Structural Change and Productivity Growth
20 Years Later
Old problems, new opportunities

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Presentation structure

1. Context and recent economic performance
2. Changes in the global economy
3. Innovation efforts and results
4. Sectoral learning patterns and international integration
5. Public-private strategies
6. Concluding remarks
Latin America and the Caribbean: Context and recent economic performance
The region in the global context

- By the start of this decade, the region had accumulated more than a century of non-convergence and at least 25 years of divergence.

- Asia has become a third development hub at the global level and accounts, together with the United States and the European Union, for much of the world’s trade and R&D.
  - Asia has an “almost infinite” supply of low-cost labour and a growing pool of skilled labour.

- There is little room to participate in global production outside these hubs.
  - Especially in manufacturing (high-tech and lower-cost-labour sectors) and more complex services.
Recent economic performance

Lights:
- Expansionary growth cycle lasting 6 years (per capita GDP: 3.5% per year).
- Reduced vulnerability to external shocks (fiscal accounts, current account, reserves).
- Investment at highest level in 27 years.
- 2007 was a record year for foreign investment.
- Export volume has increased by 9% per year for the last 20 years.
  - Part of the share of world trade lost in earlier decades has thus been regained.
- Increased product diversification (especially before commodity prices rose).
- Improvements in social indicators (poverty, unemployment, education, health).
Context and recent economic performance

Shadows:

- The “box” remains empty (growth and equity).
- Investment is still not enough to keep growth rates consistently above 5%.
- Exports are not having growth effects on the production structure.
- Decreasing share of services trade (especially in the fastest-growing segments).
- Small share of knowledge-intensive industries.
- Low levels and limited effectiveness of R&D resources.
- Little progress with integration processes.
- Lack of strategies for structural change, productivity growth and international integration.

The region is not laying the foundations for sustained medium-term growth.
Changes in the global economy

A fresh opportunity for Latin America and the Caribbean?
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- Unprecedented growth in world consumption
  - Mass consumption (associated with the incorporation into the market of a large part of the world’s population)
    - Food
    - Industrial goods
  - Niche consumption (high income levels in developed countries and increasing income concentration with more sophisticated demand)
On the demand side: increasing market segmentation

Organic foods
Boutique steel
Clean fuels
*Starbucks* coffee
Sailboat canvas
Diabetic footwear
Gourmet fruits
Termite-resistant wood
Bacteria for leaching copper
Adventure tourism

Wheat; beef
Vehicle parts
Standard software
Hard drives
Cellular telephones
Desktop towers
Beach tourism

Design of airports or emblematic buildings (Bilbao Guggenheim)
Major information systems
R&D services and special instruments
*Viagra* (initially)
Antarctic or Amazon tourism

*Dell* computers
E-government software
Bagged salads for distance ordering
Personal services
Technical support
Health tourism: hip operations

Source: Pérez, Carlota (2008), "Una visión para América Latina: dinamismo tecnológico e inclusión social mediante una estrategia basada en los recursos naturales", Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), unpublished.
A fresh opportunity for Latin America and the Caribbean?

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- Expectations of high commodity prices in the next 10 to 15 years

- Expectations that remittances will remain high

- Technological revolution: development and diffusion of ICTs and incipient development of biotechnology, nanotechnology and renewable energies
  - Need to adapt to local conditions
  - Cuts across all sectors
New techno-economic paradigms open up new opportunities, but the region is not progressing fast enough.

