2013 ECOSOC Annual Ministerial Review

Presentation by Neil Pierre, UNDESA

Lima, Peru

9 January 2013

2013 ECOSOC AMR Theme

"Science, technology and innovation, and the potential of culture, for promoting sustainable development and achieving the Millennium Development Goals"

Several Concurrent Initiatives

* Commencement of efforts to elaborate Sustainable Development Goals
* Preparation of a post-2015 development framework
* High priority for accelerating the MDGs
* Implementing the Rio+20 Outcomes
* ECOSOC Strengthening process

Focus of Discussions

* To identify the key messages from the previous sessions of this meeting that could be transmitted to the ECOSOC Annual Ministerial Review in July

* To identify specific regional challenges and priorities for the AMR theme

AMR preparations

* National Voluntary Presentations (NVP) to assess progress in national development objectives
  [Bulgaria, France, Thailand, and Vietnam]

* AMR regional preparatory meetings:

Western Asia - Amman, Jordan (November, 2012)

Africa - Dar-es-Salaam, Tanzania (March)

Asia/Pacific – Bangkok, Thailand (March)

Europe – Geneva (April)

Latin America and the Caribbean (date and venue to be determined)

AMR Preparations

* Preparation of SG Report on AMR Theme
* Preparation of SG Report on ECOSOC and the Post-2015 development framework
* Main messages will feed into these reports

Main Messages

* Economic growth and social development are positively impacted by investments in science and technology and particularly information technology. STI offer solutions and options for overcoming development challenges.

* S&T approaches can be used for averting climate change impacts. Consider preparing an inventory of green house gas emitting sources and link these to a S&T roadmap.

* Local and traditional knowledge is crucial to be included in the development of S&T policies, building on existing cultural values. Quality local content also crucial for Internet broadband.

* Modern infrastructure essential to realizing the benefits of science, technology and innovation. Financing is a key element in this regard. New business models are needed to capitalize on available opportunities.

* Greater urgency attached to the challenges created by a growing global middle class and the pursuit of unsustainable consumption and production patterns. Global population growth may be a less urgent concern.

Main Messages

* There is need to distinguish between high and low technology and their use and application to particular contexts.
* ICT and broadband access empower science, technology and innovation. Public-private partnerships should enable progress in both realms.
* Strong policy and regulatory frameworks are needed; development of a culture of innovation should be encouraged through education.
* National development strategies, including broadband and spectrum allocation policies, should be elaborated to incorporate these principles.
* Literacy plays a critical role in Internet use and penetration of broadband access, in addition to the issue of infrastructure.
* In many developing countries, the cost of mobile technology and broadband access is still high; broadband penetration is still relatively low. The use of options such as Universal Service Funds, are often effective in overcoming these limitations.

THANK YOU

GRACIAS

CSTD Inter-sessional Panel Meeting, Lima, Peru, January 2013

CSTD input on STI to MDGs for 2013 ECOSOC Annual Ministerial Review

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Science, Technology and Innovation in the MDGs

Millennium Development Goals – 8 Goals, 15 Targets

- To be achieved by 2015, targets using 1990 as baseline

UN Millennium Project – 10 Task Forces

- Develop concrete action plan for implementation

Task Force 10 on Science Technology & Innovation

- CSTD Input from 8/9 session-Chairman was a member of TF
- S, T & I found to have a role in reaching many of the goals
  - Health (better medicines), poverty (innovations, employment, incomes), education (new technologies), environment

C.Juma and Y-C.Lee, 2005, "Innovation: Applying Knowledge in Development"– Comprehensive study on S,T & I for MDGs

Can Science, Technology and Innovation help?

Shown that between 1950-2000, S, T & I. helped to :

(i) Raise life expectancy from 50 to 64 years;

(ii) Reduce infant mortality from 13% to 6%;

(iii) Improved access to safe water from 35% to 65%;

(iv) Raise literacy rate up from less than 50% to 70%;

(v) Improved living standards for billions of people.

W. C. Clark, "Energy and Sustainability Science", Intnl Conf. on S & T for Sustainability, Tokyo, December 2003

UN Millennium Project - Composite document

Jeffrey Sachs, 2005, Investing in Development, Millennium Project

Listed ten key recommendations

Recommendations 2 and 9 related to S, T and I

Role of Science, Technology and Innovation

Recommendations 2 and 9:

- **2**. MDG Poverty reduction strategy should focus on rural productivity, urban productivity, health, education, gender equality, water and sanitation, environmental sustainability, and **science, technology, and innovation**.
- **9**. International donors should mobilize support for **global R & D** to address special needs of the poor in agriculture, health, natural resource and environmental management, energy and climate(Costs will rise to $7billion/year by 2015).
- Sachs felt other rich countries needed to invest 0.7% of GDP as done by Scandinavian countries as aid. Shortfall of even the lower amounts pledged even before the recession.

MDG Progress to 2011, 4 years before target

UN MDG Progress Report 2011-a more gloomy picture

- Despite real progress, has not reached the most vulnerable.
  - (i) Poorest children - slowest progress in improved nutrition;
  - (ii) Opportunities for full/productive employment slim for women;
  - (iii) Being poor, female or living in a conflict zone increases the probability that a child will be out of school;
  - (iv) Advances in sanitation often bypass poor and rural areas;
  - (v) Improving lives of growing number of urban poor a challenge;
  - (vi) Progress uneven in improving access to safe drinking water.

http://www.un.org/millenniumgoals/11_MDG%20Report_EN.pdf

Has S,T & I helped to achieve MDGs ?

Not to a significant level

CSTD recommended target of 1% of GDP on R&D

- Few developing countries able to invest 1% on R & D
- Most give low priority to investment on S,T and I
  - Not surprising – no immediate returns

Human capacity in S,T&I low in developing countries

- Needed even to absorb, let alone develop technology
- Higher education not in MDGs –only primary education

Improved S&T infrastructure – global partnership ?

Achievements in ICT

- Principally in mobile telephony, driven by private sector
- Internet penetration 21% in developing, 3% in LDCs (2010)

Improved Goals/Targets post 2015

Uniform targets problematic

- Maternal deaths SriLanka 60/100k to 15 less than the West
- Sub-Saharan Africa 870 to 218 – heavy investment needed

Themes sometimes arbitrary

- Gender ratio why only in education – jobs, income ?

More focused S, T & I interventions

- Improve capacity to absorb technology
- Enhance employment in manufacturing industry
- Improvements in agricultural productivity of specified crops.
- Identify specific targets for global R & D partnered solutions
- Forest cover/CO_2 emission
  - Targets may not be achieved


THANKYOU

Science, technology and innovation in Latin America and the Caribbean region

Economic Commission for Latin America and the Caribbean (ECLAC)
Production, Productivity and Management Division

United Nations Commission on Science and Technology for Development (CSTD)
January 9, 2013
Lima, Peru

