

# Fundamentals of the Chilean Economy

BBVA Chile – March 2016

# Fundamentals Chile

## *1. Brief description*

# Highlights

1. Chile: *where the land ends*
2. GDP per-capita (PPP,USD): \$ **23,563.69**
3. Population: 17,762,647 (2014)
4. Area: 756,096 Km<sup>2</sup>
5. Presidential Republic

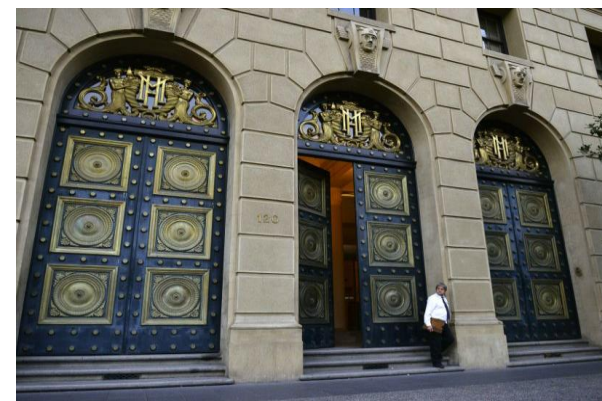


# Institutional history

- Since **1989** the Central Bank Constitutional Organic Law established the Central Bank of Chile (CB) as an autonomous organism with two explicit goals: to provide stability of the currency and to warrant a well functioning payment channel, at both internal and external.
- Since **1990** the CB has implemented an inflation target regime, and until **1999** this objective was shared with the existence of an exchange-rate band. After eliminating the exchange-rate band, the CB started with a full fledged inflation target system.
- Since **2001** the government implemented a fiscal rule based on annual cyclically adjusted balance –as % of GDP- with the aim of avoiding the pro-cyclical nature of fiscal policy and stabilizing public expenditures over the business cycle. Additionally, the rule considers a smoothing mechanism to cope with swings in copper prices.



Central Bank of Chile



Finance Ministry of Chile

# Fundamentals Chile

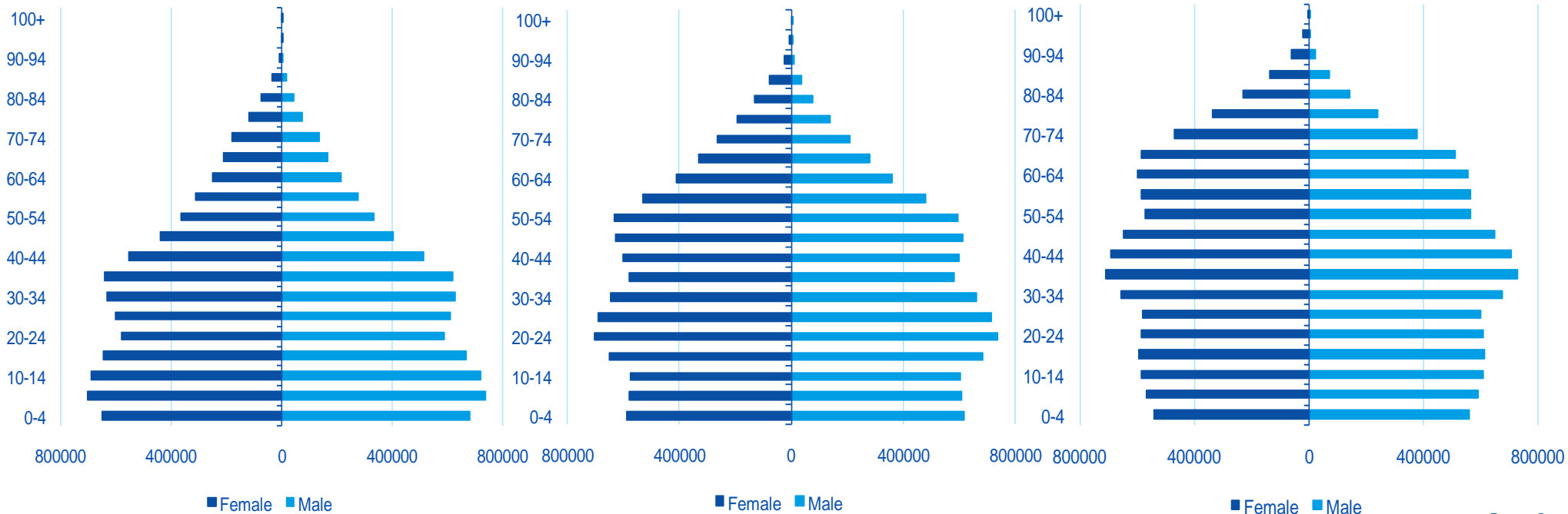
## *2. Social Indicators and Labor Market*

# The population is aging at a fast pace ...

Chile population pyramid, 2000  
(individuals)  
Source: US census bureau

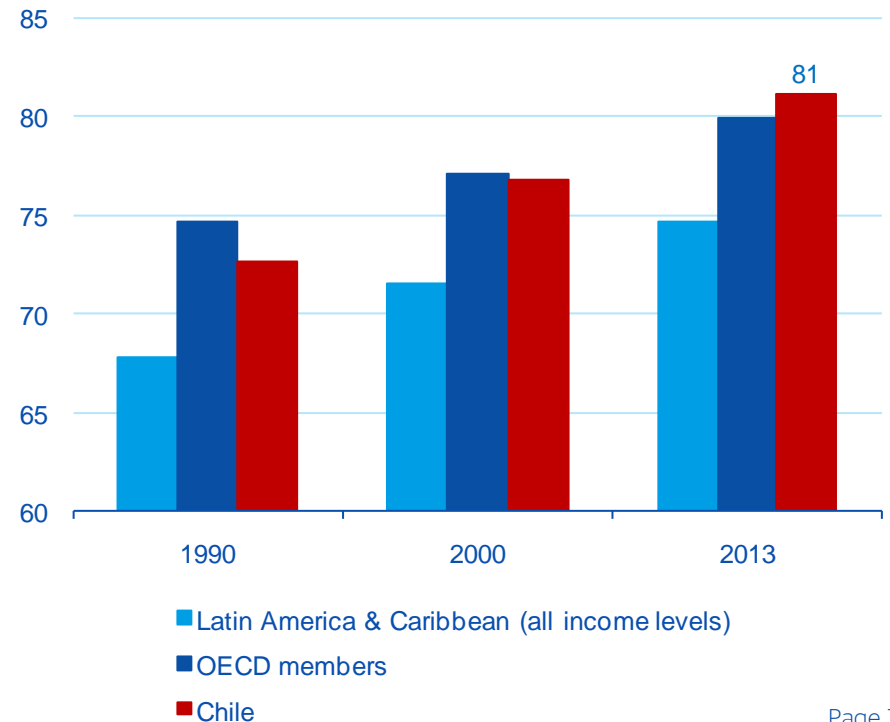
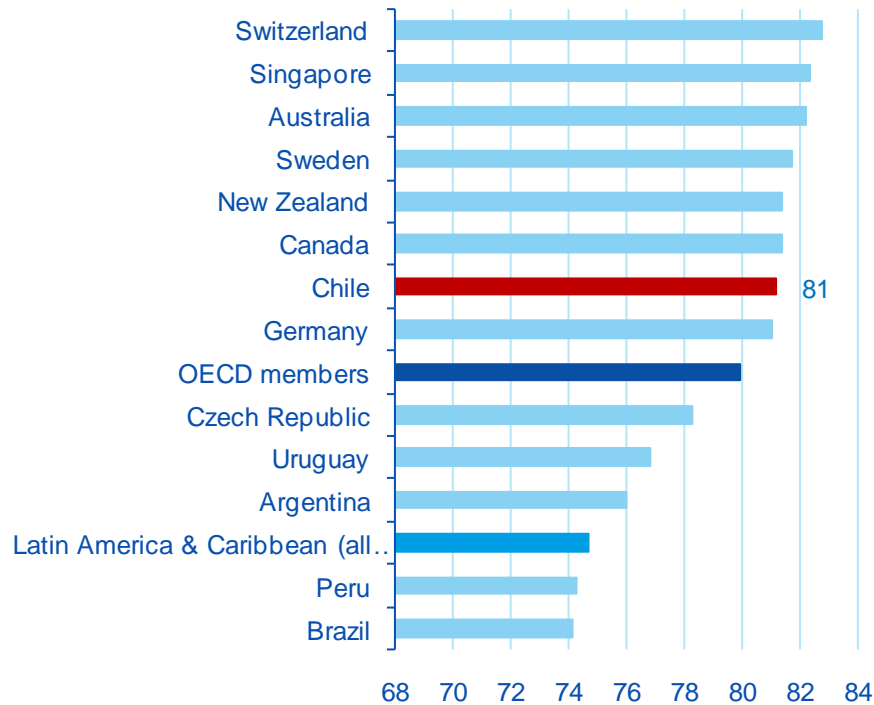
Chile population pyramid, 2015  
(individuals)  
Source: US census bureau

Chile population pyramid, 2030  
(individuals)  
Source: US census bureau



# ... while life expectancy of the population is improving

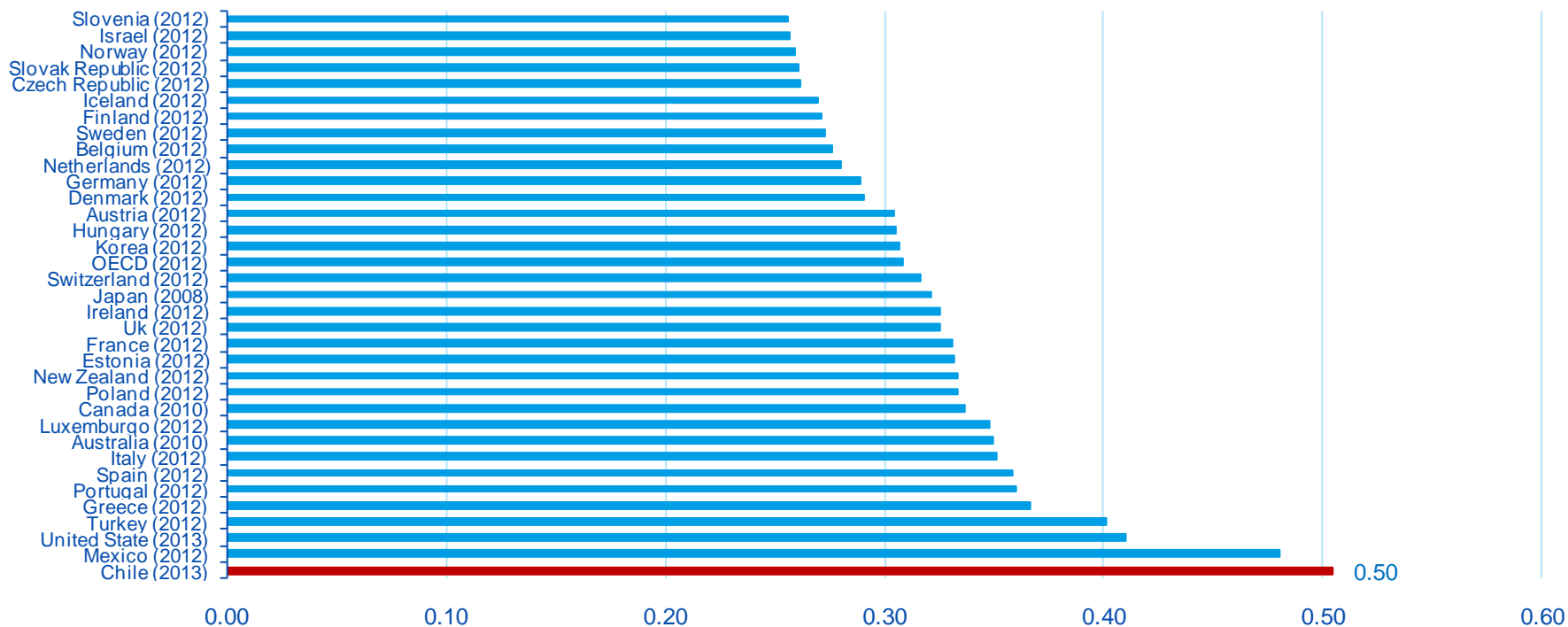
Life Expectancy (years)\*  
Source: World Bank



# High inequality: a potential source of instability

Gini coefficient\*

Source: OECD Social Indicators

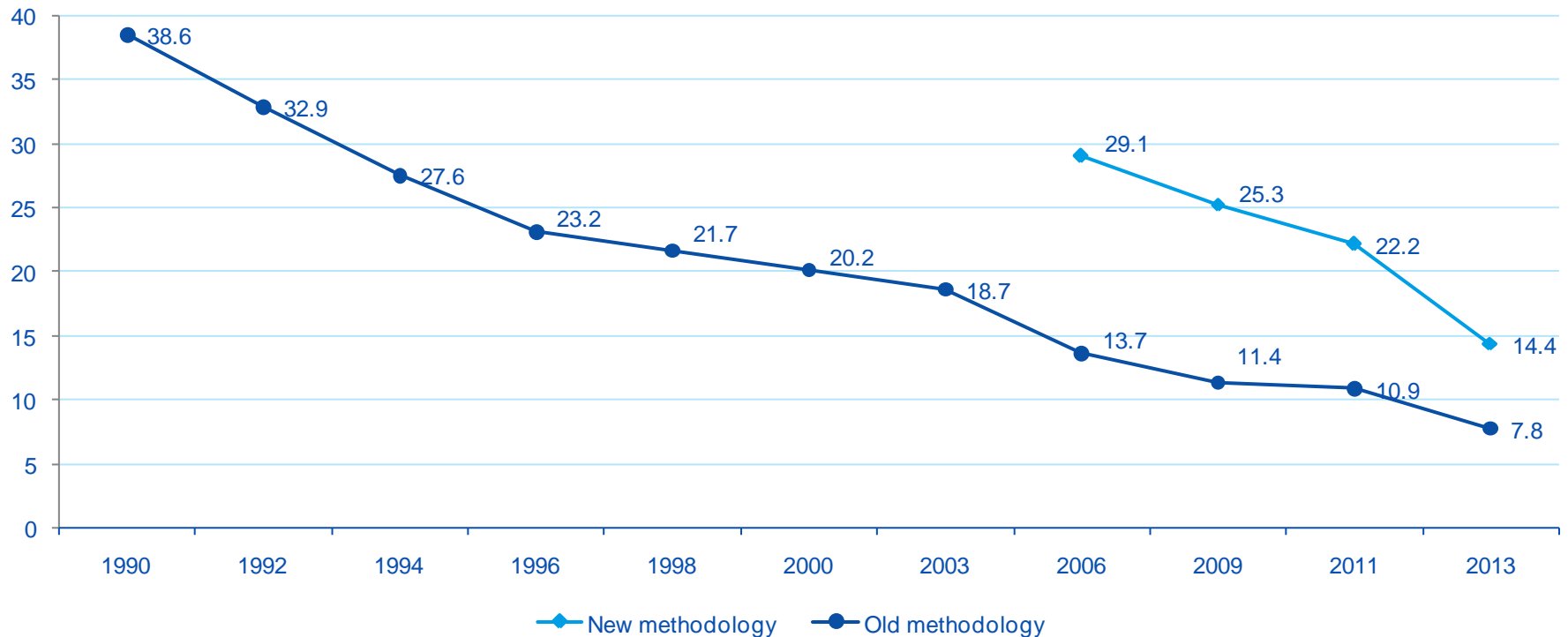


\*A Gini coefficient of 0 represents perfect equality, while an index of 1 implies perfect inequality.



