Public policies for interconnection at lower costs

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Valeria Jordán
Innovation and Technology Unit
UN - ECLAC

Agenda

I. **Introductory facts**

II. **Internet interconnection policies in LAC**

III. **Final Remarks**
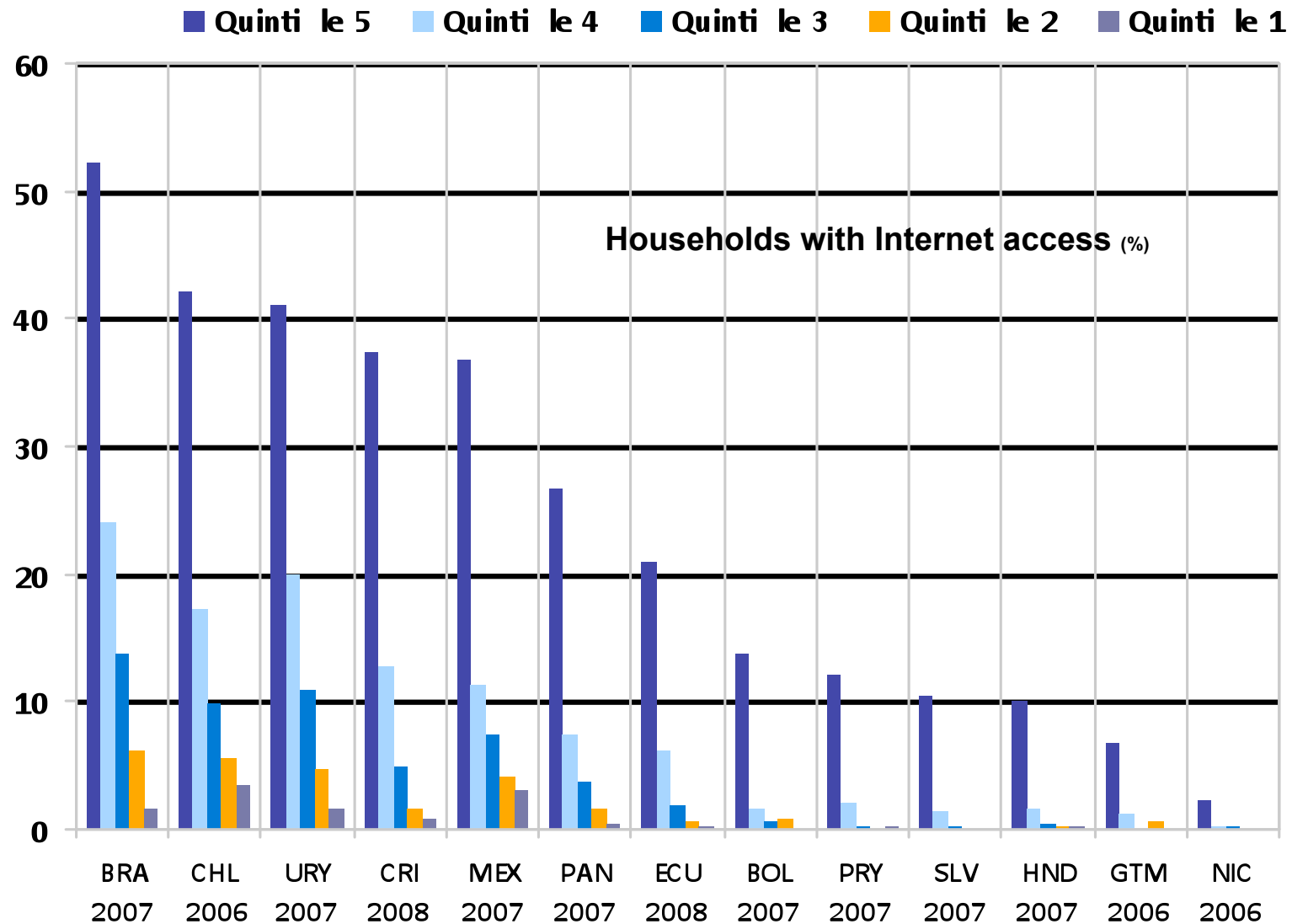
Considerations

- Internet is a driving force for economic and social development
  - ICT investments explain 10% - 24% of economic growth in LAC

- Public policies must address:
  - the expansion of Internet access
  - the growing demand for broadband Internet to use multimedia and peer-to-peer services

- The establishment of IXPs is a strategy that should be considered in ICT development agendas

- However, there are few policies and regulation on Internet interconnection.
  - Internet access is treated as an added-value service

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Facts: the need to increase access

Households with Internet access (%)

Legend: Quintile 5, Quintile 4, Quintile 3, Quintile 2, Quintile 1

Categories: BRA 2007, CHL 2006, URY 2007, CRI 2008, MEX 2007, PAN 2007, ECU 2008, BOL 2007, PRY 2007, SLV 2007, HND 2007, GTM 2006, NIC 2006

