

Competition and Economic Growth

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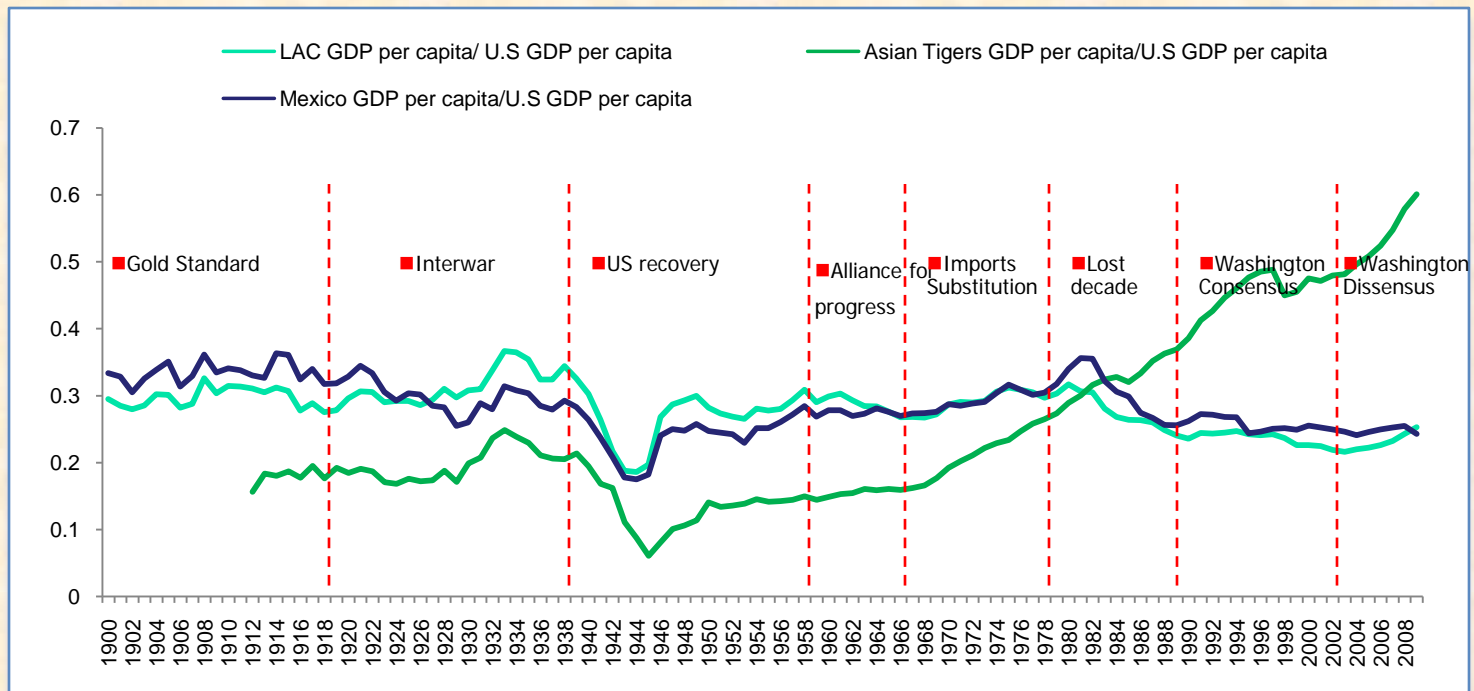
Structure of presentation

- + Growth in LAC: the record
- + The formal approach to growth
- + The policy approach to growth

1. Growth in LAC: The Record

An elusive road to convergence...

