LAC's Long-Term Growth: Made in China?

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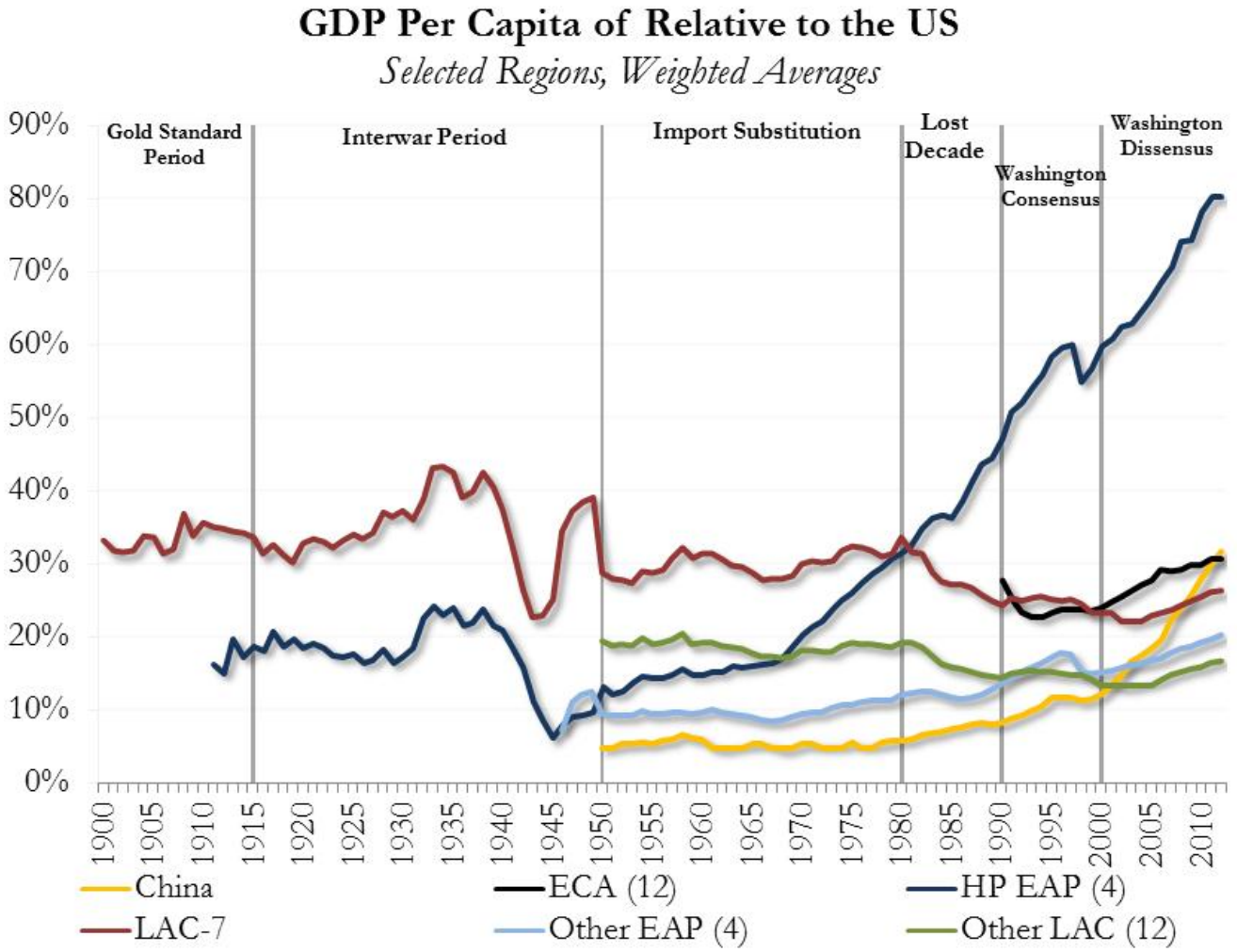
Chief Economist Office
Latin America and the Caribbean
The World Bank

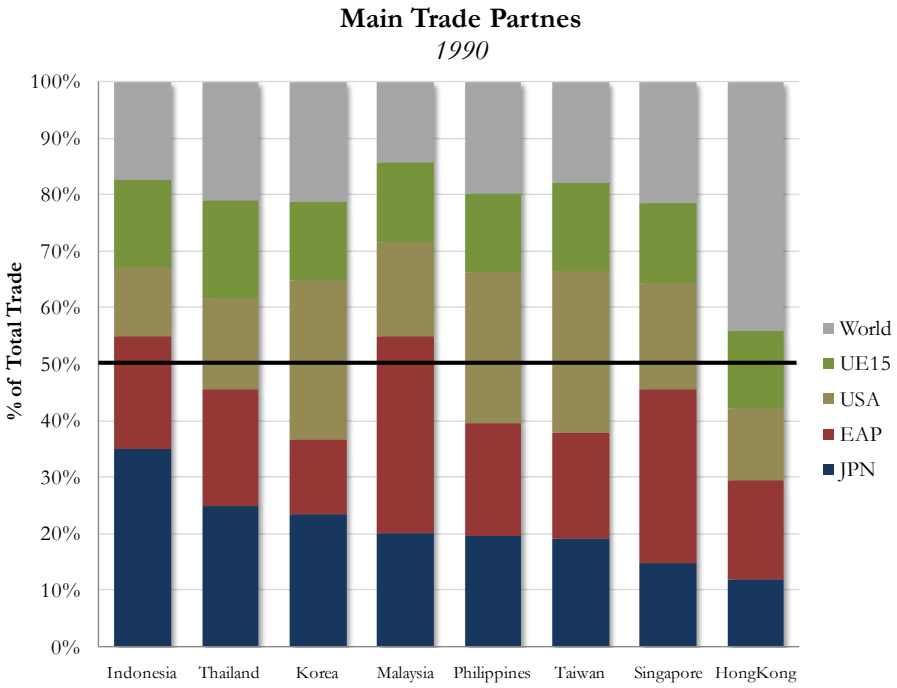
World Bank LAC
opportunities for all

Latin America and the Caribbean: 100 years of growth solitude

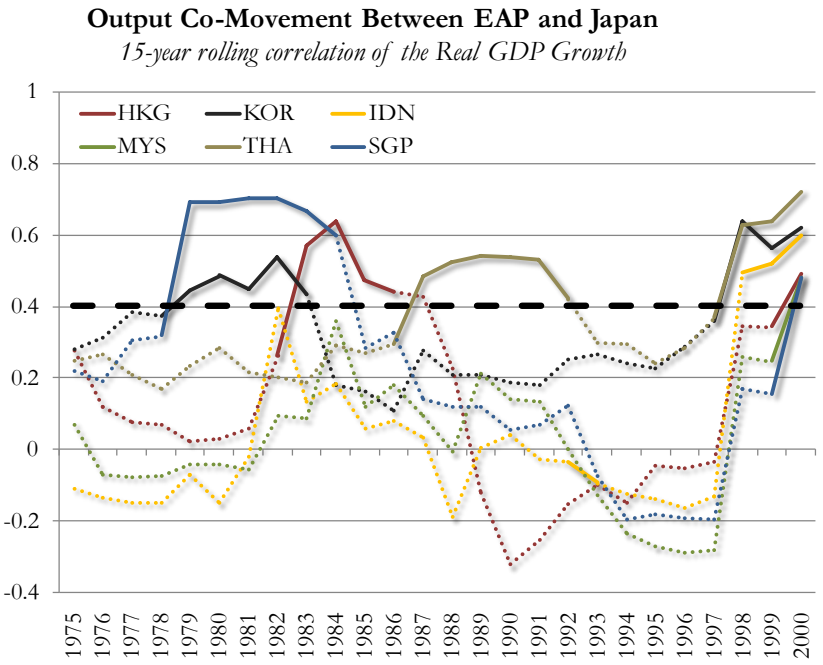


Notes: In Panel B, High Performance EAP includes Korea Rep., Taiwan, Hong Kong, and Singapore; Low Performance EAP includes Indonesia, Philippines, Thailand, and Malaysia; LAC includes the following countries: Argentina, Brazil, Chile, Colombia, Mexico, Peru, Uruguay, Venezuela, Bolivia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Nicaragua, Panama, and Paraguay. The weights are calculated using the 2007 nominal GDP. Source: Penn World Tables.

A particularly telling connection for growth prospects East Asian Tigers and Japan



Japan was a fast-growing neighbor with impressive technological progress that acted as a growth pole for East Asian economies

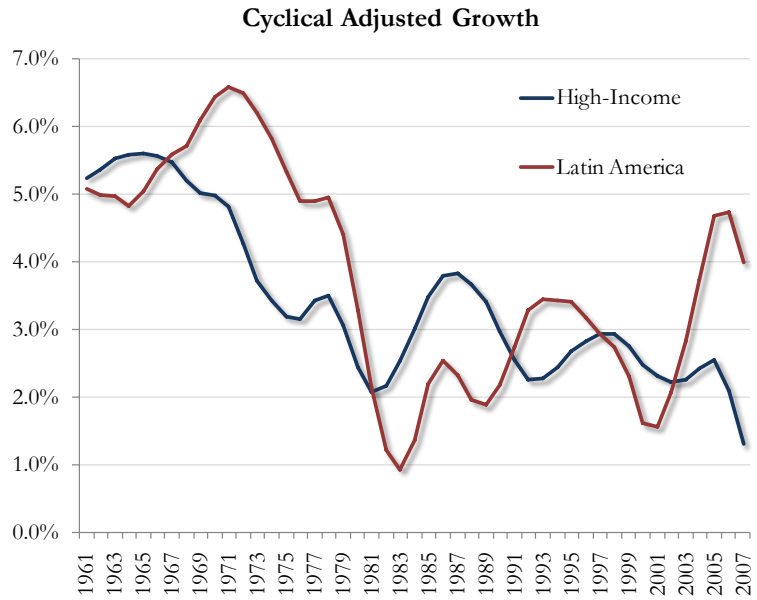


Notes: For Panel B, the sample of UE15 includes: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal , Spain, Sweden and the United Kingdom; the sample of EAP countries includes Hong Kong, Indonesia, Korea Rep., Malaysia, Philippines, Singapore, Taiwan and Thailand. Sources: WITS and WDI.

