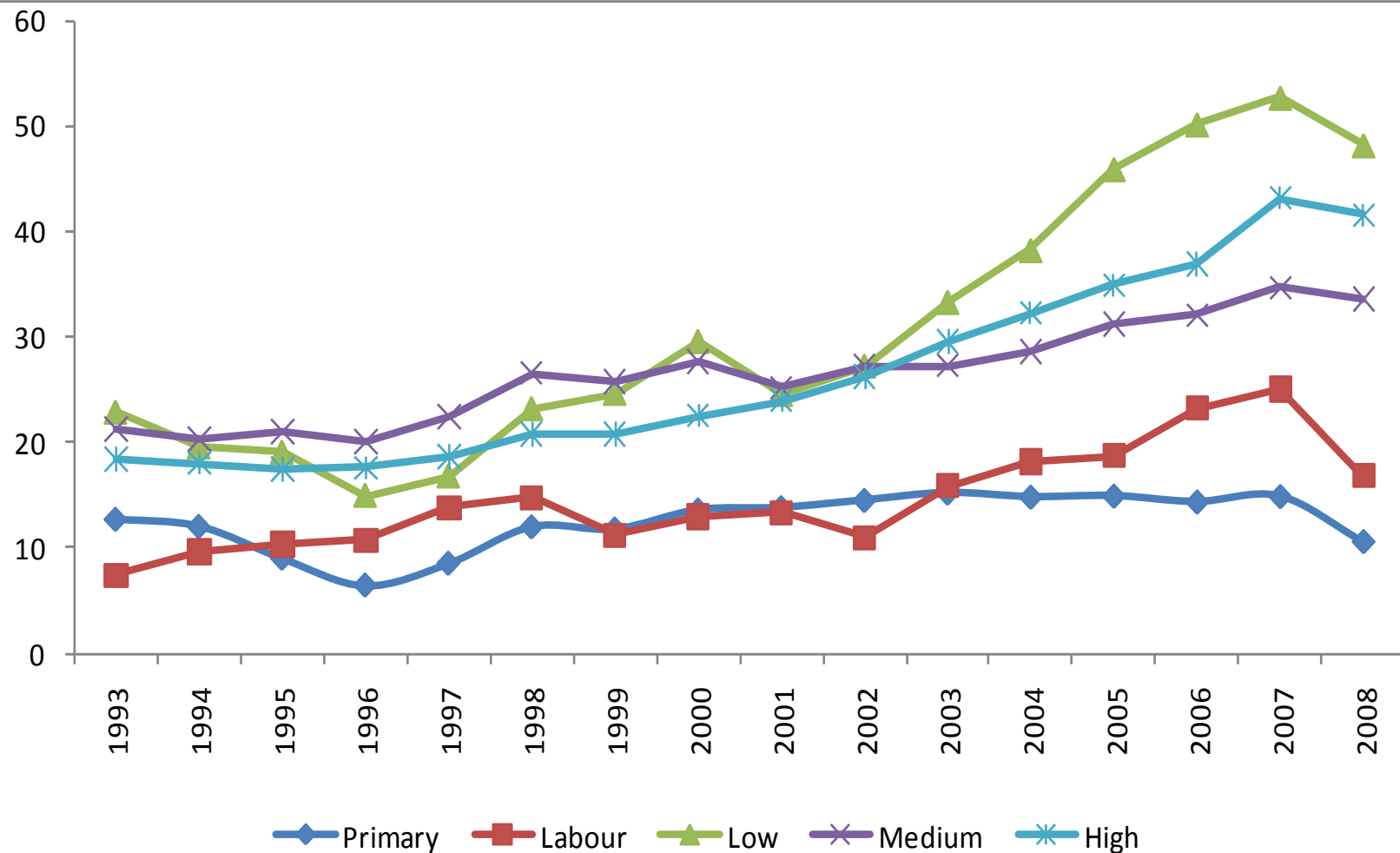
Pacific and rest of Asia's exports (per capita, by skill and technology contents)