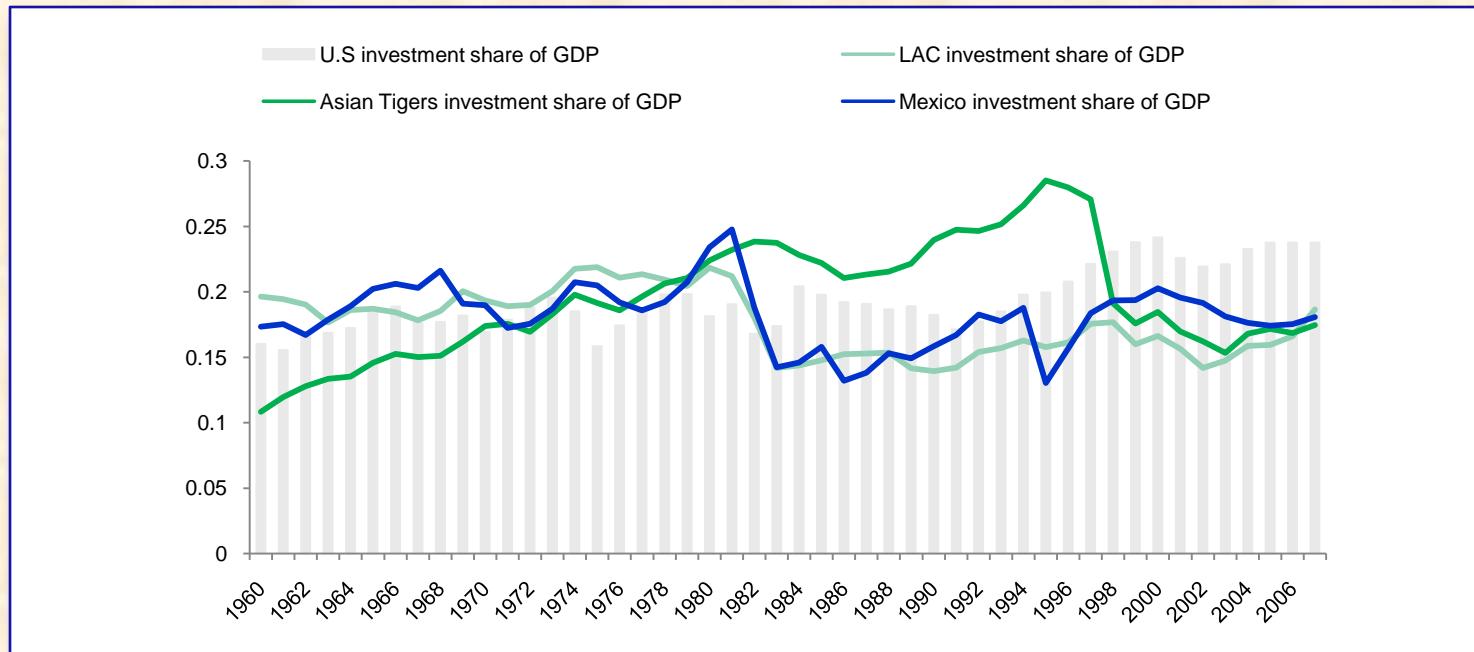
GDP per capita



Source: Historical Statistics of the World Economy. 2009. A. Maddison.

Note: The aggregated GDP per capita is a simple average of the countries in the region. GDP per capita for the United States and Latin America are in levels. 8 LAC: Argentina, Brazil, Chile, Colombia, Mexico, Peru, Uruguay and Venezuela; Asian Tigers: Hong Kong (China), Indonesia, Malaysia, Singapore, South Korea, Taiwan (China), Thailand. Before 1950, the Asian Tigers sample varies. From 1950 on, Asian Tigers comprise all the seven countries.

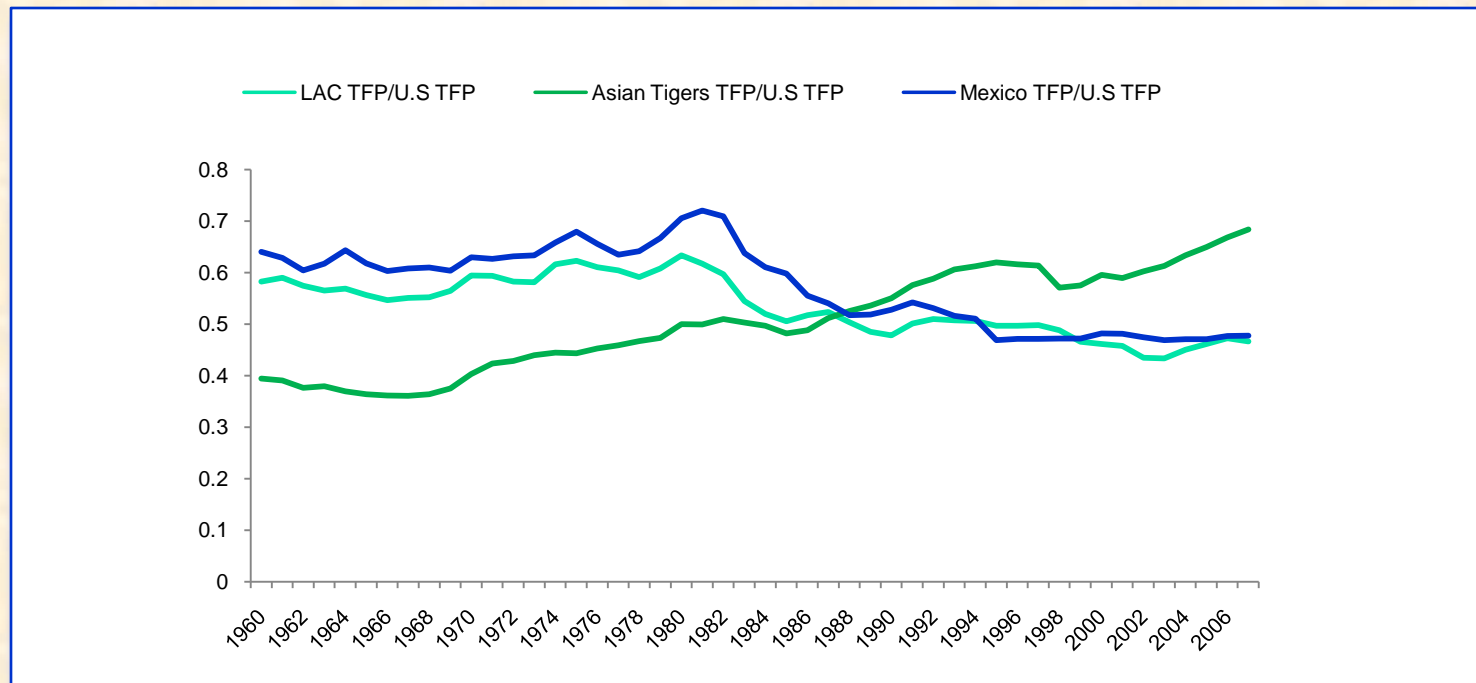
Accumulation



Source: The World Bank.

