

BBVA

RESEARCH

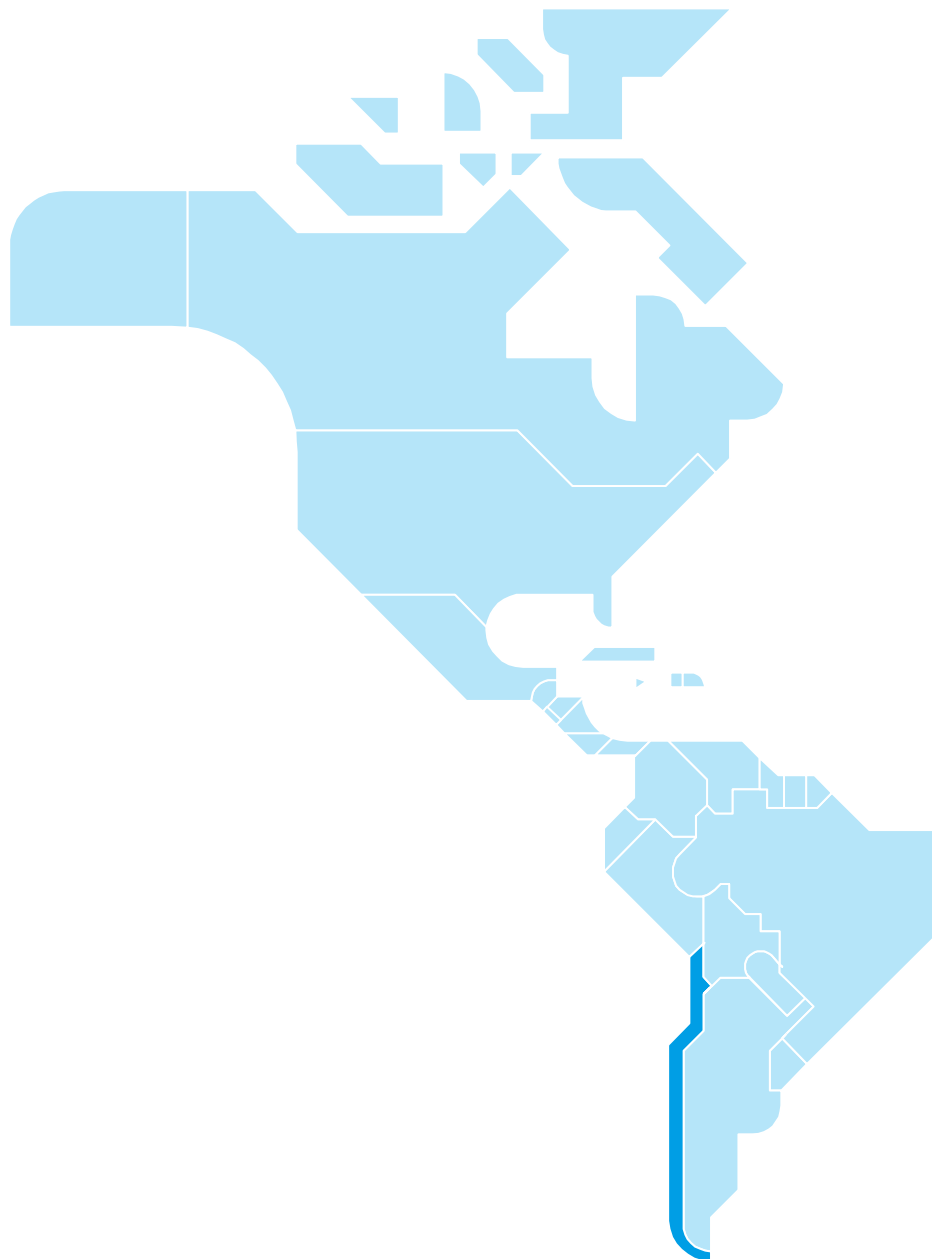
JUNE
2016

Digital Context

Chile

Outline

- Overview
- 1 Digital scenario
- 2 Demand side
- 3 Supply side
- 4 Regulation side



Overview

- Chile's digital status is **similar to some developed countries**, such as Spain and Luxembourg
- **Increasing** number of people are using internet and with **higher** frequency
- Mobile devices are **gaining momentum** to access internet
- **High cost** is the main barrier to access internet for the 48% of households without internet, particularly for **younger** ones
- **Older** individuals cite **lack of skills** and **lack of necessity** as the main barriers for internet use
- Number of **mobile broadband** subscriptions have **increased 4 times**
- Around **60%** of the investment in telecommunication services is dedicated to **mobile communications**
- **ICT-related laws** have a positive **relationship with** legal system **efficiency** and negative with **piracy** rate



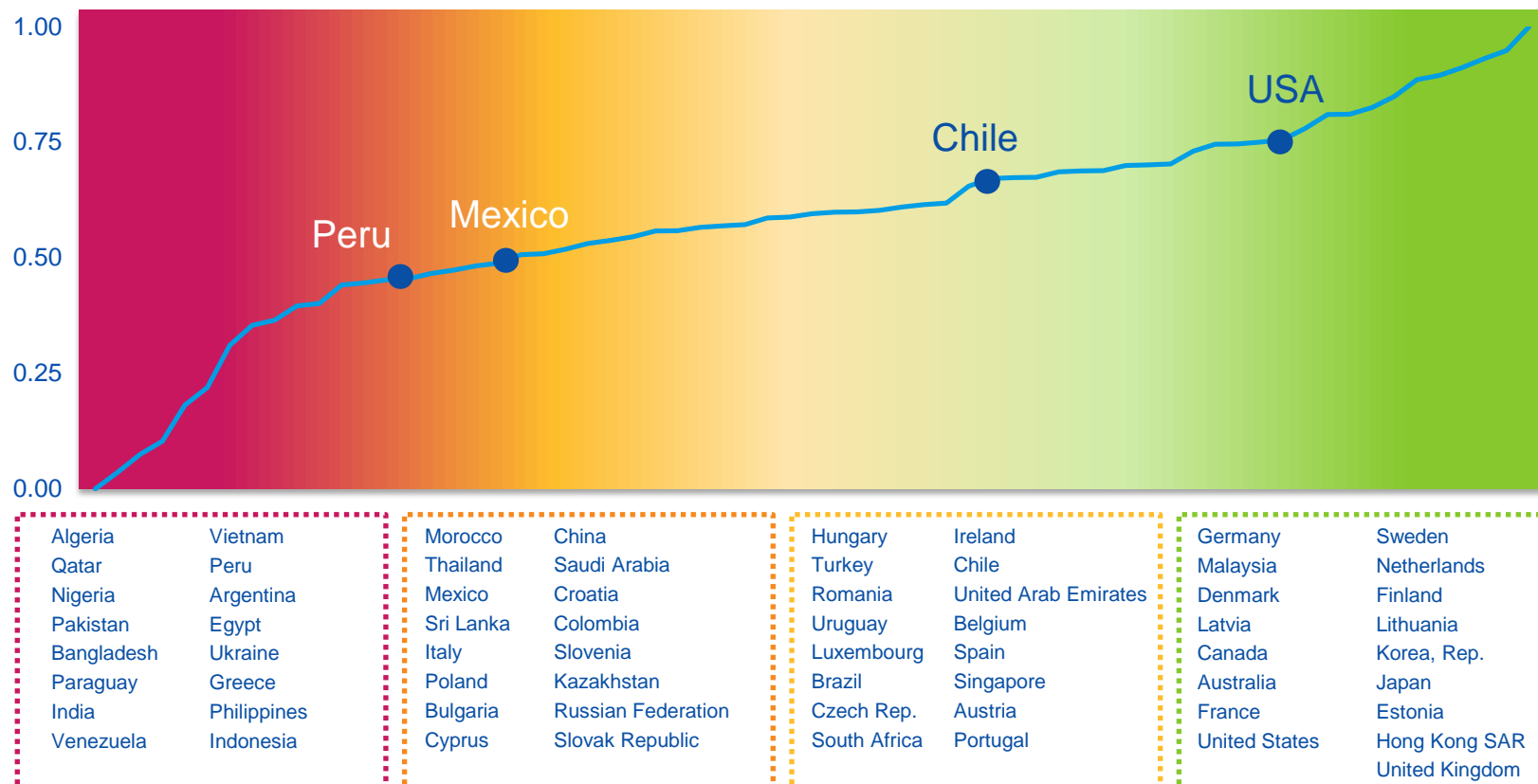


1

Scenario:

Digitization Index

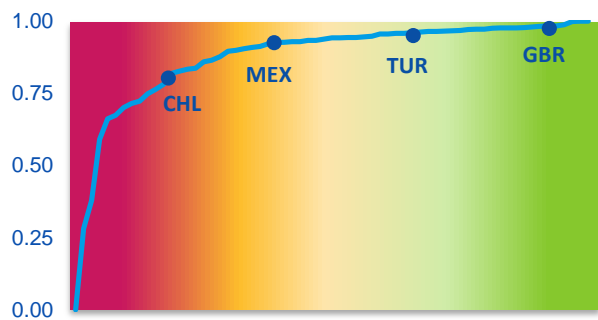
1.1. Structural digitization Index in 2015



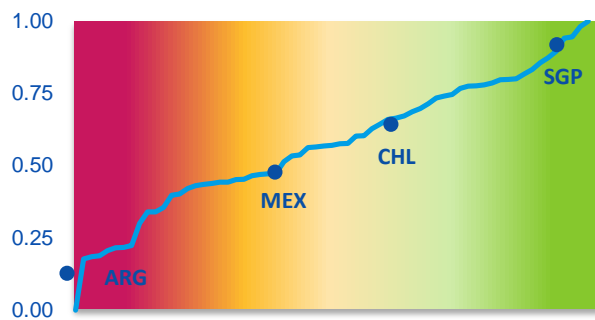
The index comprises the measure of infrastructure level indicators, adoption and use of technologies, costs and regulatory conditions