# Nonetheless, poverty rate has declined systematically

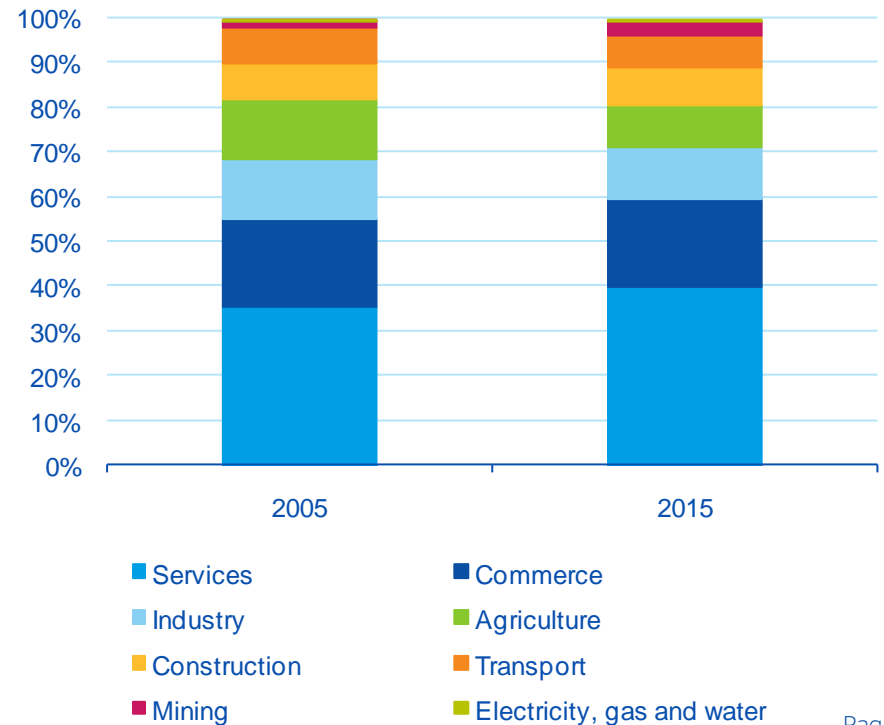
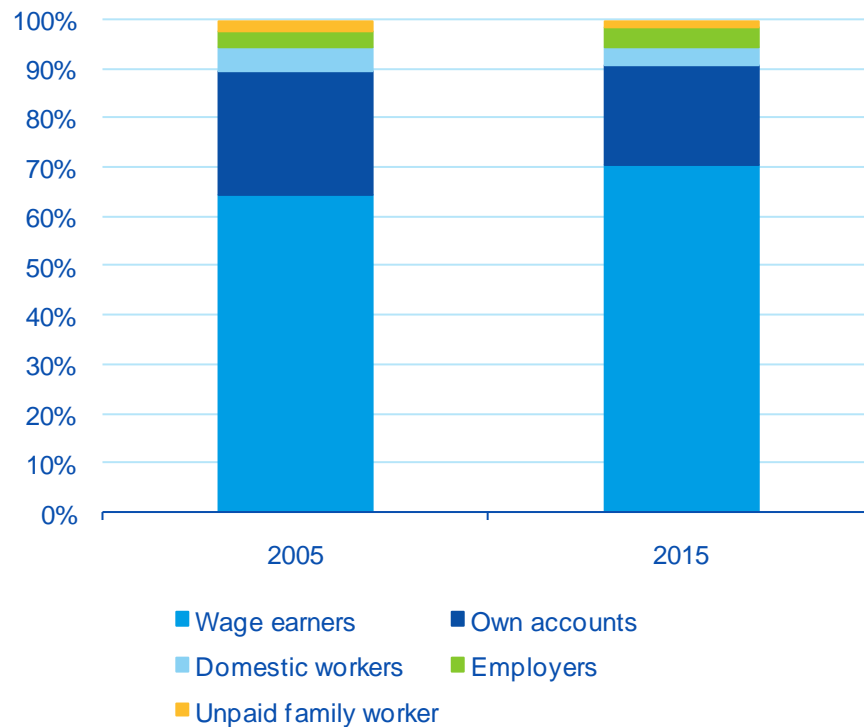
**Poverty rate (% , population below poverty line)**  
 Source: Ministry of Social Development (CASEN)



The new methodology considers income equivalent people instead of income per capita. Income is measured from autonomous household income, monetary transfers and imputed rent housing

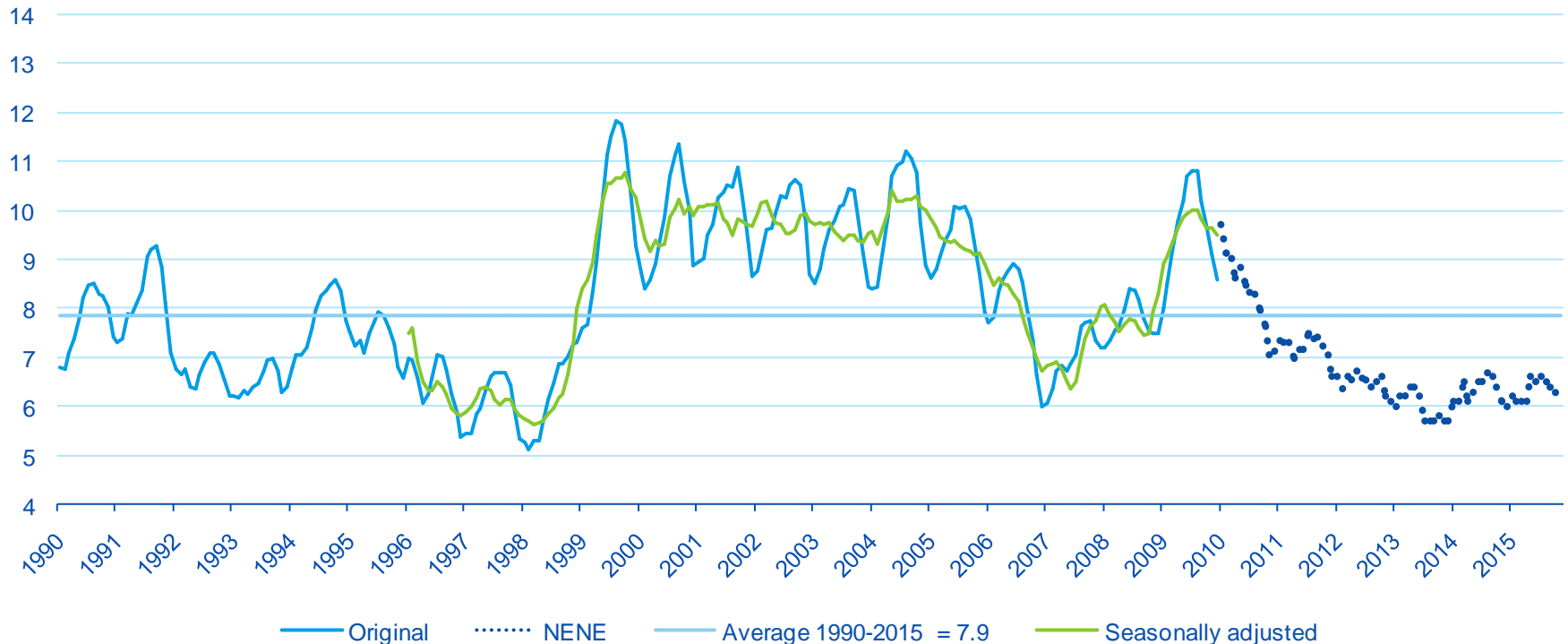
# Workers mostly placed at service and commerce sectors

Employment (% total)  
Source: National Institute of Statistics



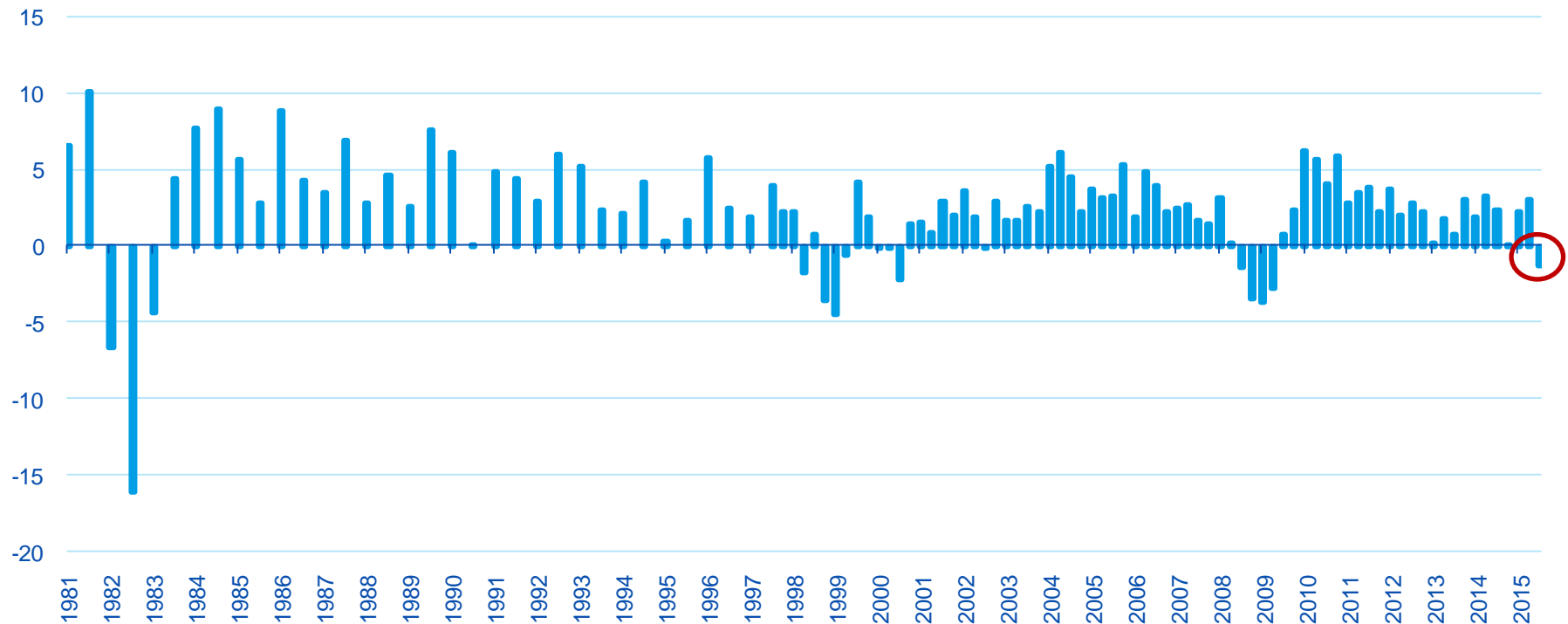
# Unemployment rate has been quite resilient to the slowdown in output

**National Unemployment Rate (% labor force)**  
Source: National Statistic Institute



# Nonetheless, job destruction arises for first time since 2009

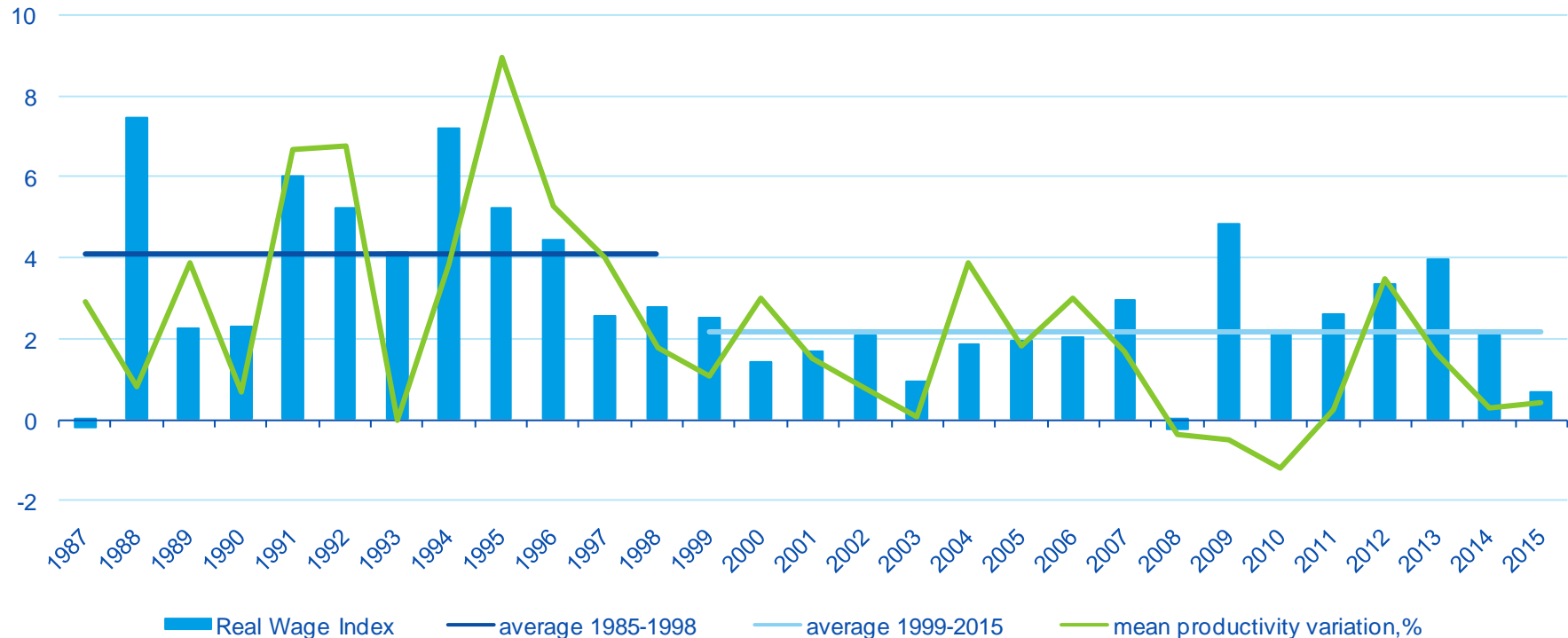
Employment Metropolitan Area, (annual %, thousand of people)  
 Source: University of Chile



# Wages are increasing at a lower pace due to deceleration in labor productivity

Real salaries\* (mean annual change, %)

Source: National Statistic Institute



\*Based on annual averages

# Participation rate is not so lagged from developed economies - room for increase in women and young people participation

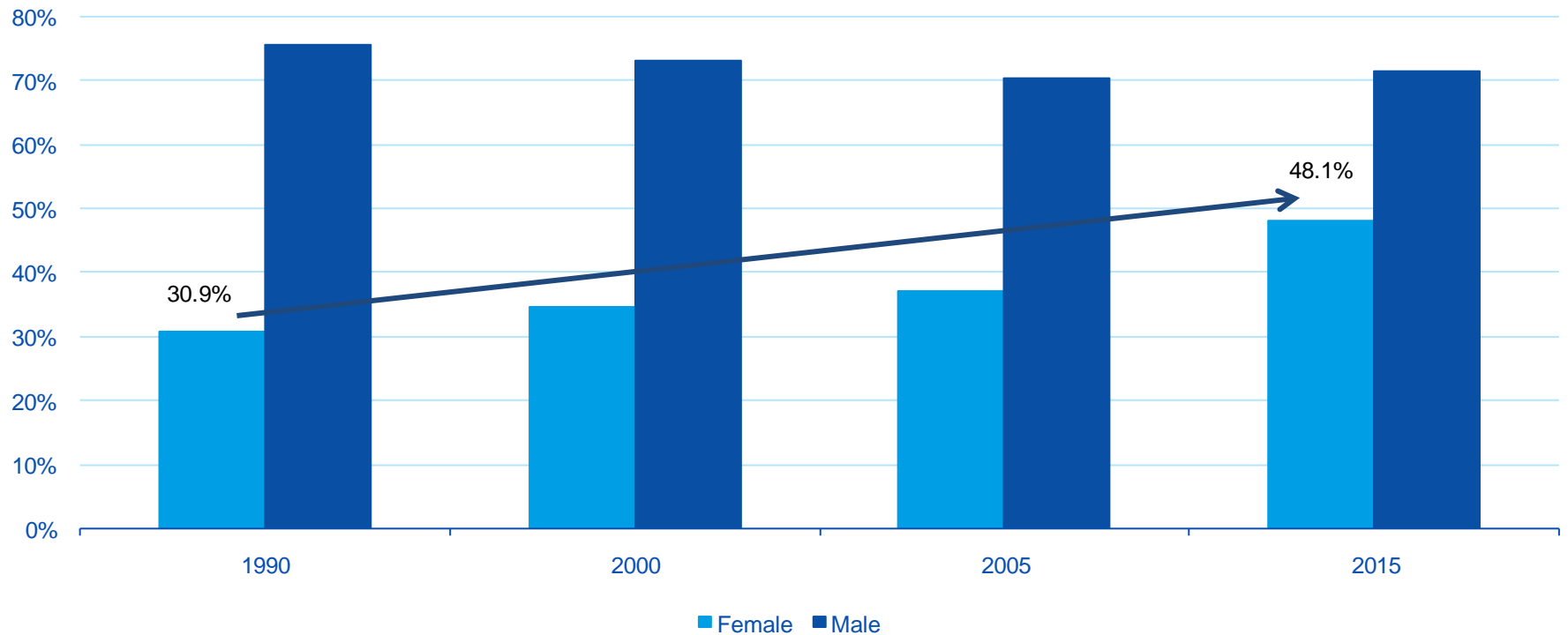
## Participation rate, labor participation 2014 (%)