Note: The aggregated investment share of GDP is the ratio between total investment of the region and total output of the region. 8 LAC countries: Argentina, Brazil, Chile, Colombia, Mexico, Peru, Uruguay and Venezuela; 6 Asian Tigers countries: Hong Kong (China), Indonesia, Malaysia, Singapore, Taiwan (China), Thailand.

Productivity



Source: The World Bank.

Note: TFP is a simple average of the countries in the region. 8 LAC countries: Argentina, Brazil, Chile, Colombia, Mexico, Peru, Uruguay and Venezuela; 6 Asian Tigers countries: Hong Kong (China), Indonesia, Malaysia, Singapore, Taiwan (China), Thailand.

2. The Formal Approach to Growth

Where is competition?...

Accumulation

- ✦ Initially, growth theory focused on the accumulation of physical and human capital
- ✦ Links between factor accumulation and economic incentives were not explicitly developed
 - ✧ Competition was hidden in this framework
- ✦ Technological change was treated as an exogenous process, independent of economic incentives

Accumulation

- ✚ Two key theoretical features of accumulation-driven growth
 - ✦ Growth of income per capita converges to the rate of technological change
 - ✦ In the transition to the steady state, the growth rate of income per capita is lower the higher the capital-labor ratio

- ✚ Empirically, accumulation not the dominant force behind growth
 - ✦ It explains at best 50% of the differences in countries' per capita income levels and long-run growth rates
 - ✦ Productivity (the “Solow residual”) dominates over accumulation

Productivity

- ✦ Focus shifts towards the “Solow residual” (1957), where the mystery of growth seems to reside
- ✦ Understanding the residual and making it endogenous – let the quest begin!
 - ✦ Innovation (Schumpeter)
 - ✦ Trade and market integration (A. Smith and Ricardo)
 - ✦ Institutions (Douglas North)
- ✦ What is the role of competition?

Innovation

- ✦ “...the major source of economic growth in developed countries has been science-based technology...” (Simon Kuznets, 1966)
- ✦ Technological change affects productivity growth
 - ✦ Advances in methods of production
 - ✦ Discoveries of new, and improvements of existing, intermediate inputs
 - ✦ Qualitative gains in business organization, processes, marketing techniques
- ✦ Scale effects, knowledge spillovers, network and other externalities are central to the technological innovation magic
 - ✦ Can help explain rising LT growth rates

Innovation and competition

- ✚ Competition and innovation – not always a happy marriage
 - ✦ Competition is the “stick” but “carrots” are also needed
- ✚ Innovation found to be an inverted-U function of competition – depending on closeness to the innovation frontier
 - ✦ Markups (Aghion et al. 2005)
 - In neck-and-neck industries the escape-competition effect induces innovation
 - In unleveled industries the Schumpeterian effect reduces innovation (laggard industries too far from the frontier)
 - ✦ Entry (Aghion et al, 2009)
 - Incumbents in technologically advanced industries react positively to firm entry by innovating more, but not in laggard industries