Source: ECLAC, OSILAC.

http://www.eclac.org/socinfo/

Facts: not affordable tariffs

Minimum Broadband Monthly Tariffs/ per capita Income
(min. 256 kbps)
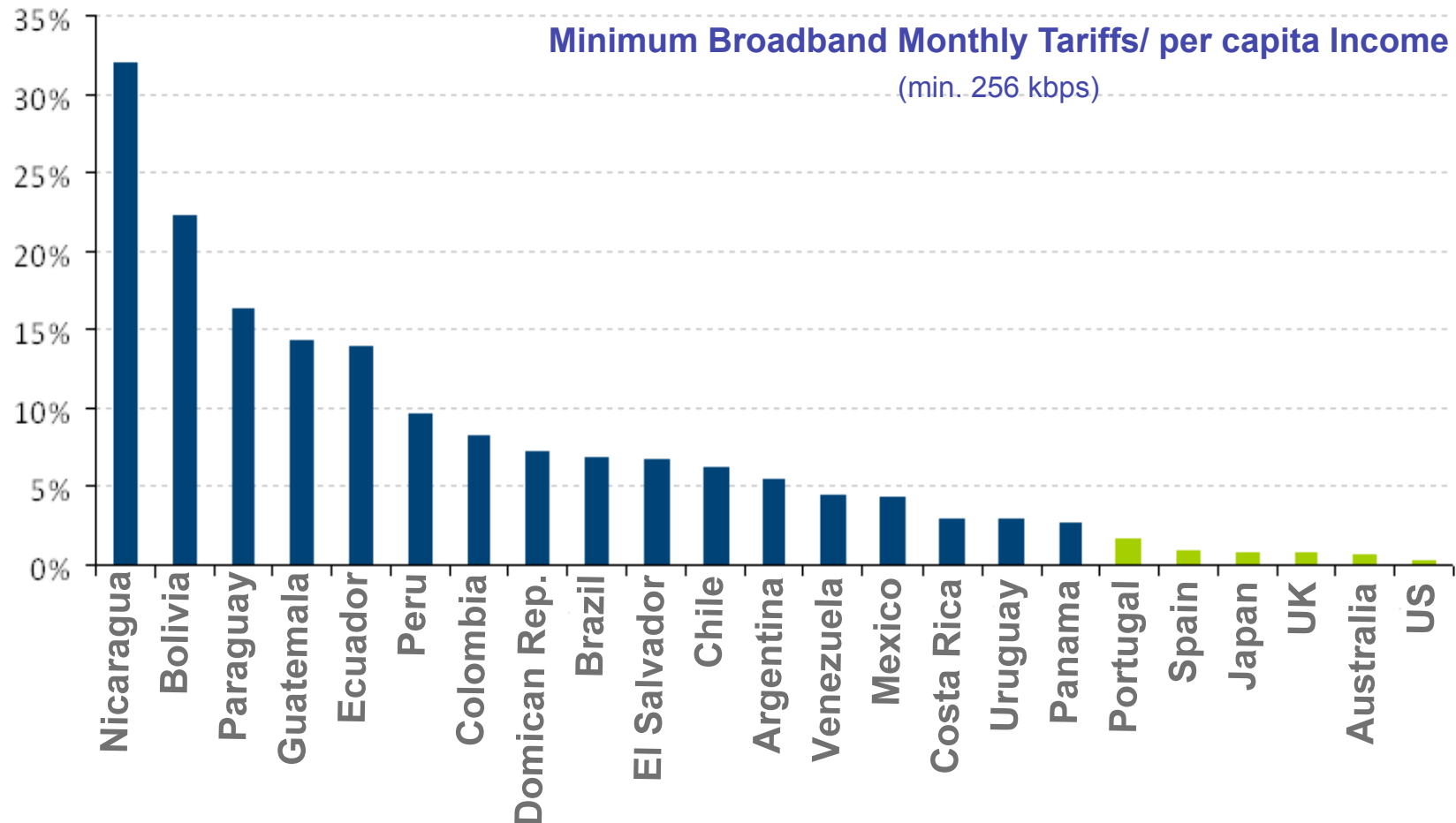
It is essential to reduce end-users tariffs in order to increase Internet access

http://www.eclac.org/socinfo/

Traffic flows and connection capacity

- **The region is worldwide connected mainly through U.S.**
  - Using international links to route local traffic increases:
    - connection time to access local content
    - service costs

- **International traffic continues to grow**
  - most of the regionally accessed content is created and hosted in U.S.
  - most of LAC produced content is hosted in U.S. because it is cheaper than local hosting

- **And there is no good interconnection among LAC countries**
  - Great delay in intra-regional traffic