The nature of globalization may matter

- Has globalization played any role in the convergence of the East Asian Tigers?
  - Probably… (large literature)
- If so, is there anything special about the globalization of these countries?
  - ***Degree*** vs. ***Nature*** of Globalization
- The nature of the trade and financial integration of LAC may shed some light on the potential for growth-enhancing effects of globalization

Are the 2000s an exception to the rule? Trend growth *and* productivity picked up

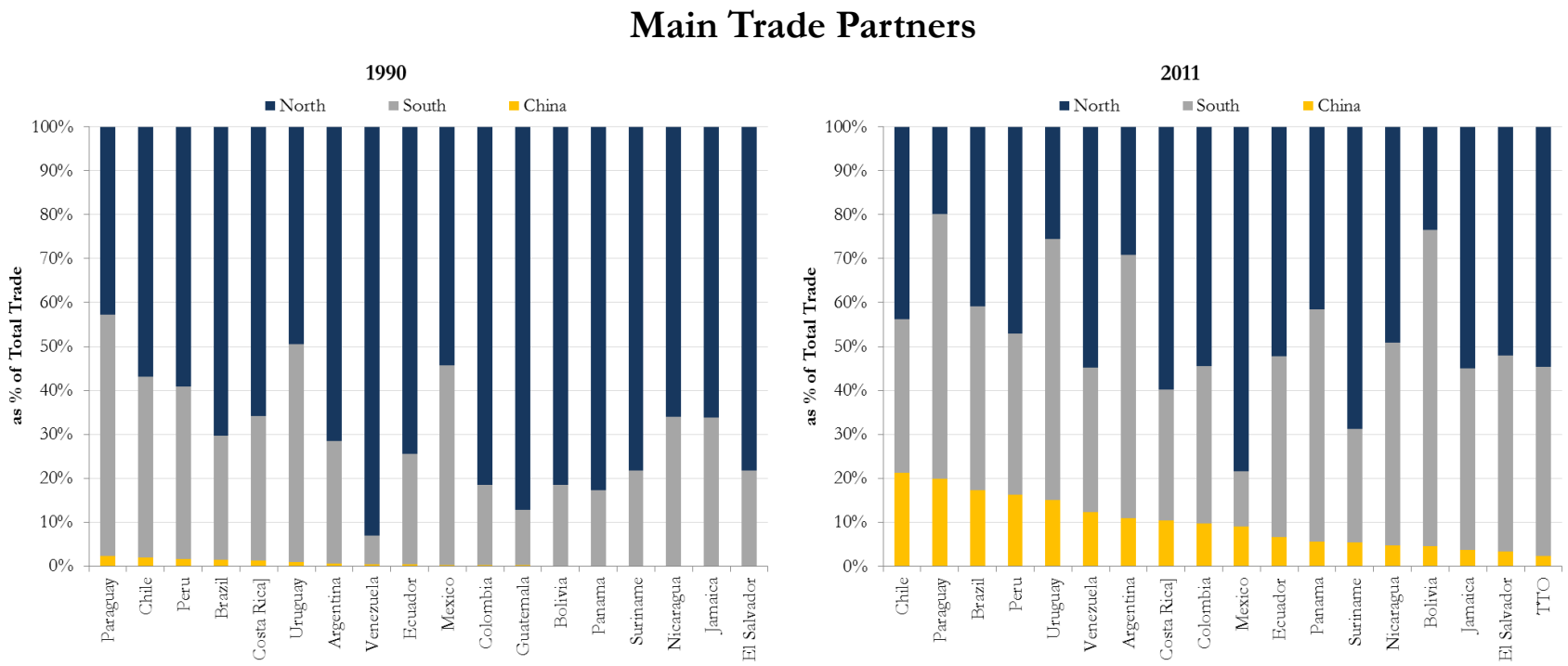


Average TFP growth per year

	Avg 61-70	Avg 71-80	Avg 81-90	Avg 91-00	Avg 01-08	Avg 61-08
LAC 7	**1.9%**	**0.4%**	**-2.0%**	**0.2%**	**1.0%**	**0.3%**
Non - LAC 7	**1.1%**	**0.5%**	**-2.0%**	**0.1%**	**1.2%**	**0.2%**
Argentina	1.3%	-0.2%	-2.5%	2.0%	1.4%	0.4%
Brazil	2.9%	3.2%	-3.3%	-1.7%	0.5%	0.3%
Chile	1.5%	0.5%	-0.5%	2.9%	0.5%	1.0%
Colombia	1.4%	1.0%	-1.3%	0.0%	1.3%	0.5%
Mexico	2.0%	0.3%	-0.9%	-1.6%	0.3%	0.0%
Peru	2.4%	-0.2%	-3.8%	0.5%	2.9%	0.4%
Venezuela	2.1%	-2.1%	-1.6%	-0.5%	0.2%	-0.4%
EAP	**3.1%**	**2.1%**	**2.3%**	**1.3%**	**2.0%**	**2.2%**
China	**-0.5%**	**0.9%**	**1.6%**	**3.4%**	**6.2%**	**2.3%**
United States	**0.9%**	**-0.4%**	**1.1%**	**1.0%**	**0.6%**	**0.6%**
Japan	**6.7%**	**1.1%**	**1.4%**	**-0.7%**	**0.9%**	**1.9%**

Notes: In Panel B, High Performance EAP includes Korea Rep., Taiwan, Hong Kong, and Singapore; Low Performance EAP includes Indonesia, Philippines, Thailand, and Malaysia; LAC includes the following countries: Argentina, Brazil, Chile, Colombia, Mexico, Peru, Uruguay, Venezuela, Bolivia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Nicaragua, Panama, and Paraguay. The weights are calculated using the 2007 nominal GDP. Source: Penn World Tables.

During the 2000s, the China Connection developed



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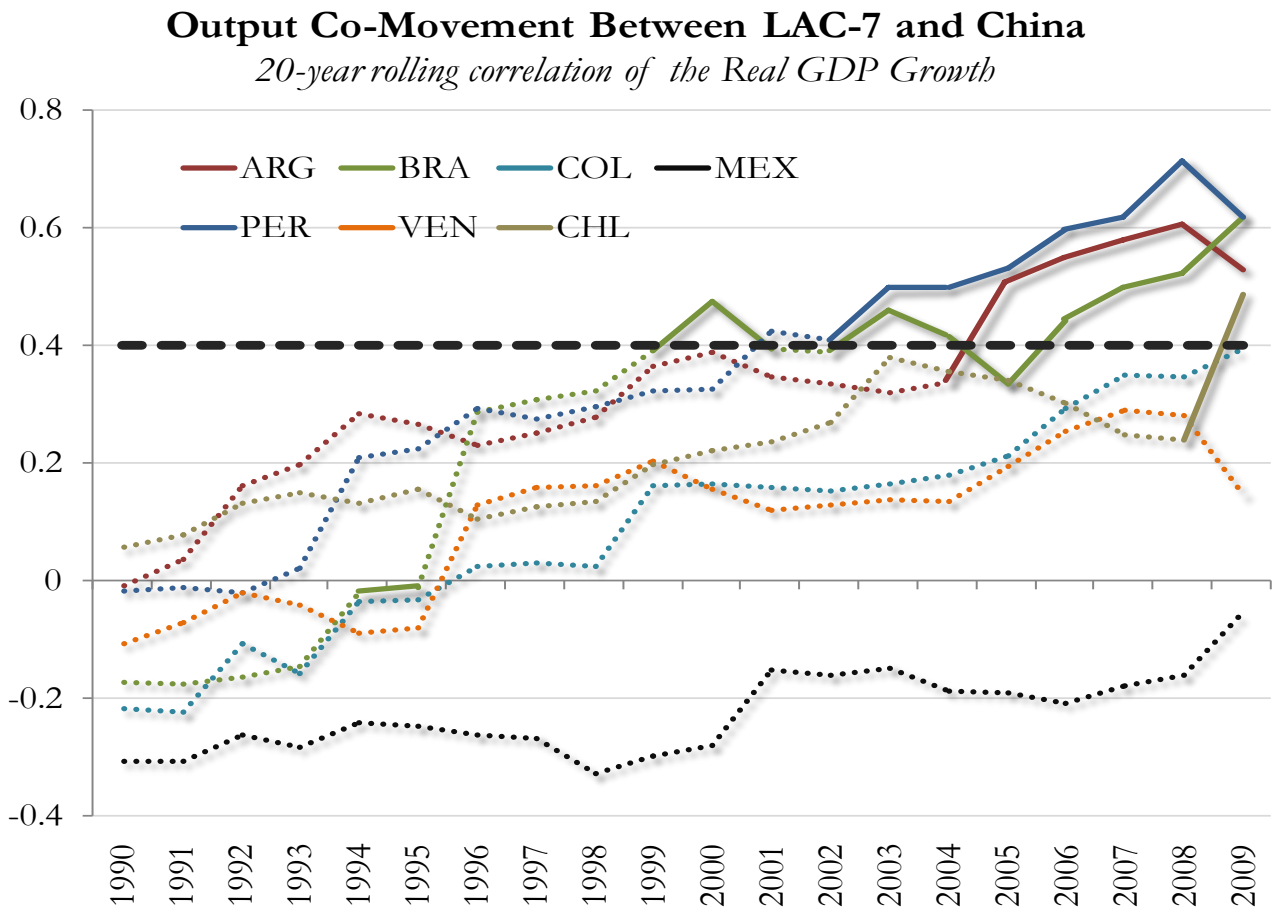
The China Connection is gathering momentum