Percent



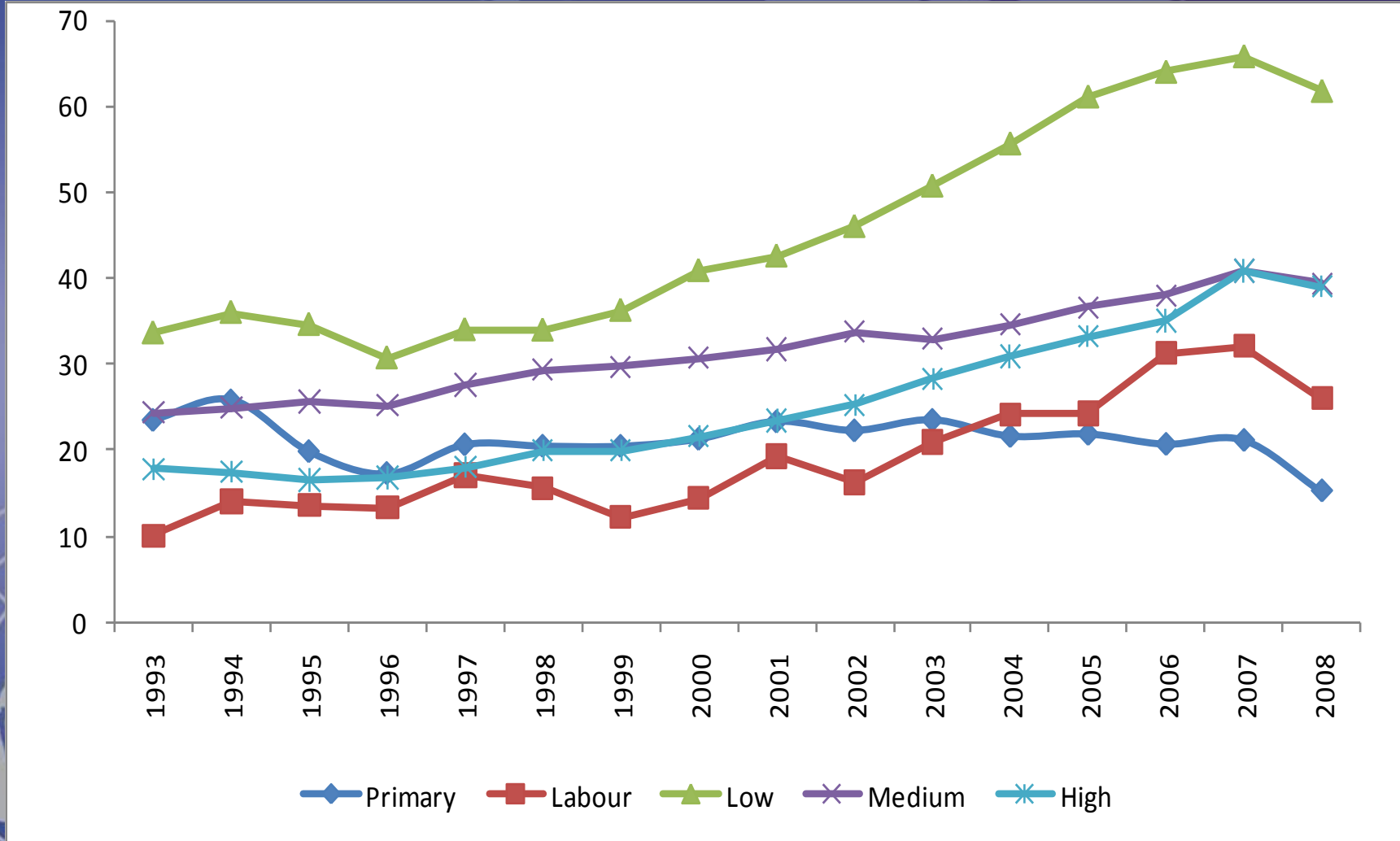
South-East & East and rest of Asia's exports (per capita, by skill and technology contents)

Percent



South Asia and rest of Asia's exports (per capita, by skill and technology contents)