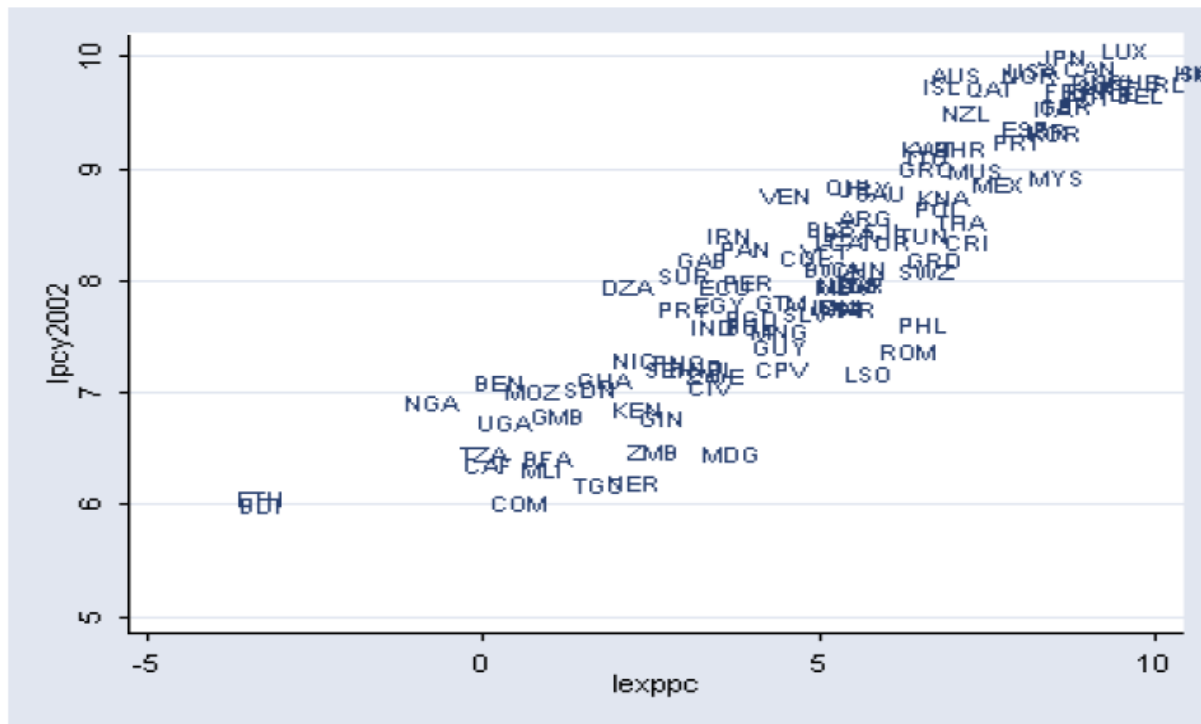
Market integration and trade

- ✦ Behind the magic of productivity is the magic of markets
 - ✦ Coordination through price signals of myriads of decentralized decisions
 - ✦ The invisible hand effect obtains where relative prices adequately reflect relative scarcities, relative returns, relative risks
 - ✦ Gains from division of labor and specialization
 - ✦ Clusters and Marshallian externalities
- ✦ International trade can boost the role of markets
 - ✦ Market size effects for inputs and outputs
 - ✦ Learning by doing and knowledge diffusion
- ✦ Competition plays a crucial role in this perspective
 - ✦ It oils the functioning of markets

Market integration and trade

International integration is associated with per capita income

Figure 1: Manufacturing Exports and Development



Notes: lexppc is the log of manufacturing exports per capita and lpcy2002 is the log of per capita GDP, corrected for PPP. Source: The World Bank, World Development Indicators.

Institutions

- ✦ “...Institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interactions” (Douglass North, 2009)
- ✦ Arguably, institutions are a more fundamental determinant of productivity growth – condition of possibility for
 - ✦ Sustained, vigorous innovation
 - ✦ Open, contestable, competitive markets (Rajan & Zingales, 2003)
 - ✦ Open societies (Popper)
 - ✦ Dealing with market failures (principal-agent frictions; individual-society frictions)
- ✦ Poor institutions can clearly undermine growth
- ✦ Feedback loops between institutions and competition