Source: World Bank

Channels of growth spillovers

- Very important so far have been (perhaps of a relatively short-lived nature):
  - China's demand for LAC's exports
  - Indirectly, China's role in driving commodity prices up
- Trade and other economic linkages matter for sustainable (longer-term) growth to the extent that they translate into:
  - Factor accumulation (physical and human capital)
  - Productivity growth

Channels of growth spillovers

- Technological diffusion and learning spillovers become key determinants of productivity improvements
  - *Directly:* Technology embodied in physical and human capital
  - *Indirectly:* Knowledge dissemination through
    - Trade flows:
      - Tech-content of imports
      - Feedback from importing nations
      - Clustering effects
    - Capital flows
      - Differences in growth effects in favor on FDI as opposed to non-FDI inflows
    - Migration flows
      - Diffusion of tacit technological knowledge

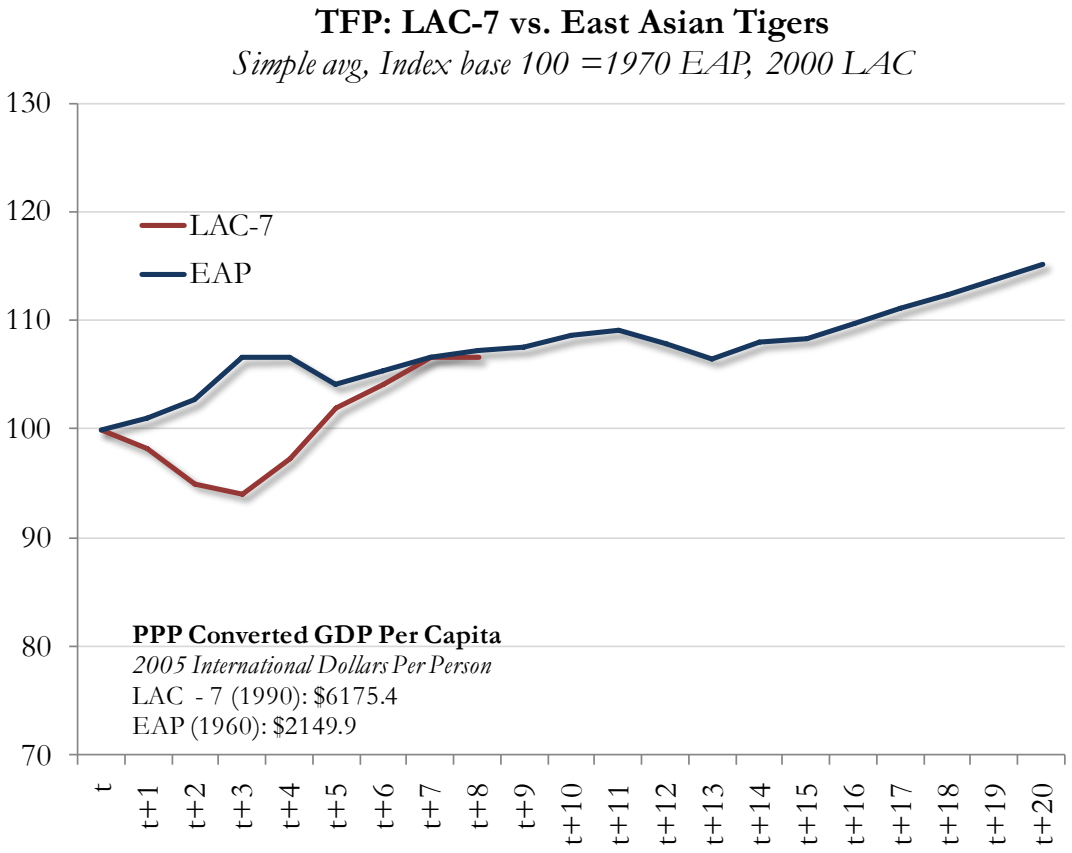
- Can LAC leverage the China connection further?

An exploration of the nature of growth dynamics

We focus on :

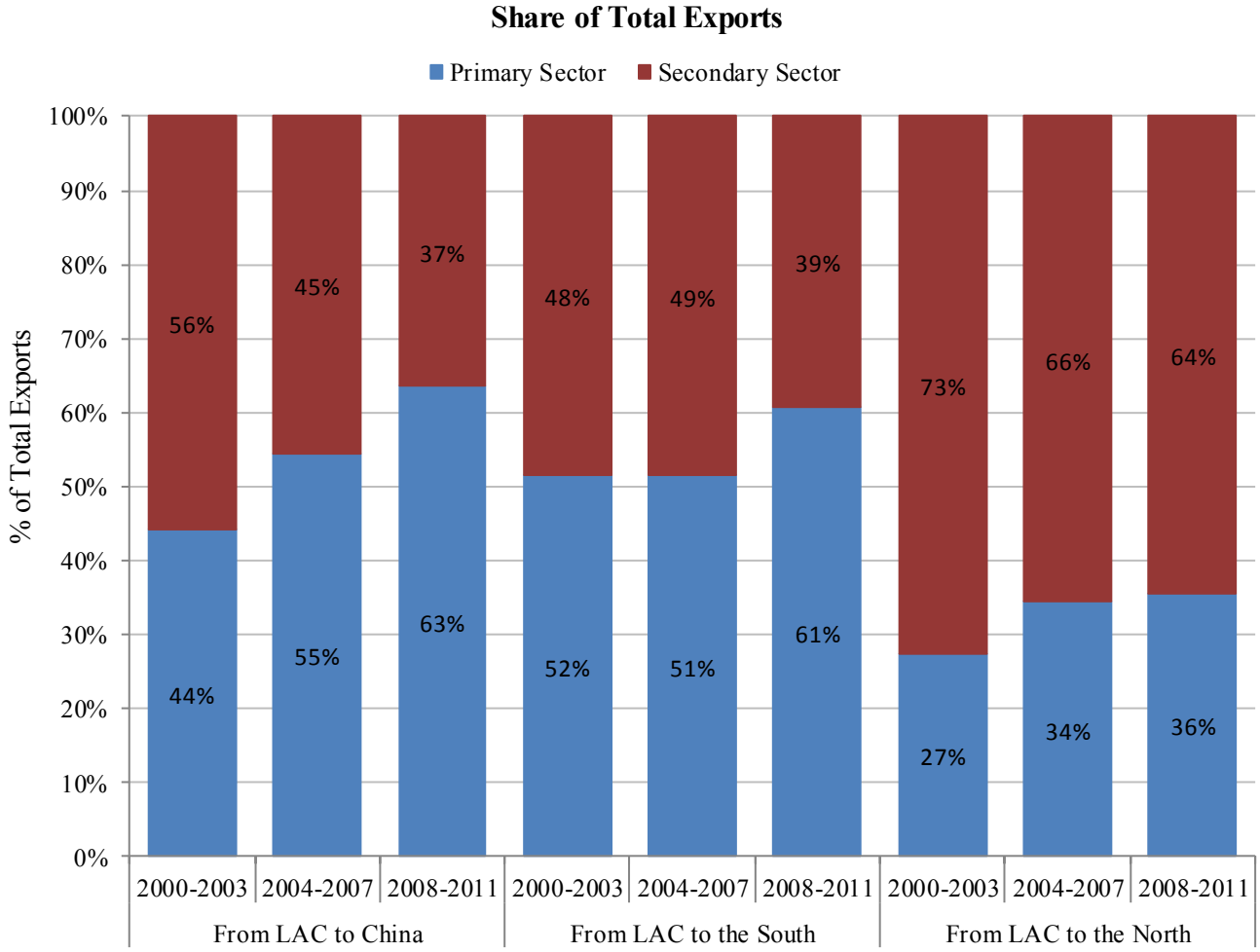
The connection to growth poles and the potential for/existence of spillover effects

And the role that factor accumulation and domestic policies can play at fostering spillover effects from this connection



Notes: LAC-7 includes Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela. EAP includes Hong Kong, Indonesia, Korea Rep., Singapore, Taiwan, and Thailand. Sources: LCRCE Staff calculations based on Penn World Tables.

Growth poles and technology diffusion: Composition of exports



Notes: Didier (2013)