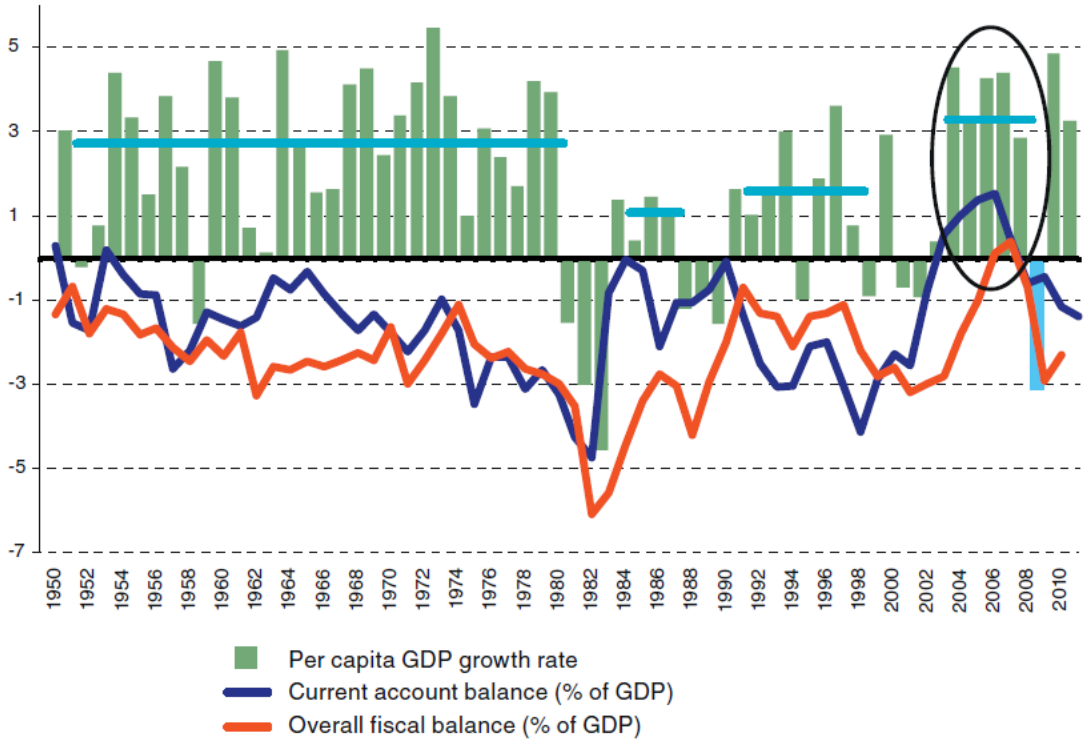
Where is Latin America and the Caribbean today?

- Learning from the past. More prudent in macroeconomic terms
- Progressive in social terms
- With economic growth in 2010 but decelerating in 2011 and 2012
- Reinforce a development agenda centered in equality and contemplating environmental sustainability
  - This requires closing productive and social gaps
  - High-level innovation policy
  - Structural change
  - It involves facing the region's historical and recent debts

→ **The region is aiming toward structural change**

The regional context: the situation today is very different from what it was in 1992

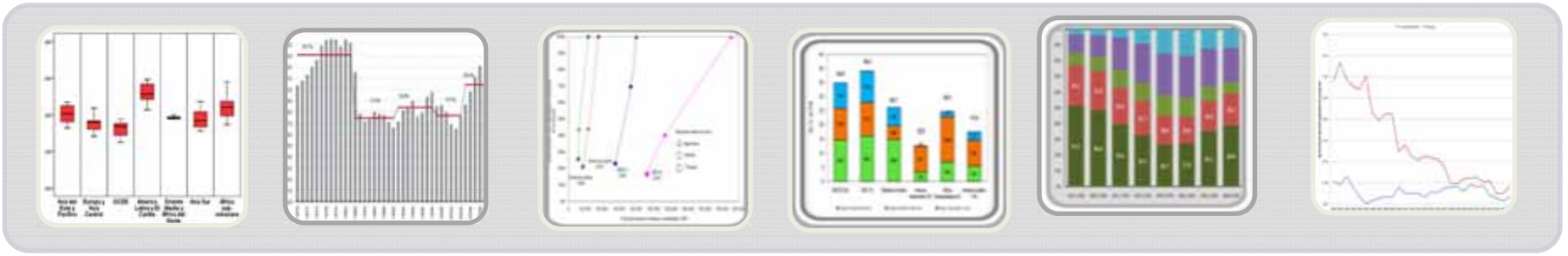
LATIN AMERICA AND THE CARIBBEAN: PER CAPITA GDP GROWTH, CURRENT ACCOUNT BALANCE AND OVERALL FISCAL BALANCE
(*Annual growth rates and percentages of GDP*)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

In 1992, the region was emerging from a "lost decade" of low growth, high inflation and external debt constraints. Currently, despite the recent global economic crisis, the region has enjoyed nearly a decade of relatively high growth; inflation is under control in nearly all countries and, in general, stable economic conditions prevail.

Main gaps to be closed



Inequality
For the first time in recent history there have been advances in combating inequality

Investment
Investment, at 23% of GDP, is insufficient for development

Productivity
Closing the external gap (with the technological frontier) and the internal gap (between sectors and actors)

Taxation
Regressive tax systems; weak non-contributory pillar

International linkages
Risk of "reprimarization" of the export structure, with low value added and little investment in technology

Environ-mental sustainabi-lity
Move towards sustainable production and consumption patterns

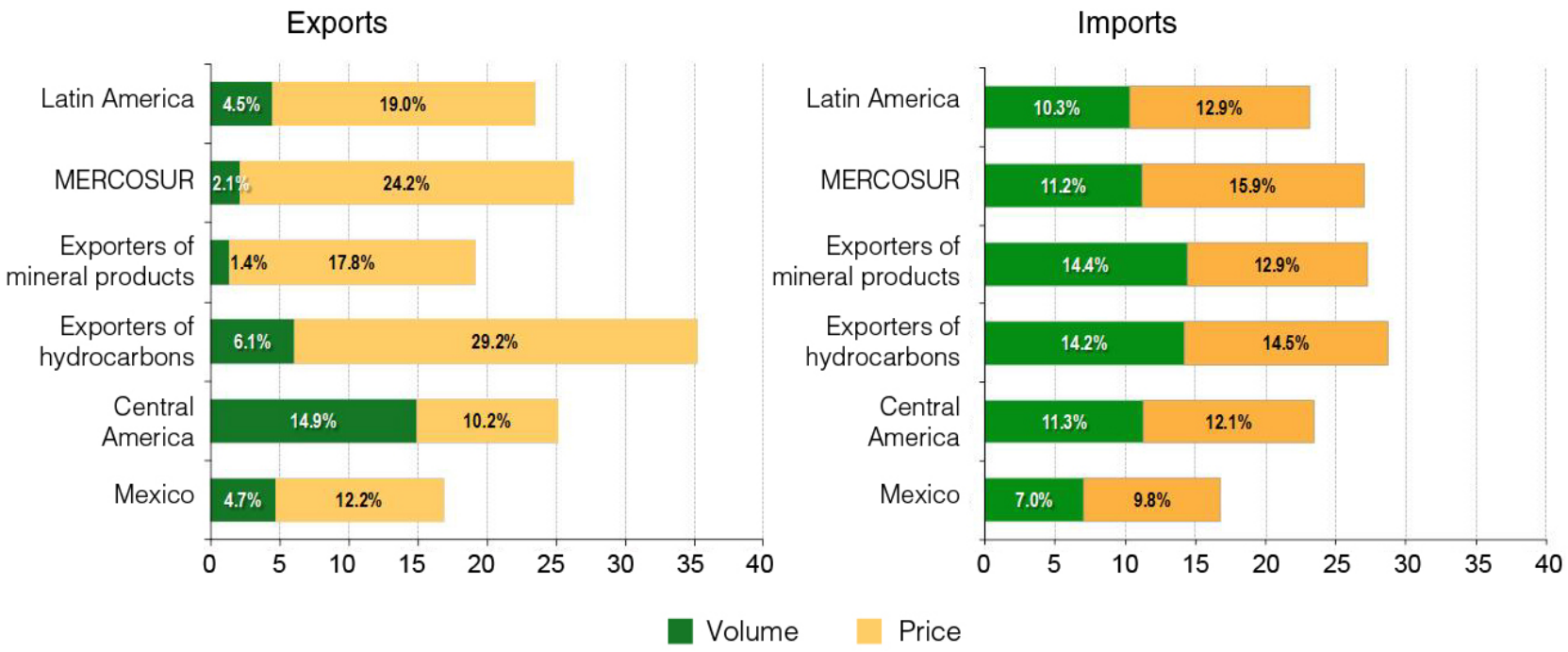
- In order to move towards productive convergence, policymakers must look beyond the price boom: economic policies based on a **relevant, long-term, sustainable vision at the macroeconomic, productive and territorial levels**.
- To take advantage of the opportunities provided by the international context, exports must have a **higher value added and knowledge content**, with the focus on **diversification of production**, integration of **sustainable production processes**, re-evaluation of **global and regional partnerships** and strengthening **open regionalism**.
- Consensus on priorities and respective financing: a **fiscal covenant** with a redistributive impact – with access to **innovation**, **job security and internalization of externalities**.
- New equation: **State-market-society**.