1.2. Structural digitization Index in 2015: By dimension

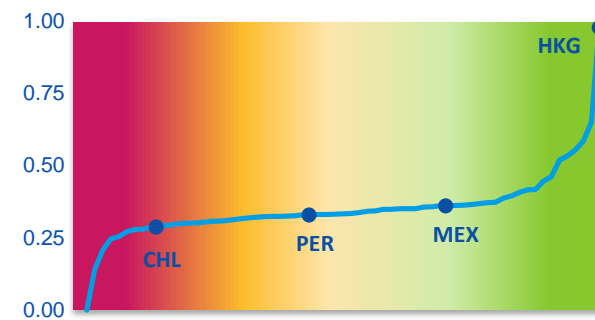
Affordability



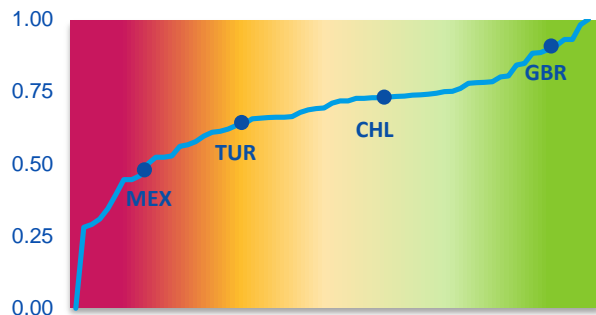
ICT Regulation



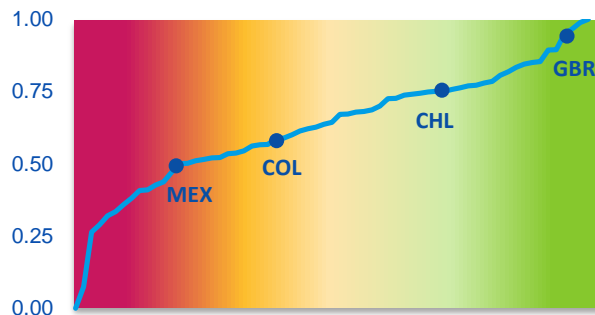
Infrastructure



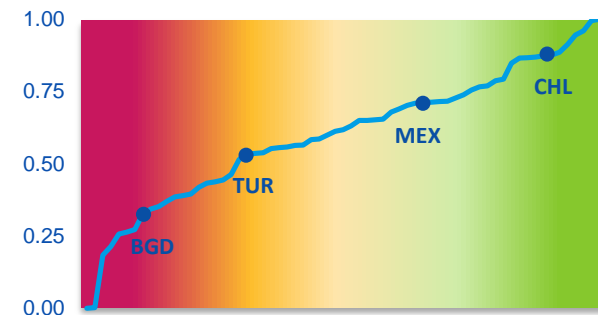
Individual usage



Enterprises usage



Content

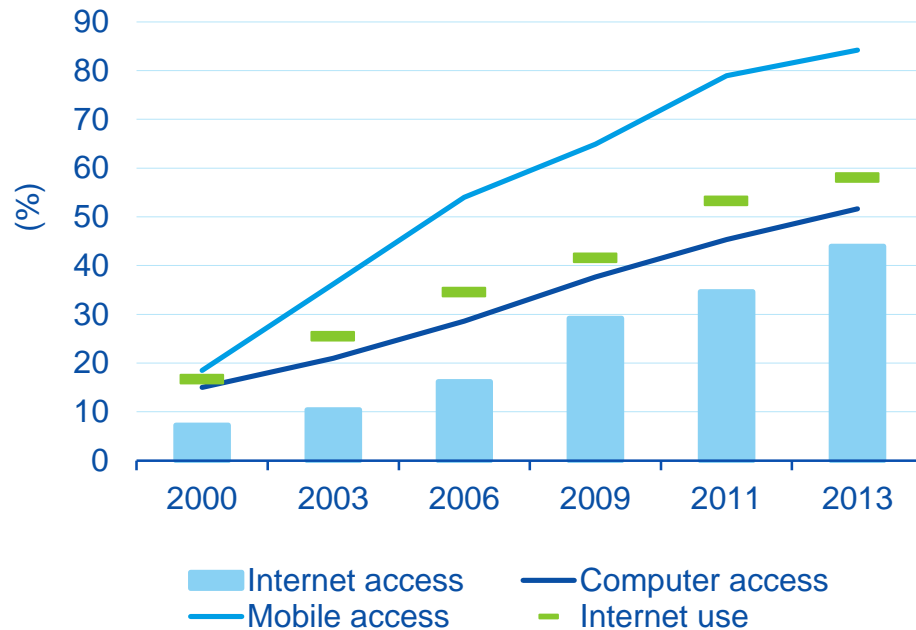




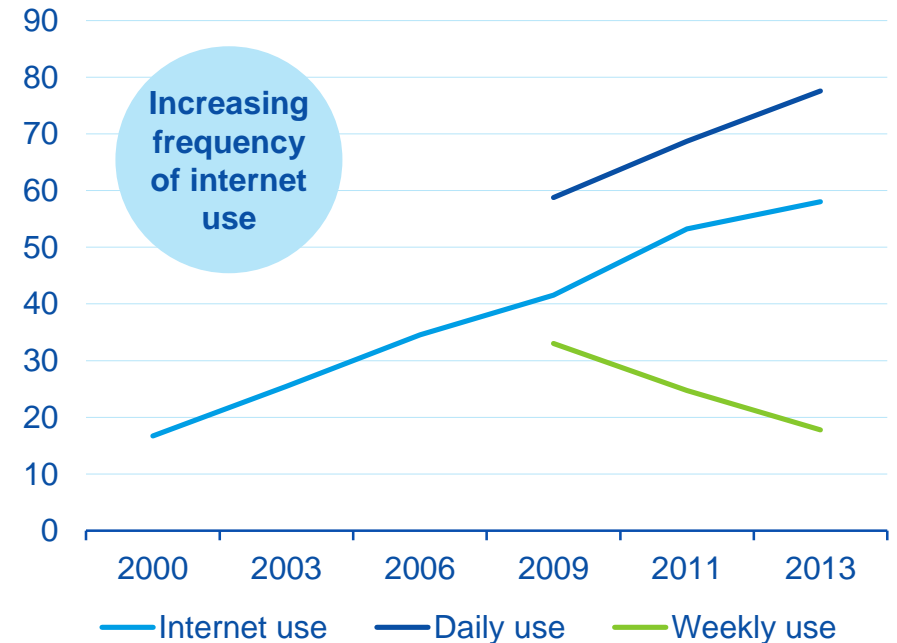
2 Demand side

2.1. Computer and internet: Access at home and usage

TIC access and internet use



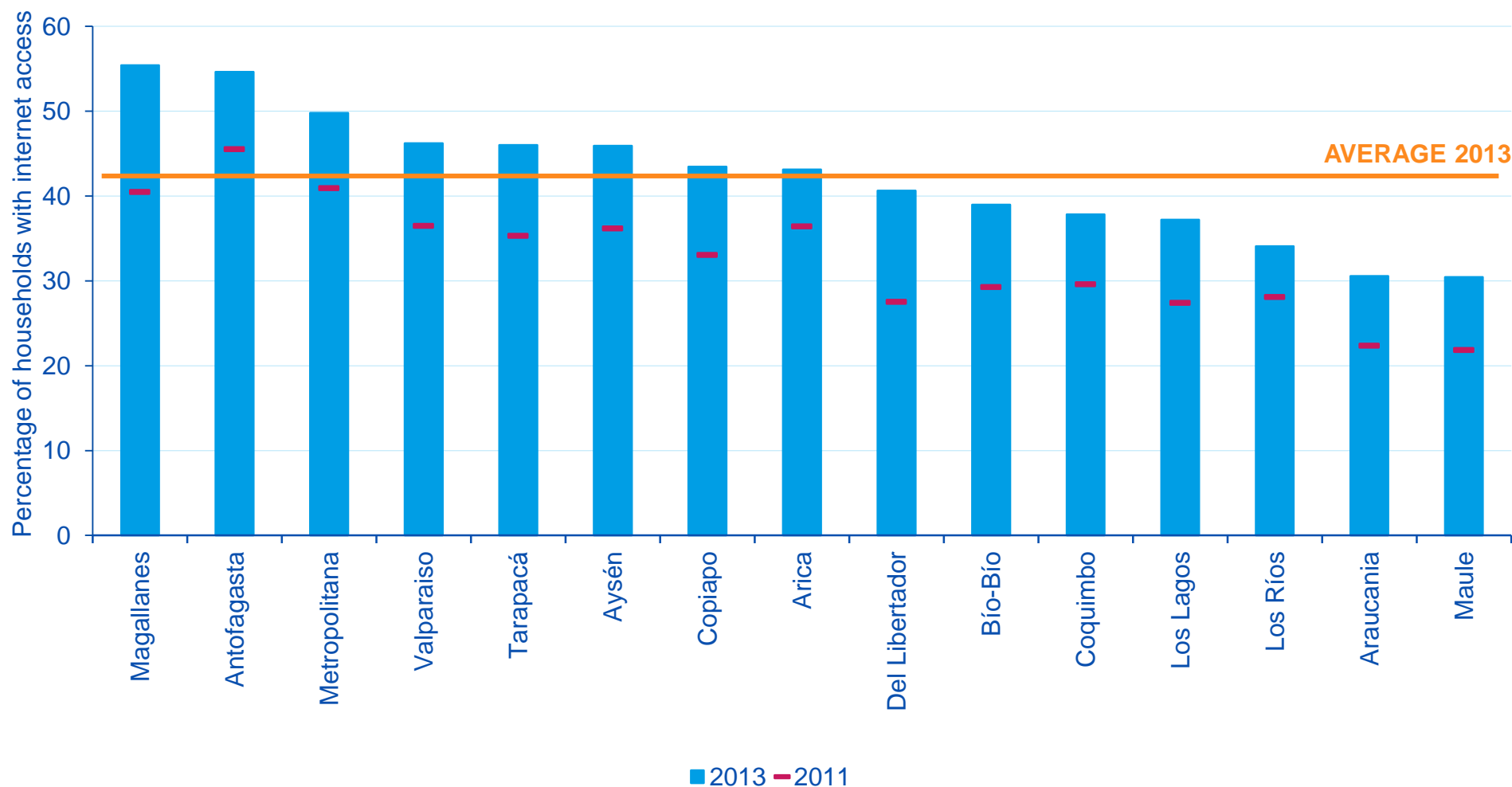
Internet use frequency (%)