3. The Policy Approach to Growth

*State Dirigism, Washington Consensus, Growth Diagnostics,
Growth Agnostics...*

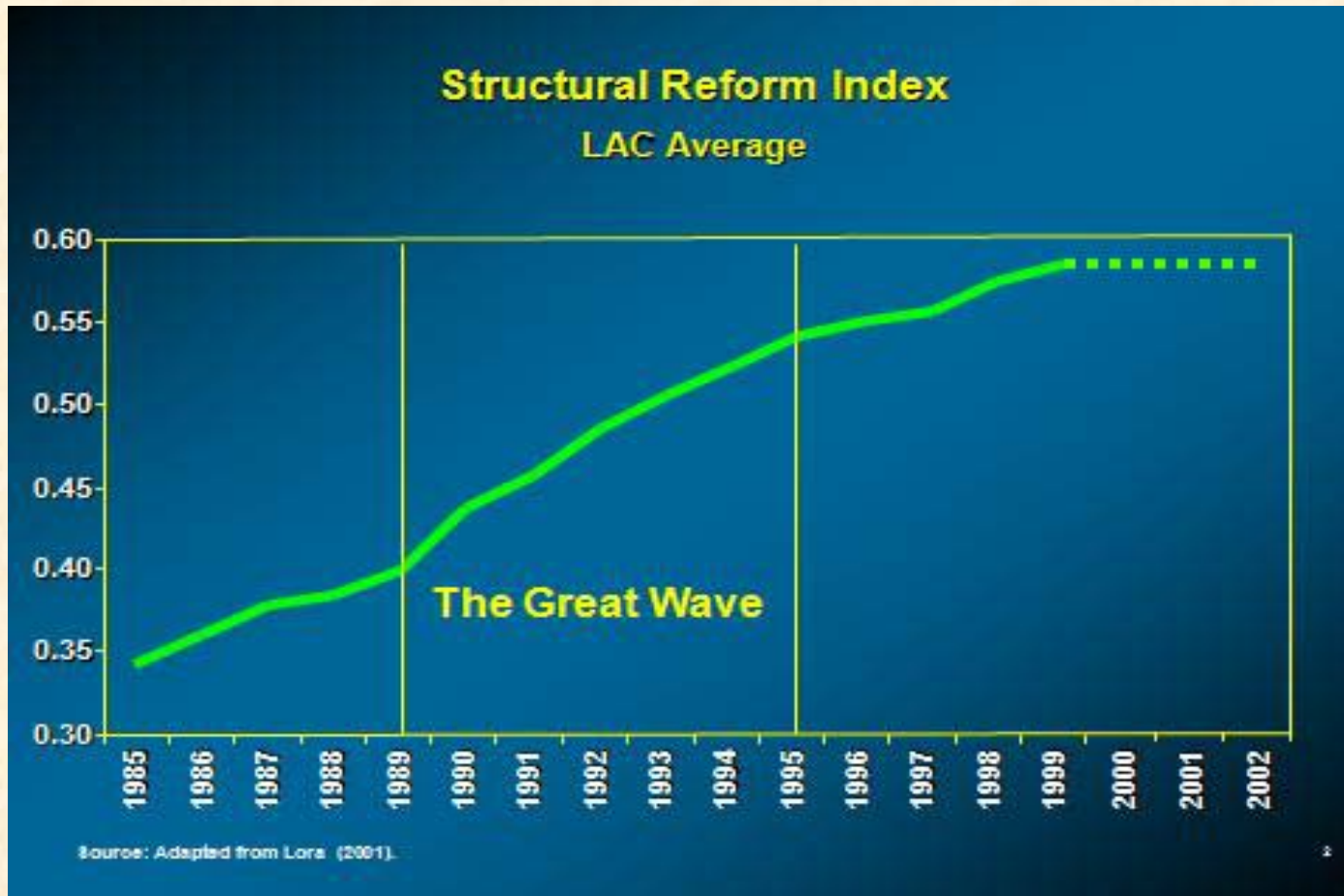
Accumulation and state *dirigism*

- ✦ Early development theorists doubted that underdeveloped markets could lead to vigorous accumulation
- ✦ Predominant role given to the state
 - ✦ At the end of accumulation – Marx’s dream
 - ✦ In the early stages of development (Rosenstein-Rodin, Gerschenkron, Rostow)
- ✦ Accumulation-oriented policies (soviet-style or ISI) paid little regard to competition
 - ✦ ...and much regard to “gaps” and “icor” in development planning