The Economic Dimension

The price factor was important in the performance of regional exports, which grew by 23.5% in 2011, slightly above import growth

LATIN AMERICA: ANNUAL GROWTH RATES OF GOODS IMPORTS AND EXPORTS, BY VOLUME AND PRICE, 2011[a]

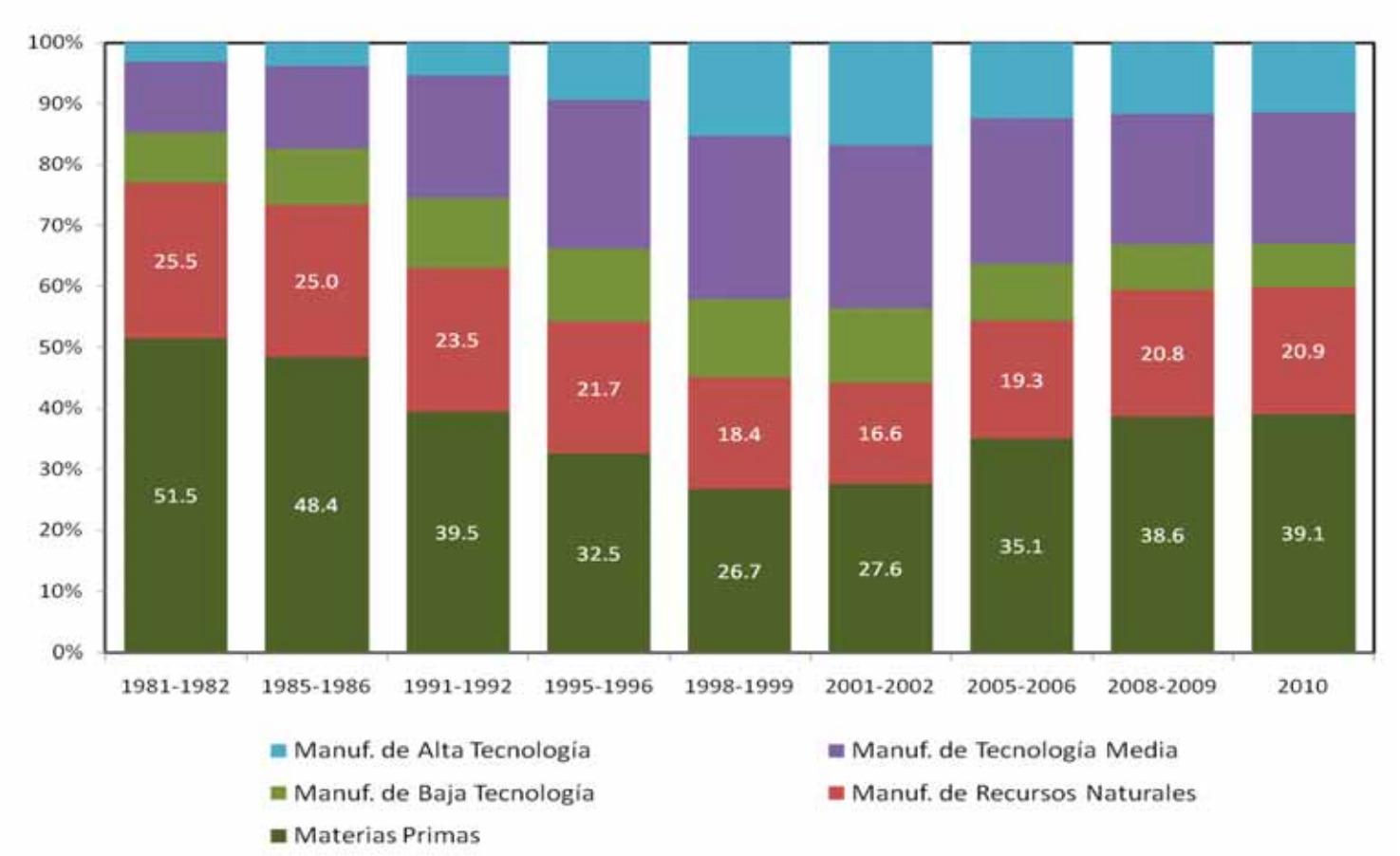
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from United Nations Commodity Trade Statistics Database (COMTRADE).

Risk of "reprimarization", especially in South America

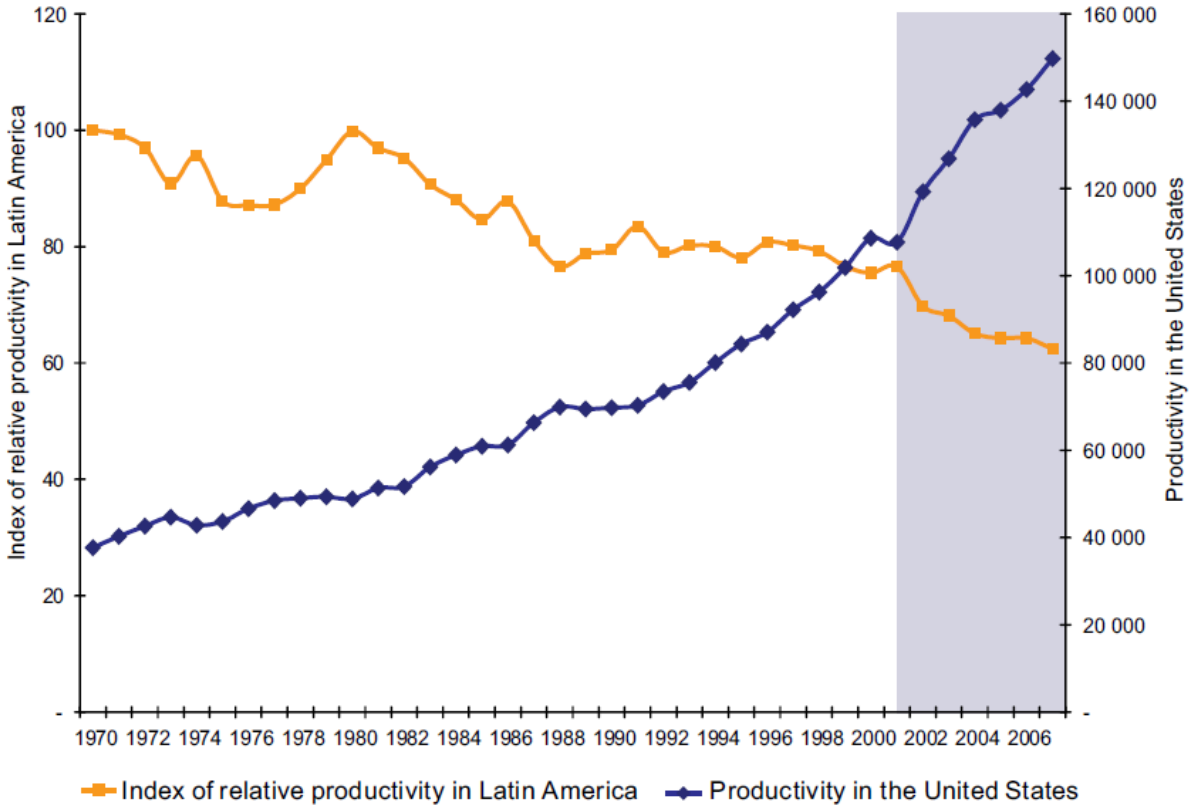
LATIN AMERICA AND THE CARIBBEAN: CHANGES IN THE STRUCTURE OF EXPORTS TO THE WORLD SINCE THE EARLY 1980S (*Percentages of regional total*)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from United Nations Commodity Trade Statistics Database (COMTRADE).