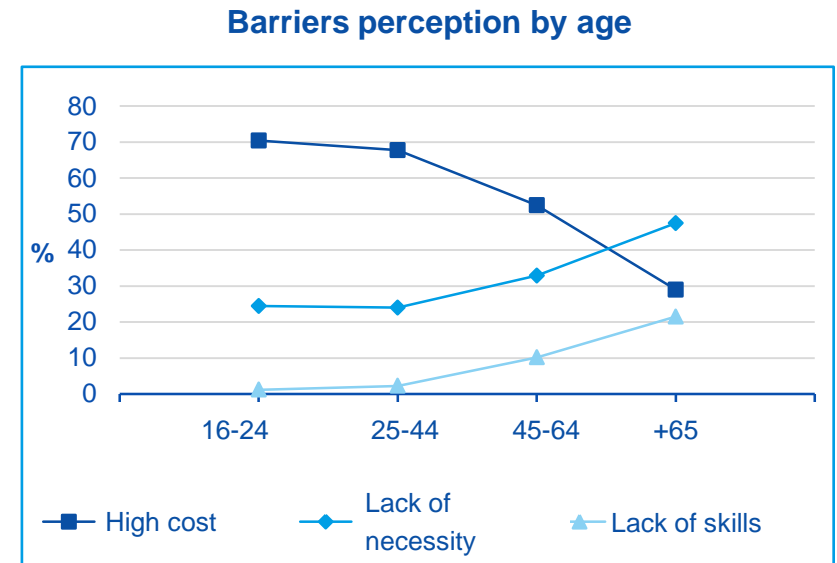
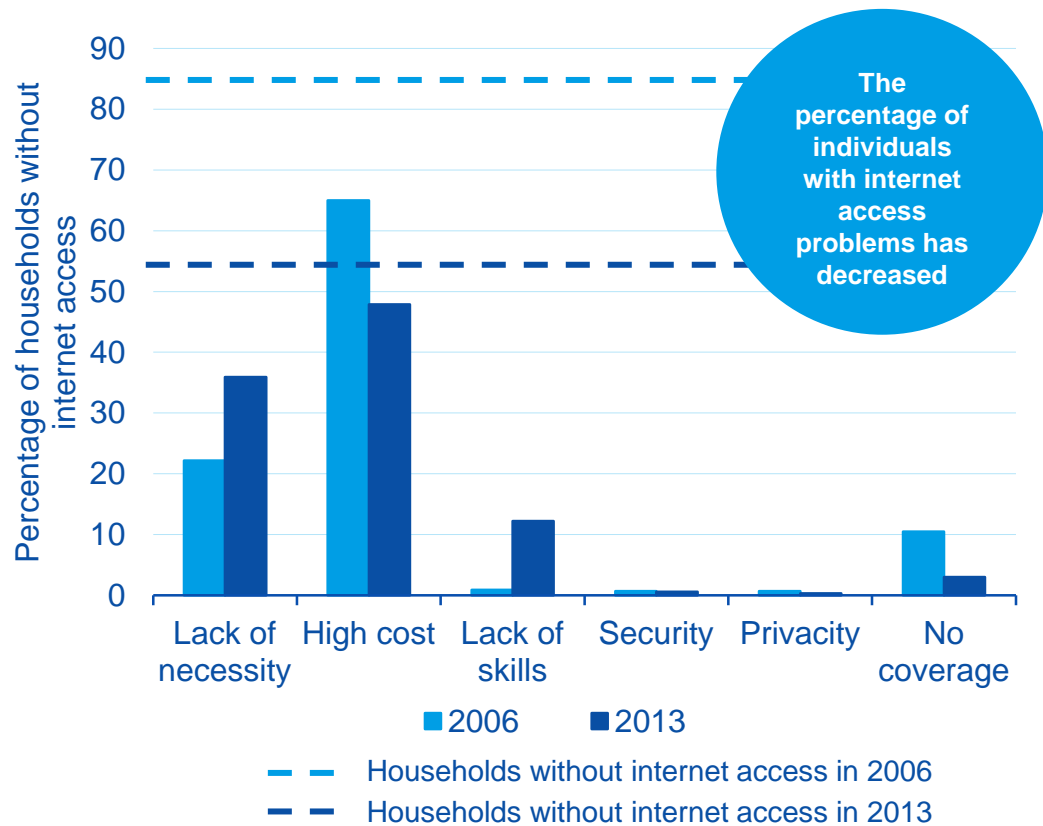
Higher growth in mobile phone access than computer



2.2. Internet access at home: Evolution across states

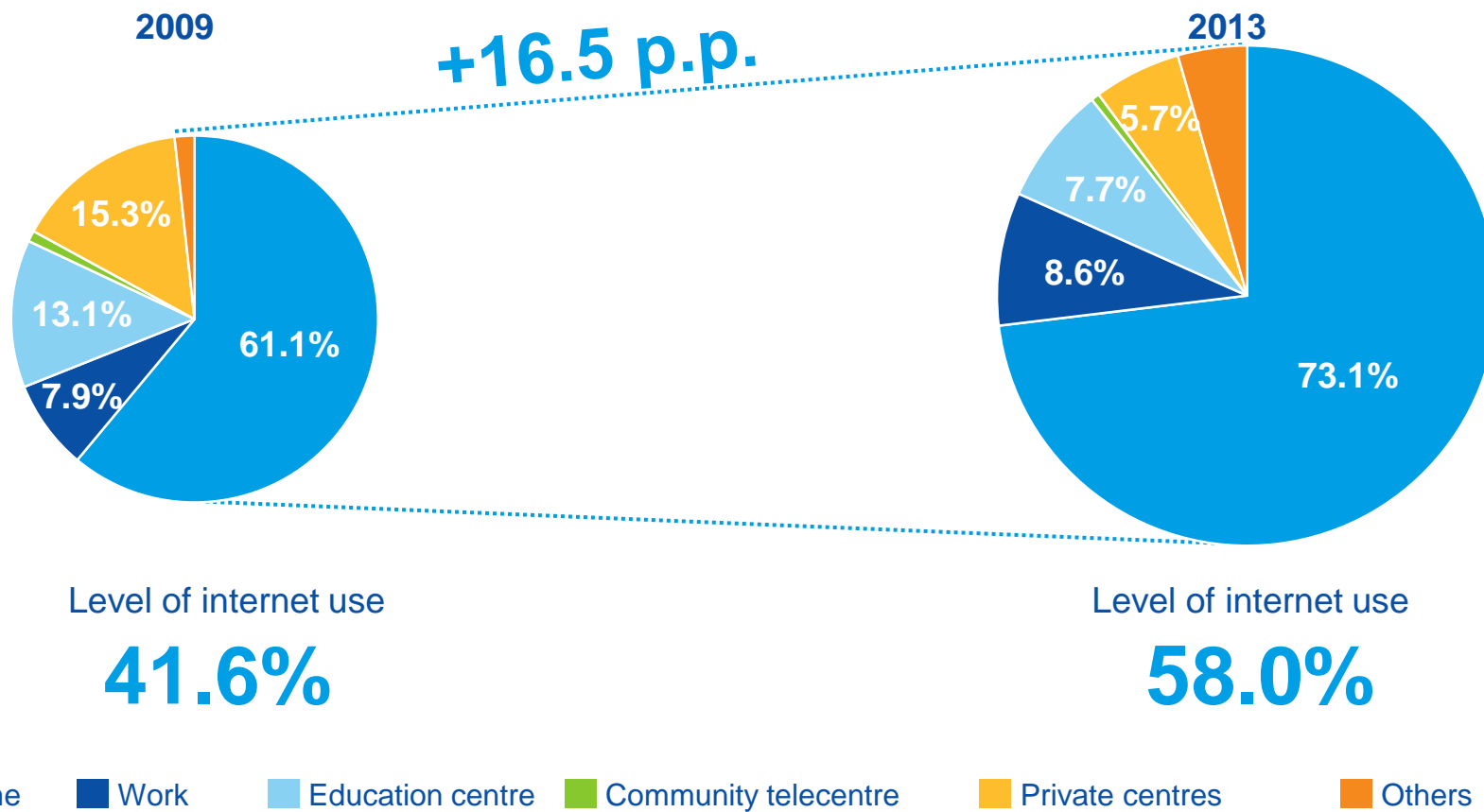


2.3. Internet access barriers at home



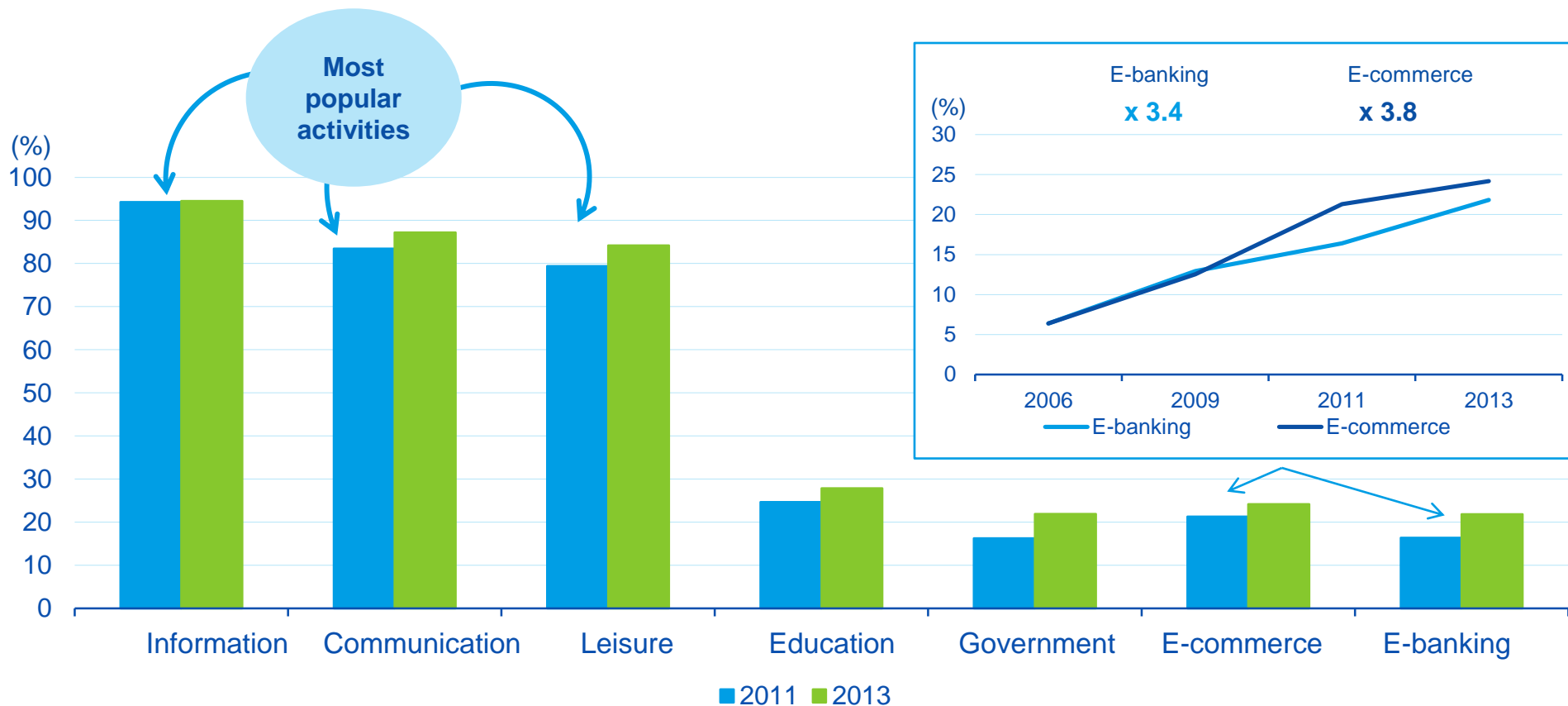
The high cost is the main barrier to access internet for households