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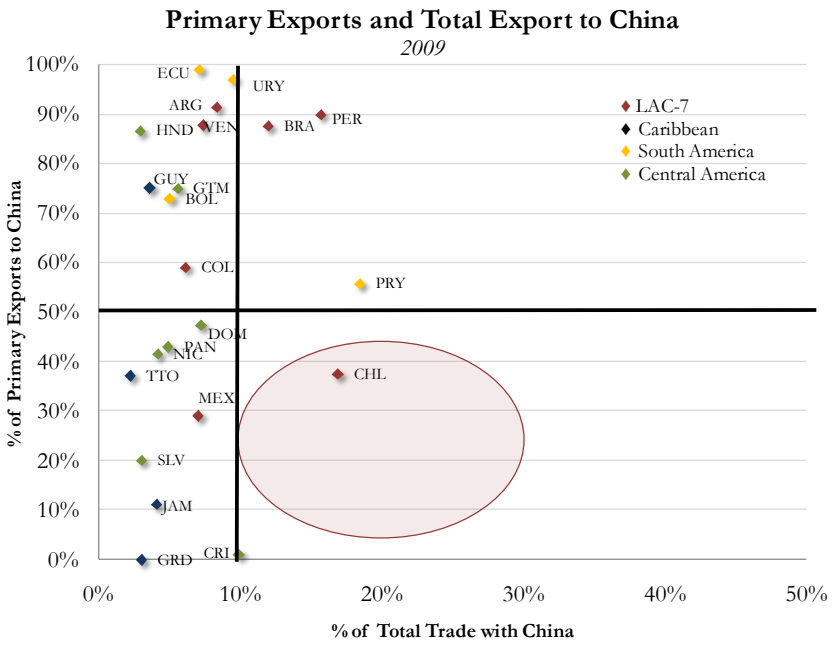
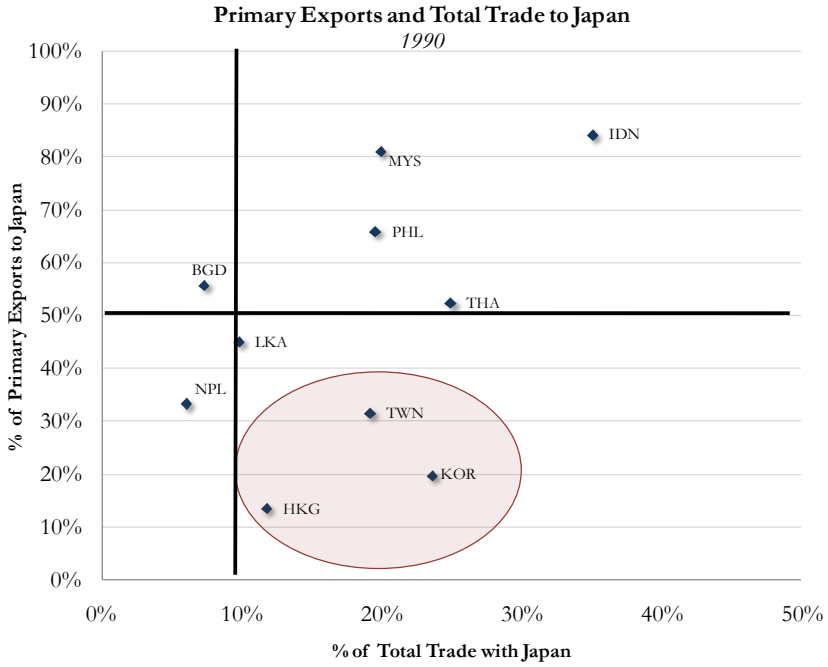
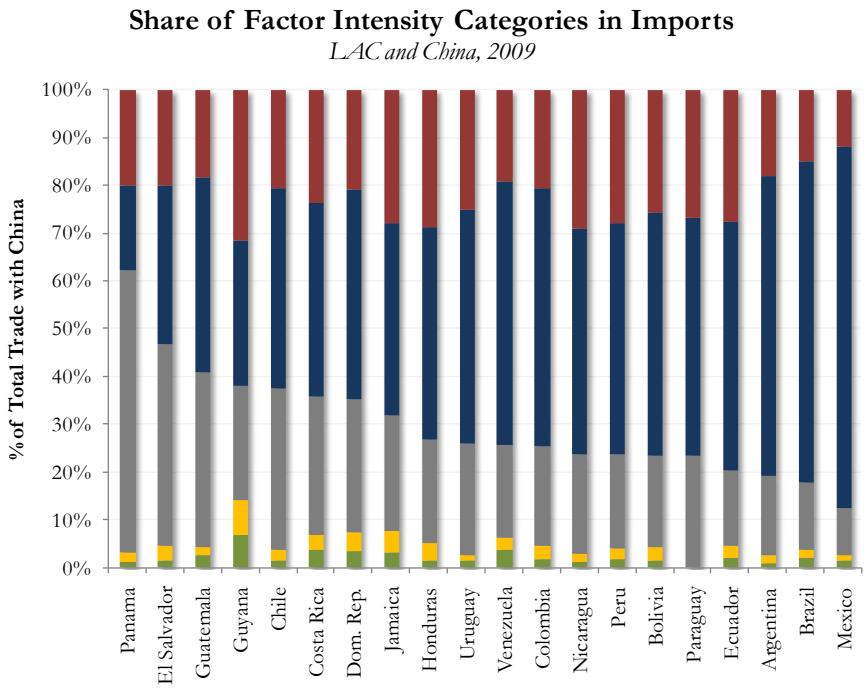
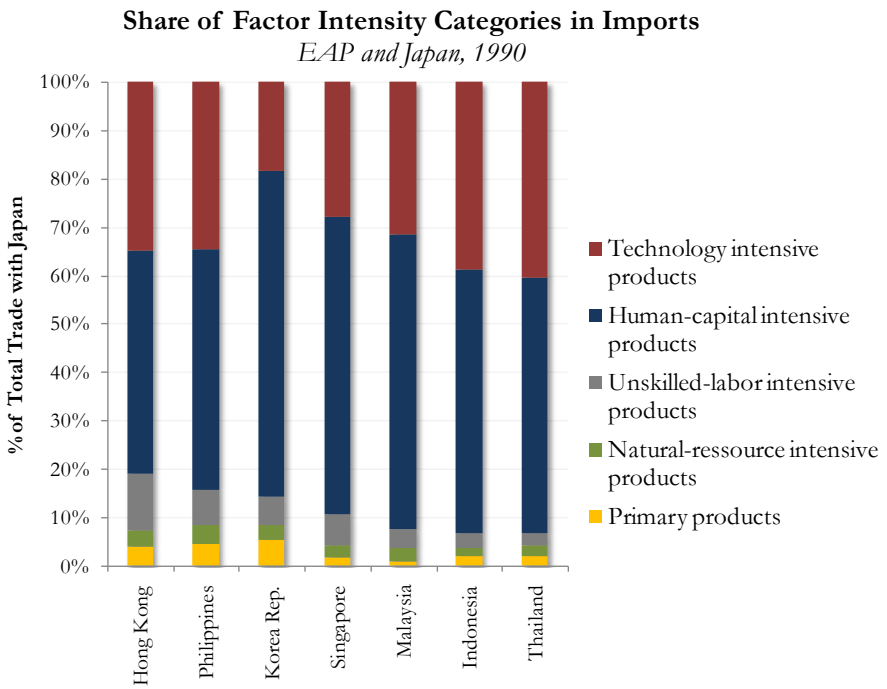




Source: WITS.

Growth poles and technology diffusion: Composition of imports

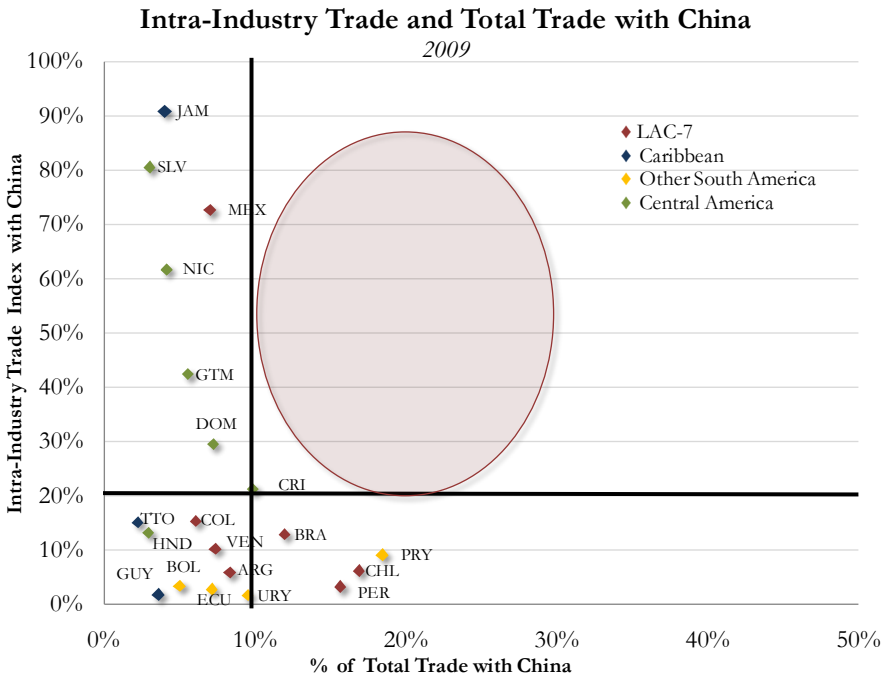


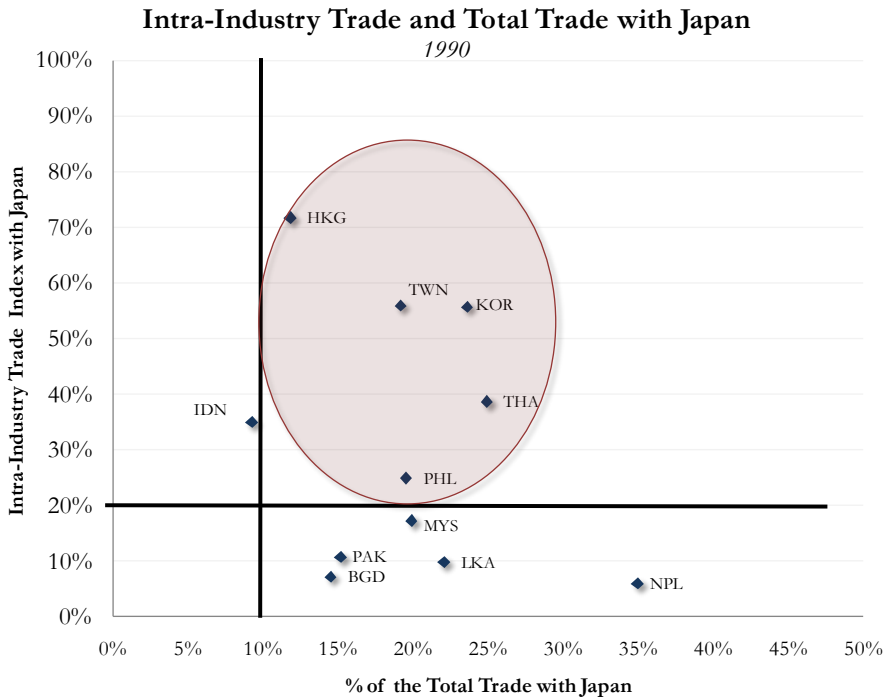


Notes: Only countries with more than 5% of total trade with China are reported. The factor intensity classification of product of Hinloopen and Van Marrewijk is used. Source: WITS.