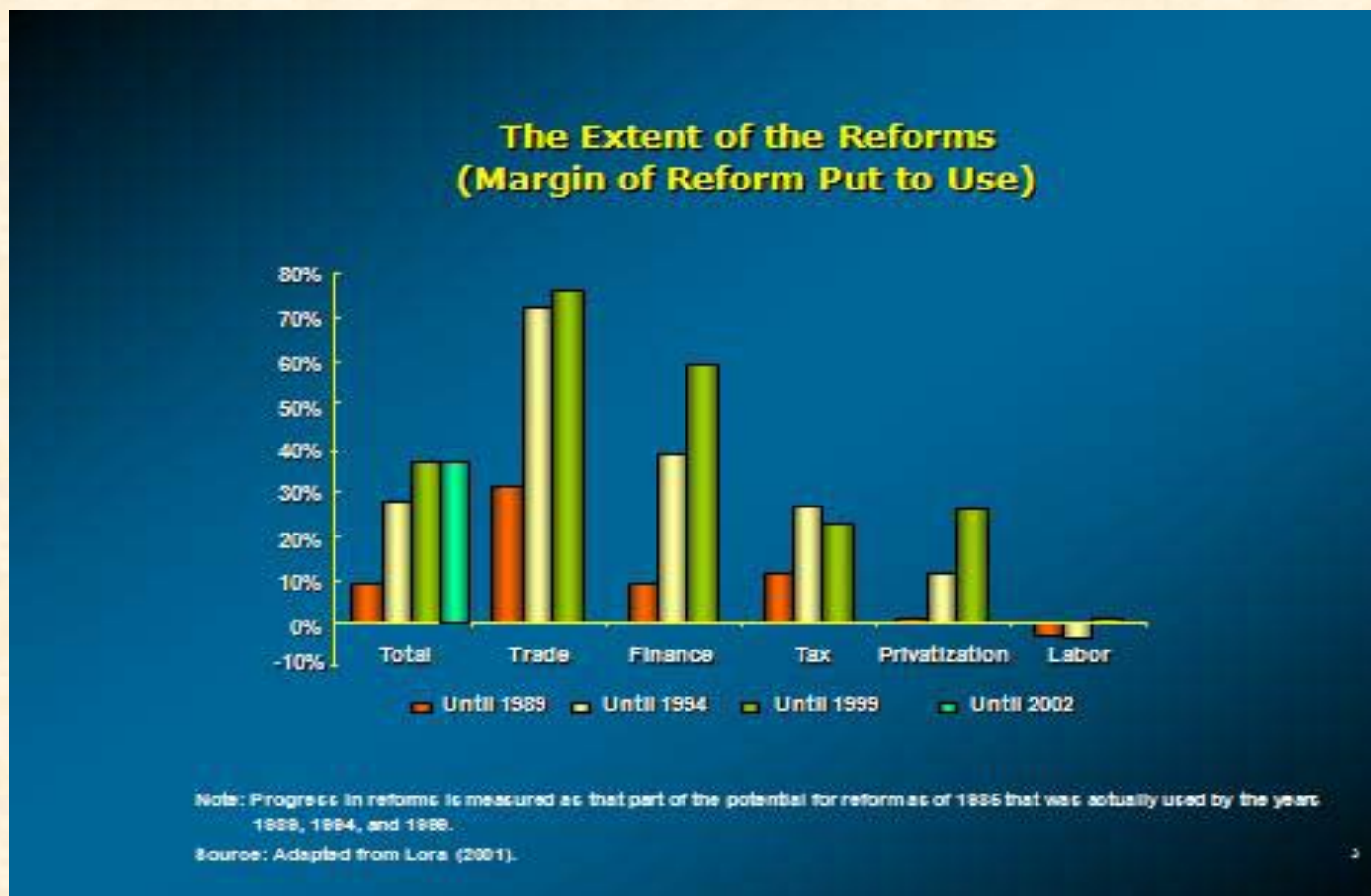
Washington Consensus

- ✦ The introduction of the WC involved...
 - ✦ A swing to market-oriented policies – favoring macroeconomic stability, liberalization, and privatization
 - ✦ An implicit assumption of a one-to-one correspondence from generic policy packages to growth outcomes
 - ✦ A major role for competition!
- ✦ ... and a faith in growth accounting
 - ✦ *“...the growth recovery experienced by most countries in the region in the past decade [1990s] was largely the result of structural and stabilization reforms that positively affected the economy’s overall productivity” (Loayza et al., 2005)*
- ✦ Extending the WC paradigm?
 - ✦ Growth policies focused on “best practices,” indices, score cards, standards and codes