The productivity gap between the region and developed countries is becoming wider

RELATIVE PRODUCTIVITY INDEX OF LATIN AMERICA (SELECTED COUNTRIES) AND PRODUCTIVITY IN THE UNITED STATES (*Index: 1970=100 and constant dollars at 1985 prices*)

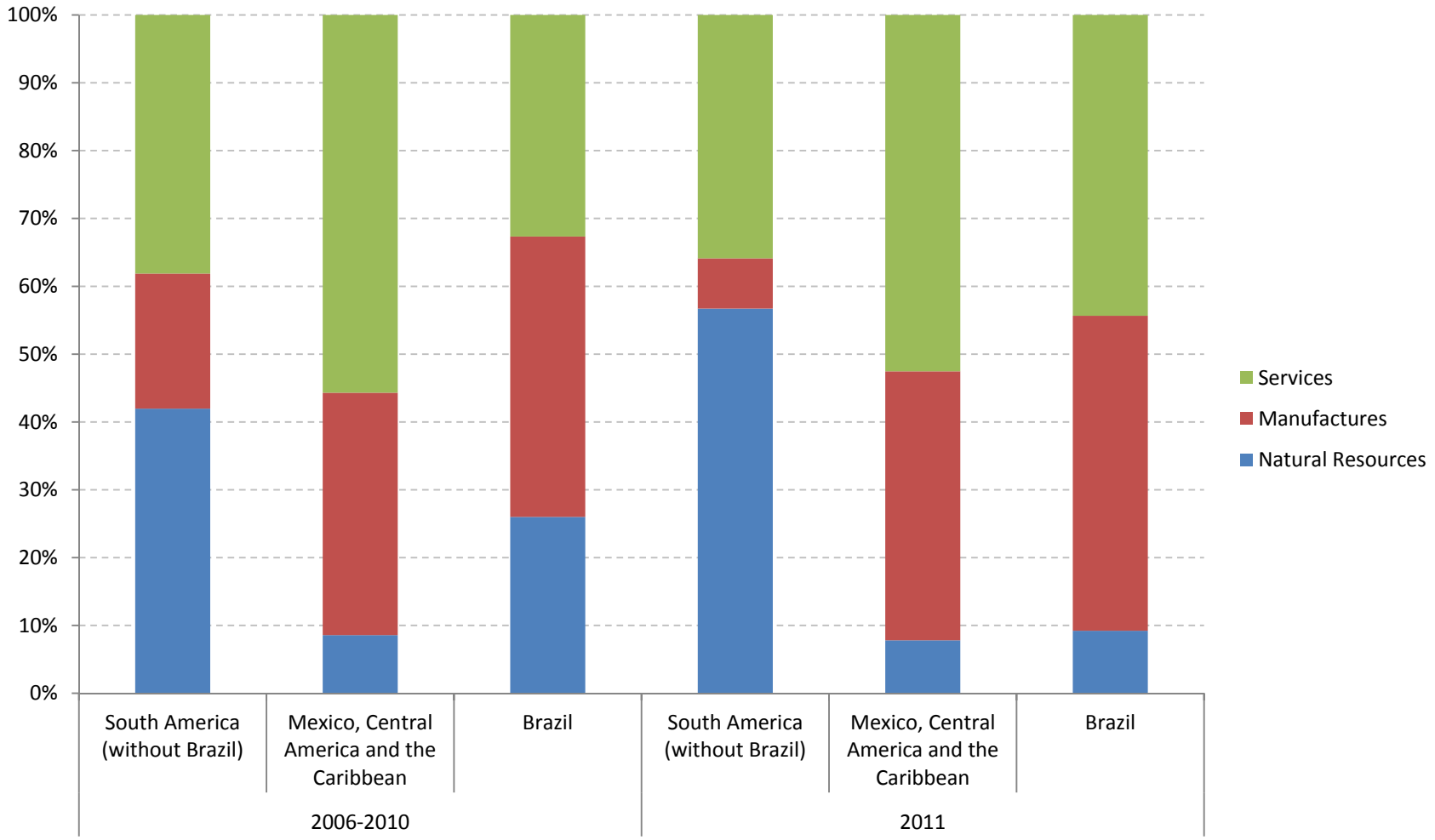


The region has not succeeded in transforming its production structure, which remains heavily reliant on natural-resource-intensive sectors.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), *Time for equality: closing gaps, opening trails* (LC/G.2432(SES.33/3)), Santiago, Chile, 2010.

FDI reinforces productive specialization in Latin America and the Caribbean

LATIN AMERICA AND THE CARIBBEAN: SECTORAL DISTRIBUTION OF FOREIGN DIRECT INVESTMENT, 2006-2011
(*Percentages*)