2.4. Places for Internet use



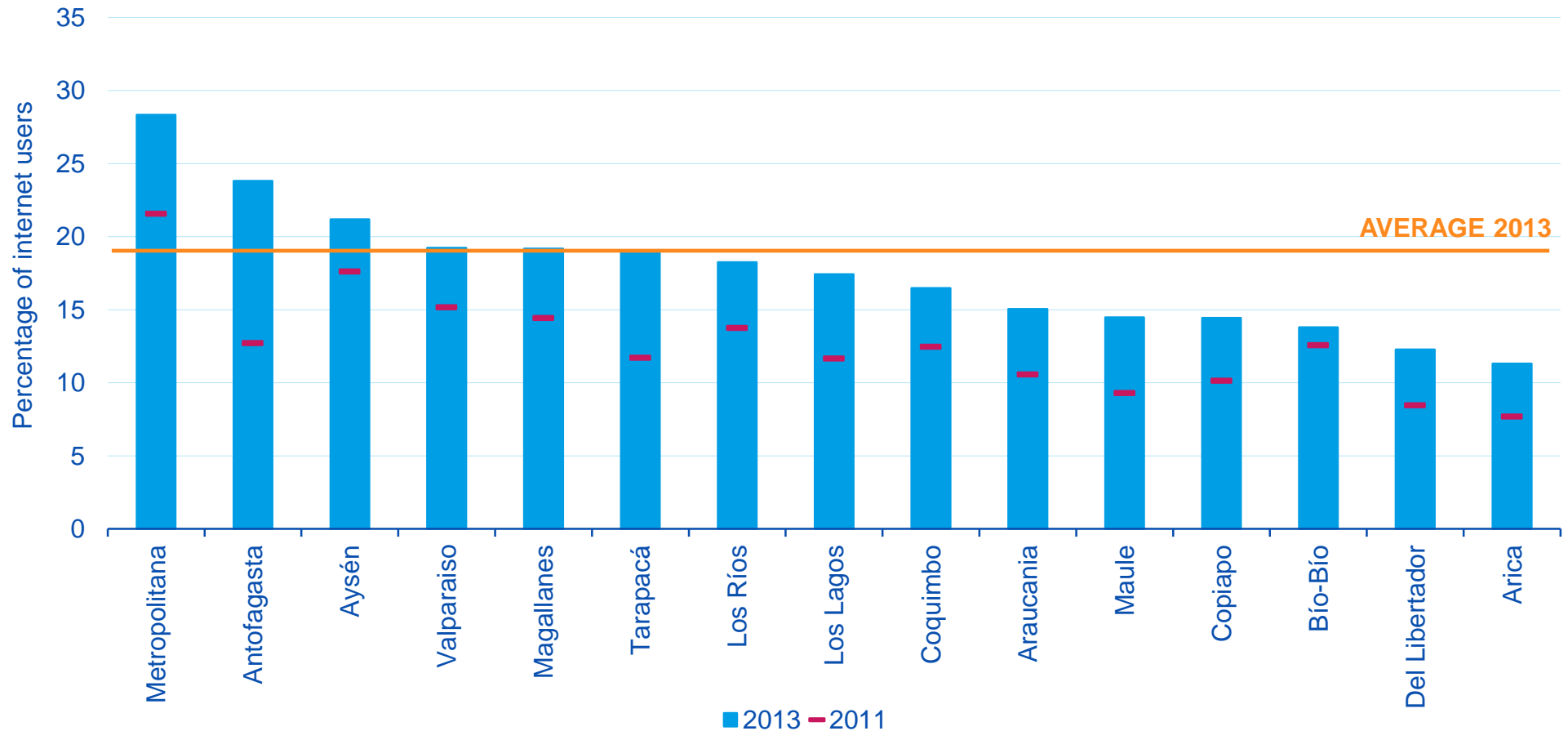
People mostly access internet at home

2.5. Internet activities: usage in last twelve months

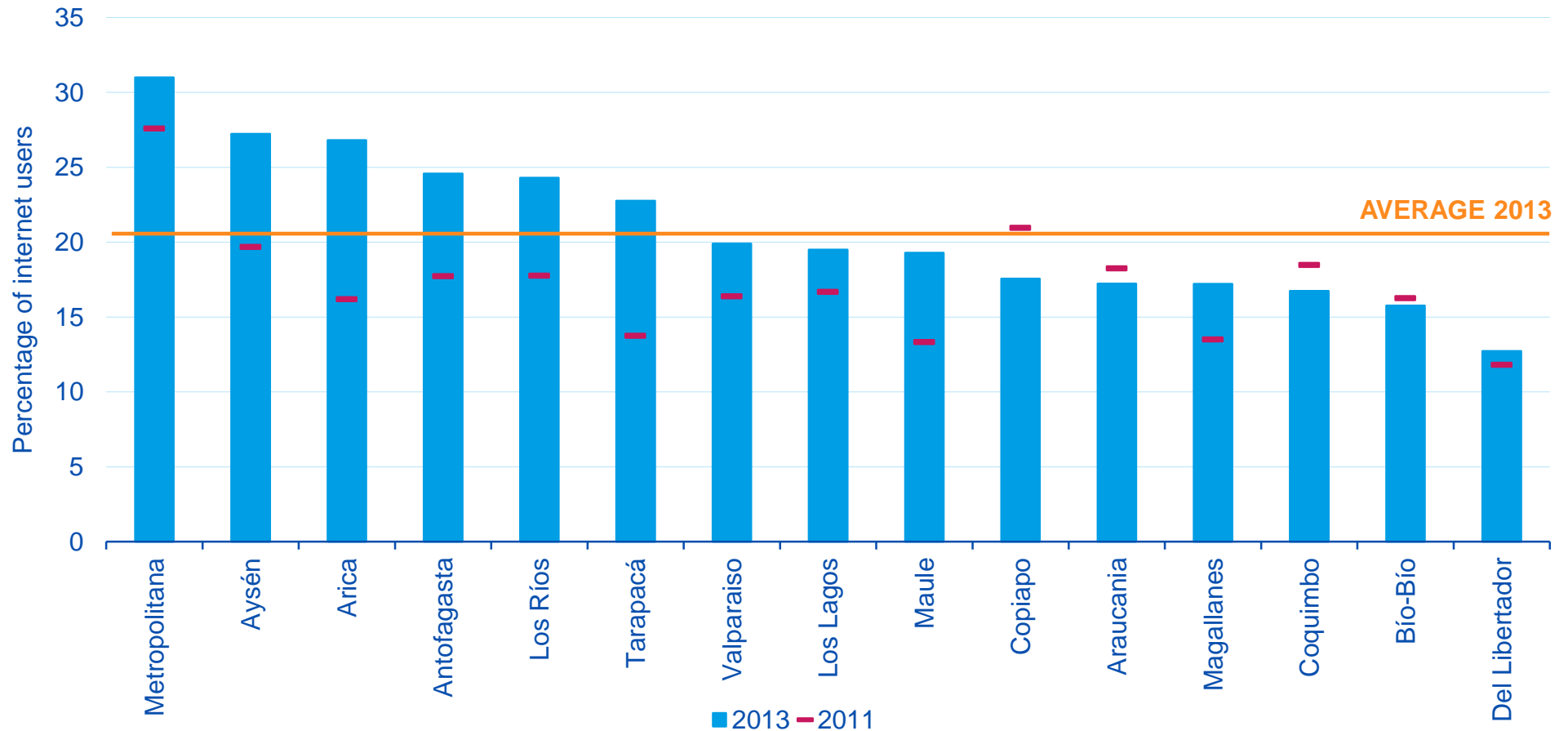


E-banking and e-commerce increase their share among internet activities

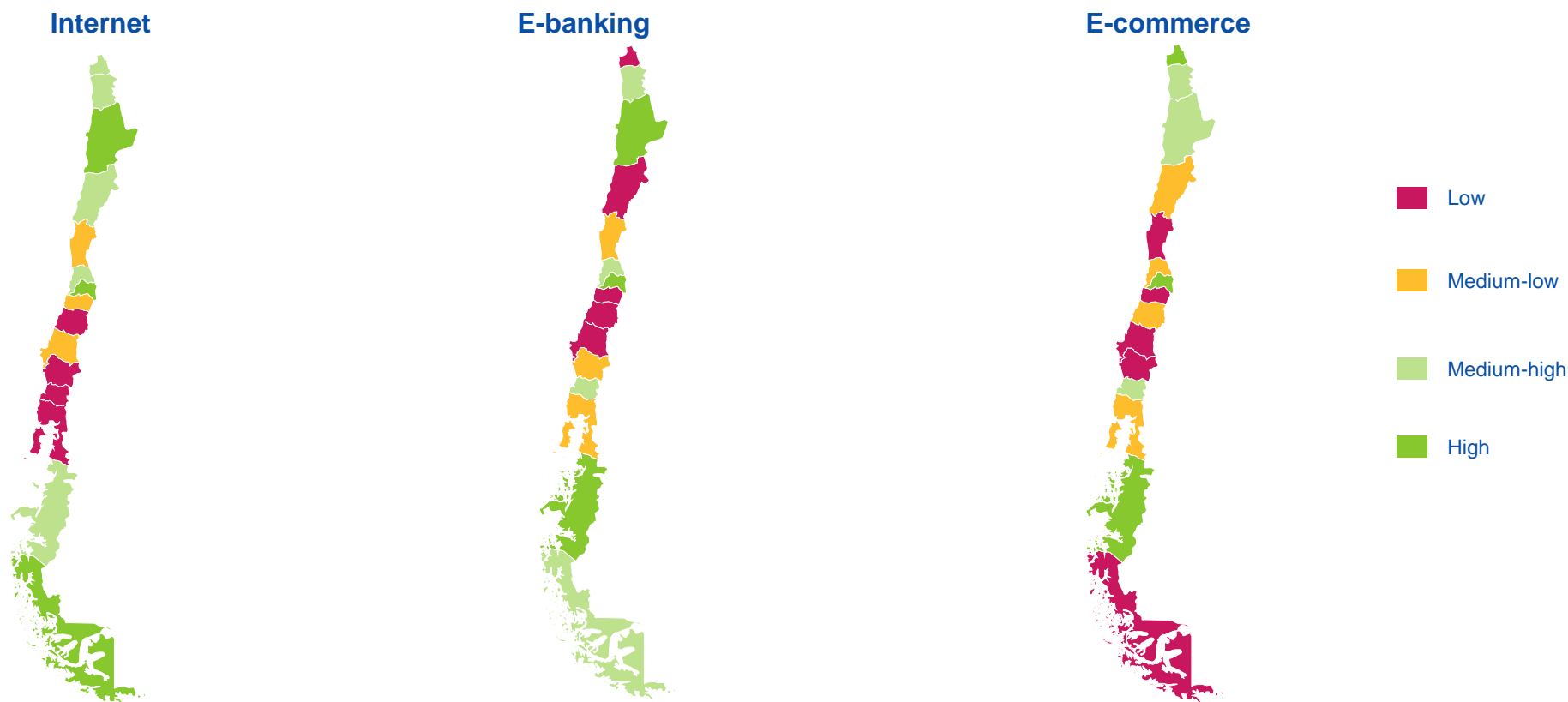
2.6. E-banking: Evolution across states



2.7. E-commerce: Evolution across states

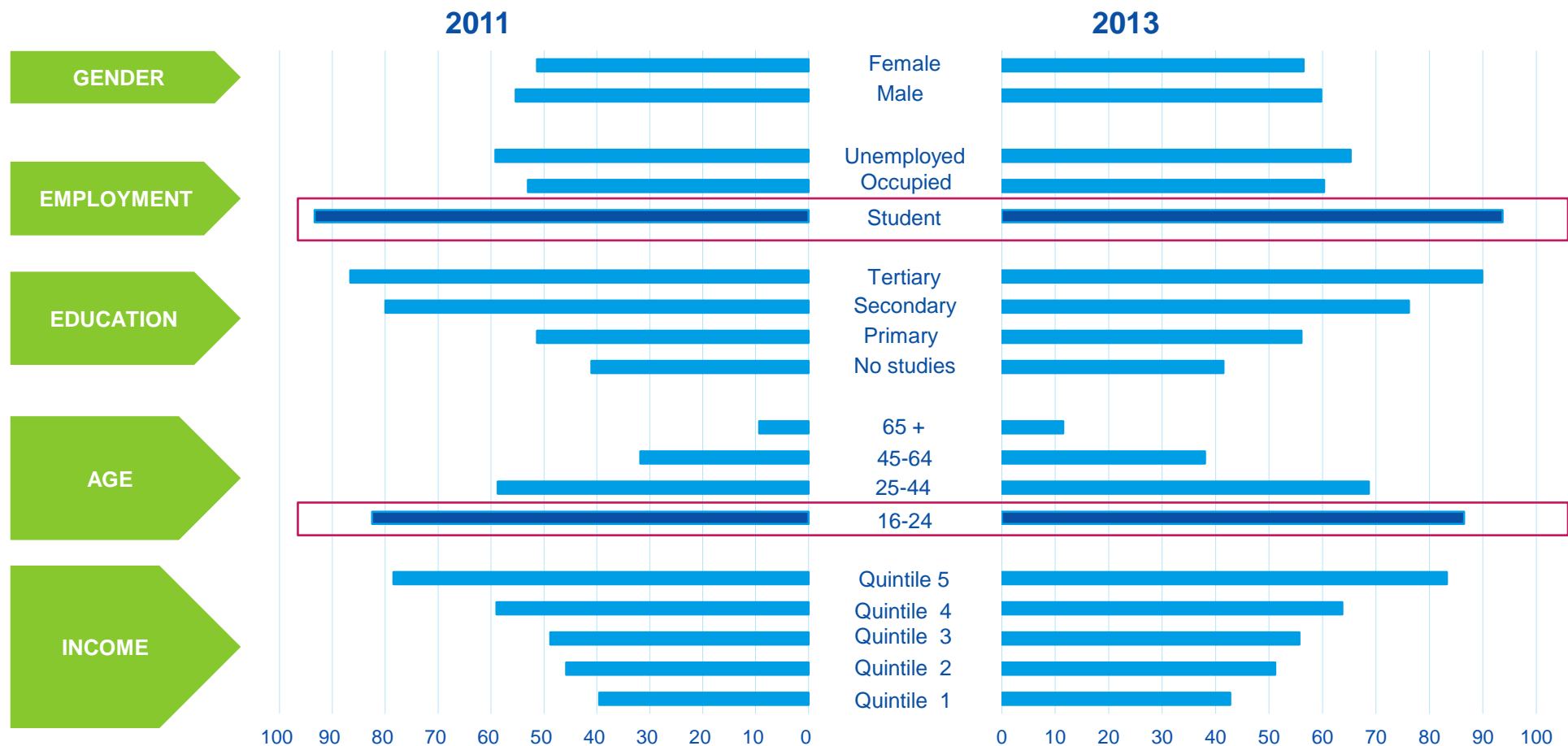


2.8. Geographical distribution in 2013: usage in the last year