Source: ILO, IMF, BBVA Research

Country	Participation (total)	Female (total)	15-19 years	20-24 years	Growth GDP
<b>Chile</b>	59.8	48.4	16.6	55.4	1.9
<b>Australia</b>	64.7	58.6	53.8	78.1	2.7
<b>New Zeland</b>	69.0	63.7	45.6	75.6	3.2
<b>Canada</b>	66.0	61.6	49.8	76.6	2.5
<b>Denmark</b>	62.2	58.1	51.4	71.0	1.0
<b>Germany</b>	60.4	54.8	28.4	69.0	1.6
<b>USA</b>	62.9	57.0	34.0	70.8	2.4
<b>France</b>	56.2	51.8	14.1	59.9	0.4
<b>Spain</b>	58.9	53.1	11.8	57.8	1.4
<b>United Kindom</b>	62.7	57.0	37.2	75.8	2.6
<b>Italy</b>	49.1	40.1	7.2	45.5	-0.4
<b>Netherlands</b>	64.6	58.6	59.6	76.2	0.9
<b>Uruguay</b>	64.7	56.0	26.2	76.5	3.3
<b>Mean (exc. CHL)</b>	<b>61.8</b>	<b>55.9</b>	<b>34.9</b>	<b>69.4</b>	<b>1.8</b>

# Further improvements in female participation requires sound labor market policies

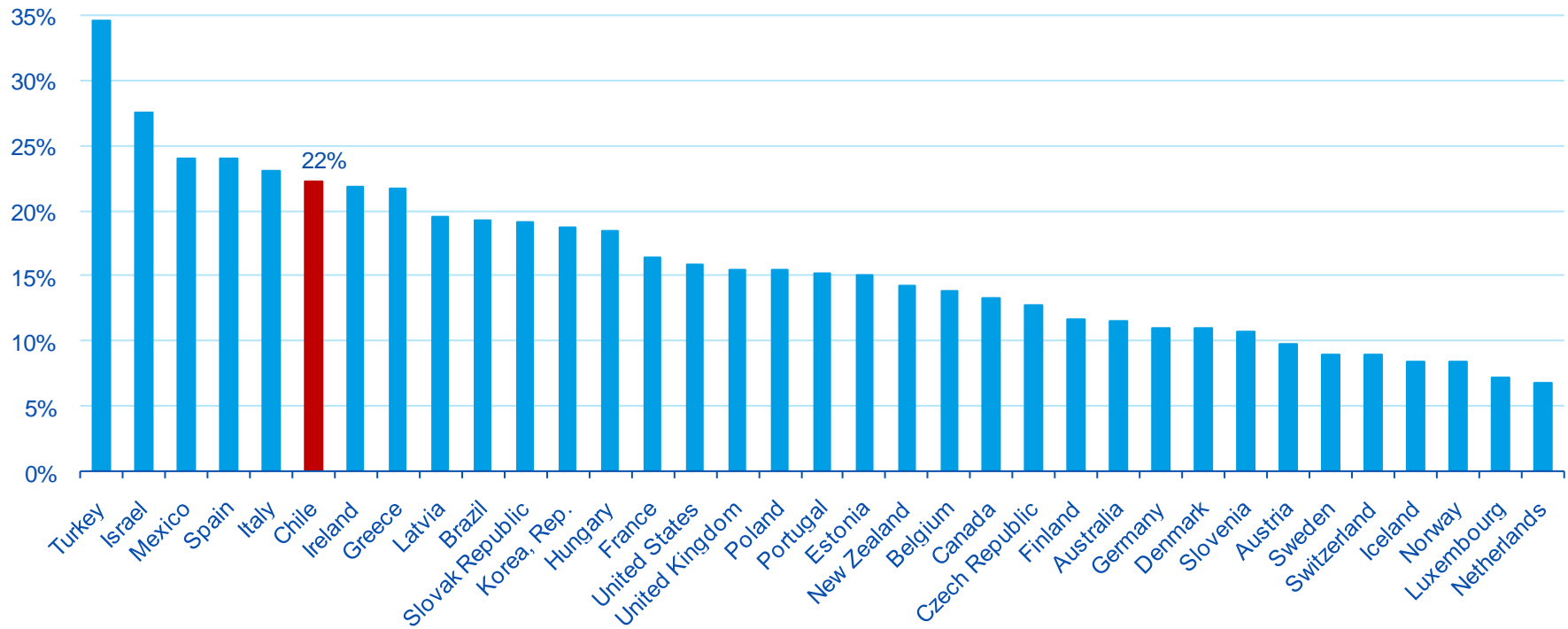
Participation rate (%)  
Source: National Statistic Institute



# NEET: a new phenomenon that can drag participation rate prospects

Youth not in employment, education or training (NEET)\*

Source: OECD indicators



\*As % of people between 15-29 years old

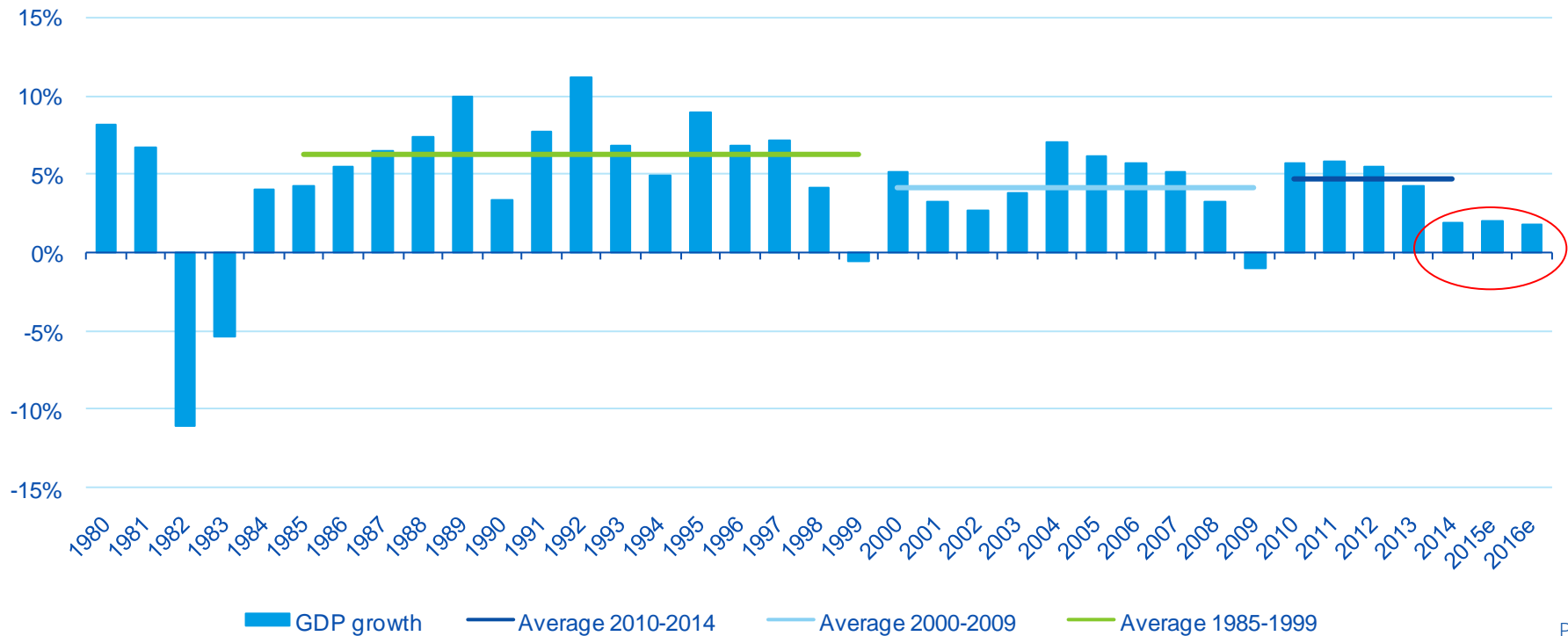


# Fundamentals Chile

## *3. National Accounts*

# GDP is growing below its nearest average

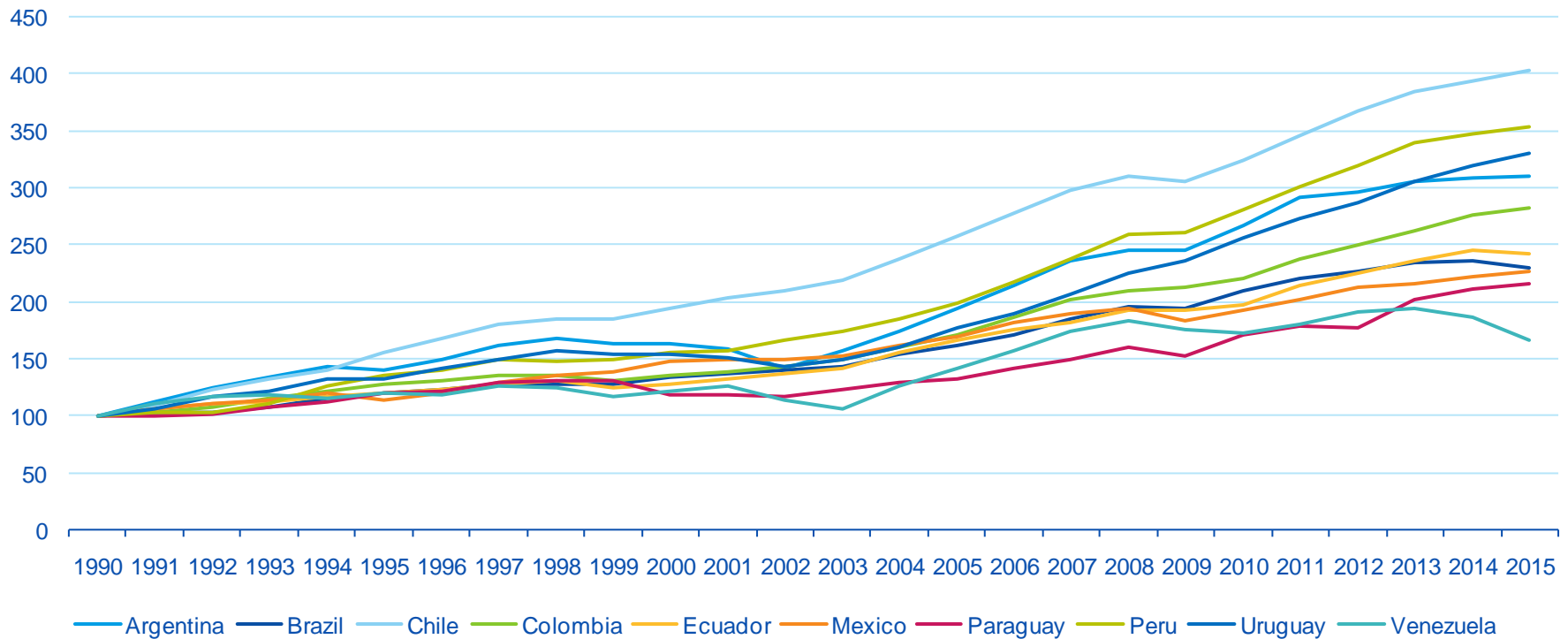
Real GDP growth, reference 2008 (annual change, %)  
Source: Central Bank of Chile



# ...but still showing the highest GDP per capita in LatAm

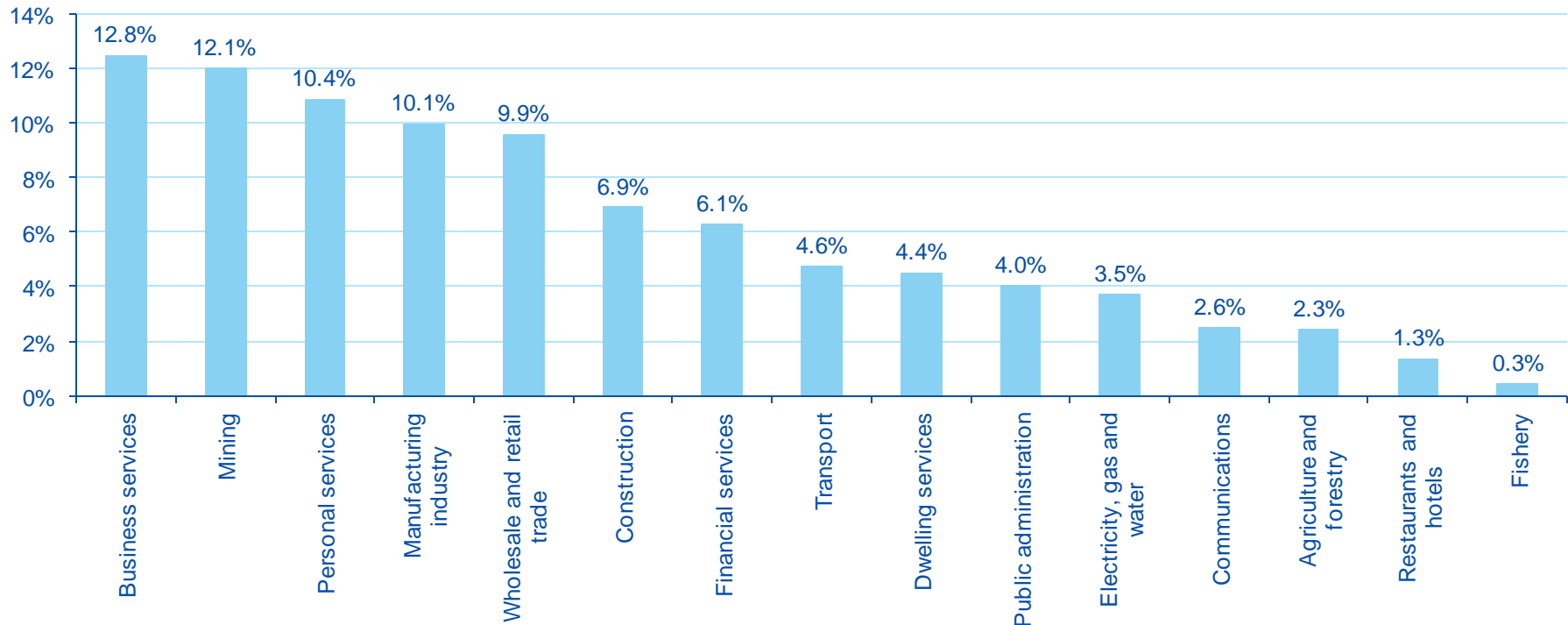
Gross domestic product based on purchasing-power-parity (PPP) per capita GDP  
(index 1990=100)

Source: IMF, World Economic Outlook Database, October 2015



# Mining and services are the most relevant sectors

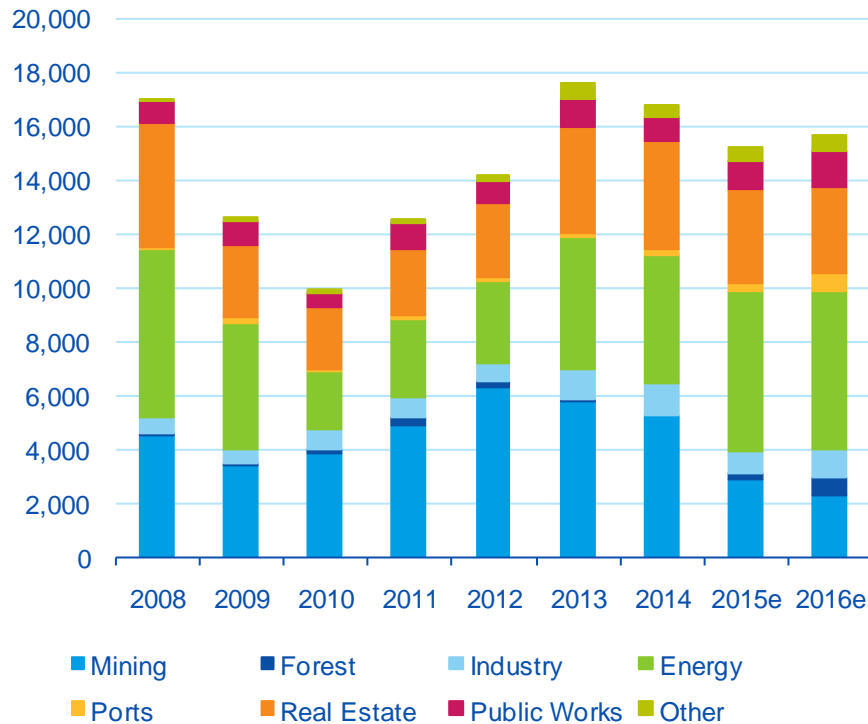
**GDP 2014 by economic activity (% total)**  
 Source: Central Bank of Chile