Growth poles and technology diffusion: The degree of intra-industry trade with growth poles

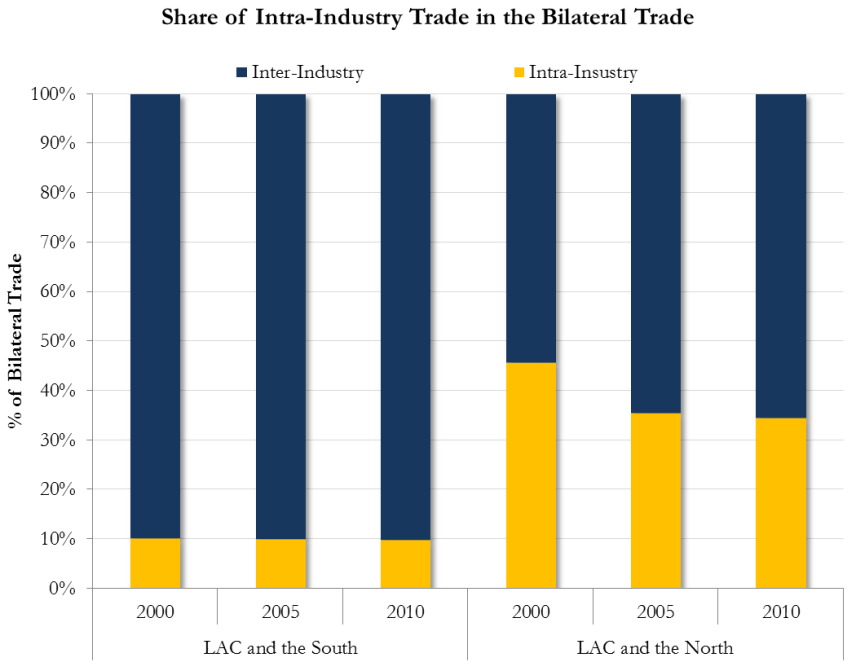
There is little evidence of technology diffusion through trade in the LAC-China connection, which relies extensively on comparative advantage forces…

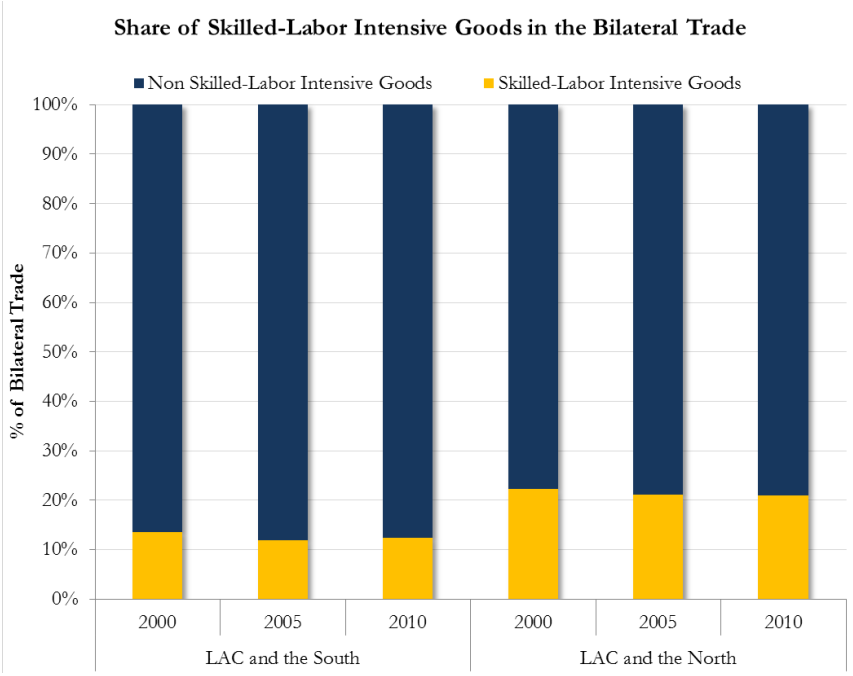




Source: WITS.

Growth poles and technology diffusion: LAC-South vs. LAC-North

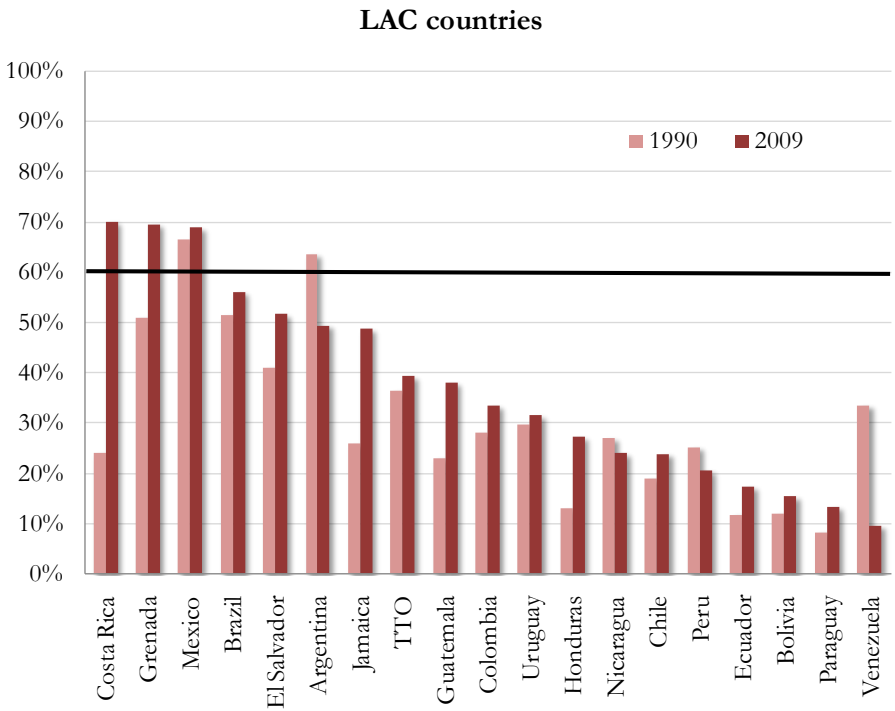


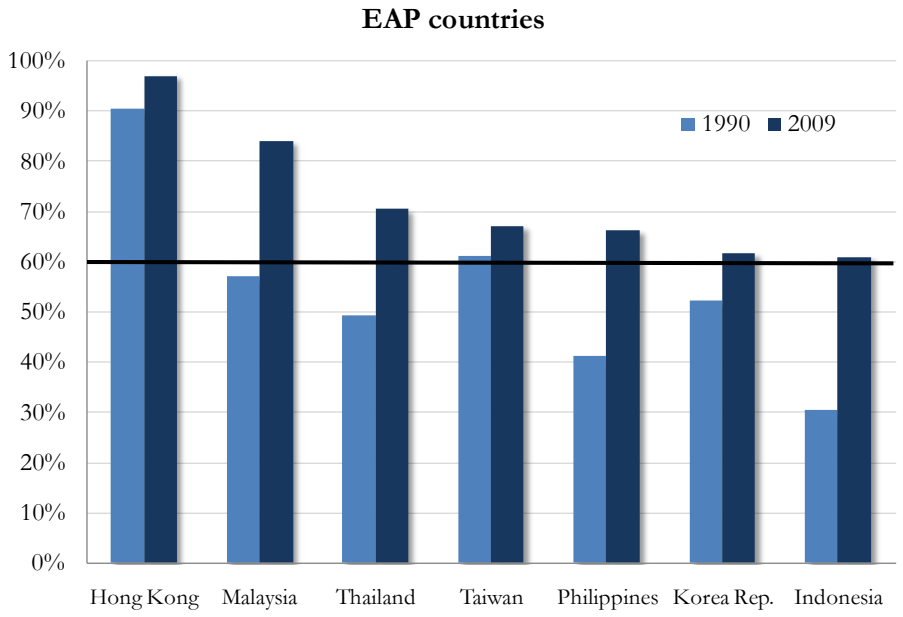


Notes: EAP includes when the data is available: Cambodia, China, Fiji, Hong Kong, Indonesia, Japan, Kiribati, South Korea, Lao, Malaysia, Mongolia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. Source: Didier and Pinat (2013) based on Comtrade.