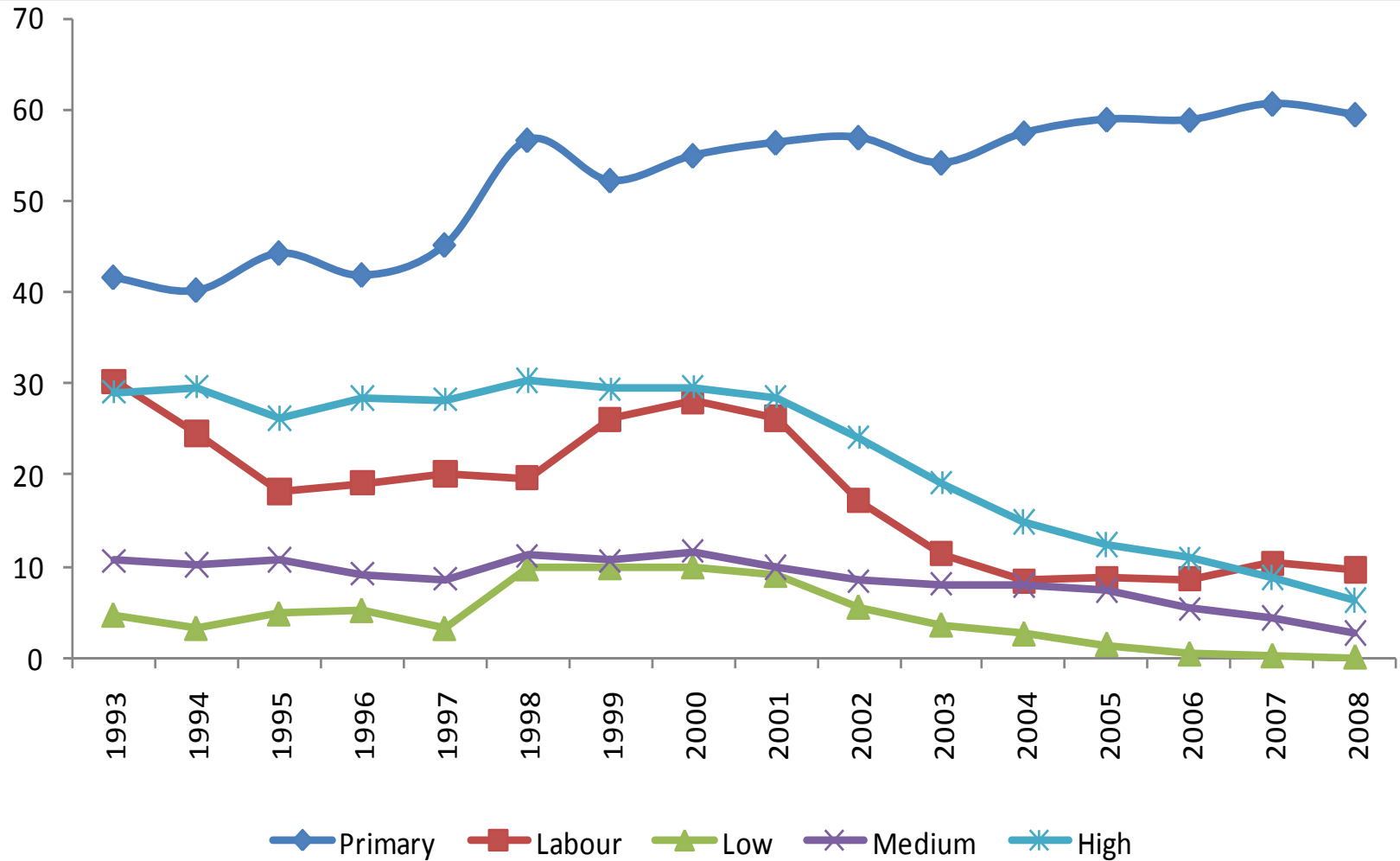
Percent



ASEAN and rest of Asia's exports