# Mining and energy sectors leading investment

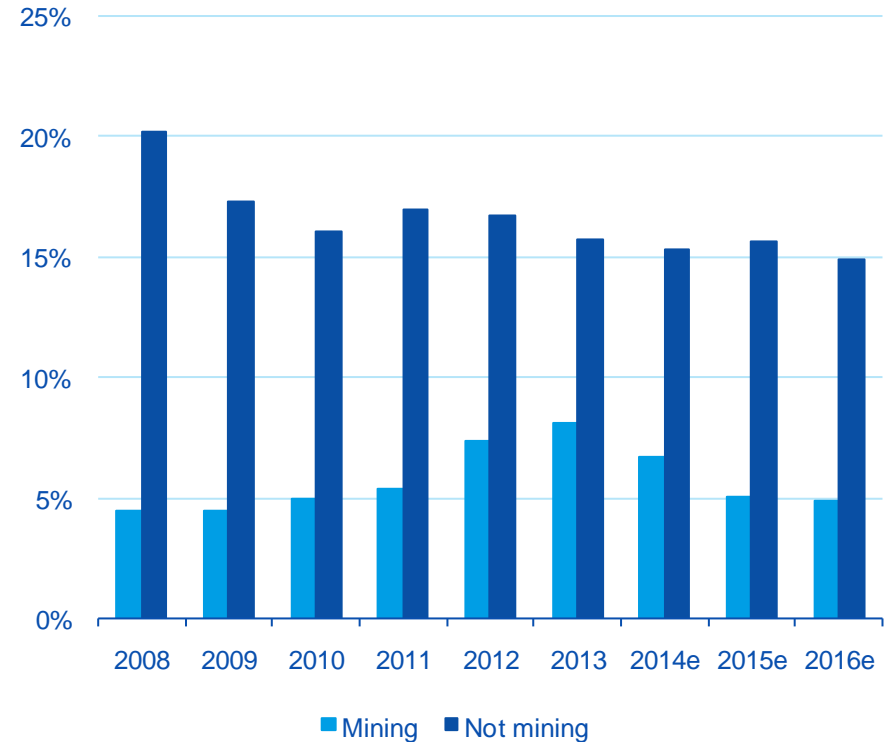
Private investment to materialize by sectors\*  
(USD MM)

Source: Corporation of Technological Development on Capital Goods, BBVA Research



Mining and not mining investment (% GDP)

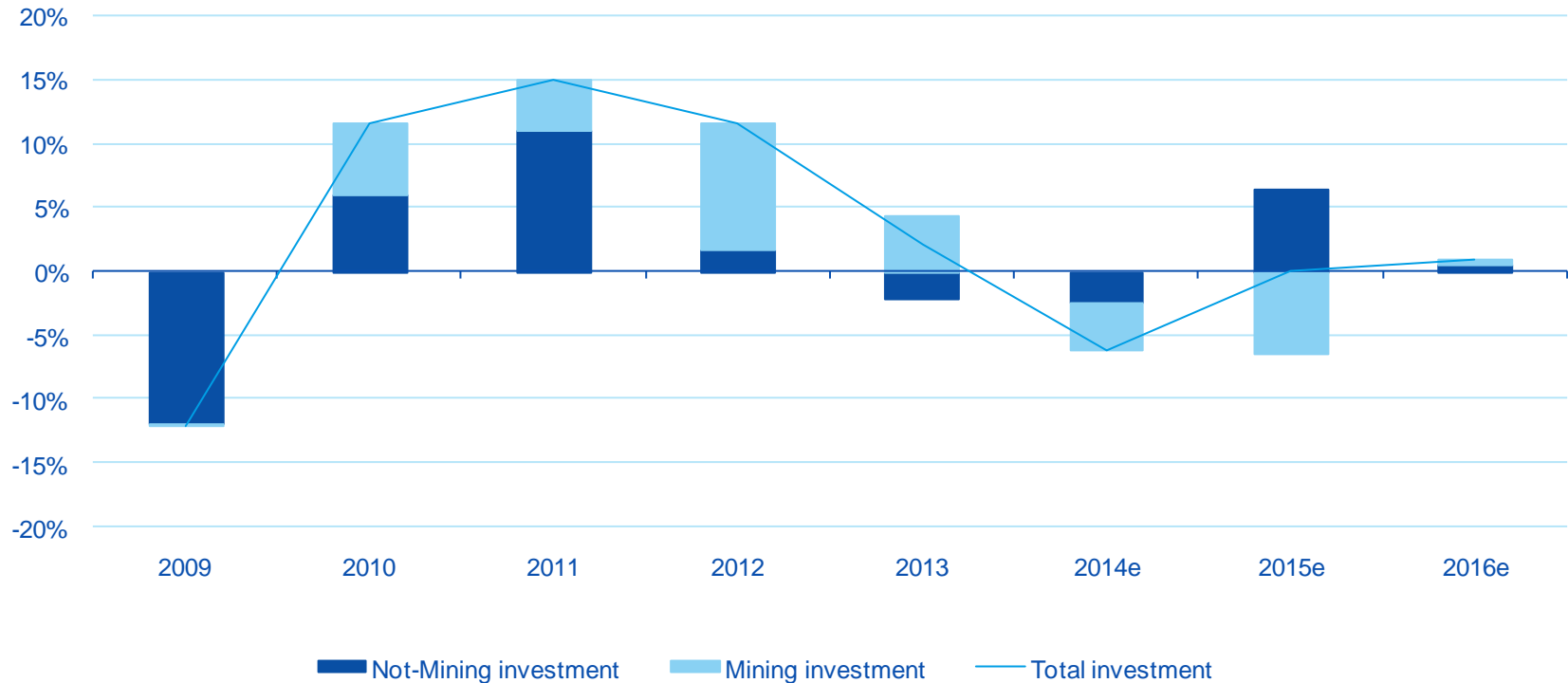
Source: Central Bank of Chile, BBVA Research



# Mining is the main source for investment fluctuations, with negative contributions during last years

**Investment (% variation)**

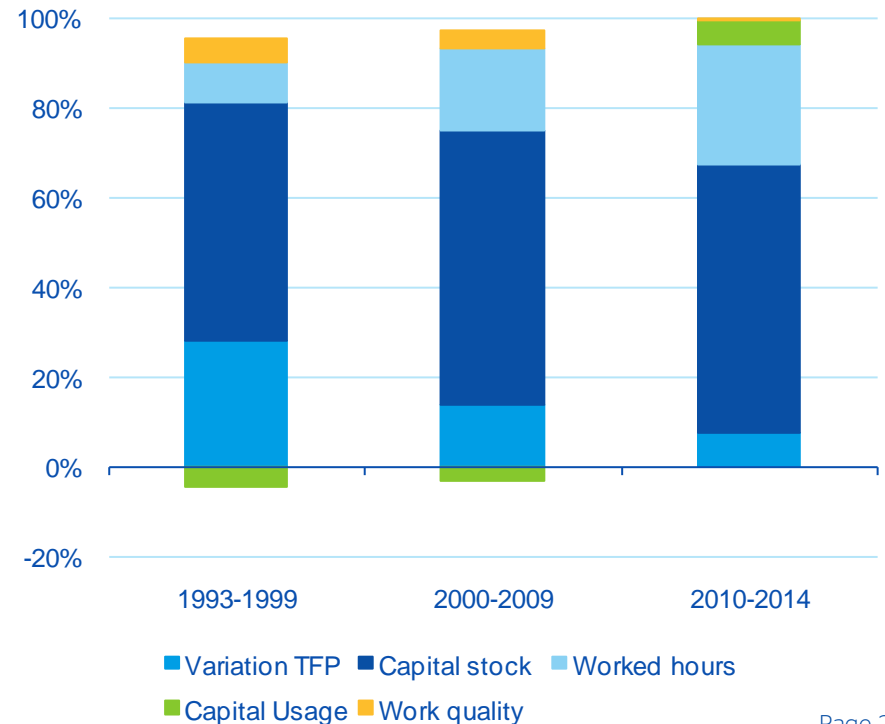
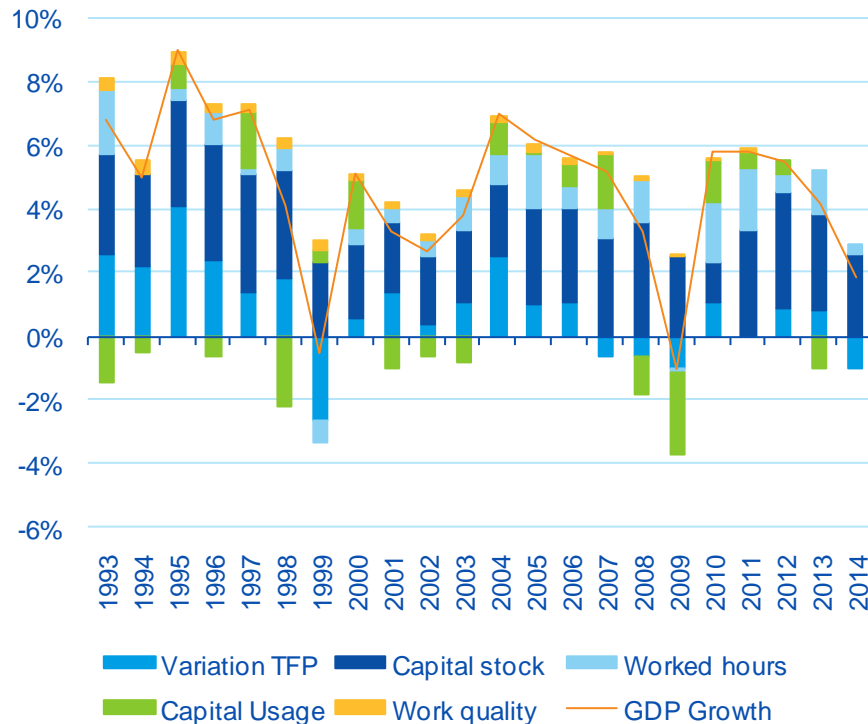
Source: Central Bank of Chile, CBC, BBVA research



# TFP had reduced its contribution to GDP growth ...

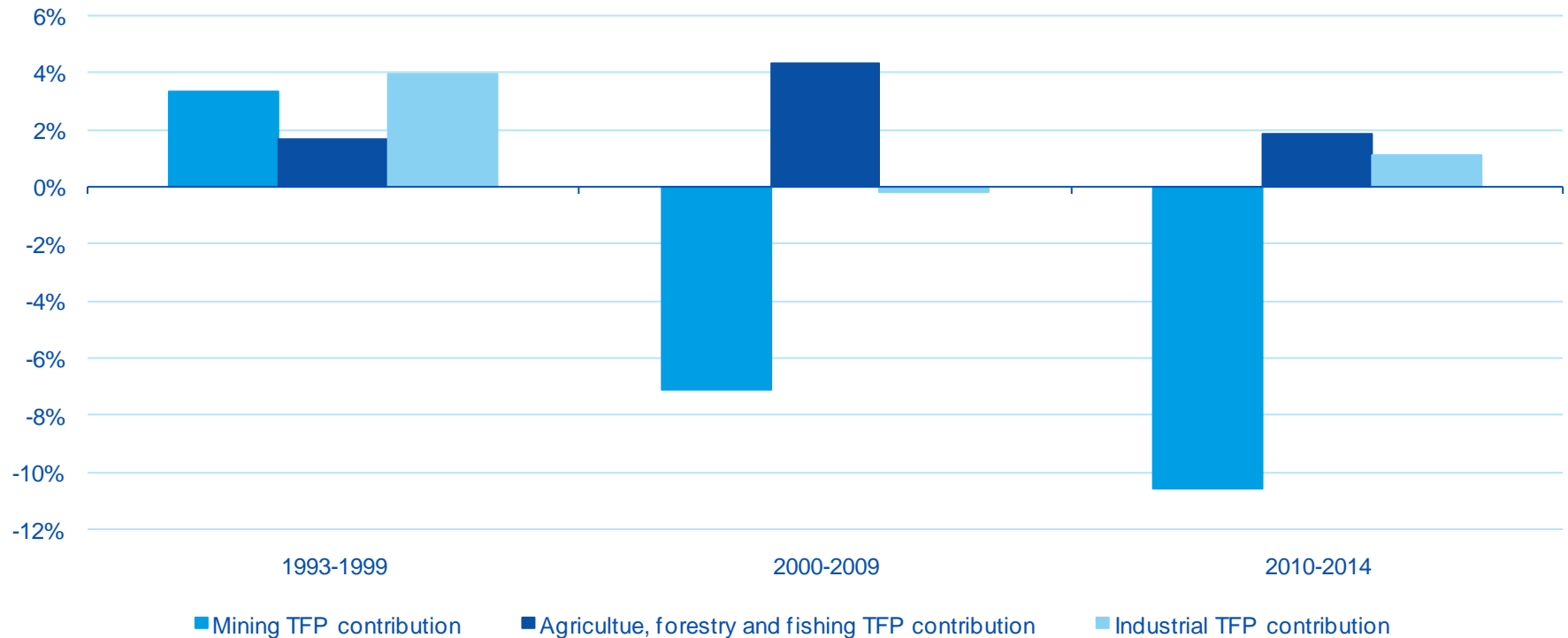
TFP contribution to GDP

Source: Adolfo Ibañez University



# ...driven mainly by the mining sector

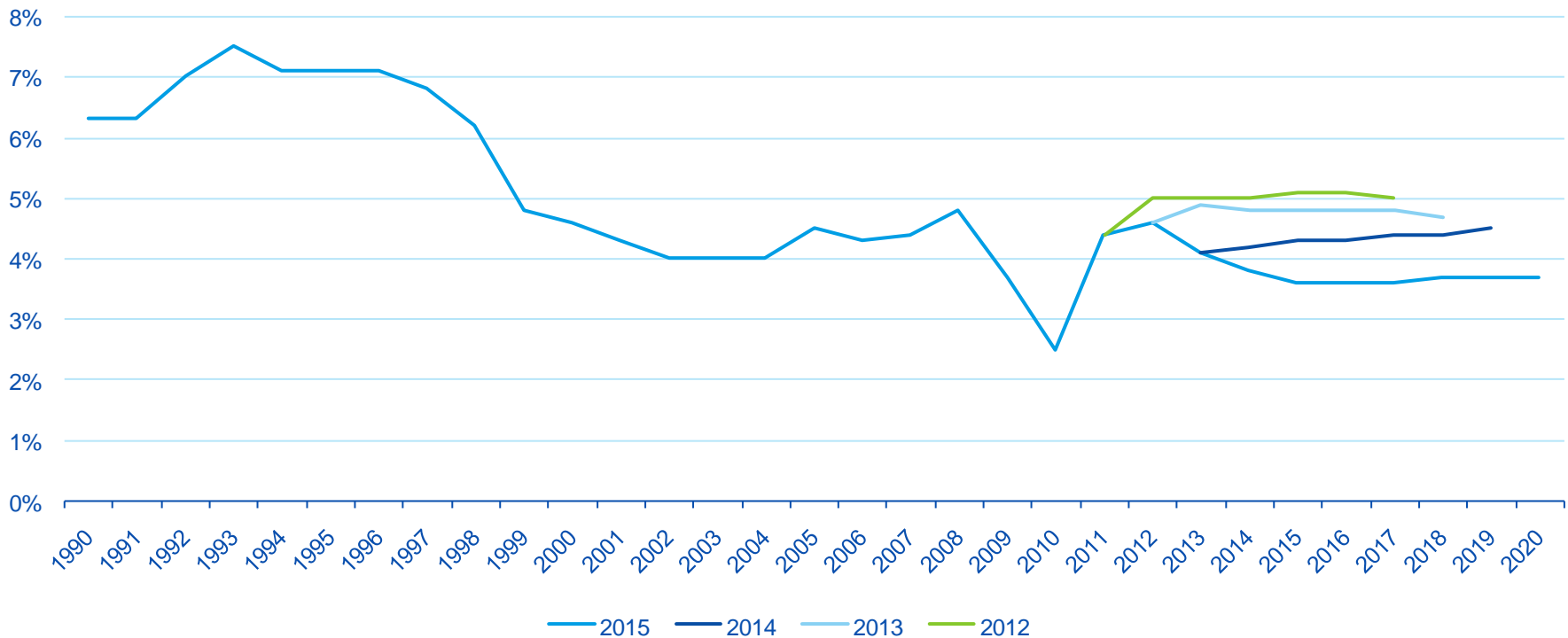
**TFP contribution to GDP by sectors**  
 Source: Adolfo Ibañez University