The overall degree of Intra-Industry Trade

… the low IIT characterizes trade dynamics of many LAC countries



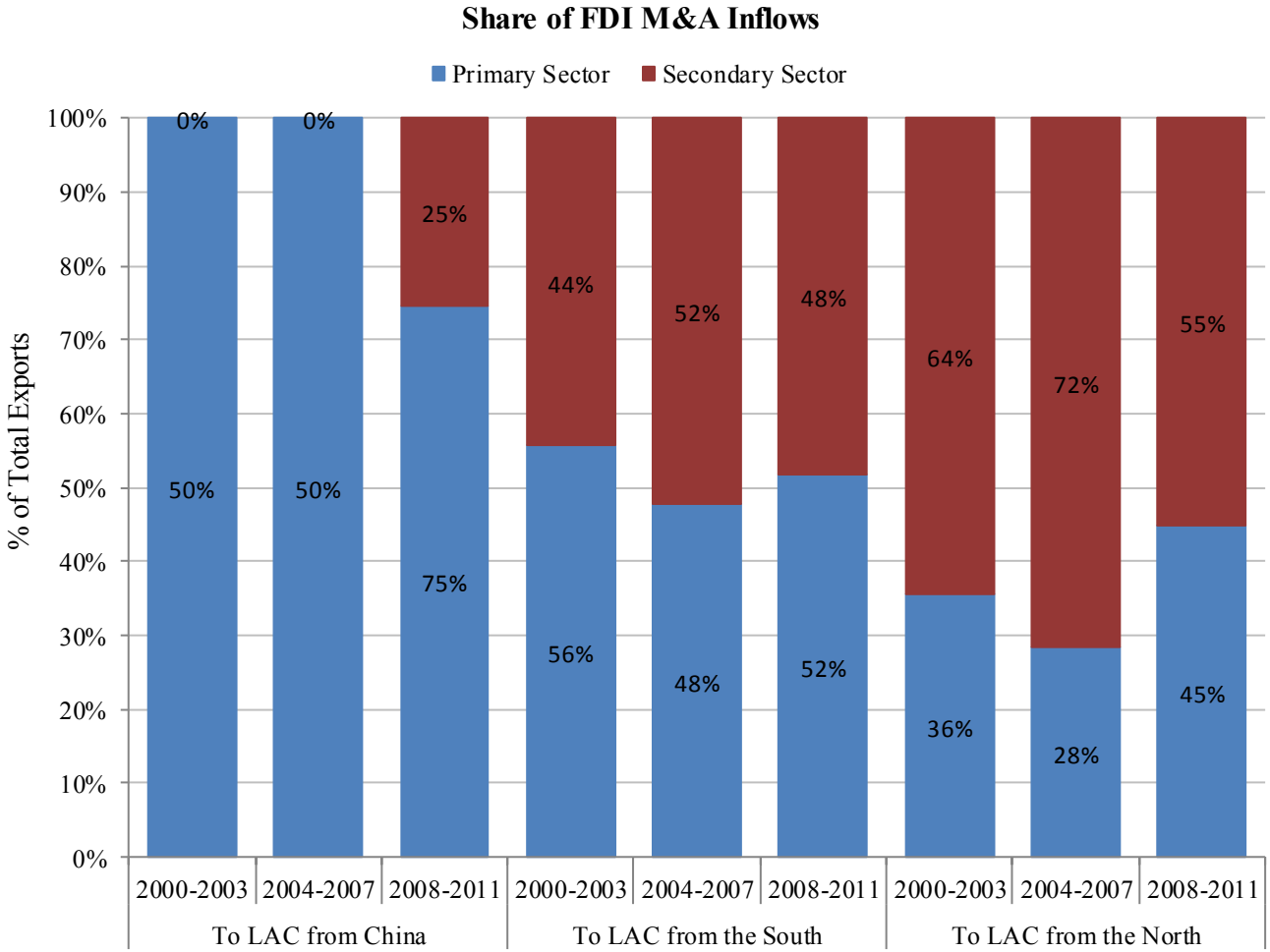


Sources: WITS

Growth poles and technology diffusion: The FDI channel playing an even more limited role…

- The Japan-Tigers connection
  - Large FDI flows driven by pull and push factors
  - Flows over time shifted to labor-intensive to capital- and technology-intensive industries
  - FDI flows reinforced trade connections with value chains
  - Growing connections among Tigers

FDI Inflows from China: Concentrated on resource-intensive sectors



Notes: Didier (2013)

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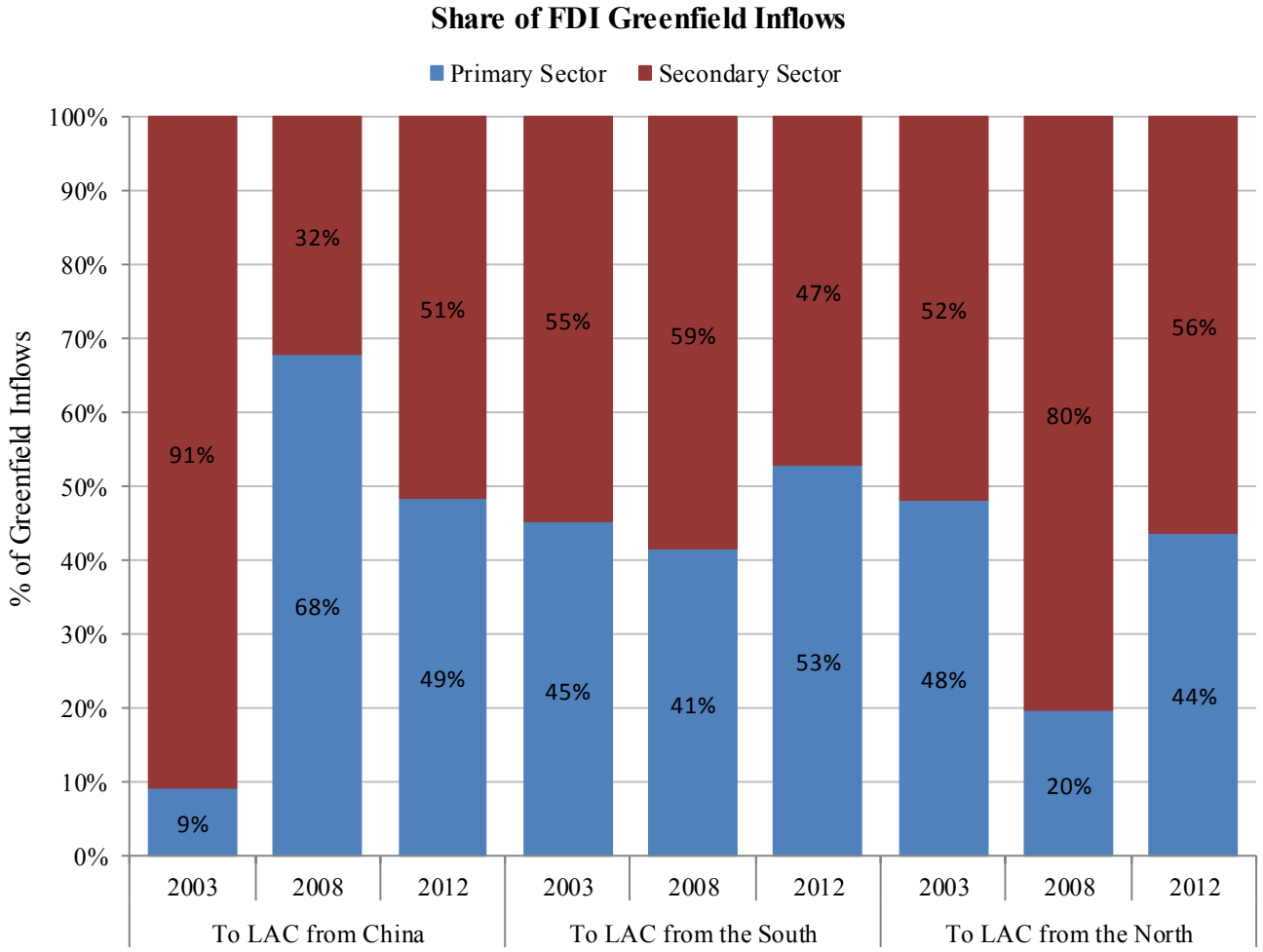
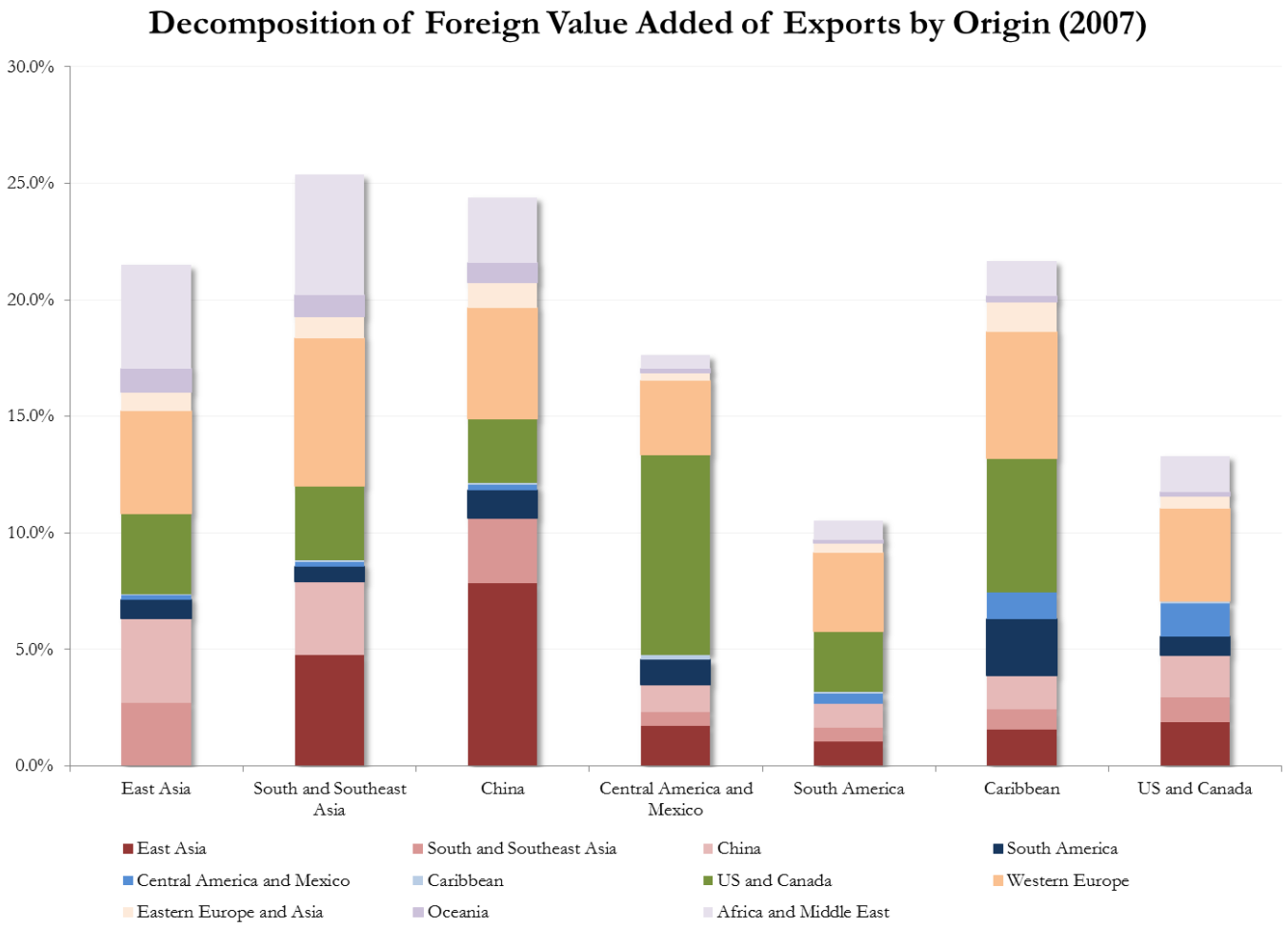