ICT PENETRATION IN LATIN AMERICA AND THE CARIBBEAN AND IN OECD COUNTRIES, 2002 AND 2006
(Percentages of the population)

Source: ECLAC, Structural Change and Productivity Growth – 20 Years Later, 2008, Santiago, Chile, June.
A few of the countries have some biotechnology capacity

PATENTING GAP, 2003
(United States=100)

BIOTECHNOLOGY FIRMS, 2005
(per 10 million inhabitants)

Source: ECLAC, Structural Change and Productivity Growth – 20 Years Later, 2008, Santiago, Chile, June.
Changes in the global production structure

- The concentration process is accelerating
  - Increasing importance of fixed costs
  - Development of global brands
  - Intensification of R&D efforts

  Economies of scale in production, marketing and R&D

- Deconcentration of production within and across borders

- Value chains and governance structures

  Global integration increasingly involves participation in value chains, with all the opportunities and risks this entails
Innovation and learning form the basis for sustainable productivity growth
Innovation efforts and results

- The main drive comes from the interaction between R&D (public and private) and business capacity to generate, adopt and diffuse process and product innovations.
- The region’s R&D effort is small and not very effective.
  - Worrisome in countries with higher per capita income.
- Manufacturing firms in the region invest in innovation, but most of this effort goes to purchase machinery.
- Relation to exports and productivity.
- Few links with research centres.
- Innovation has yielded only modest results in terms of export quality.
Unlike Latin America and the Caribbean, Asia has been able to combine price increases with a larger share of the world export market ("upgrading").

Source: ECLAC and Centre for International Prospective Studies and Information (CEPII), 2008.
In the agrifood complex, there is room to upgrade the quality and prices of Latin American and Caribbean exports

Source: ECLAC and Centre for International Prospective Studies and Information (CEPII), 2008.
Sectoral learning patterns and international integration
Sectoral learning patterns and international integration

➢ To identify competitiveness opportunities it is necessary to consider the heterogeneity of learning patterns and technological possibilities across sectors and firms.

➢ Opportunities are found where there is an existing competitive base that can be used to speed up the learning processes needed to strengthen competitive advantages and explore new avenues.

➢ Four sectors are examined:
  ▪ Manufacturing industry
    — Traditional
    — Special export regimes
  ▪ The agrifood complex
  ▪ Metal mining
  ▪ Services
    — Tourism
    — “Modern” services
Export manufacturing industries are not increasing their value added...

VALUE ADDED OF EXPORT MANUFACTURING INDUSTRY AS A PERCENTAGE OF THAT INDUSTRY’S EXPORTS

Source: ECLAC, on the basis of data from the United States Department of Commerce.
The agrifood complex

- Regional importance
  - In exports
  - In relation to the rest of the world (clear comparative advantages)
- Possibilities for forward and backward linkages
  - Product differentiation
  - Marketing services (logistics, packaging, distribution)
  - Inputs for agriculture
- Importance of new technologies, especially biotechnology (products and processes)
  - One key element: need for adaptation to local conditions
- Local capacities
  - Public research institutes
  - Increasing importance of private sector
  - High R&D spending
Mining: opportunities for local learning

- Dominance of multinational firms vis-à-vis the few large public enterprises
- Innovation: concentrated in multinationals and outside the region
- Equipment: large international suppliers, with a few local producers (absorption of local firms)
- Inputs: predominance of foreign firms, but with local capacities
- General services: larger proportion of local suppliers
- Engineering services: foreign firms, but with local subcontracting where capacities exist
- Environmental services: a new opportunity

Local technological learning generates certain opportunities in a market whose different segments are dominated by multinational firms. Local capacities are not automatically strengthened.
LATIN AMERICAN AND CARIBBEAN REGION AND THE WORLD: SERVICE EXPORTS, 1985-2005
(Average annual growth rates)

Source: ECLAC, Structural Change and Productivity Growth – 20 Years Later, 2008, Santiago, Chile, June.
In tourism, despite the great success of several Caribbean islands and, recently, Central America, the impact on the local economy has been limited.

(Multiplier = capacity to generate local economic development)


New opportunities in niche demands
Setting priorities for the domestic development agenda is a long process involving complex challenges.

Also, the priorities, their rank on the domestic agenda and the sequence of appropriate measures are different for each country.
Which is the way ahead?
The value of a medium- and long-term national strategy

- In the last few decades few countries have been able to close the income gap with the world’s richest countries without a medium- and long-term national strategic vision. 
  - Where and how to position the economy and society 3, 5, 10 or 20 years from now.