# Recently, we see downward adjustments in GDP growth trend

GDP, Trend variation, %  
Source: Ministry of Finance

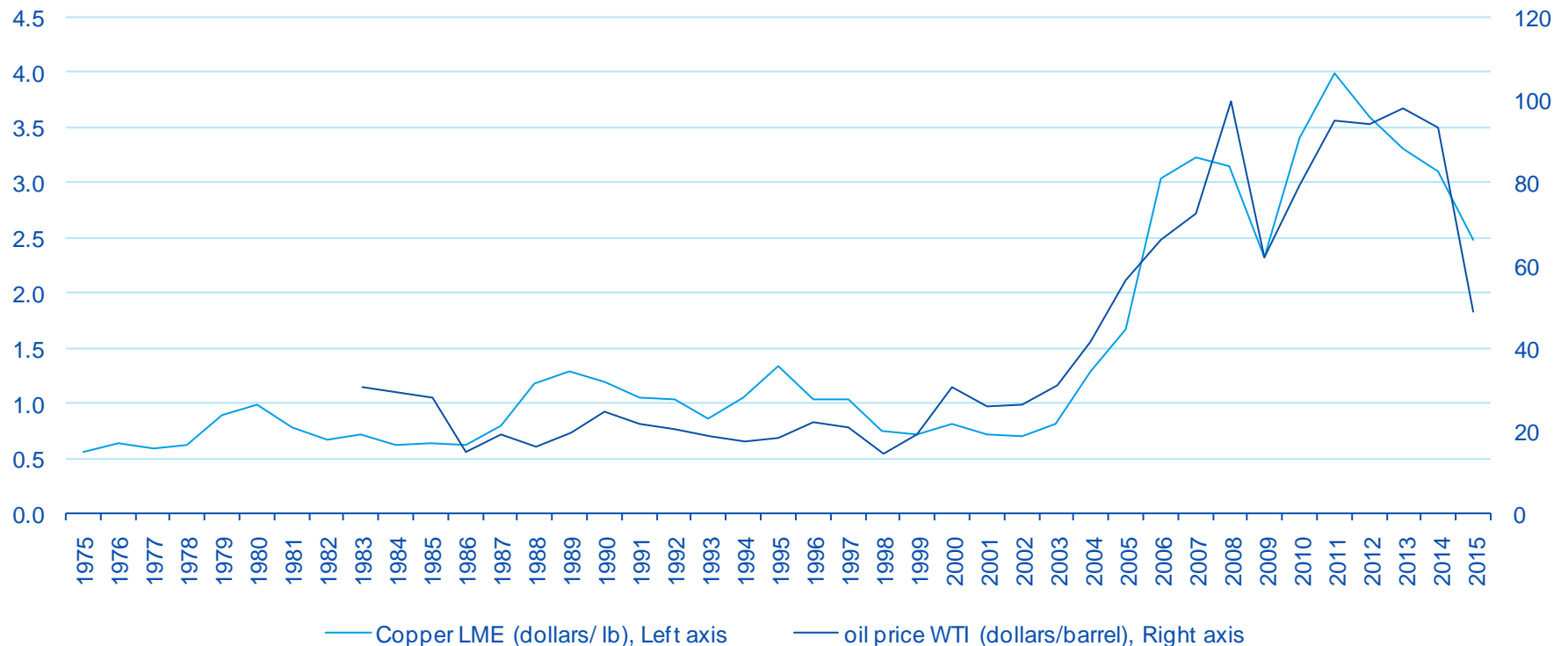


# Fundamentals Chile

## *4. External Sector*

# We are at the end of a commodities super-cycle...

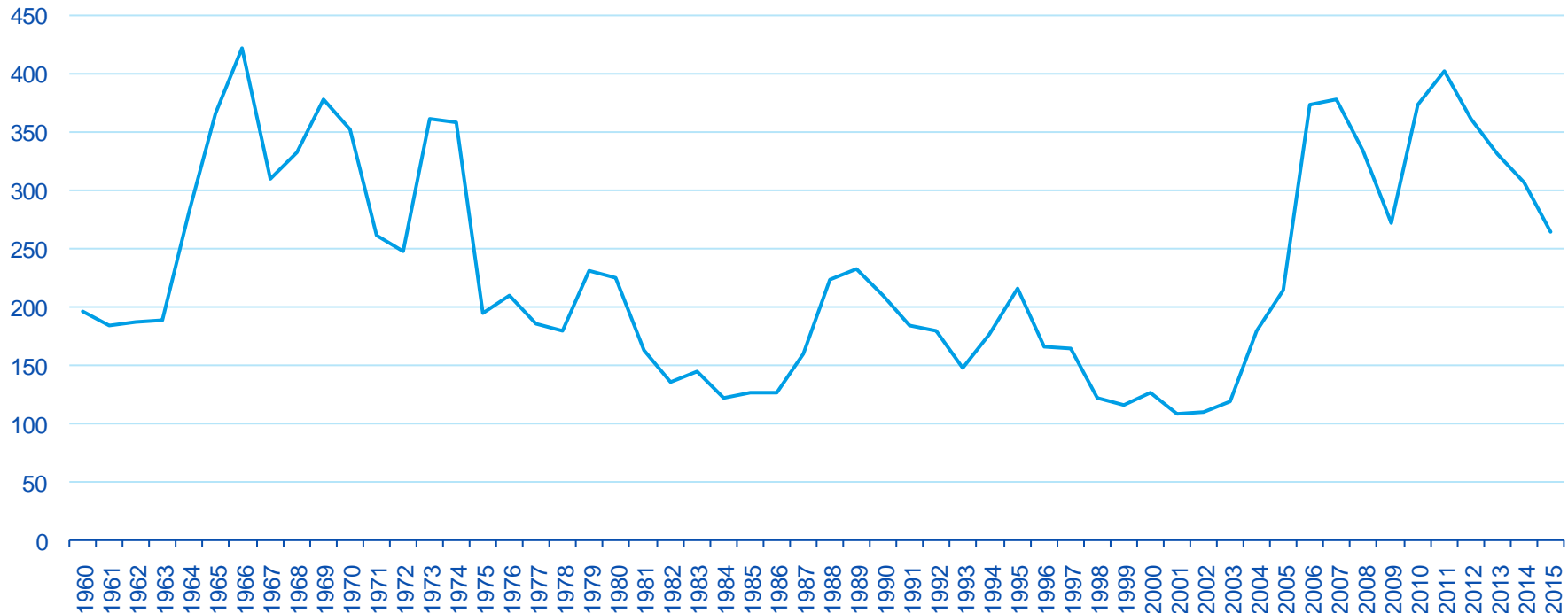
**Copper and oil prices**  
Source: Central Bank of Chile



...reflected in a sudden decrease in real copper prices during last years

**Real copper (USD cents/lb.)**

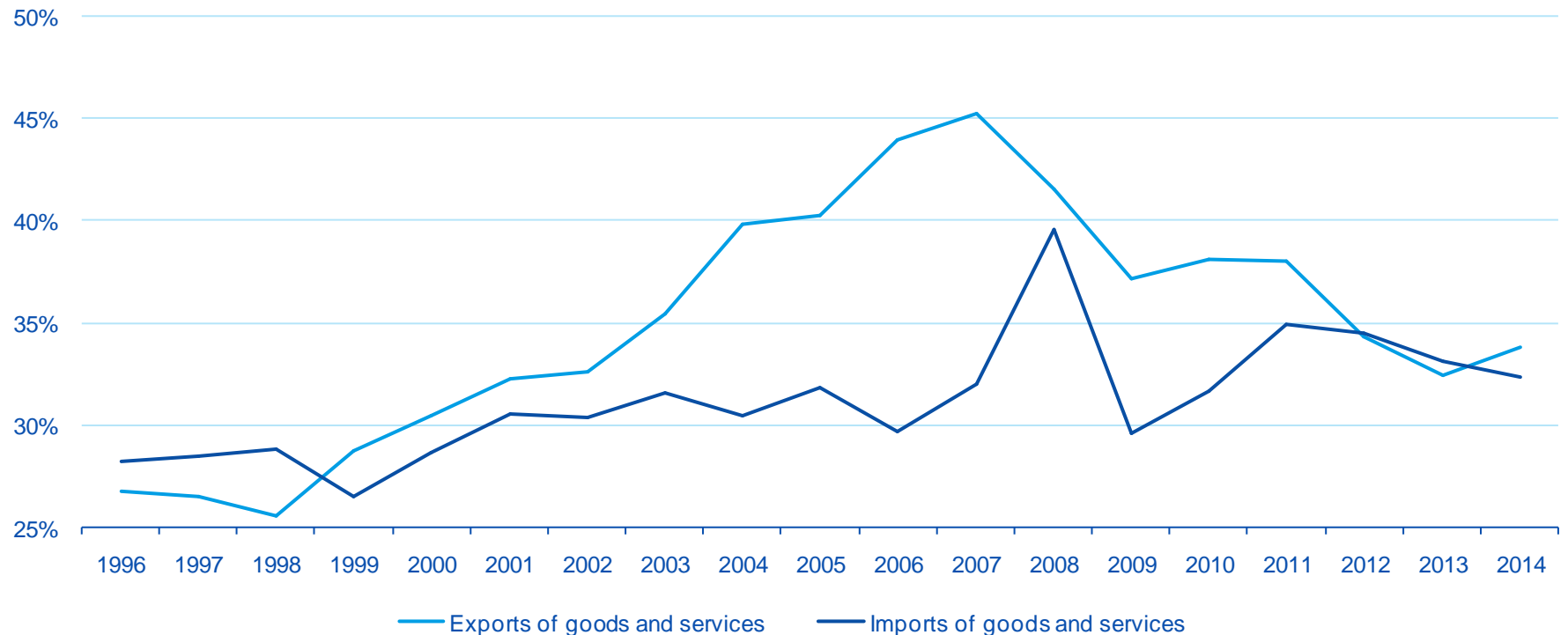
Source: Chilean Copper Commission, Ministry of mining



# Openness measures declined due to lower commodities prices

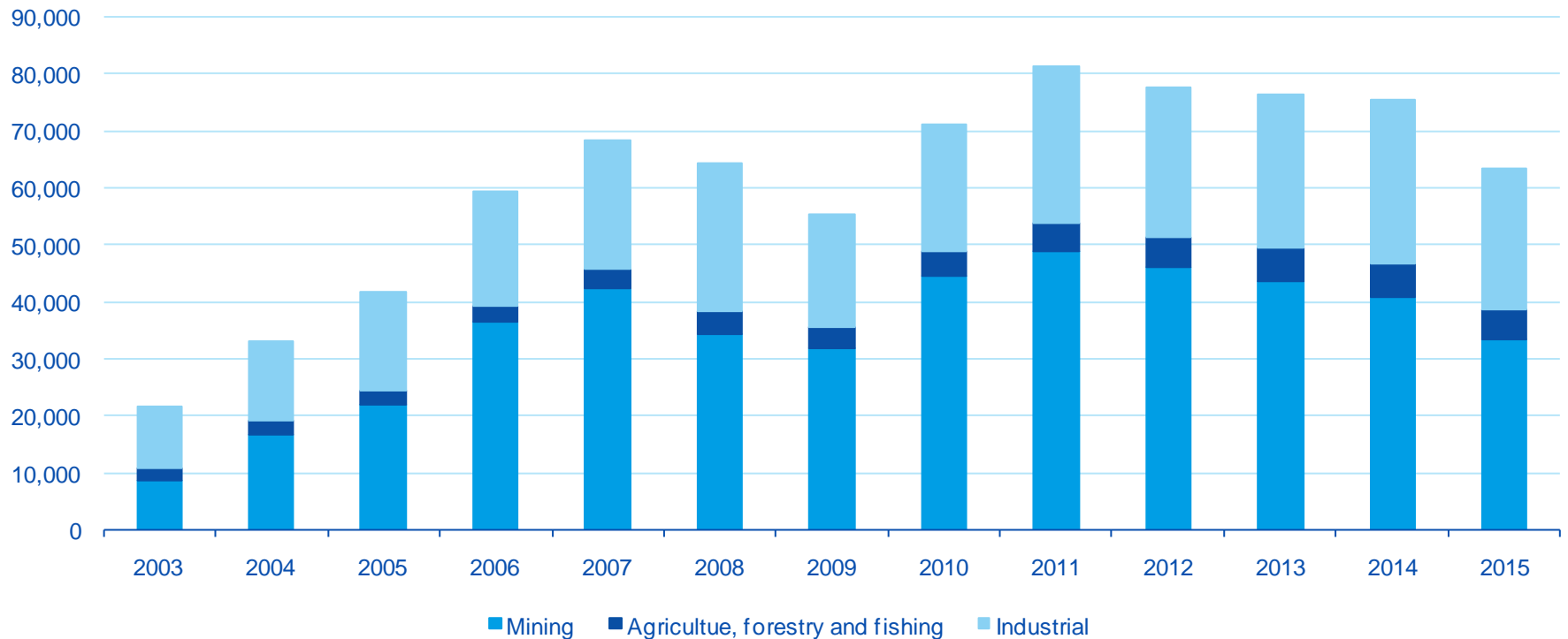
External trade (as % of GDP)

Source: Central Bank of Chile



# Mining is reducing its contribution to exports ...

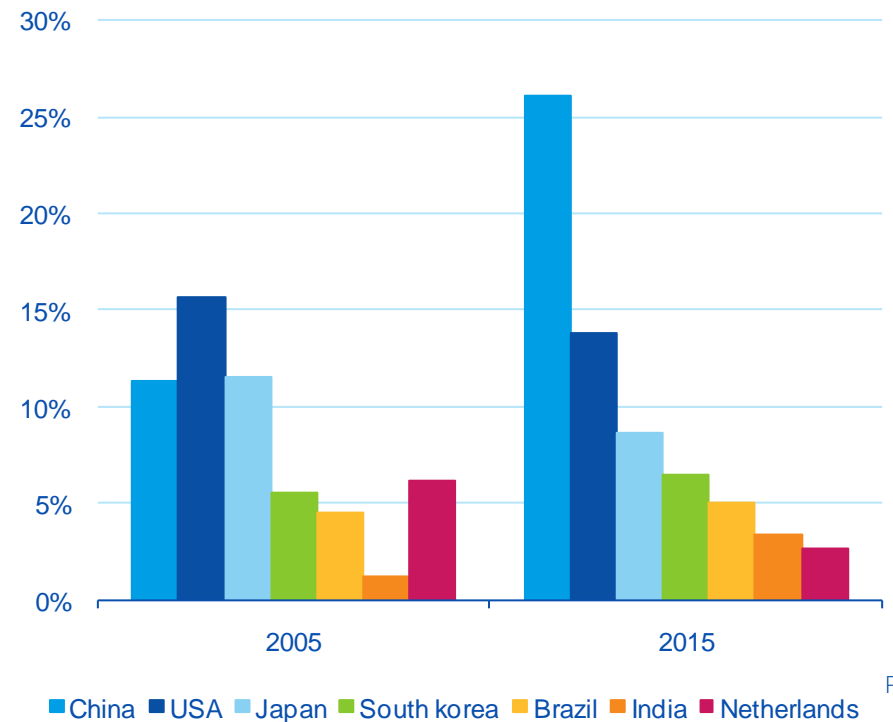
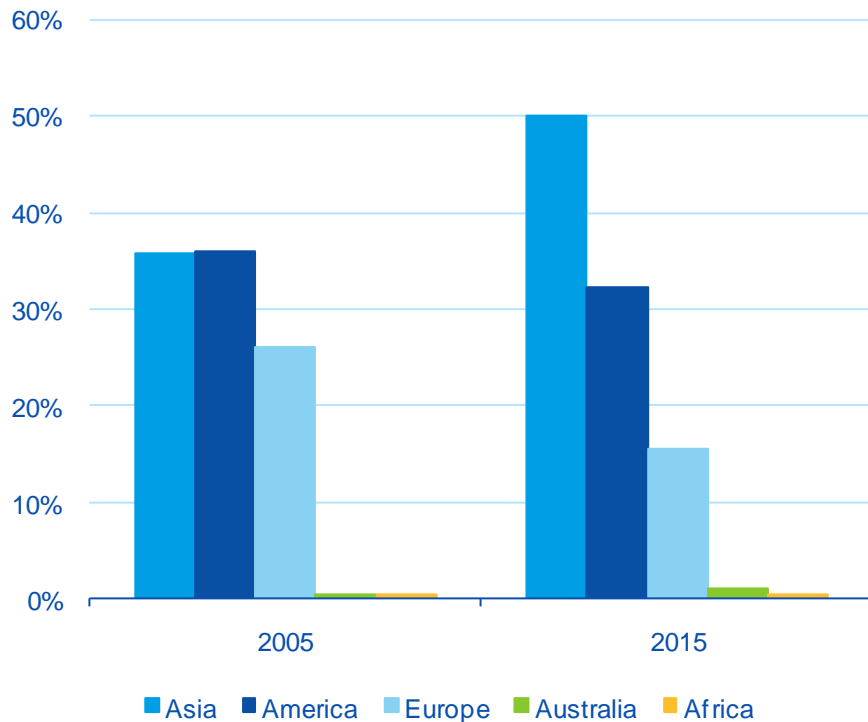
Exports of goods (millions USD)  
Source: Central Bank of Chile