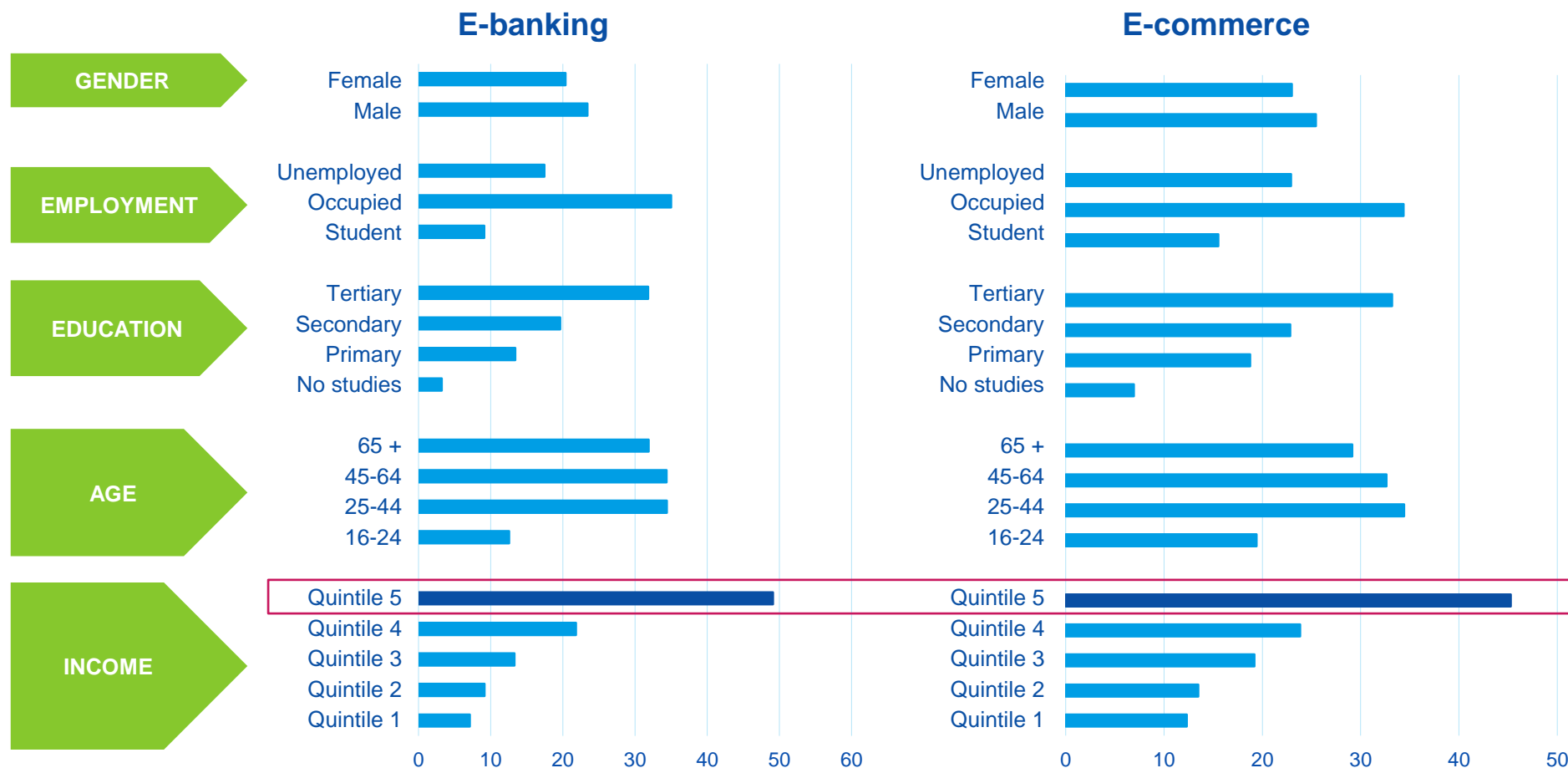


There is heterogeneity within the country in terms of internet use, e-banking and e-commerce. However differences across regions are minor

2.9. Population characteristics: Internet use (%)



2.10. Population characteristics in 2013 (%)

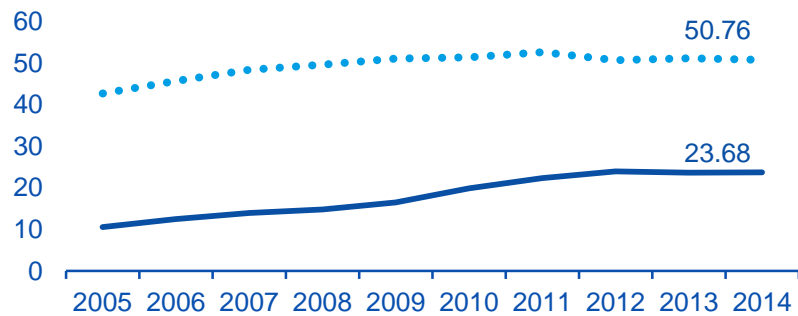




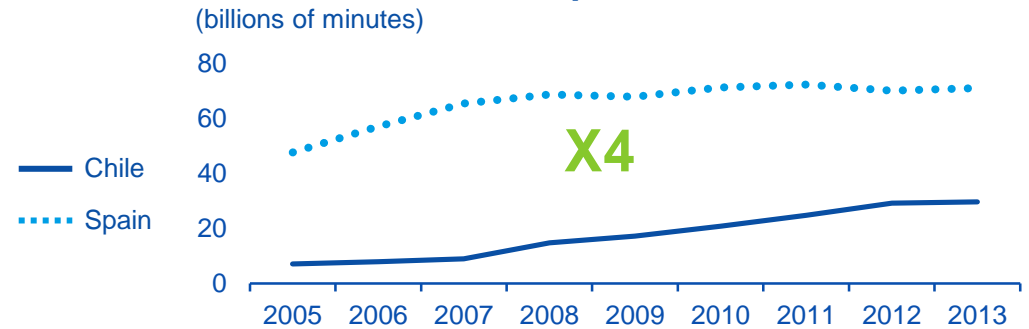
3 Supply side

3.1. Mobile situation

Mobile-cellular telephone subscriptions (millions)