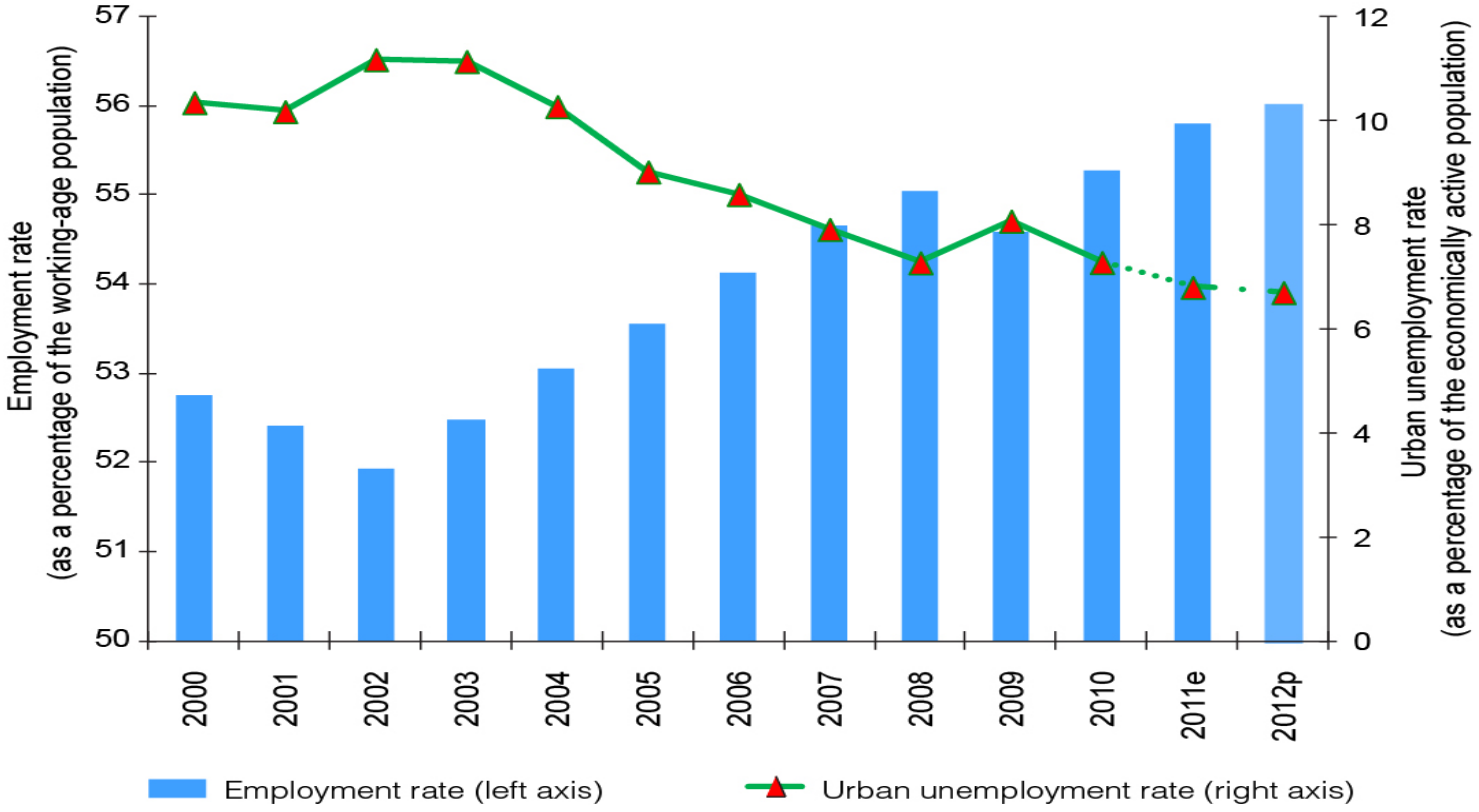


The social dimensions

The regional unemployment rate continues to fall, boosting household consumption

LATIN AMERICA AND THE CARIBBEAN: CHANGE IN RATES OF EMPLOYMENT AND OPEN UNEMPLOYMENT

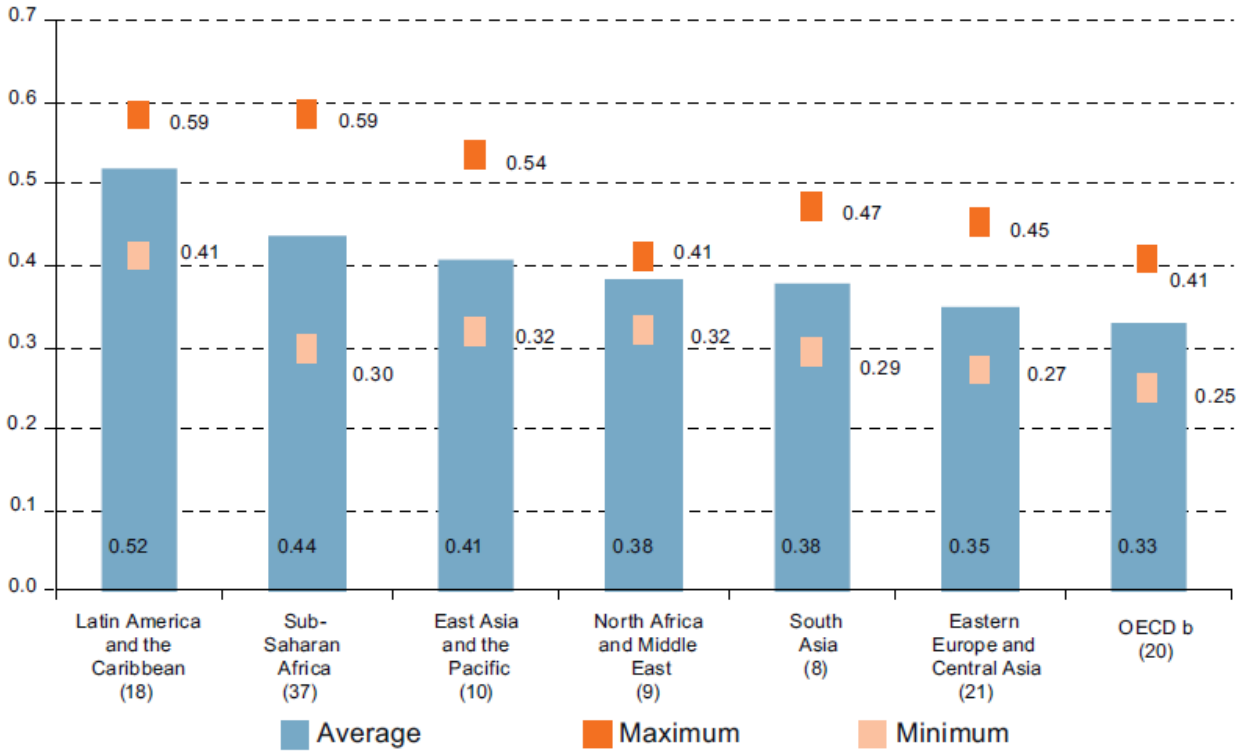
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

Despite advances in income distribution, the region is still the most unequal in the world

LAC AND OTHER REGIONS OF THE WORLD: GINI COEFFICIENT, AROUND 2009 [a] (*Millions of persons*)



The average Gini coefficient for Latin America and the Caribbean is higher than the average for all other regions.

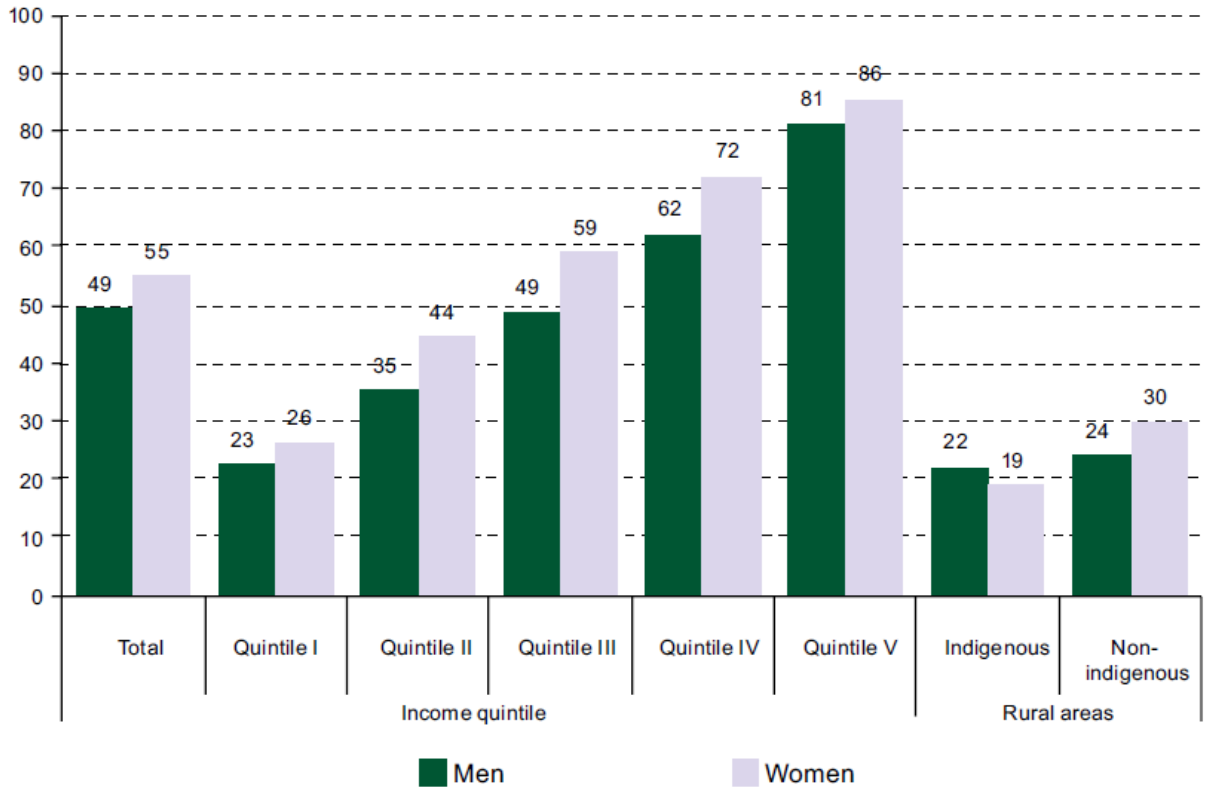
Source: ECLAC, on the basis of special tabulations of data from household surveys conducted in the respective countries; World Bank, World Development Indicators [online] http://databank.worldbank.orgddp/home.do.

[a] The regional data are expressed as simple averages, calculated using the latest observation available in each country for the 2000-2009 period.

[b] Organization for Economic Cooperation and Development.