- These countries have combined a concern for the “fundamentals” with proactive measures to support structural change, productivity growth and continual upgrading of their international position.

- Countries such as Ireland, Finland, Malaysia and the Republic of Korea have set out their strategies in medium- and long-term national plans.
The value of a medium- and long-term national strategy

- Such a strategy serves to anticipate and identify:
  - Opportunities to expand and increase the value and knowledge content of production and exports.
  - Barriers to achieving the opportunities identified.
- Goals, measures and programmes are prioritized in the form of a national plan.
- The strategy helps to orient expectations and allocate resources.

Importance in the light of the new technological revolution

The lack of a successful strategy can set a country back for decades.
Strategies are more robust when developed in the framework of a public-private alliance

- An alliance formed in the spirit of the public good and in which society is represented leads to more intelligent and inclusive strategies.
  - Full mobilization of national capacities with public support

- Consensus-building and public awareness
  - Inclusion
  - Maintenance of the strategy over different political cycles
Institutional structure that is effective in developing and implementing strategies

- Leadership of ministries/agencies with genuine competencies in the real sector:
  - Political support at the highest level for priority initiatives
  - Allocation of specialized technical and financial resources according to mandates
  - Effective mechanisms of inter-agency coordination
  - Targeting of efforts and resources
  - Extension of the quality and stability of central bank and finance personnel to the rest of the public sector (hiring and wage policy)

- Transparency of executing agencies and their public programmes/incentives and rigorous assessment of their impacts
  - Accountability
  - Reducing risks of capture
Relevance of the principles for Latin America and the Caribbean: stylized facts

- How to overcome the predominance of the short-term approach.
- Public-private alliances are non-existent or weak and consensus is scarce beyond the macro level.
- Public administration in the real sector often lacks:
  - Political leadership
  - Resources
  - Technical capacity
  - Coordination
  - Effective support programmes
Concluding remarks (I)

➤ In the ECLAC tradition, the document outlines the changes in the international context and the situation in Latin America and the Caribbean

➤ Prebisch (60 years ago):
  • Barriers to the transfer of technological progress from the centre to the periphery
  • Different elasticities of demand
  • Deterioration in the terms of trade

The proposal: industrialization (import substitution and export promotion)
Concluding remarks (II)

Fajnzylber (20 years ago):

- Importance of technical progress
- Greater openness (based on genuine competitiveness)
- Manufacturing was the main driver of innovation, but …
- Need to form linkages with the primary and services sectors
- Importance of the institutional framework in innovation
- Public-private partnership
Concluding remarks (III)

In Structural Change and Productivity Growth, 20 Years Later:

- A large proportion of technological change is still concentrated in manufacturing.
  - However, production of manufactures does not guarantee participation in the innovation process.
  - The concentration of trade, production and innovation limits possibilities for competition (in high-tech and low-wage goods).

- The new technological revolution and growth in world demand generate learning opportunities and possibilities in all sectors.

- More than manufacturing, the objective is “technologization”.
Concluding remarks (IV)

- The existing heterogeneity necessitates an evaluation at the level of sectors and firms (as it did 20 and 60 years ago).
- The process of structural change and productivity growth will not occur spontaneously (as it did not 20 or 60 years ago).
  - This is all the more true the lower the level of development and the higher the share of commodities.
  - Upgrading in value chains.
  - Capacity-building
    - Human resources to take advantage of technological opportunities
    - Innovation-friendly institutional framework (NSI).
- A strategy is needed
  - To detect opportunities and remove constraints.
  - Shortage of resources.
  - Sustainability of incentives.
Concluding remarks (V)

- The search for consensus
  - The process of structural change and productivity growth takes time and the effort requires perseverance and flexibility.

- Development of an institutional structure that:
  - Improves efficiency
  - Reduces the risk of capture

- The challenge of financing the process of structural change and productivity growth with equity and using the rents from natural resources:
  - Without eliminating incentives for private investment
  - Investing resources efficiently: where and how to invest; defining priorities on the basis of a medium- and long-term strategy.
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