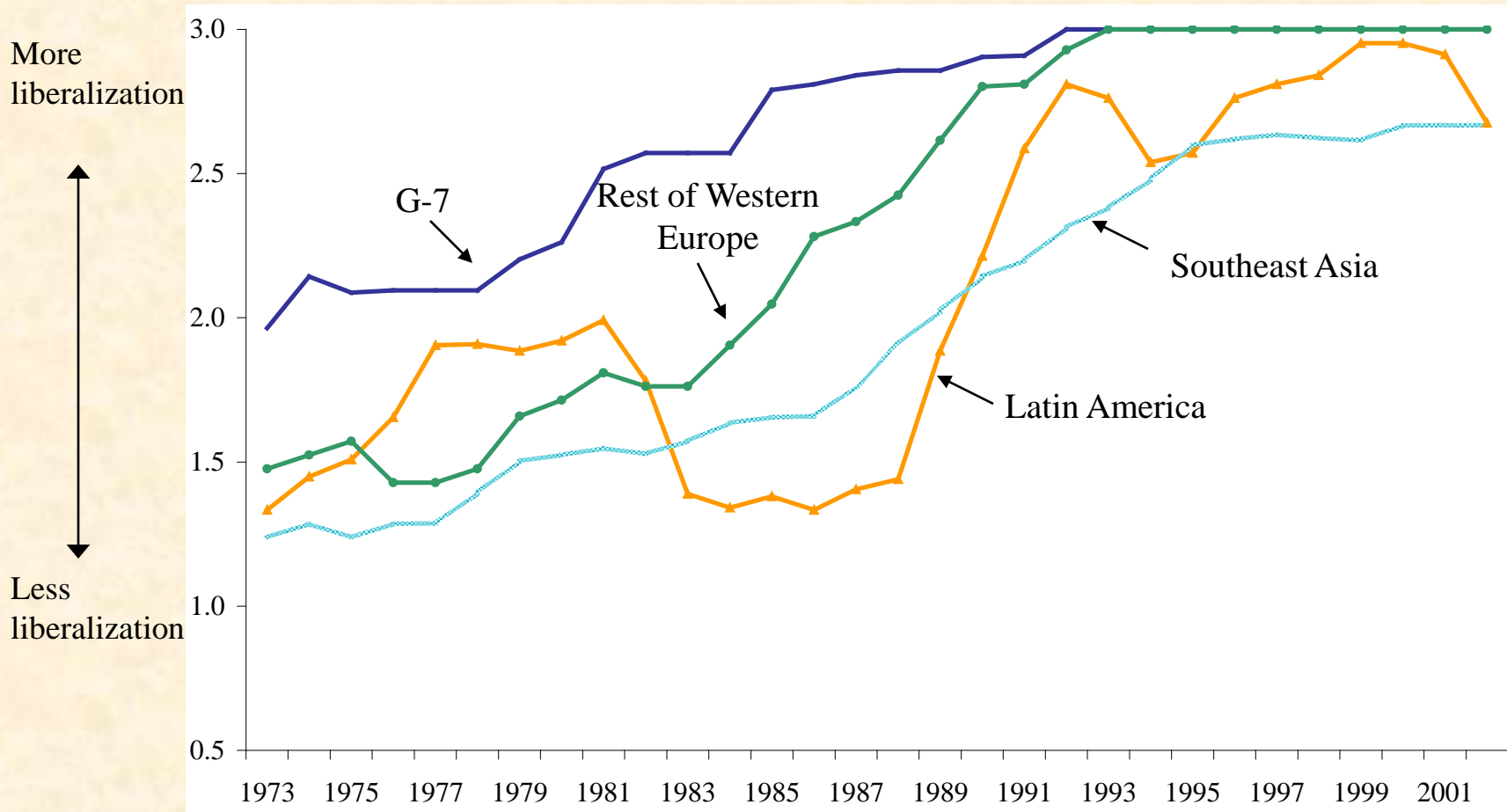
The WC reforms LAC



WC in practice – liberalization emphasis



WC in practice – financial liberalization

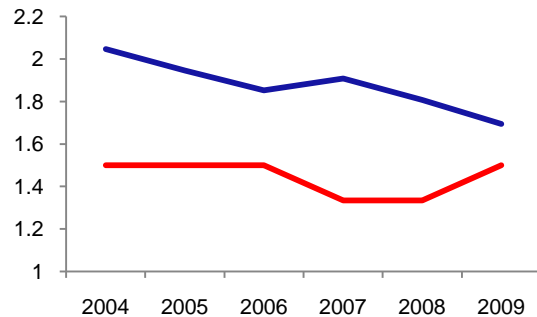


The liberalization index is calculated as the simple average of three indices (liberalization of the capital account, domestic financial sector, and stock market) that range between 1 and 3, where 1 means no liberalization and 3 means full liberalization. These data are then aggregated as the simple average between countries of each region.

Ease of Doing Business Indicators

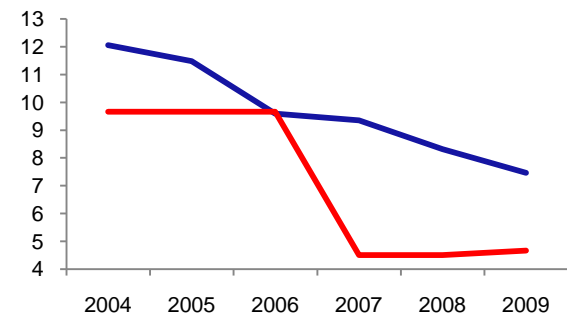
— LAC procedures to start a business/U.S procedures to start a business

— Mexico procedures to start a business/ U.S procedures to start a business



— LAC days to start a business/U.S days to start a business

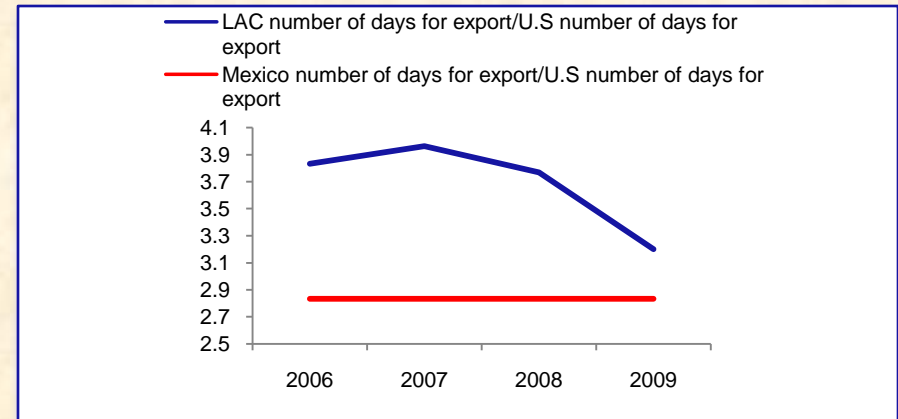
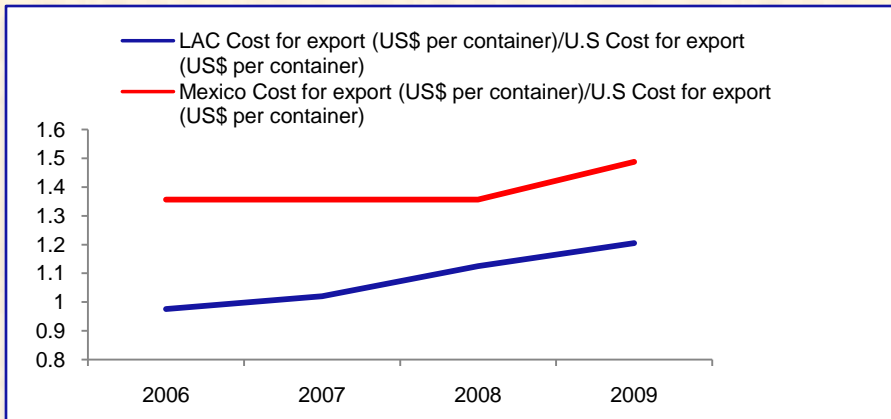
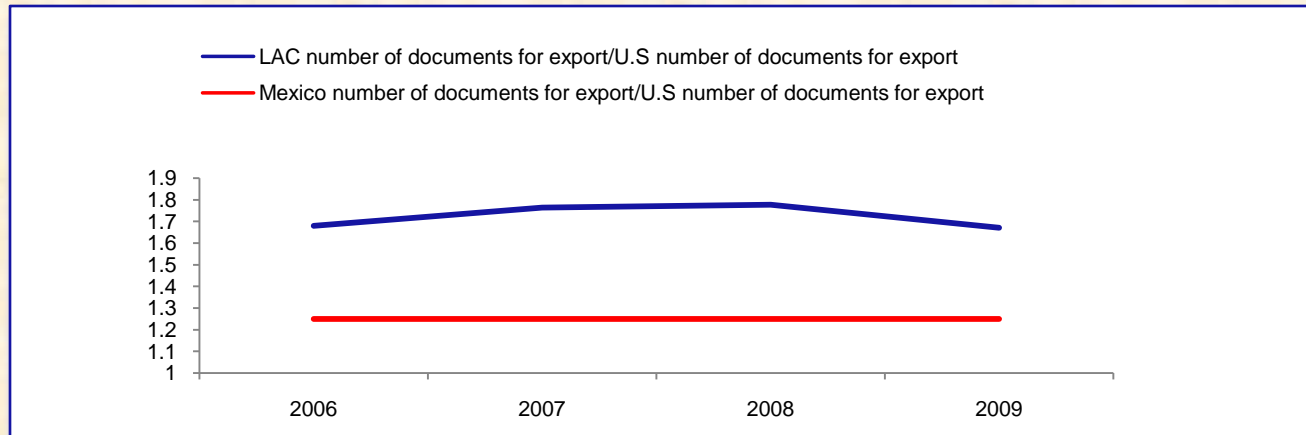
— Mexico days to start a business/U.S days to start a business