The quality of education remains highly uneven between different socioeconomic levels and between the rural and urban populations

LATIN AMERICA (18 COUNTRIES) [a] : POPULATION AGED 20-24 WITH COMPLETE SECONDARY EDUCATION BY PER CAPITA INCOME AND SEX, AROUND 2008 (*Percentages*)

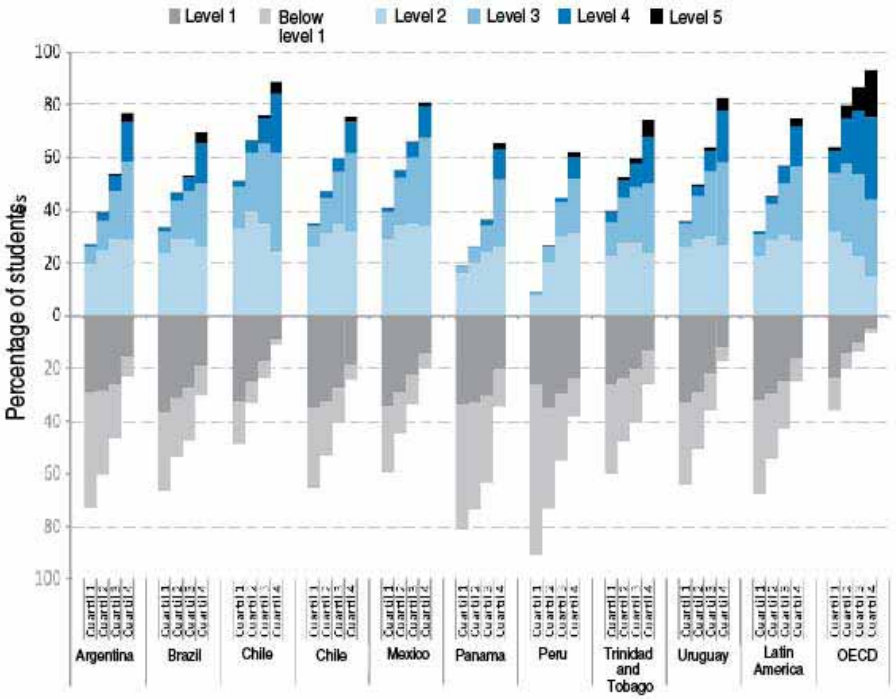


Source: Economic Commission for Latin America and the Caribbean (ECLAC), *Social Panorama of Latin America 2010* (LC/G.2481-P), Santiago, Chile, 2010. United Nations publication, Sales No.E.11.II.G.6.

[a] The data for indigenous and non-indigenous youth refer to eight countries and correspond to 2007.

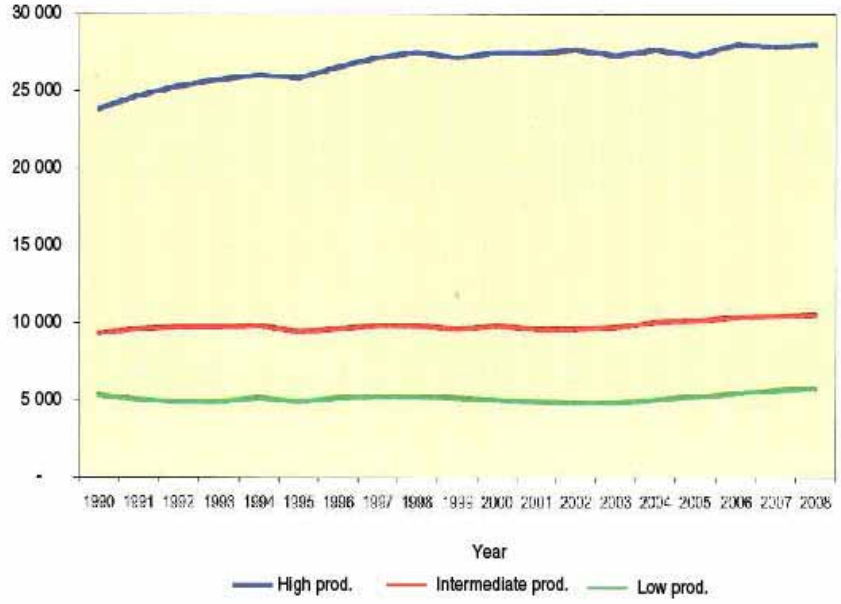
Two factors that breed inequality: the skills gap and the productivity gap

LATIN AMERICA AND THE CARIBBEAN (9 COUNTRIES) AND OECD AVERAGE: DISTRIBUTION OF LEVELS OF PERFORMANCE IN THE PISA READING ASSESSMENT, BASED ON THE HOUSEHOLD SOCIOECONOMIC AND CULTURAL INDEX, 2009 *(Percentages)*



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special processing of microdata from the PISA Assessments, 2009.

LATIN AMERICA: PRODUCTIVITY BY SEGMENT, 1990-2008 *(Dollars at 2000 prices)*



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures,.