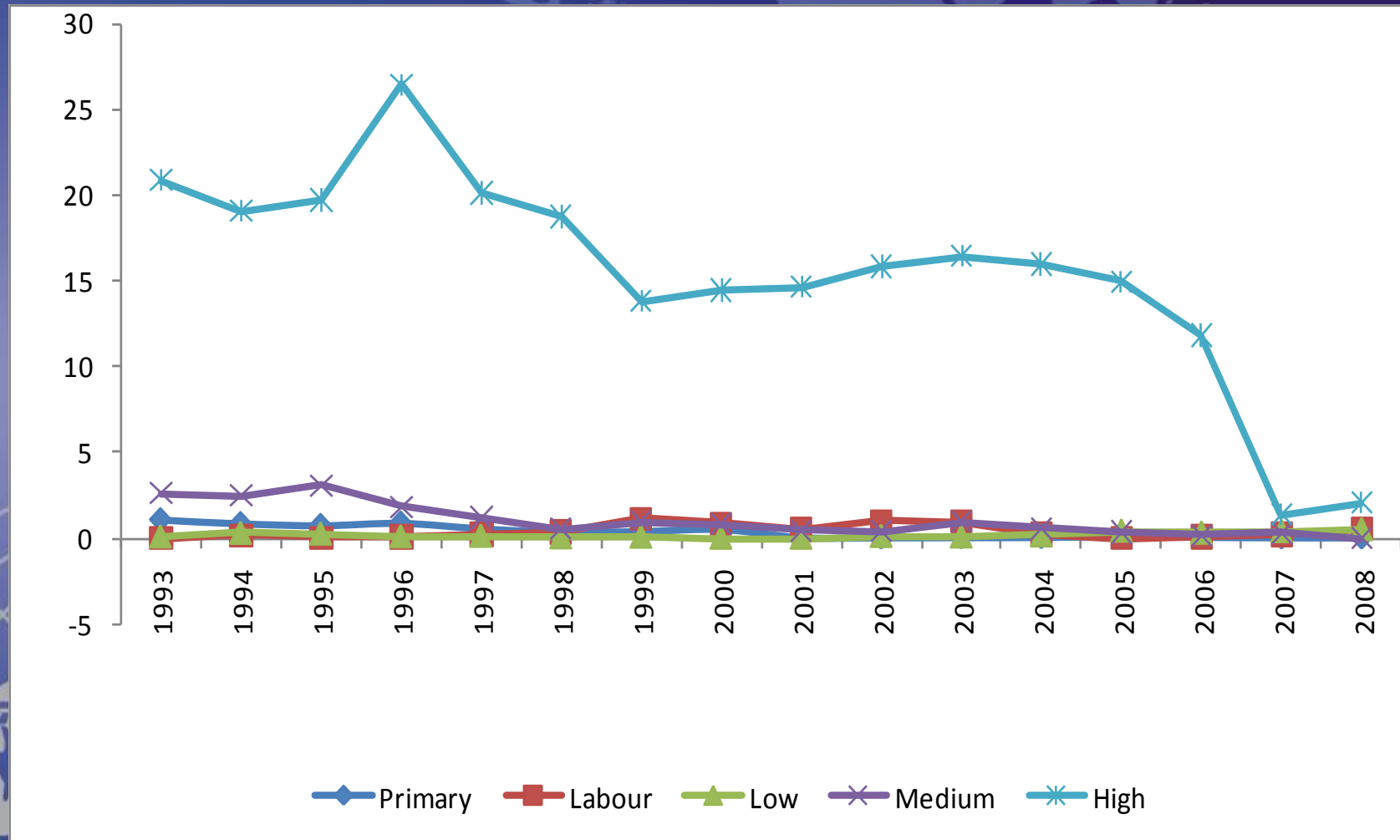
(per capita, by skill and technology contents)