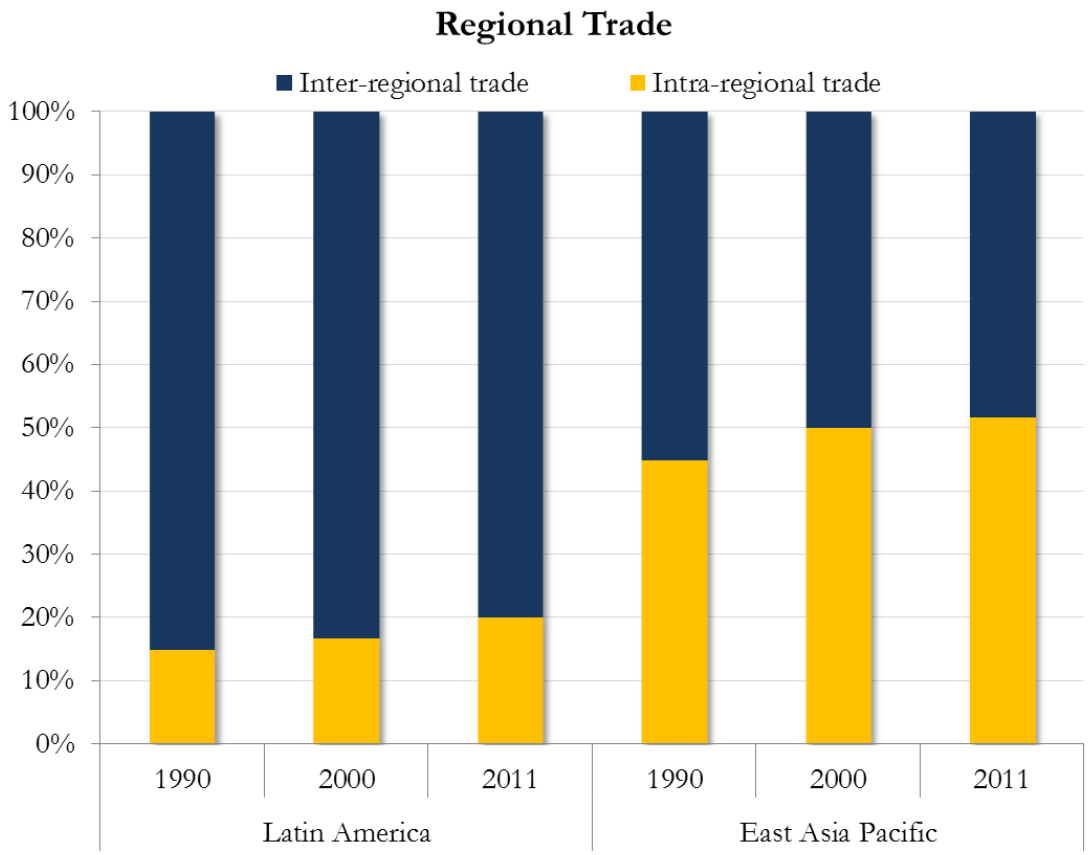
Notes: Didier (2013)

Few signs of insertion into Global Value Chains



Notes: Didier and Gottlieb (2013)

And Few signs that the LAC region is developing GVCs



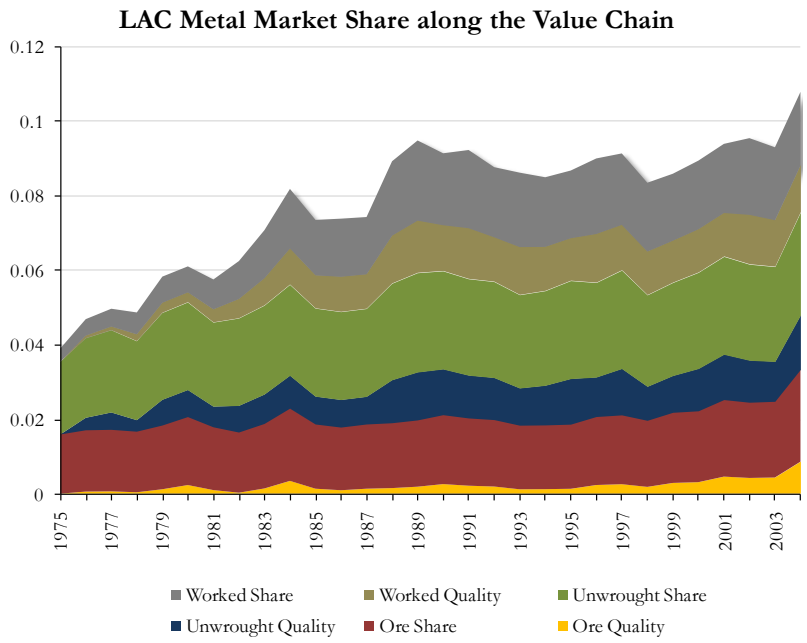
Notes: EAP includes when the data is available: Cambodia, China, Fiji, Hong Kong, Indonesia, Japan, Kiribati, South Korea, Lao, Malaysia, Mongolia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. Source: 2014 LCRCE's Flagship based on DOTS.

Growth poles and technology diffusion
The FDI channel playing an even more limited role…

- Overall, little evidence that China is fostering productivity growth in the LAC region as Japan did for the East Asian Tigers
- Some have argued that this is due to an excessive commodity-dependence ("curse")…
- Will LAC waste the China connection?
  - Precedent is not good: LAC did not lever the connection to the U.S.

But there are some hopeful signs in LAC

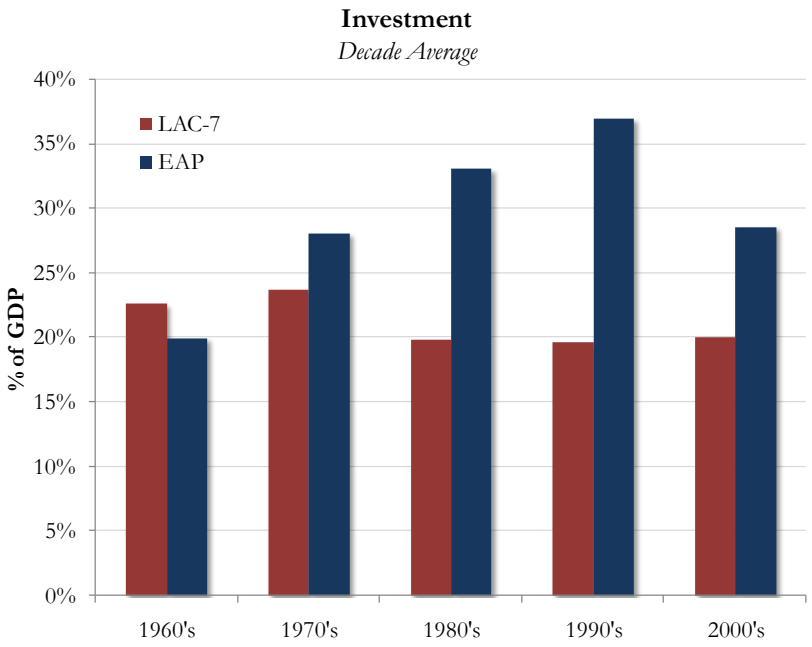
- Commodity production per se is not "inferior" to others…
  - Biotechnological revolution and connectivity in Argentina and Brazil
  - Climbing the quality ladder in metal production
  - Clusters of activity (employment, SMEs) around copper production and salmon farming in Chile
- Improved institutions and policy frameworks enhance the chances of avoiding the natural resource curse and rather raise the hopes of realizing the blessing.



Source: Mandel (2009).

Overall, trade and financial connections are unlikely to spur growth if not accompanied by