# ... in a context where Asia is getting more relevant

Exports of goods by country (% of Total)

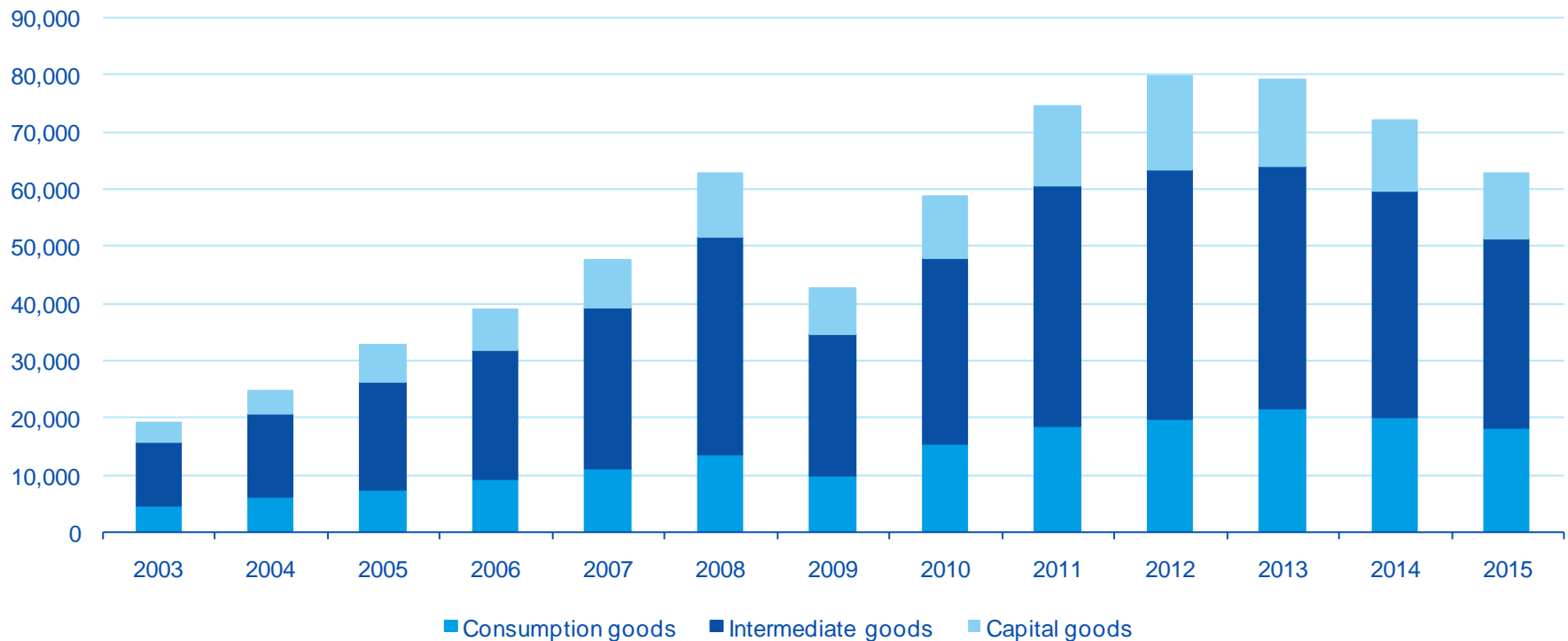
Source: The National Customs Service



# Intermediate goods are the most relevant contributor to imports

Imports of goods (millions USD)

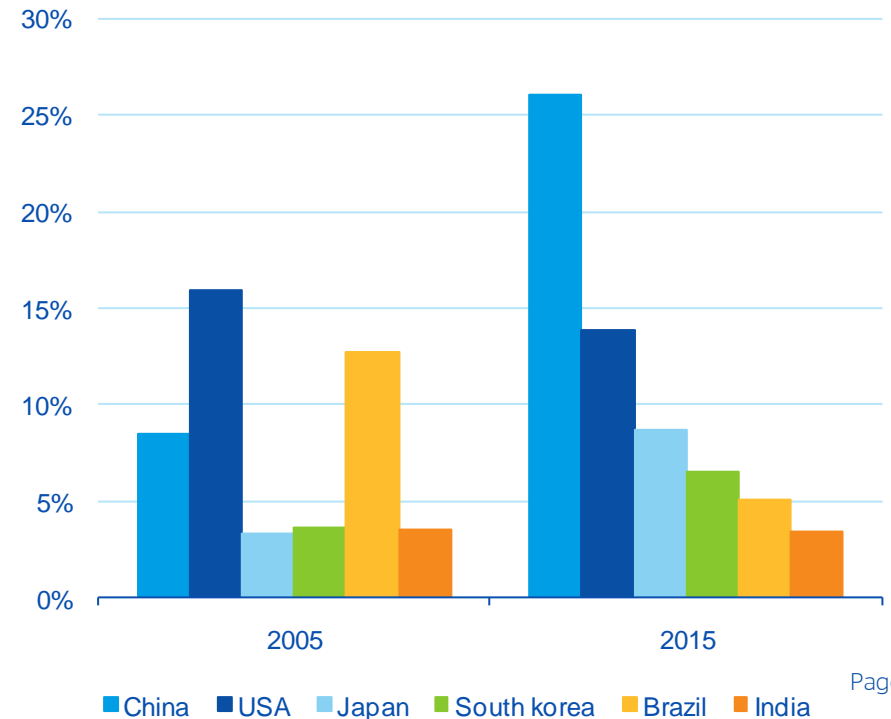
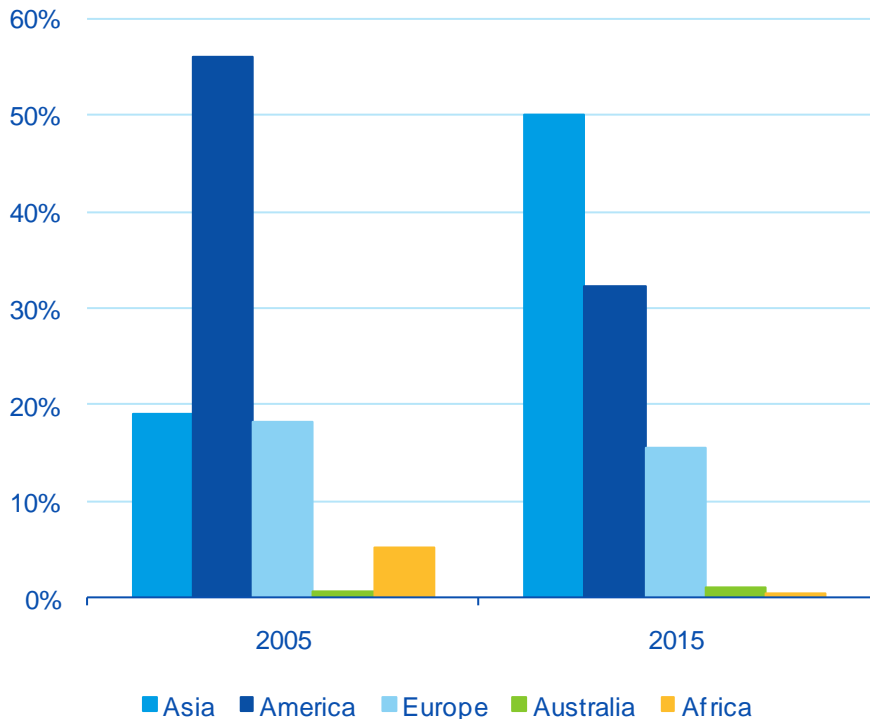
Source: Central Bank of Chile





# Once again, with Asia as the main supplier and trade partner

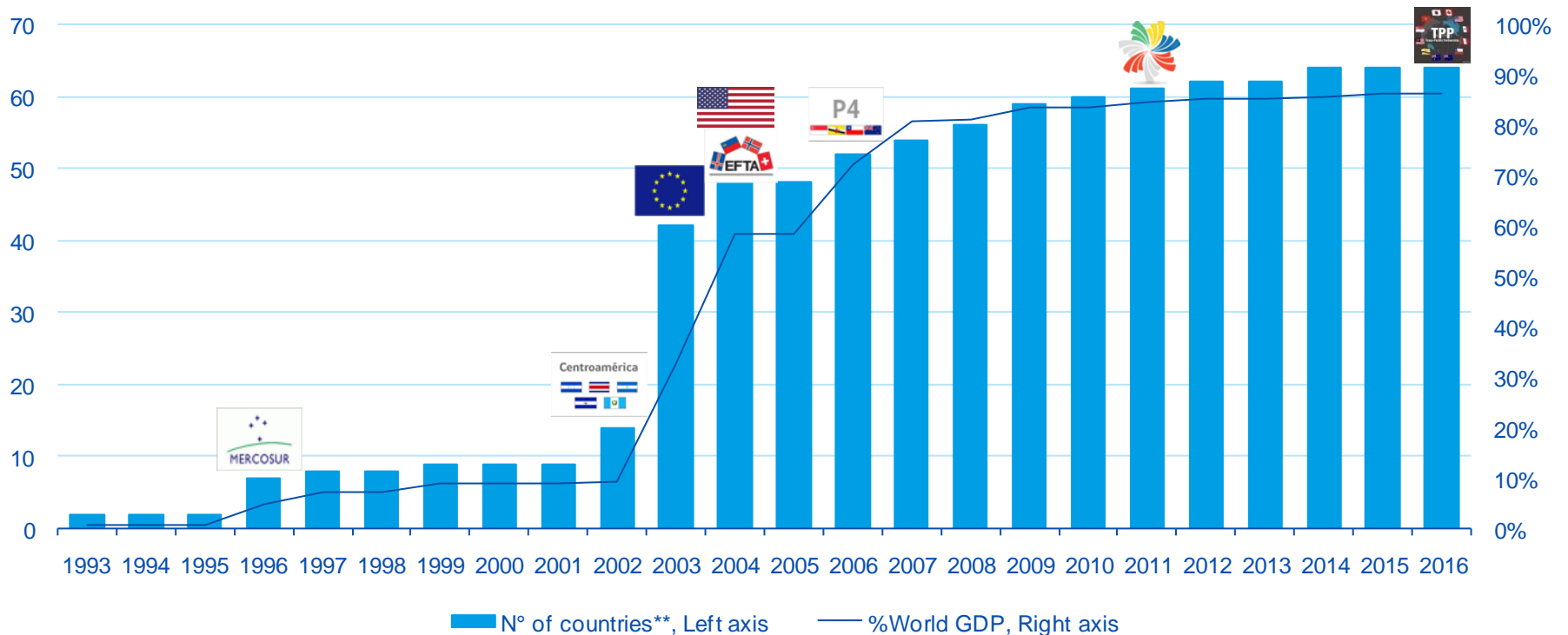
Imports of goods (% of Total)  
Source: The National Customs Service



# Chile has free trade agreements with near 86% of global GDP

## Free trade agreements\*

Source: General Directorate of International Economic Relations

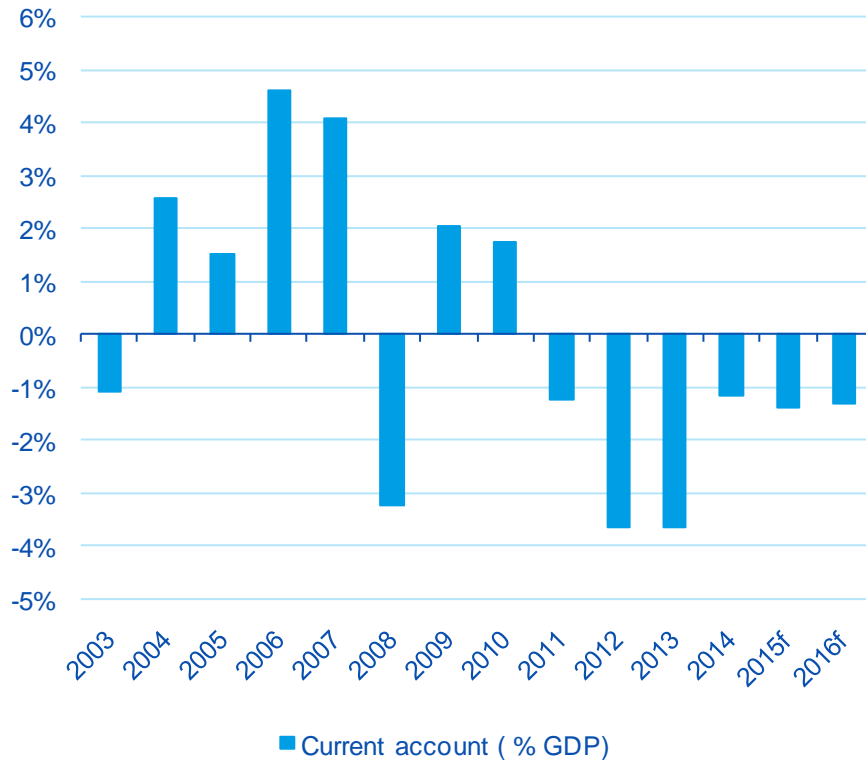


\*Includes: Economical complementation agreements, free trade agreements, association agreements, partial agreements and economical cooperation  
 \*\* Countries are counted only once

# Reinvestment of earnings has shown a significant decrease in FDI flows

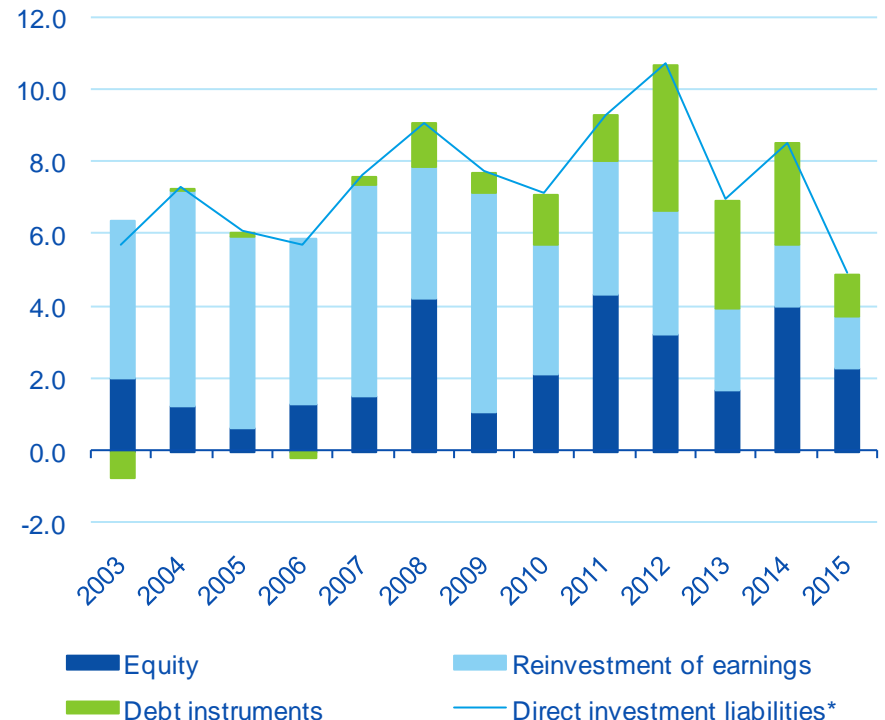
Current Account (% GDP)