Percent



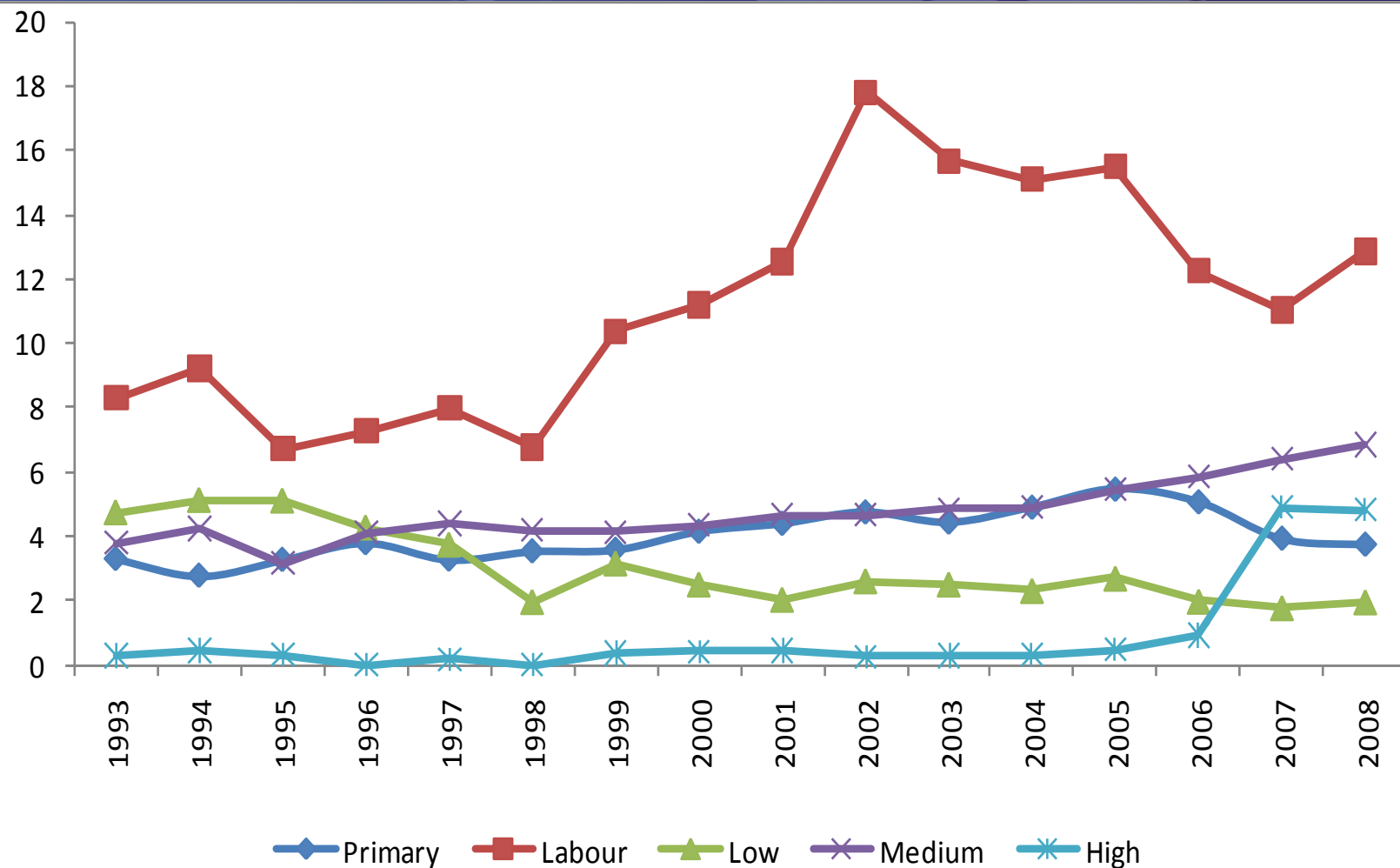
Emerging economies and rest of Asia's exports (per capita, by skill and technology contents)

Percent



LDCs and rest of Asia's exports (per capita, by skill and technology contents)