Domestic mobile-telephone traffic (billions of minutes)

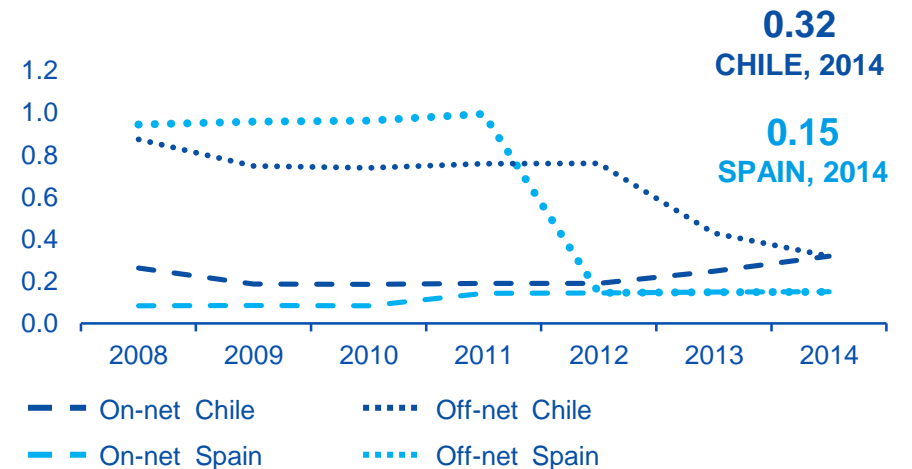


Mobile population Coverage



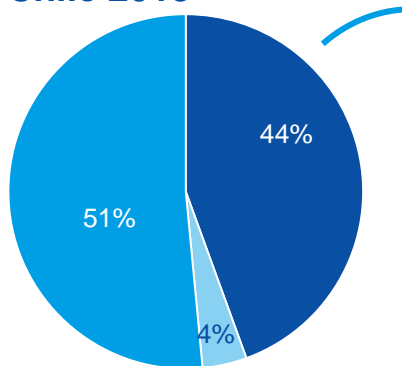
2012
 Chile 95%
 Spain 99%

Tariffs: Mobile-cellular prepaid-1 min call (USD)

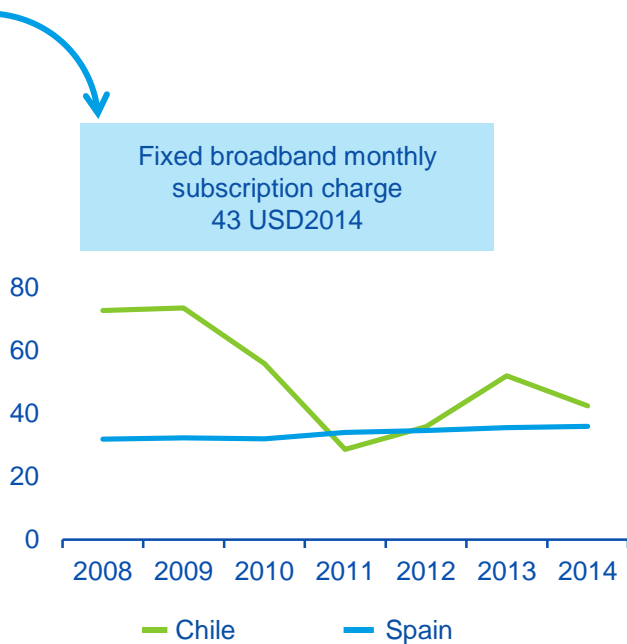


3.2. Fixed broadband

Chile 2013



■ DSL ■ Fibre ■ Cable modem

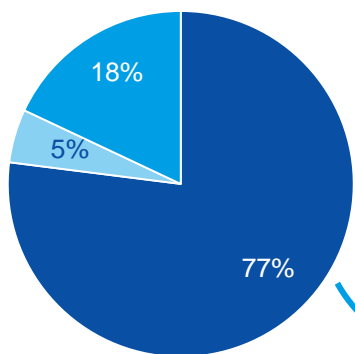


Fixed broadband monthly subscription charge
43 USD2014

Fixed broadband speed, (in Mbit/s)



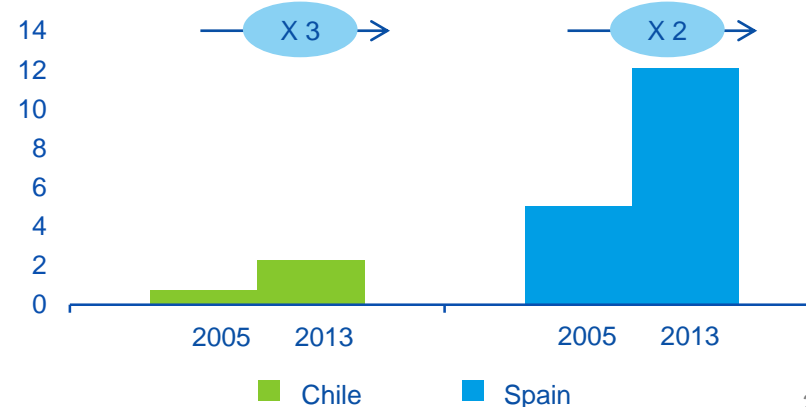
Spain 2013



■ DSL ■ Fibre ■ Cable modem

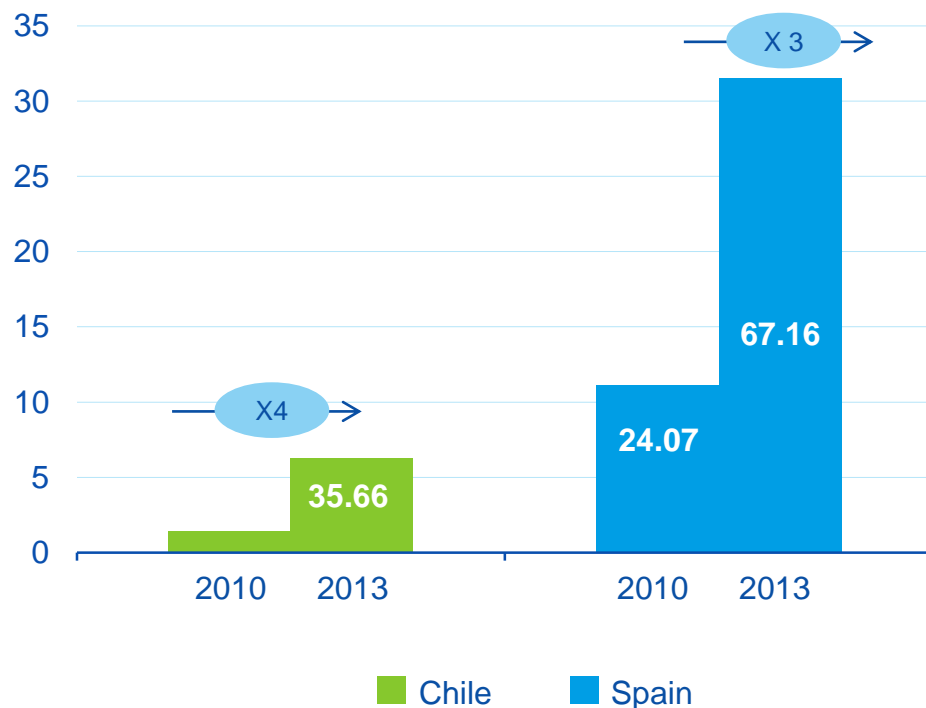
Fixed broadband monthly subscription charge
36 USD2014

Fixed broadband subscriptions (millions)

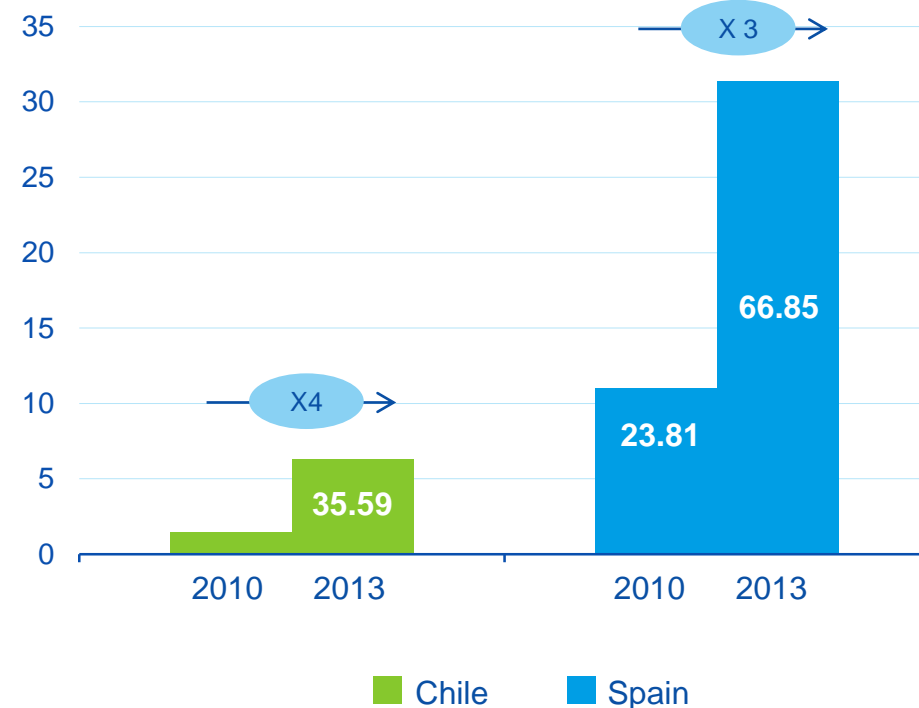


3.3. Wireless broadband

Total wireless broadband subscriptions (millions)