- **IXPs at local and regional level can contribute to improve the connection capacity and to create and host local content**
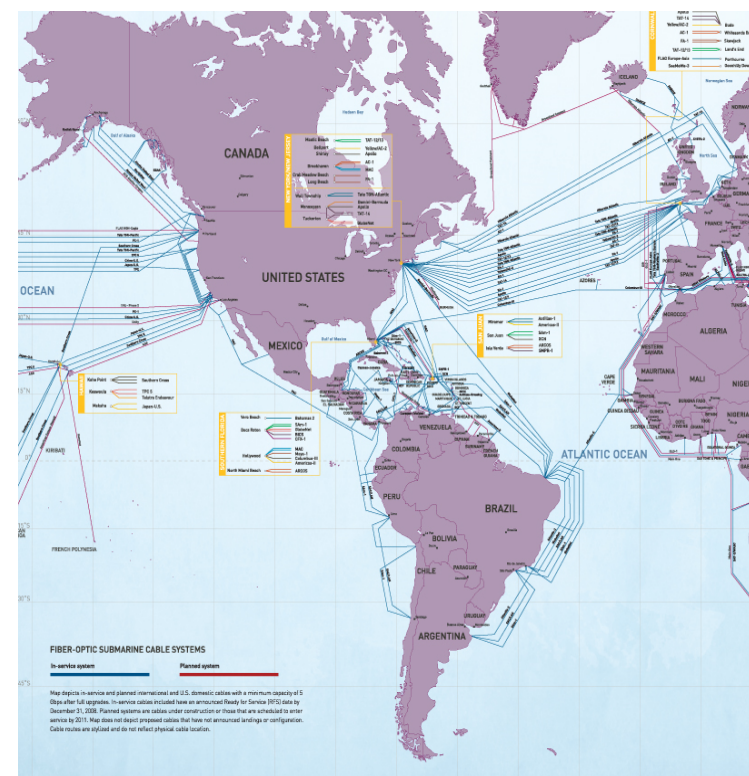
IXPs advantages

- To reduce costs by eliminating international traffic routing

- More bandwidth for local users because of lower costs associated to local capacity

- Shorter response times to local content by using less segments to route local traffic

- Better quality for advanced services such as VoIP, multimedia streaming, etc.

- Development of local low-cost infrastructure that facilitates the entry of new service and content providers

- Reducing transactional costs for ISP

Internet interconnection policies in LAC

Chile: obligation of interconnection of ISPs

- **1999: ISPs should establish interconnections among themselves to transport national Internet traffic**

  - Definition of procedures and deadlines for establishing and accepting connections between ISPs (Res. Exenta No.1483, 1999)

- **2000: the obligation of interconnection is fulfilled when an ISP is connected to an IXP**

  - Technical Definitions for IXP (Res. Exenta No.698, 2000)
    - No discrimination among IXPs or ISPs
    - IXP should have a website to publish technical and QoS information
      - Connected ISP's and topology
      - Bandwidth usages
      - Quality indicators for users and connection links among IXPs

- **In case of disputes, regulator acts as a dispute settlement panel**

Brazil: the multi-stakeholder approach

- **Brazilian Internet Steering Committee (CGIbr)**
  - Multi-stakeholder
    - Government (9) - Enterprises (4) - Civil Society (4) - Academy (3) + 1
  - Responsible for:
    - Development of Internet: technical and regulatory issues
      - Technical quality, innovation and dissemination of services
    - Allocation of Internet addresses (IPs) and the registration of domain names using <.br>;

- **Principles for Internet Governance** (Resolução CGI.br/RES/2009/003/P, 2009)
  - Efficiency, quality, network neutrality

- **PTT: is a CGI.br's project. It is an IXP that facilitates direct interconnection among various networks operating in a metropolitan region.**

  ➡ **Full interconnection among ISPs fosters local net to exchange local traffic**

eLAC Regional Action Plan for IS

- **eLAC2007**
  - Goal 1: Regional Infrastructure
    - "Promote the development of regional ICT infrastructure, including broadband capacity through backbones and **interconnection of existing Network Access Points (NAP)** with root servers, mirror servers and traffic exchange points."

- **eLAC2010**
  - Goal14
    - "Promote the development of infrastructure in each country and in the region, **fostering the deployment of traffic nodes, the installation of root servers and local content hosting,** with the object of improving the network's quality and stability and reducing access costs."

➡️ **Awareness on the issue and provide a dialogue forum among relevant actors**

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Final Remarks

Public policies to foster IXPs

- Let the market work

- To Increase awareness of the benefits of maintaining local traffic local

- To promote regulation for convergence

  - To familiarize regulatory authorities with the technical aspects and economics of Internet interconnection

  - To foster competition in Internet and telecom services

  - To promote information transparency

  - To set dispute and appellate instances

  - To foster network neutrality

- To develop frameworks to improve national coordination between Internet governance and telecommunications regulation

Thanks for your attention

Innovation and ICT Unit
Division of Production, Productivity and Management (DPPM)

Economic Commission for Latin America and the Caribbean (ECLAC)

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