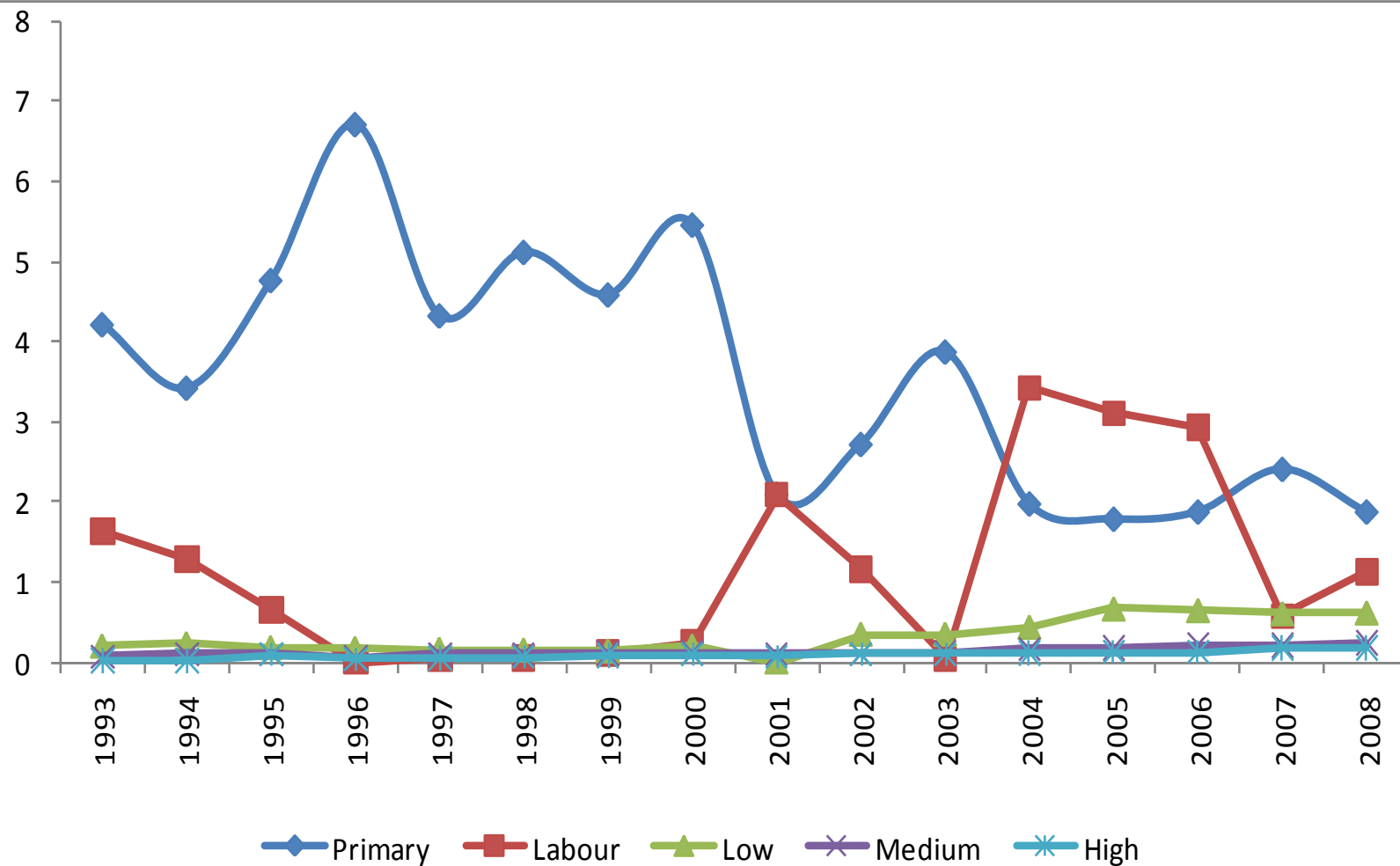
Percent



Size

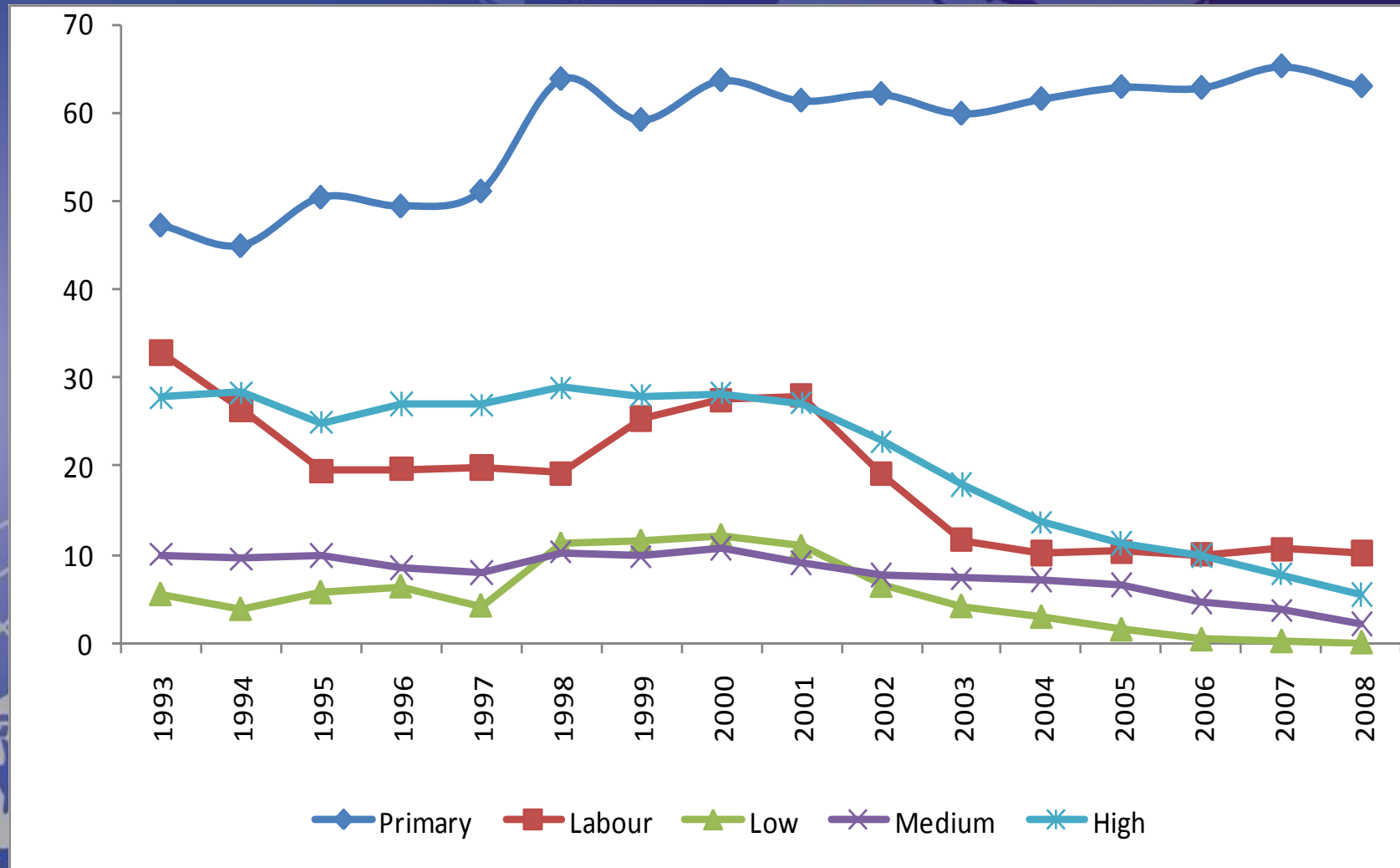
SIDS and rest of Asia's exports (per capita, by skill and technology contents)

Percent



Tropical Asia and rest of Asia's exports (per capita, by skill and technology contents)

Percent



Way forward



Summary

Regional policies

- Asia-Pacific regions shared development leveraging on export-led growth
- Inequality in skill-technology contents remains and is reducing unevenly depending on stage of development
- Emerging economies play key role to improve conditions

National Strategies

- Policies to Capability development to identify new and dynamic sectors, and help discovery process
- Inter- ministerial coordination and policy coherence
- Identifying Priority sectors for skill-technology development

Industrial Policies

- Providing incentives depending on industry and sectoral cluster, integration, competitiveness
- Investment in infrastructure, education and productive capacity building should remain high

What's next Globally?

- Global policy coordination on skill and technology development
- Regional funds to promote capability and capacity development
- 'Industrial Policy' and Productive Capacity development for growth with Equity agenda



Thank you!

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<http://www.unctad.org>