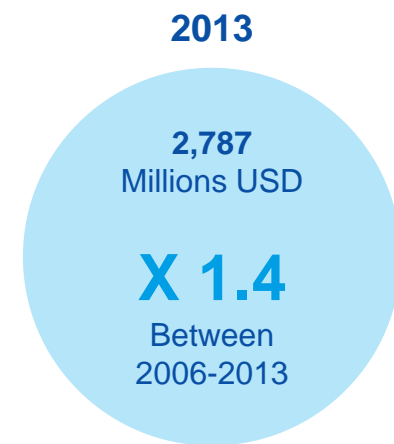
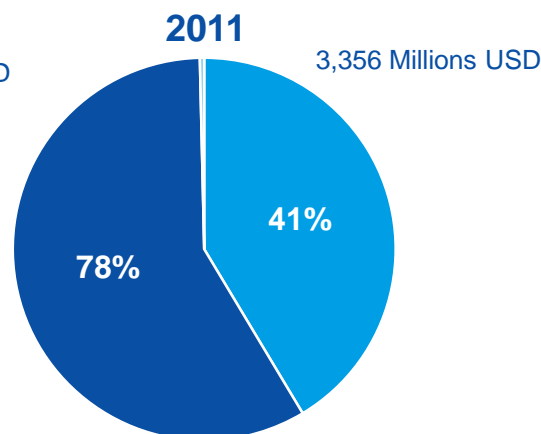
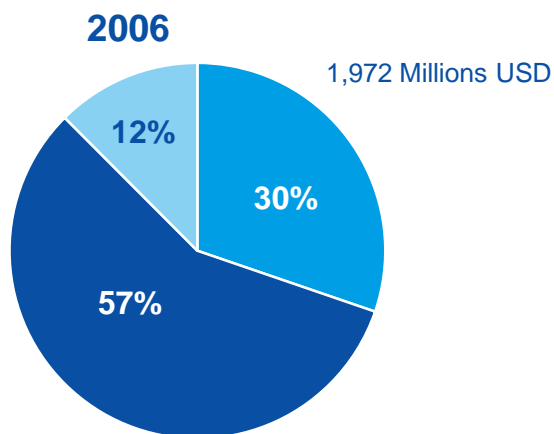
Mobile-broadband subscriptions (millions)



Note: numbers inside the bars show nº subscriptions per 100 inhabitants

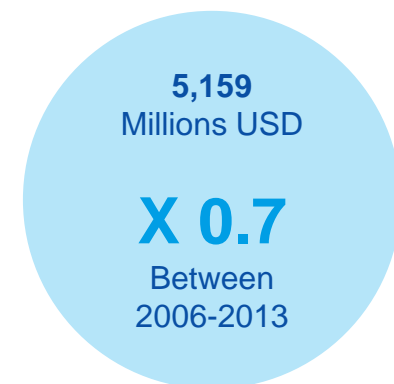
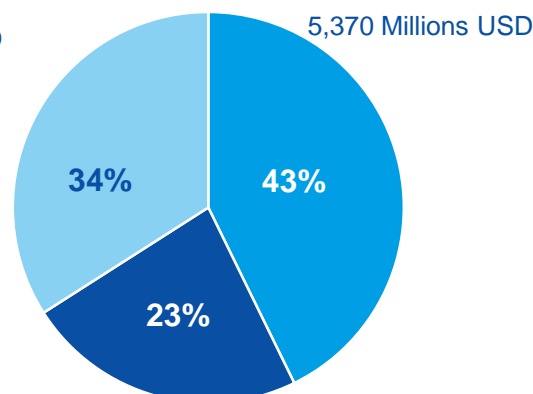
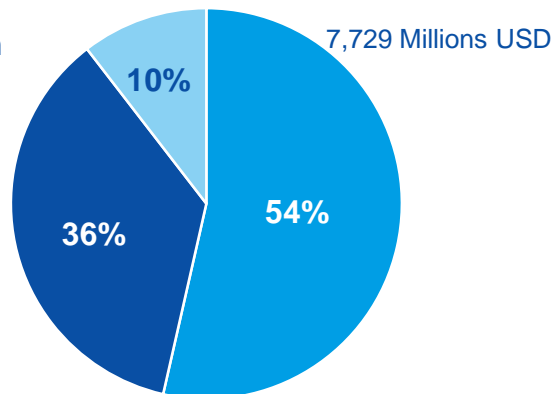
3.4. Annual investment in telecommunication services