Source: Central Bank of Chile, BBVA Research



Foreign Direct Investment (%GDP)

Source: Central Bank of Chile, BBVA Research



\*Estimated for 2015

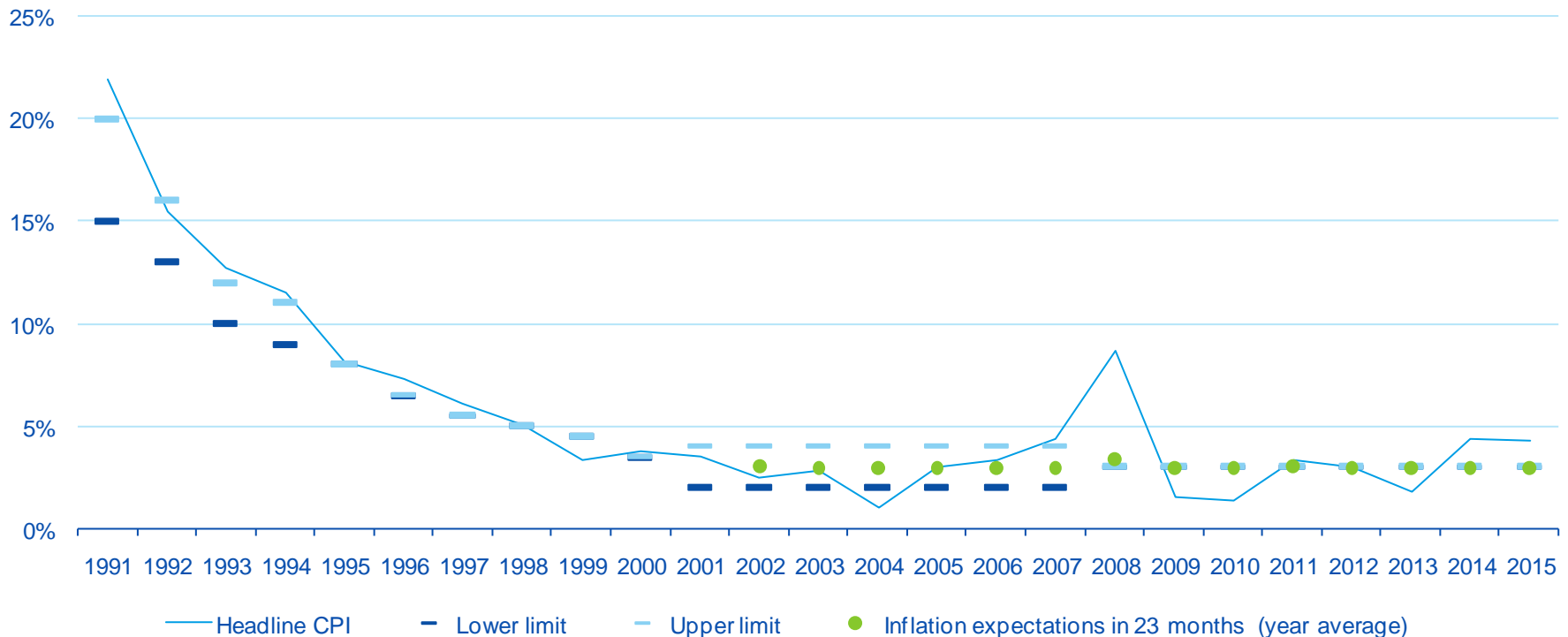
# Fundamentals Chile

## *5. Inflation and Exchange Rate*

# The Central bank has adopted a successful inflation target regime, allowing the anchor of long-term inflation expectations

**Inflation (annual change, %)**

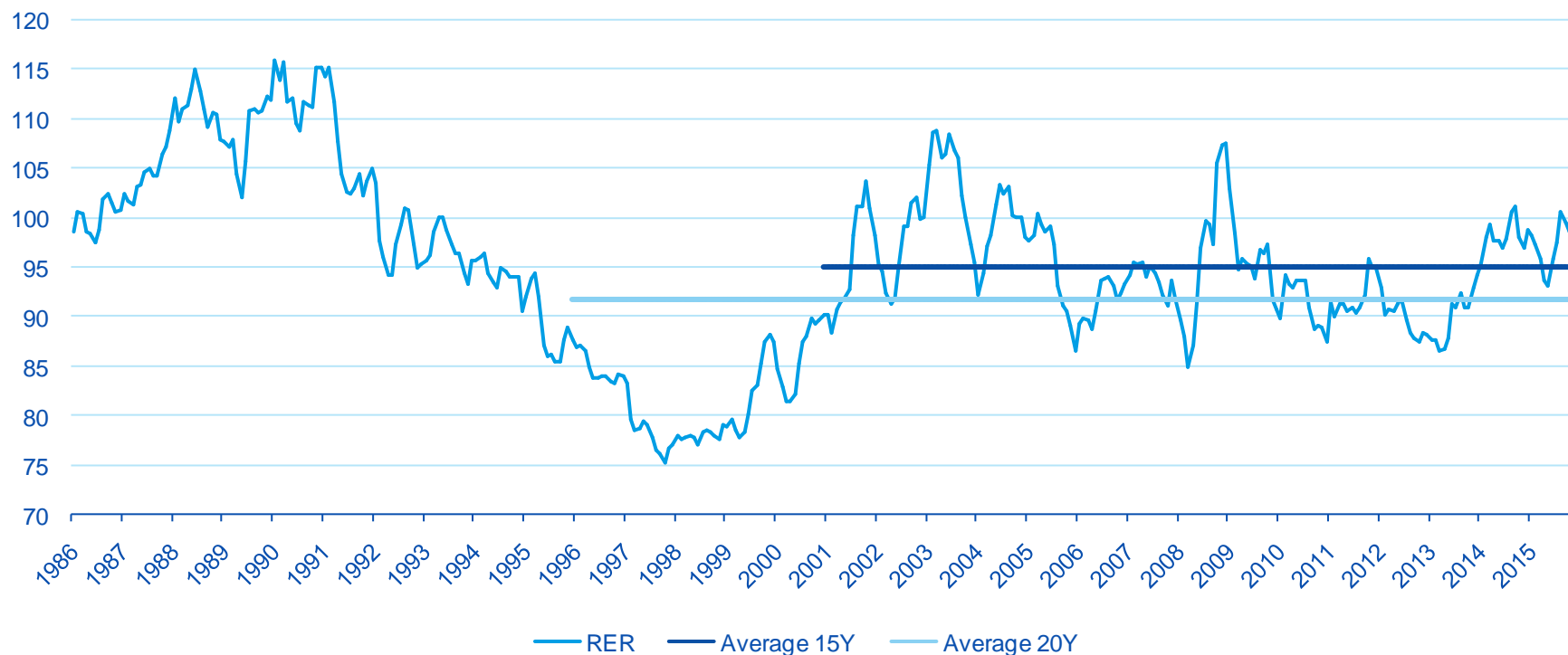
Source: Central Bank of Chile, BBVA Research



# With a floating exchange-rate regime...

Real exchange rate (index average 1986=100)

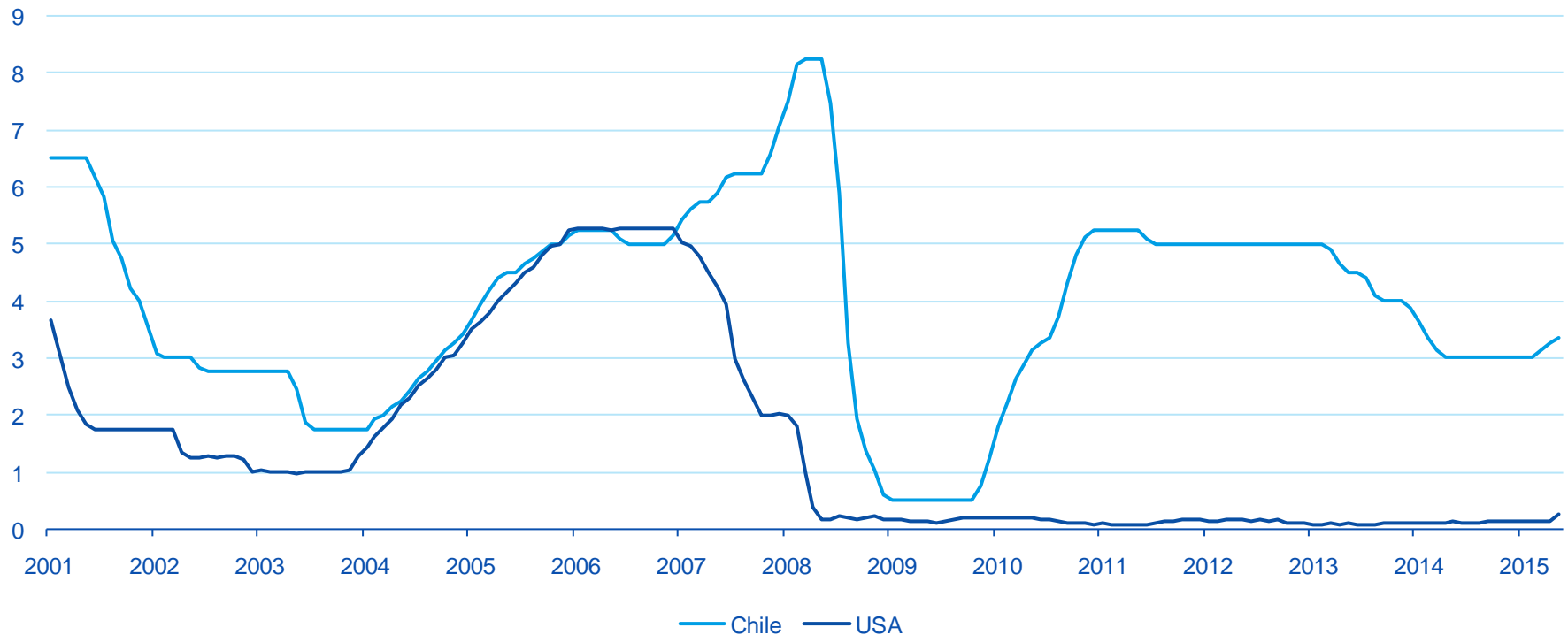
Source: Central Bank of Chile



... that has allowed to manage an independent monetary policy

**Monetary Policy Rate (%)**

Source: Central Bank of Chile and Federal Reserve



# Fundamentals Chile

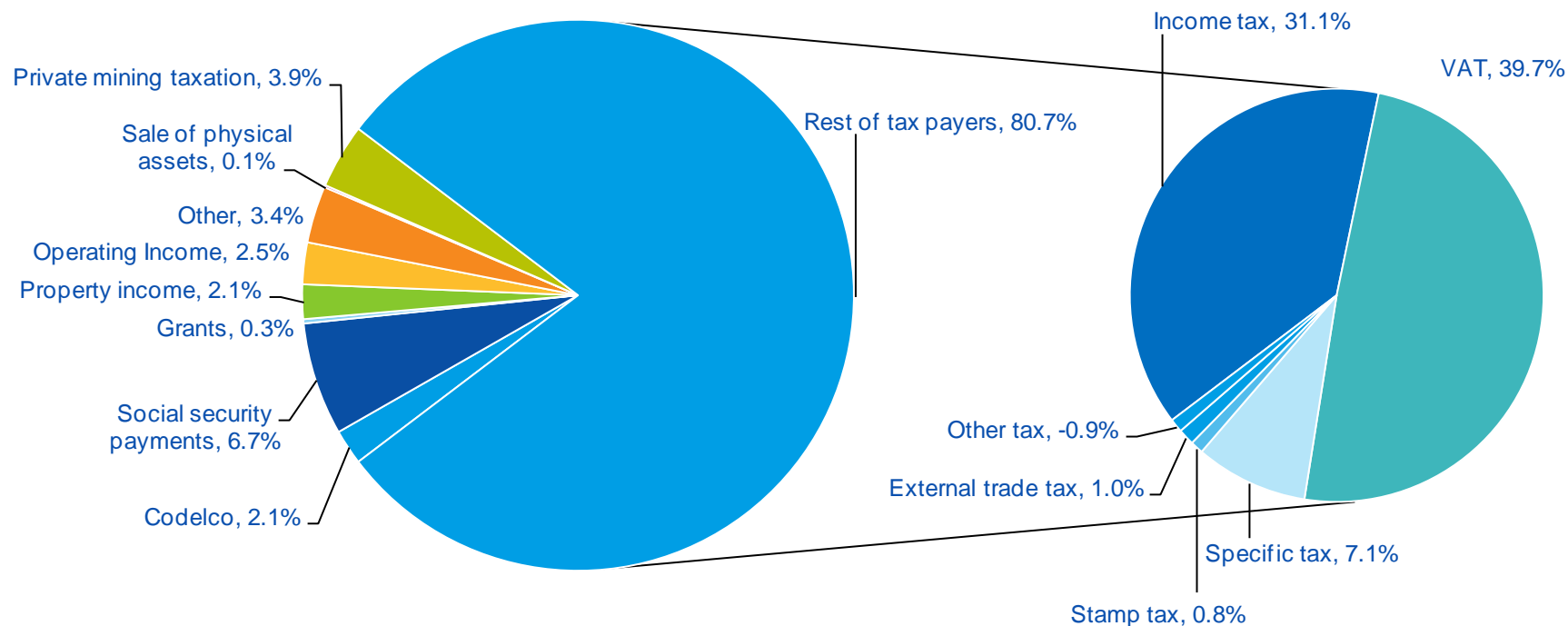
## *6. Fiscal Sector*



# Income tax and VAT account for most of fiscal revenues

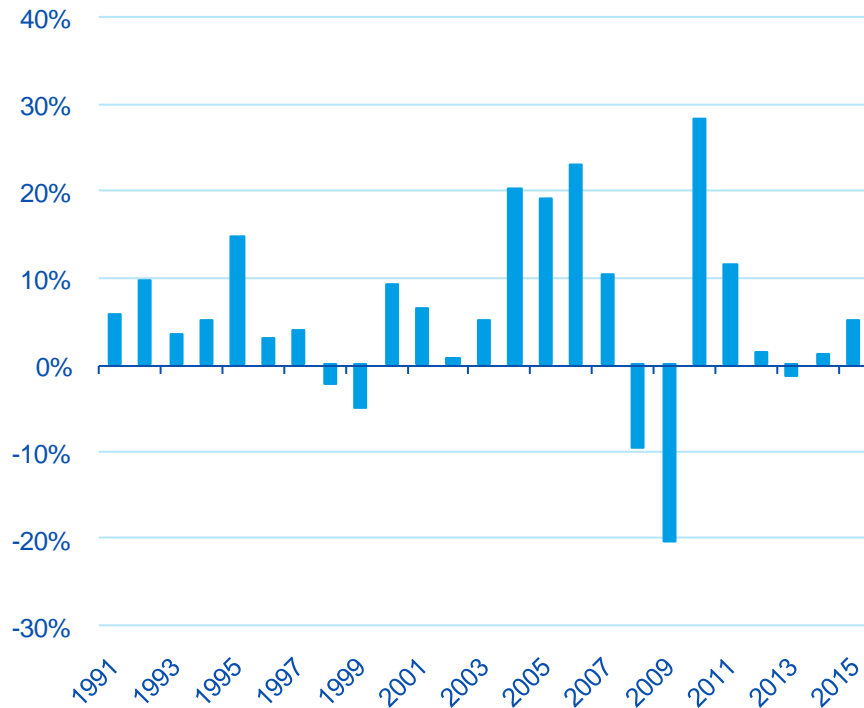
Government revenues 2015 (% of total)