Sources: Doing Business. The World Bank.

Note: The graph in the left displays the ratio between the number of procedures needed to start a business in LAC and that of the U. S. The graph in the right displays the ratio between the number of days required to complete all legal procedures to start a business in LAC and that of the U.S. LAC measures are calculated as a simple average of the measures corresponding to each country (Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominica Rep., Ecuador, El Salvador, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela).

Doing Exporting Business Indicators



Sources: Doing Business. The World Bank.

Note: The graph at the top displays the ratio between the number of documents for export in LAC and that of the U.S. The graph at the bottom (left) displays the ratio between the cost for export (US\$ per container) in LAC and that of the U.S. The graph at the bottom (right) displays the ratio between the number of days needed to complete all the documents required for export in LAC and that of the U.S. LAC measures are calculated as a simple average of the measures corresponding to each country (Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominica Rep., Ecuador, El Salvador, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela).

Deconstructing – cracks in the paradigm

- ✚ Copious empirical research on determinants of growth leaves little guidance for specific policy and reform packages
 - ✳ Evidence that policy packages have predictable, robust, and systematic effects on national growth rates is quite weak (Rodrick, 2006)
 - There is no empirically robust predictor of growth
 - Empirical results sensitive to changes in country samples, control variables, and econometric specifications (Levine and Renelt, 1992; Rodriguez and Rodrik, 1999; Ciccone and Jarocinski, 2007)
 - ✳ Much of the variance that explains difference in countries' growth rates is random – imitation of good experiences is not a good strategy (Easterly)
 - ✳ Tailoring is of the essence: reforms associated with growth in one country are not linked to growth in another
 - ✳ Conventional reform packages too obsessed with efficiency losses did not pay enough attention to stimulating the dynamic forces
- ✚ Growth agnosticism?

Reconstructing?

- ✦ What *ignites* growth is different that what *sustains* growth
 - ✦ “Growth accelerations” – few, seeming simple, difficult to predict, and highly idiosyncratic things matter (Hausmann, Pritchett & Rodrik, 2004)
 - ✦ But “first principles” seem essential to sustain growth (Rodrik 2003)
 - Sound money, debt viability, property rights
- ✦ “Growth diagnostics” (HRV, 2005)
 - ✦ Tailored to country circumstances
 - ✦ Indirect effects matter
 - ✦ Focus on identifying *binding* constraint to growth, rather than on distance to best practices
 - ✦ Intended to avoid “laundry list” of policies, but policies not really discussed
- ✦ Where is competition?

So, where do we stand?

- ✦ Illustrative referents: Growth Commission Report (GCR, 2008) and Growing Pains (CGD, 2009)
 - ✦ “Growth foundations” (CGD) and “commonalities” in successful growth cases (GCR) include
 - Well-functioning markets: incentives and coordination via price signals, oiled by **competition**
 - ✦ But policy packages must be tailored to individual countries
 - “It is hard to know how the economy will respond to a policy” (GCR)
 - Complex tensions, trade-offs, complementarities between policies and growth foundations (CGD)
 - ✦ A “smart” and “active” government is equally crucial, arguably going beyond generic improvements of the “enabling environment”
- ✦ Competition – absolutely necessary by far from sufficient