Chile



- Fixed-telephone
- Internet
- Mobile communication

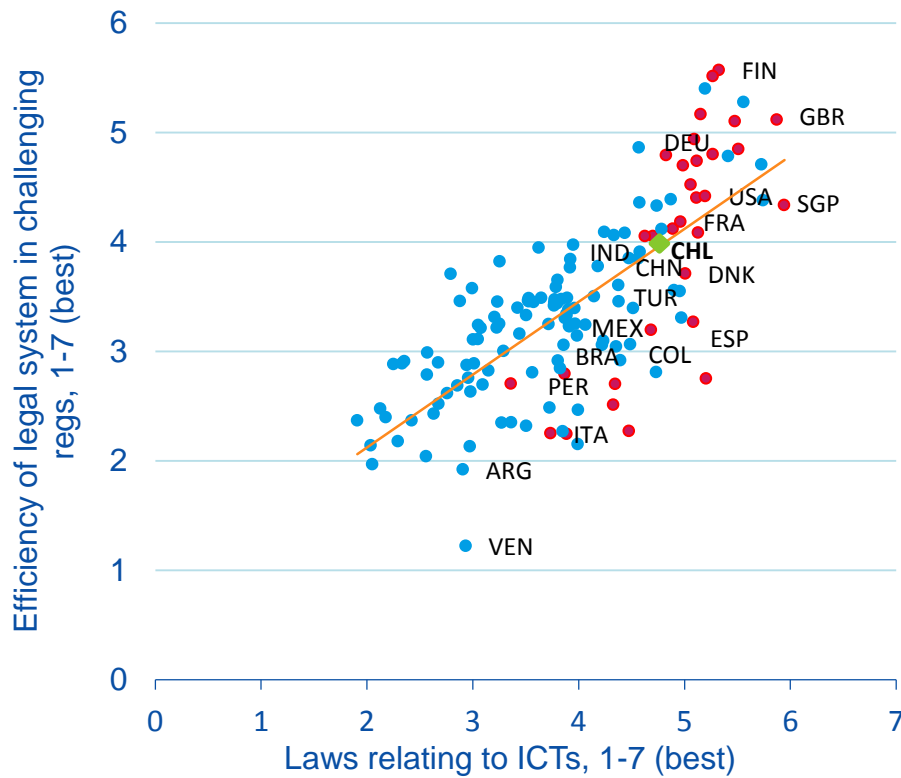
Spain



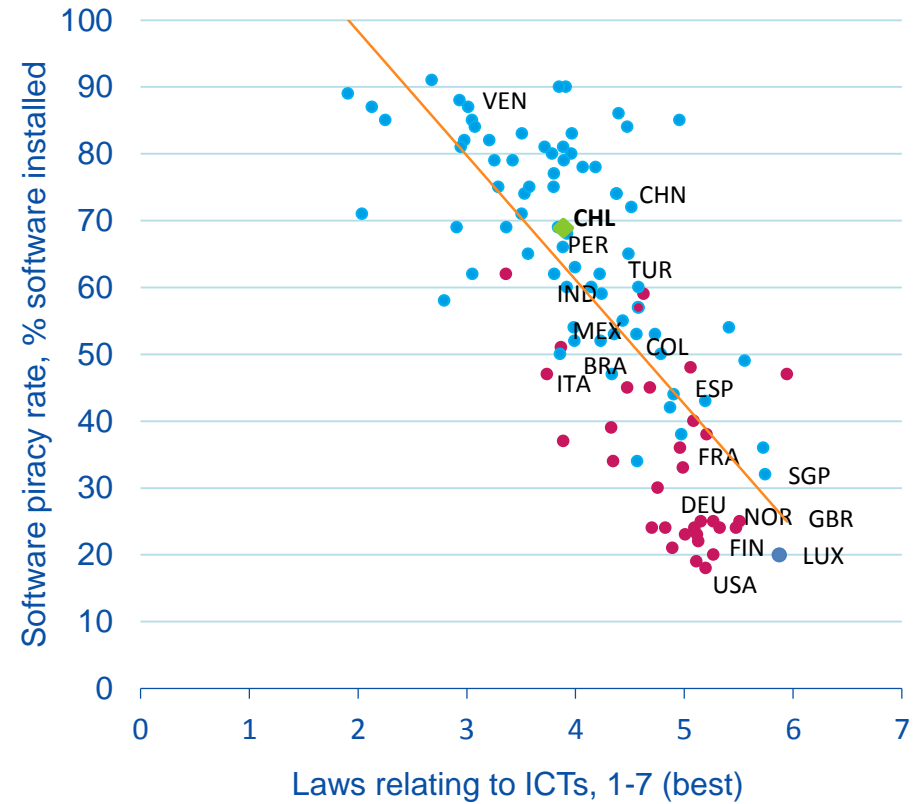


4 Regulation side

4.1. ICT laws: Relation with Efficiency and Piracy



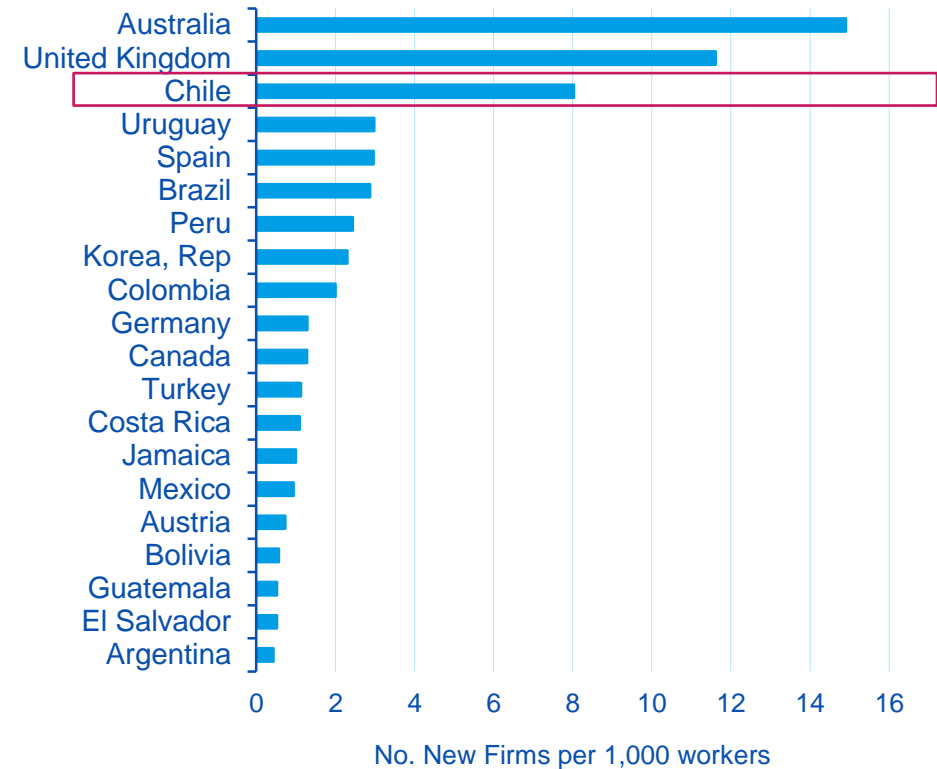
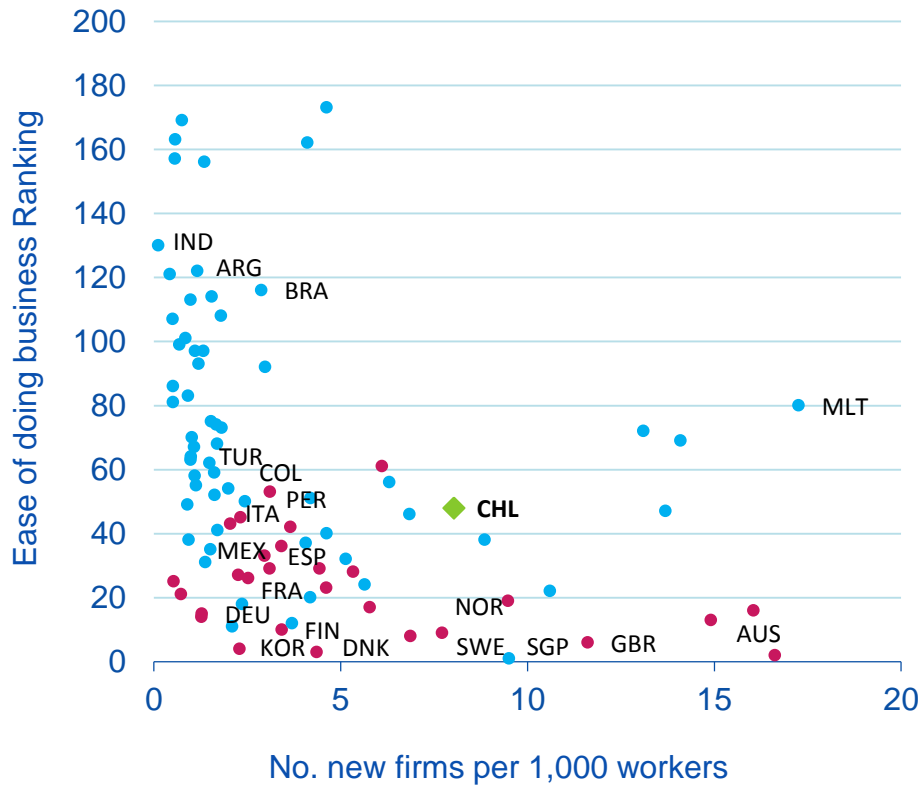
Source: BBVA Research & World Economic Forum



Source: BBVA Research & World Economic Forum

● High income OECD countries (Chile is highlighted in green) ● Rest

4.2. Ease of doing business & entrepreneurship

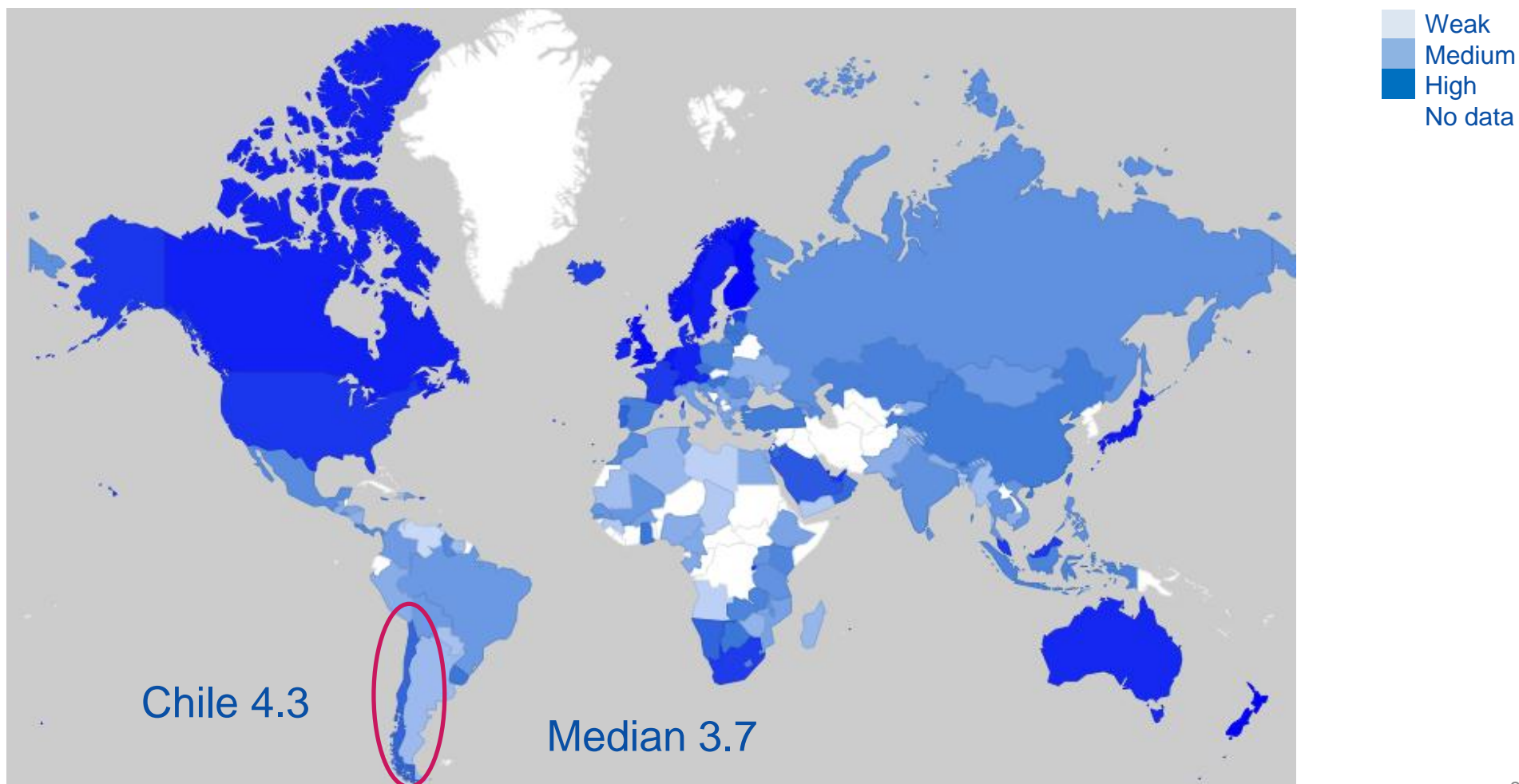


Source: BBVA Research & Doing Business (World Bank Group)

Source: Doing Business (World Bank Group)

- High income OECD countries (Chile is highlighted in green)
- Rest

4.3. Political and regulatory environment





5 Appendices

Composition of the Digitization Index

Infrastructure

- ✓ Fixed (wired)-broadband speed, in Mbit/s.
- ✓ International Internet bandwidth. It is measured in bits per second per internet users.
- ✓ Percentage of total population covered by a mobile network signal.
- ✓ International Internet bandwidth in megabits per second (Mbit/s).

Cost

- ✓ Monthly subscription charge for fixed (wired) broadband Internet service (PPP \$) Fixed (wired) broadband is considered any dedicated connection to the Internet at downstream speeds equal to, or greater than, 256 kilobits per second, using DSL.

Users adoption

- ✓ Active mobile-broadband subscriptions.
- ✓ Fixed (wired)-broadband subscriptions.
- ✓ Mobile telephone subscriptions
- ✓ Percentage of households with Internet access at home.
- ✓ Proportion of individuals that used the Internet in the last 12 months.
- ✓ how widely used are virtual social networks in the country.

Regulation

- ✓ How developed are your country's laws relating to the use of ICTs (e.g., electronic commerce, digital signatures, consumer protection)?

[1 = not developed at all; 7 = extremely well-developed]

Firms adoption

- ✓ What extent do businesses use ICTs for transactions with other businesses in the country?
- ✓ What extent do businesses use Internet for selling their goods and services to consumers in the country?
- ✓ What extent do businesses adopt new technology in the country?

Content

- ✓ The Government Online Service Index assesses the quality of government's delivery of online services on a 0-to-1 (best) scale. There are four stages of service delivery: Emerging, Enhanced, Transactional and Connected. In each country, the performance of the government in each of the four stages is measured as the number of services provided as a percentage of the maximum services in the corresponding stage.

[1 = not at all; 7 = to a great extent]

Source of data from the Demand Side: CASEN

Survey carried out by the Government of Chile since 1985, with a biennial and triennial basis. The survey provides statistical information where it is possible to determine the availability and use of ICT in Chile

This survey is mandated by the Ministry of Planning and Cooperation (MIDEPLAN) and it is characterized by measuring the socioeconomic conditions of households in the country, in terms of access to health, education, work and to housing conditions. CASEN survey is also widely used by other ministries and public services for the design and evaluation of policies and programs

Source of data from the Supply Side: World Telecommunication/ICT Indicators database (ITU, 2015)

The World Telecommunication/ICT Indicators database contains time series data for the years 1960, 1965, 1970 and annually from 1975 to 2014. These data are available for over 200 economies, however the availability of data for the different indicators and years can vary

The data are collected from an annual questionnaire sent to official economy contacts, usually the regulatory authority or the ministry in charge of telecommunication and ICT. Additional data are obtained from reports provided by telecommunication ministries, regulators and operators and from ITU staff reports

Financial Inclusion

David Tuesta
Lead Economist

Víctor Adame
Javier Alonso
Alfonso Arellano
Noelia Cámara
Rosa M^a Oliveros
Lucía Pacheco
M^a Luisa Pérez

Chile

Jorge Selaive
Chief Economist

Aníbal Antonio Alarcón
Cristóbal Gamboni
Hermann Esteban
González
Fernando Soto