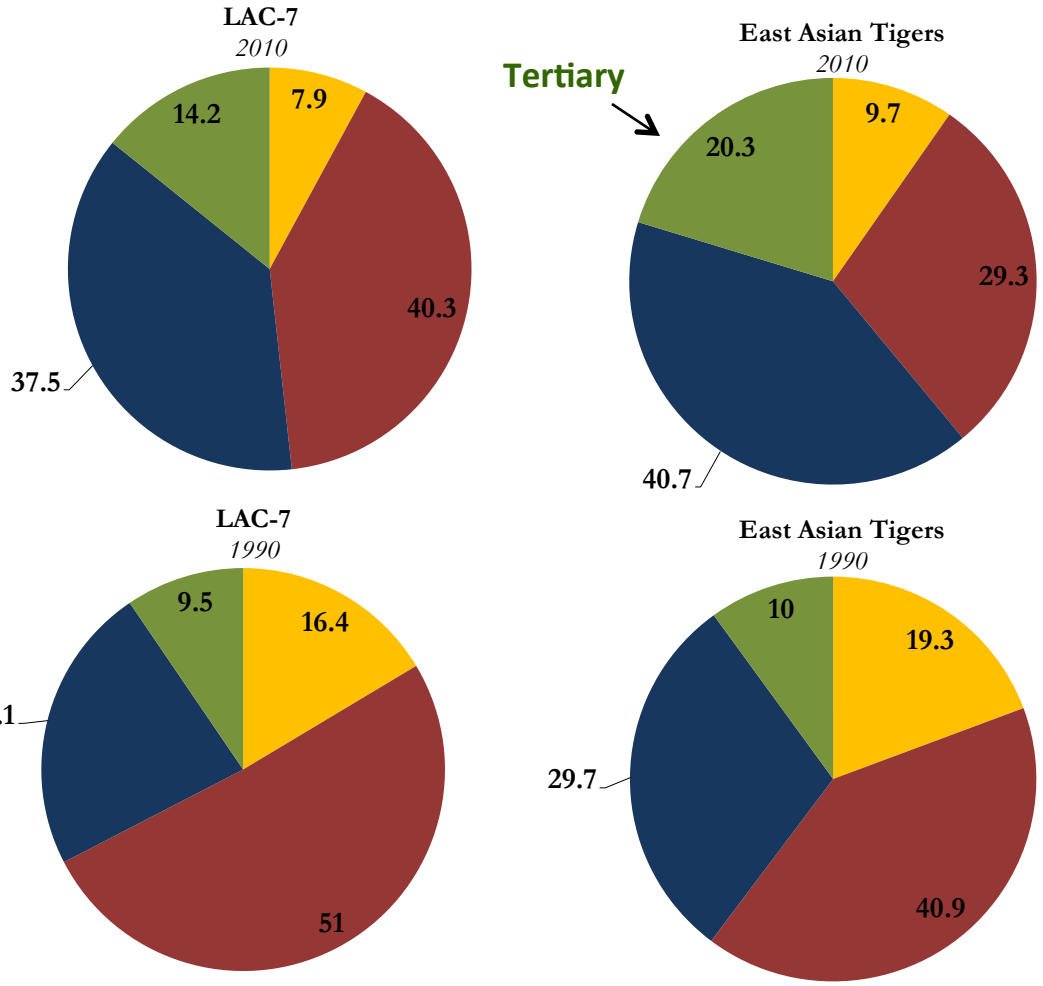
- Investment
- Human capital formation
- Innovation capacity
- Appropriate institutional and policy environment



Notes: In Panel A, EAP includes Hong Kong, Indonesia, Korea Rep., Malaysia, Singapore, and Thailand. In Panel B, EAP includes Hong Kong, Indonesia, Korea Rep., Malaysia, Singapore, Taiwan, and Thailand. Both in Panel A and B, LAC-7 includes Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela. Sources: WDI, Penn World Tables, and The International Energy Agency (IEA).

Human capital plays an important role in explaining the (low) degree of positive spillovers

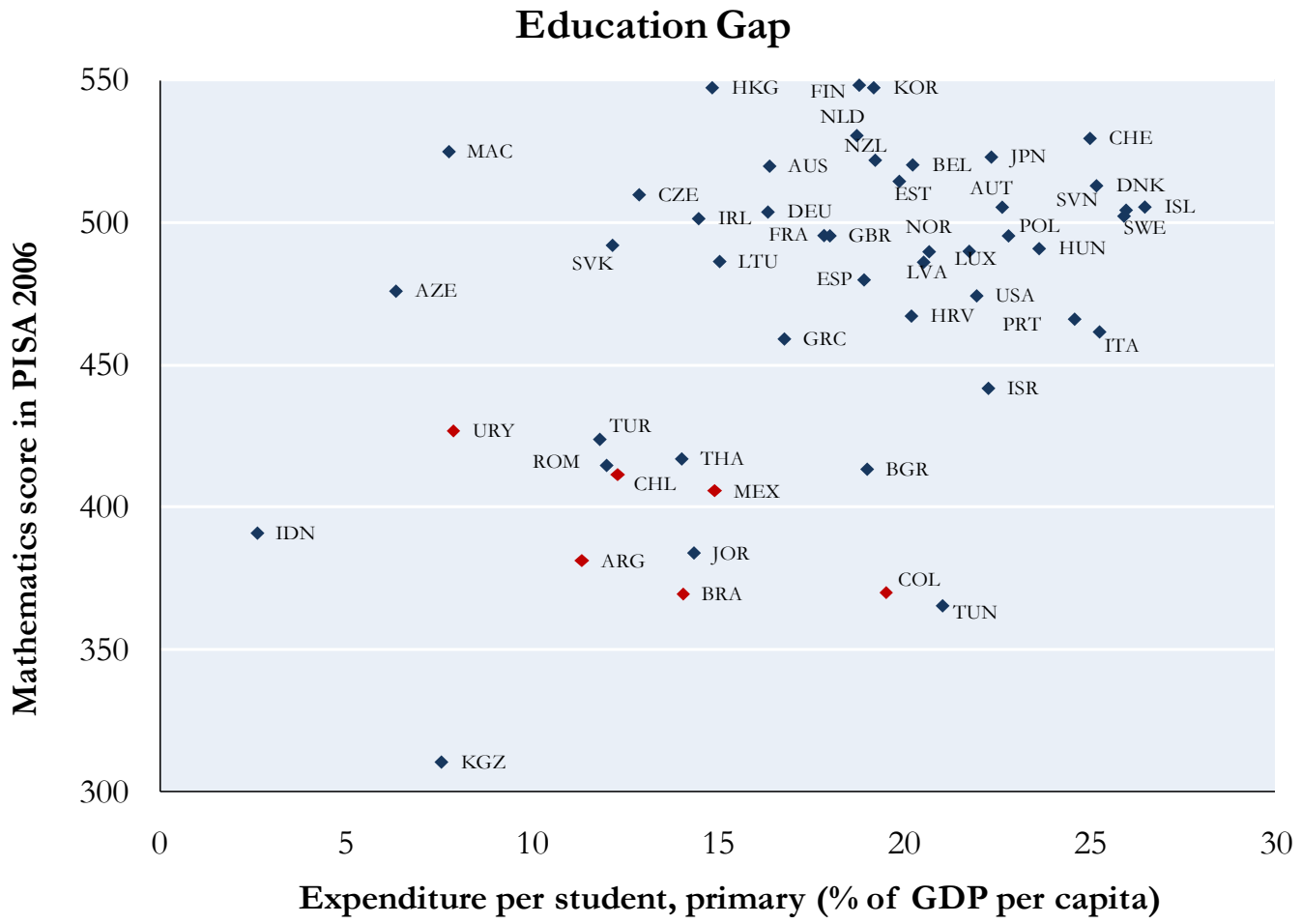
- The existence of skilled labor with high educational and technical capabilities (e.g. well-trained engineers and skilled managers) is key for knowledge spillovers
- Positive growth effects from FDI require a minimum threshold of human capital in the host country



Source: Barro and Lee (2010).

Quality of Education

Investment per student in LAC yields less learning



Sources: OECD, UNESCO, and World Bank.

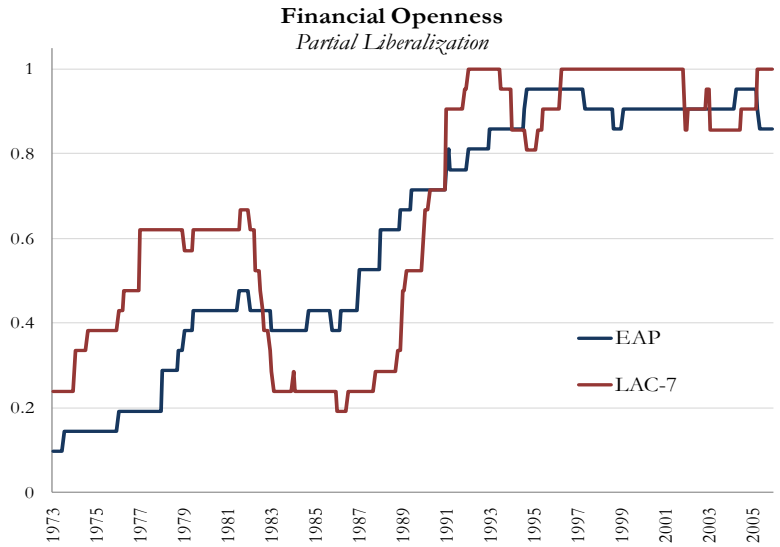
Domestic policies can also play an important role in fostering spillover effects….

- East Asian Tigers put in place a wide set of policies to actively seek for foreign technology
  - Fostering imports of capital goods
  - Incentives to foreign training
  - Incentives to FDI inflows

- In addition, East Asian Tigers followed an exchange rate policy geared at fostering export competitiveness
  - Feasible with relatively closed capital accounts (*impossible trinity* concerns) and a high saving rate

Domestic policies can also play an important role in fostering spillover effects….

- The asymmetries in the degree of trade and financial openness give rise to additional constrains for policies LAC
- The region needs to make a larger productivity-enhancing policy effort to compensate for structural impediments (low domestic savings and high degree of financial globalization) to a competitive exchange rate



Notes: In Panel A, EAP countries are Hong Kong, Indonesia, Korea Rep., Malaysia, Philippines, Taiwan, and Thailand. Sources: Kaminsky and Schmukler (2002) and Lane and Milesi-Ferretti (2007).

Main Messages

- Ultimate test of the benefits of globalization is convergence
- Comparing the LAC-China and Tigers-Japan connections leads to a mixed evaluation
- So far, little evidence that China has not been a conduit for technological diffusion and knowledge spillovers
  - There is no meaningful intra-industry trade between LAC and China
  - Exports are concentrated in natural resources
  - Imports from China are concentrated on unskilled-labor intensive goods

Main messages and results

- There are some bright spots in several LAC countries/sectors
  - Mode of production of commodities is escaping the enclave and plantation syndromes
- LAC needs a larger productivity-oriented effort to compensate for structural impediments to competitive exchange rate
  - The Tigers followed a different model: high domestic savings and limited integration into non-FDI international markets
- Could the region turn natural resource abundance and the China Connection into a blessing?
  - Diversification – avoiding the "enclave" and "plantation" syndromes
  - Institutions – avoiding corrosive effects of rent-seeking

Thank you