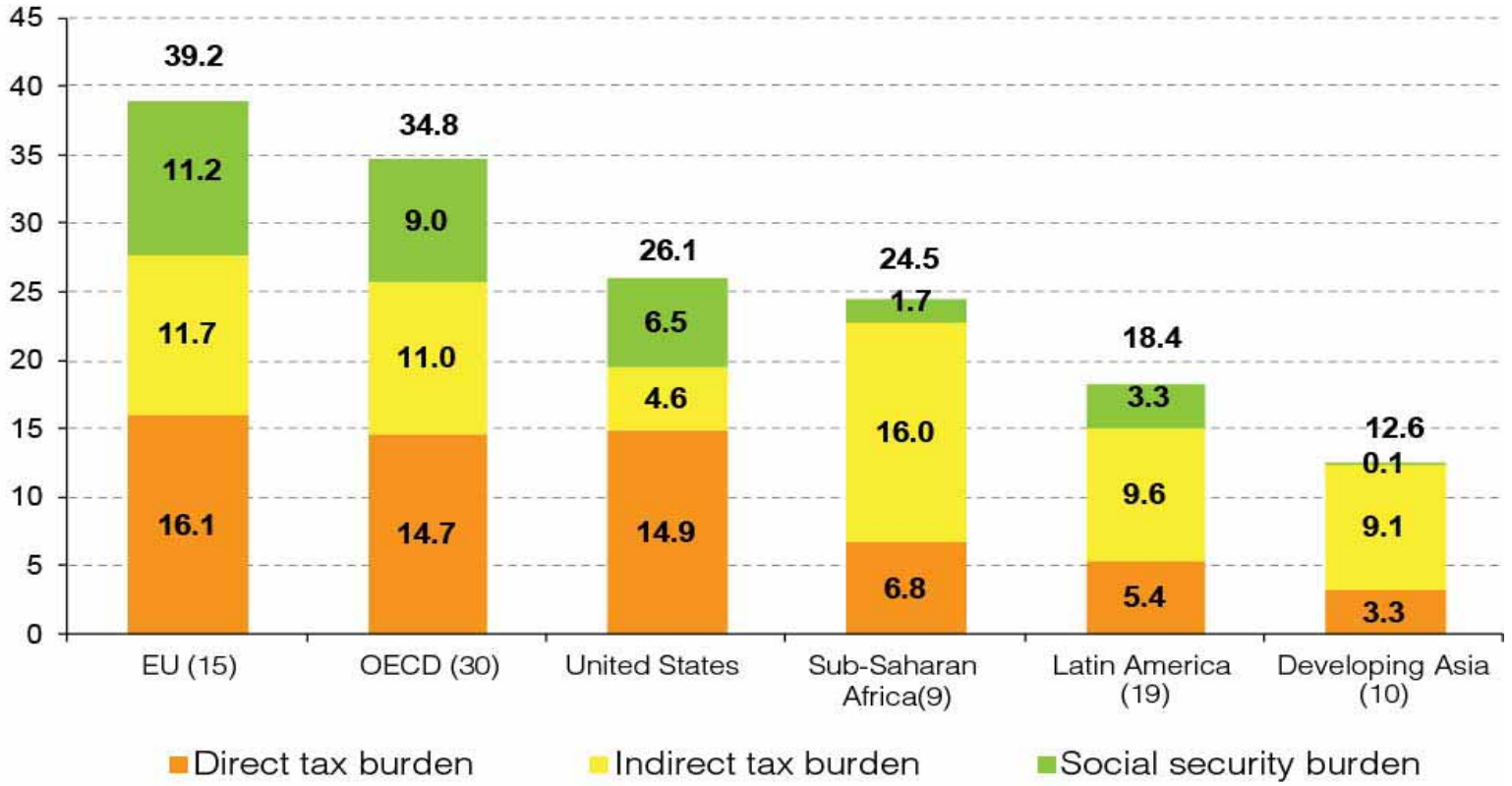
Sustainable development

Serious public finance challenges persist

- **The tax system delivers low level of revenue and is poorly designed**
  - The tax structure is regressive
  - Most countries have a low tax burden
  - High level of evasion
  - Widespread exemptions
  - No environmental friendly incentives
- **Social spending with little redistributive impact**
  - A weak non contributory pillar
  - In terms of production, minimum support to SMEs and segmented access to financing
- **Insufficient investment for development:**
  - In infrastructure
  - In research, science and innovation
  - In development banking institutions: inclusive financing
  - In cleaner environmental matrices

The average tax burden of the Latin American countries is almost half that of the OECD countries and the tax structure is angled towards non-progressive, indirect taxation

INTERNATIONAL COMPARISON OF THE LEVEL AND STRUCTURE OF THE TAX BURDEN *(Percentages of GDP)*



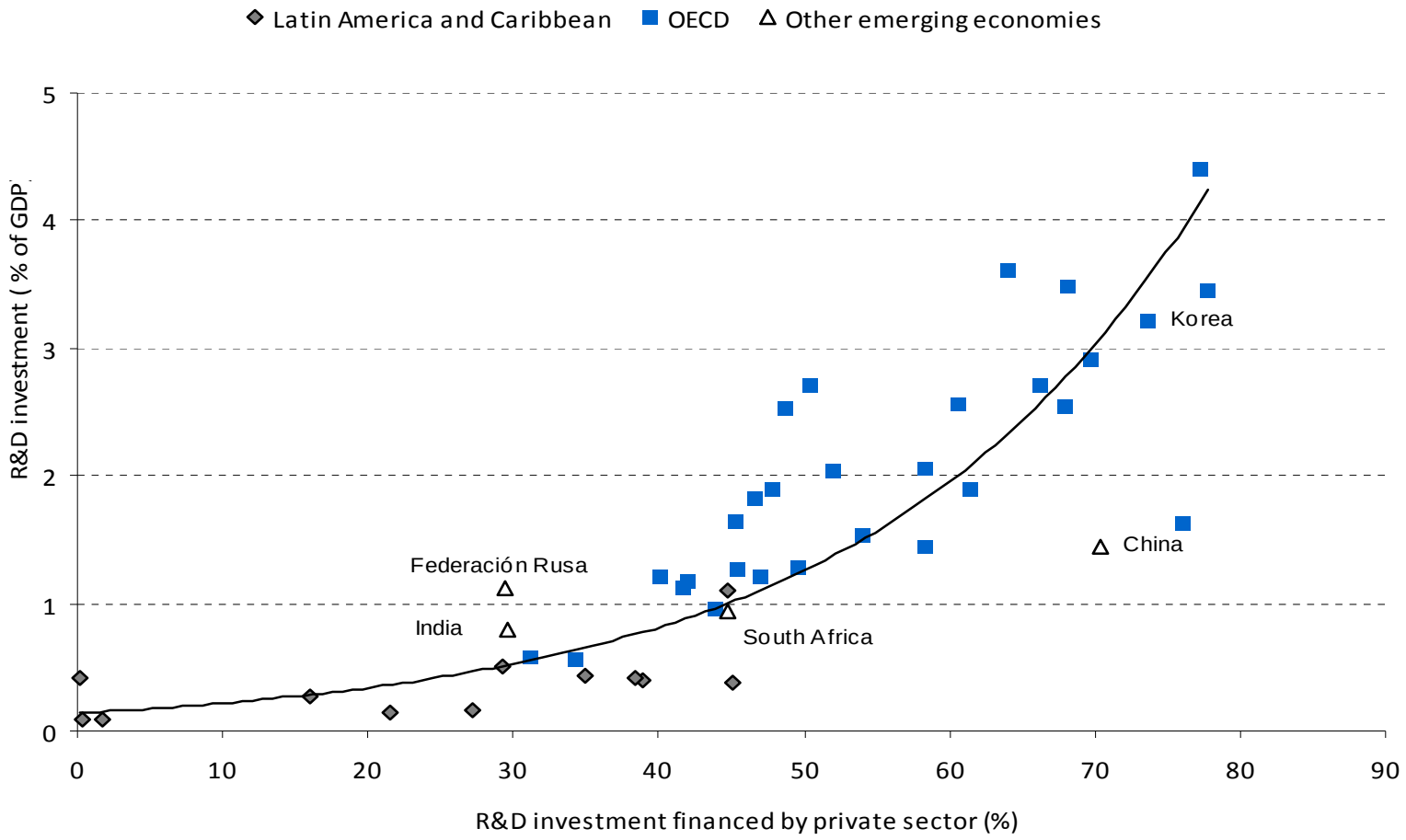
Source: CEPALSTAT for Latin American countries; IMF for Sub-Saharan African countries and developing Asia; OECDStat for OECD countries.

Innovation and productive convergence

- **Ties** must be forged **between low-productivity sectors and** those already at the **technological frontier**
- **Co-evolution of macroeconomic and productive development policies**
- Reforming the **long term institutional architecture for development:**
  - An explicit and integrated productive development policy
  - Higher priority for science and technology
  - Strengthening educational and health infrastructure
  - Development banking for building production capacity and promoting innovation and internal convergence
  - Integrated strategy to provide financial support to SMEs and link them to more dynamic sectors (+certification, traceability, carbon footprint)

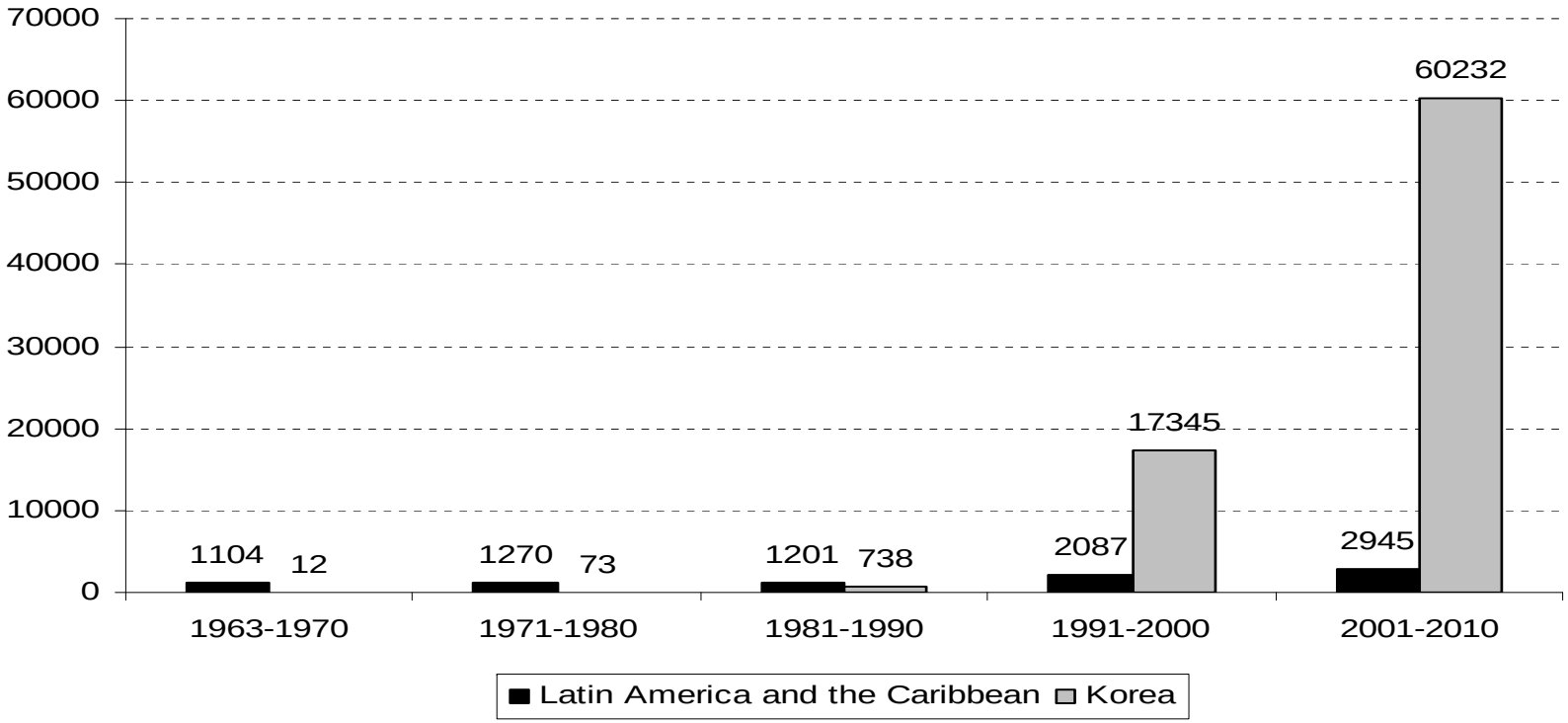
Innovation: Latin America and the Caribbean invests less in R&D, with a small participation of the private sector

INVESTMENT IN RESEARCH AND INVESTMENT (R&D) BY THE PRIVATE SECTOR
(Percentages of GDP)



Patents in the Republic of Korea and Latin America and the Caribbean

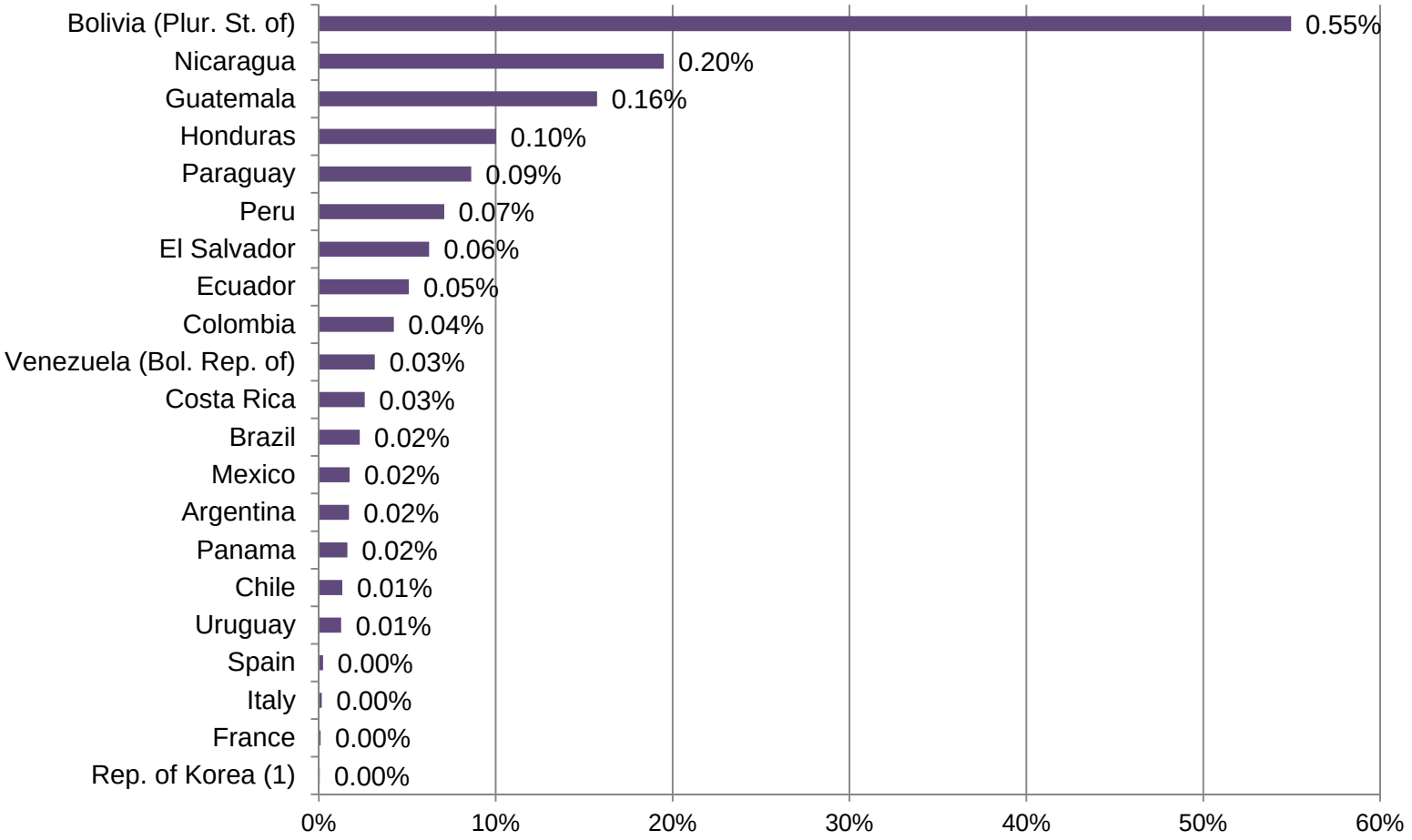
LATIN AMERICA AND THE CARIBBEAN AND THE REPUBLIC OF KOREA: NUMBER OF PATENTS GRANTED BY THE UNITED STATES PATENT AND TRADEMARK OFFICE (USPTO), 1963-2010



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the United States Patent and Trademark Office (USPTO) database.

The digital divide

COST OF FIXED BROADBAND SERVICES: RATES OF 1Mbps IN RELATION TO GDP PER CAPITA, FEBRUARY 2012 *(Percentage points)*



Source: Economic Commission for Latin America and the Caribbean (ECLAC), Latin America Regional Broadband Observatory (ORBA).
(1) Data of the Republic of Korea is as of September 2011.

Conclusions

The region has remarkable assets, but also weaknesses

Assets

- Abundant natural resources:
  - One third of the world's **freshwater reserves** and 12% of the **arable land**
  - A third of world production of **ethanol**, around 25% of the production of **biofuels** and 13% of **oil** production
  - **Reserves**: 65% of **lithium**, 49% of **silver**, 44% of **copper**, 33% of **tin**, 32% of **molybdenum**, 26% of **bauxite**, 23% of **nickel**, 22% of **iron** and 22% of **zinc**
  - 48% of world output of **soybean**
  - 21% of the global area of **natural forest** and **rich biodiversity**

Weaknesses

- Productive and export structure based on static comparative advantages:
  - In many cases (South America): linked to natural resources
  - In others, linked to low-wage, labour-intensive manufacturing or services
  - Still very few dynamic competitive advantages
- Low investment and lags in innovation, science and technology, education and infrastructure
- Labour market informality

In summary…

- The region has enjoyed nearly a decade of relatively high growth; inflation is under control in nearly all countries and, in general, stable economic conditions prevail.
- Despite improvements, the gaps between developed countries and LAC continue to be significant. Low levels of innovation and persistence of the productivity gap.
- Current patterns of economic growth in LAC are not consistent with a sustainable development. Natural resource governance is key to achieve sustainable development in the LAC region.
- The magnitude of the effort implies significant modifications in the current patterns of production, consumption, distribution, the technological paradigm and the existing relative price structure.