Source: Budget Office

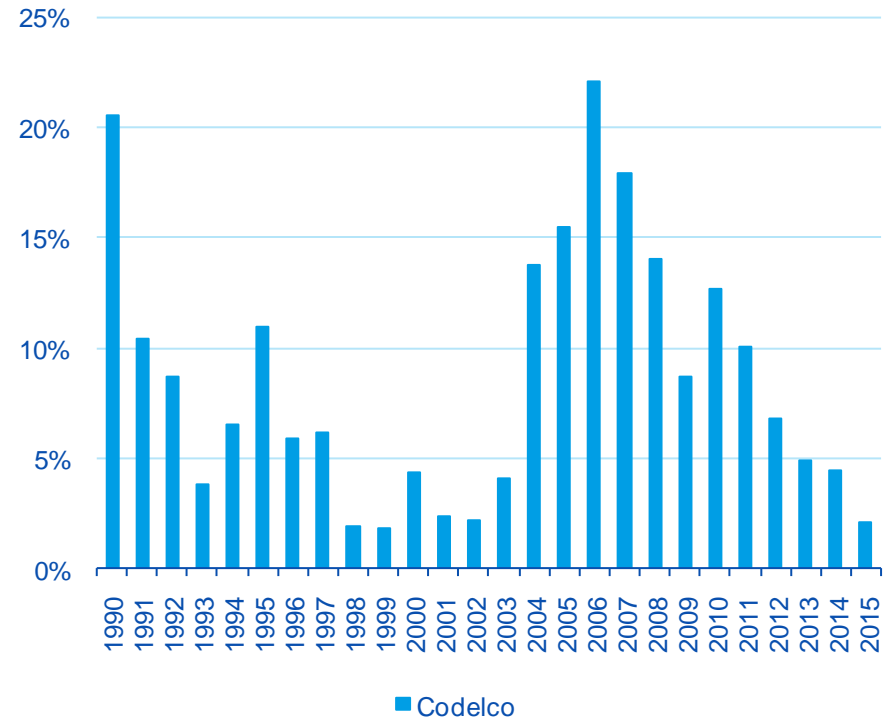


# Government revenues show high volatility during the business cycle

**Government revenues, constant currency 2014**  
 (% change)  
 Source: Budget Office



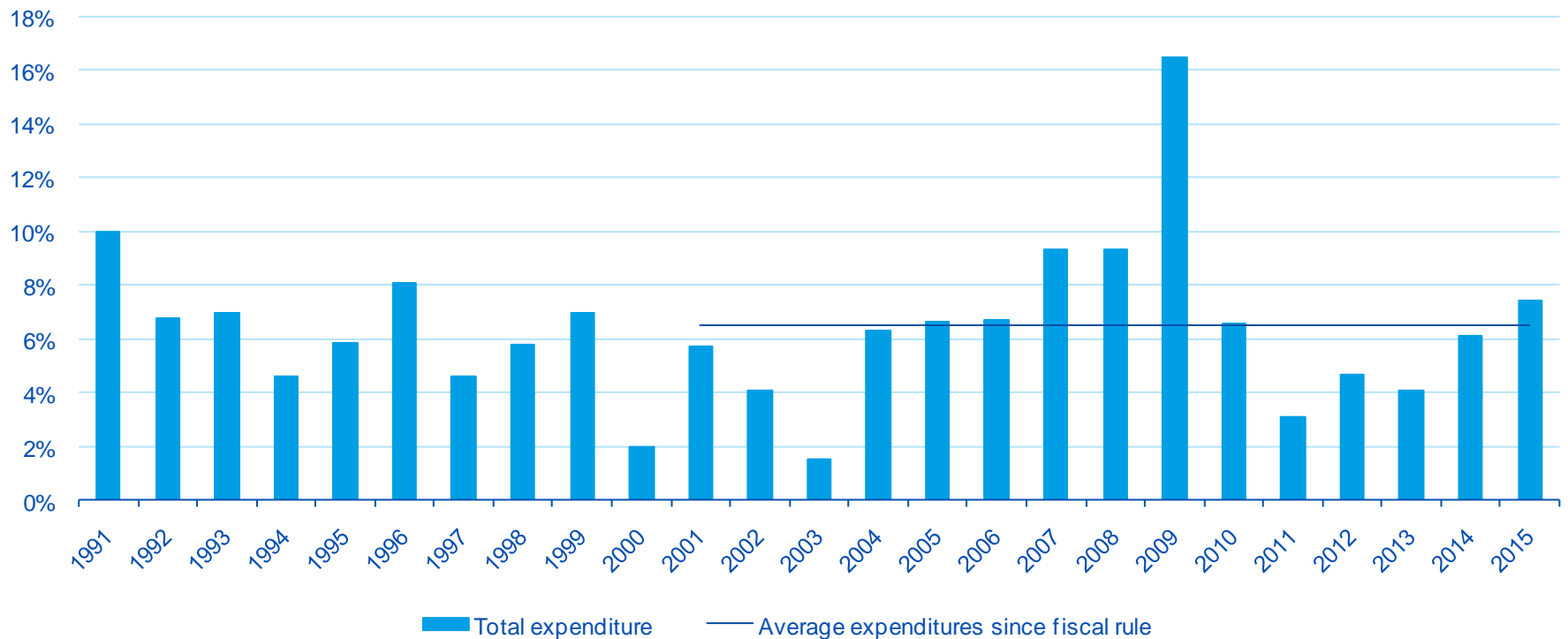
**Codelco, constant currency 2014**  
 (% total)  
 Source: Budget Office



# Avoiding pro-cyclicality: fiscal expenditures have increased 7% on average since the inception of the fiscal rule

Government Expenditures, constant currency 2014 (% change)

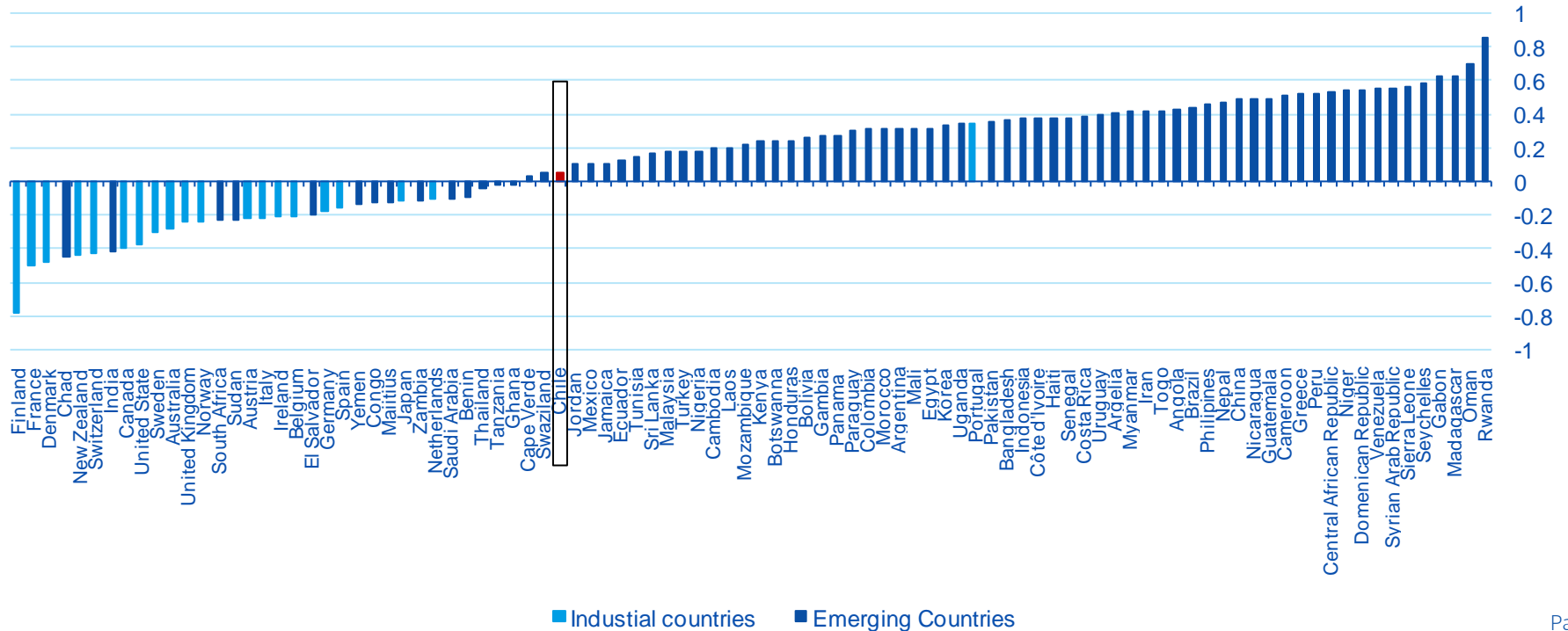
Source: Budget Office



# Chile shows a relatively low pro-cyclicality of fiscal expenditures

Country correlations between cyclical components of real fiscal spending and GDP growth  
1960-2014

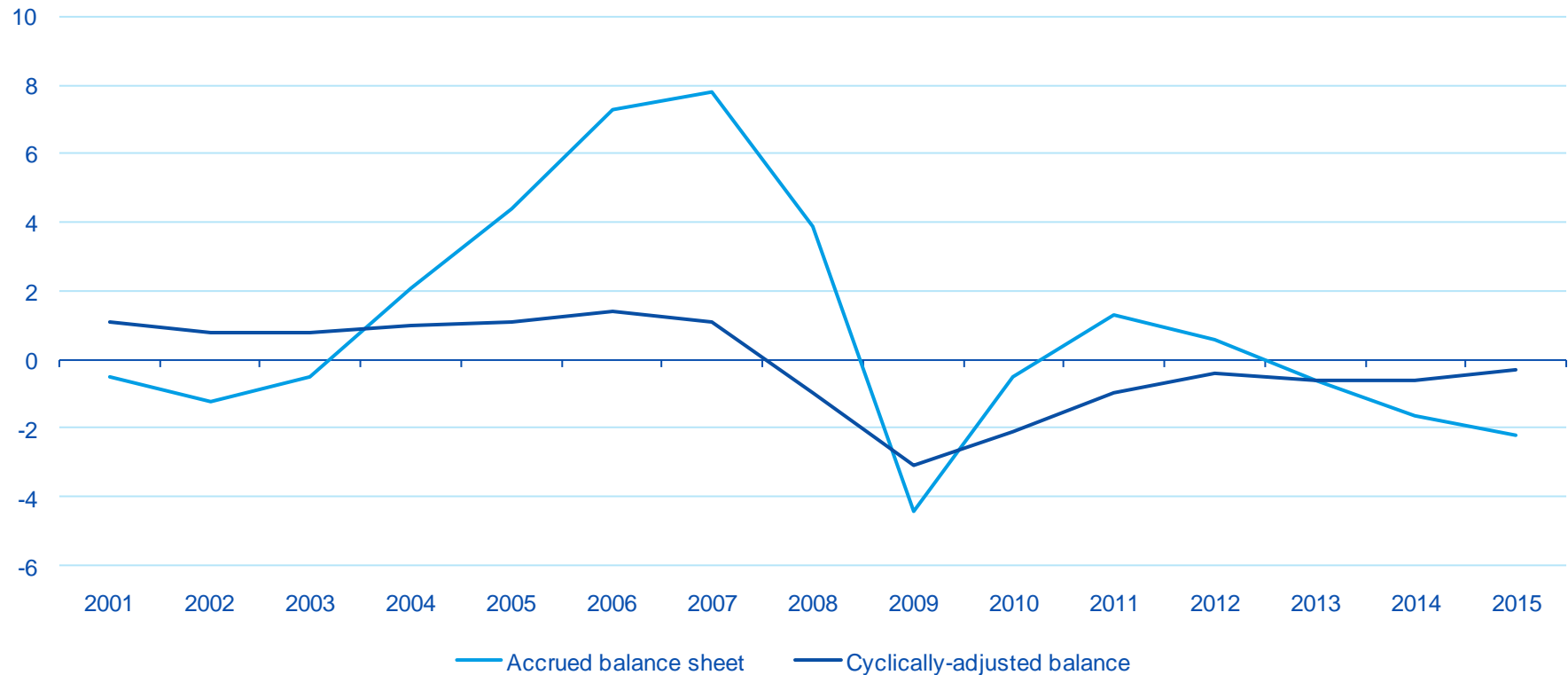
Source: NBER Reporter • 2015 Number 4, G.Kaminsky, C.Reinhart and C.Vegh, NBER working paper No.10780, BBVA Research



# Fiscal stance remains supportive, while the convergence to a structural balance has been quite slow

Fiscal balance (% of GDP)

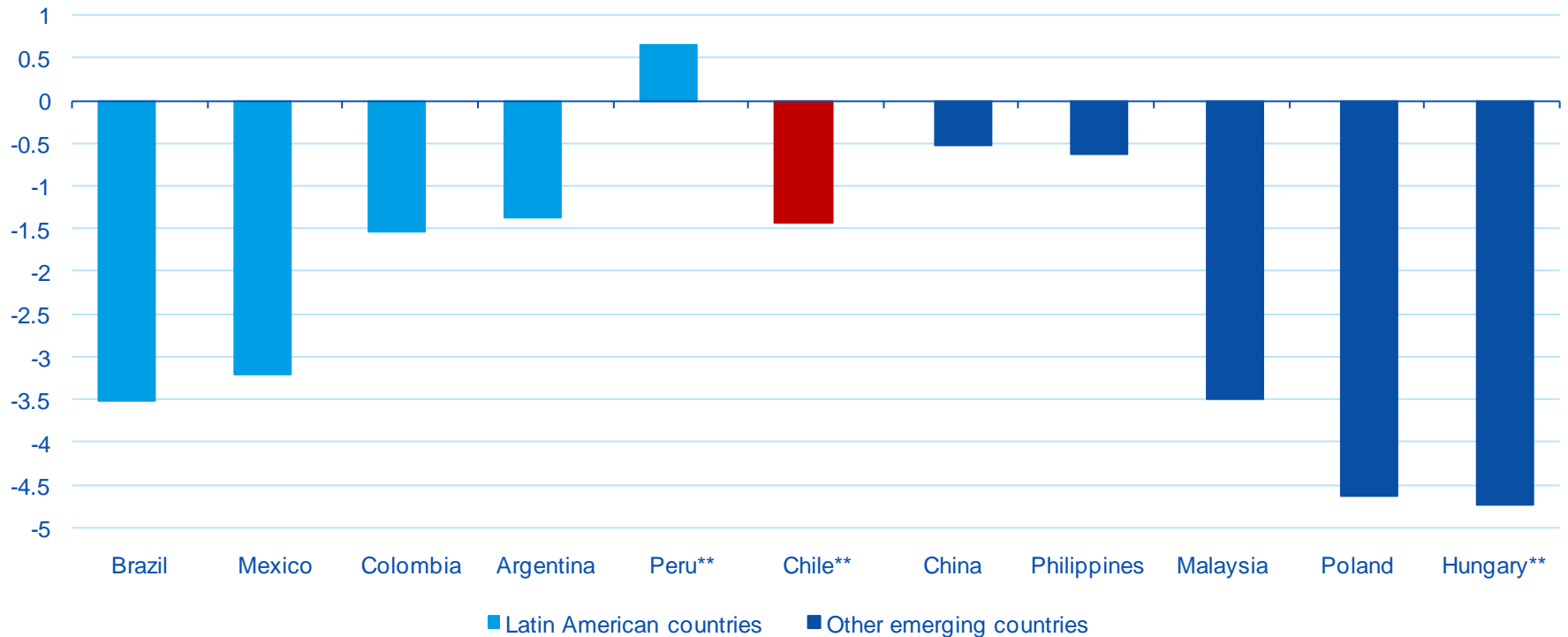
Source: Central Bank of Chile



# Although fiscal structural deficit averaged 1.5% of GDP since 2007

...

Cyclically Adjusted Balance, average 2007-2014 (% of potential GDP)  
 Source: International Monetary Fund, Fiscal Monitor

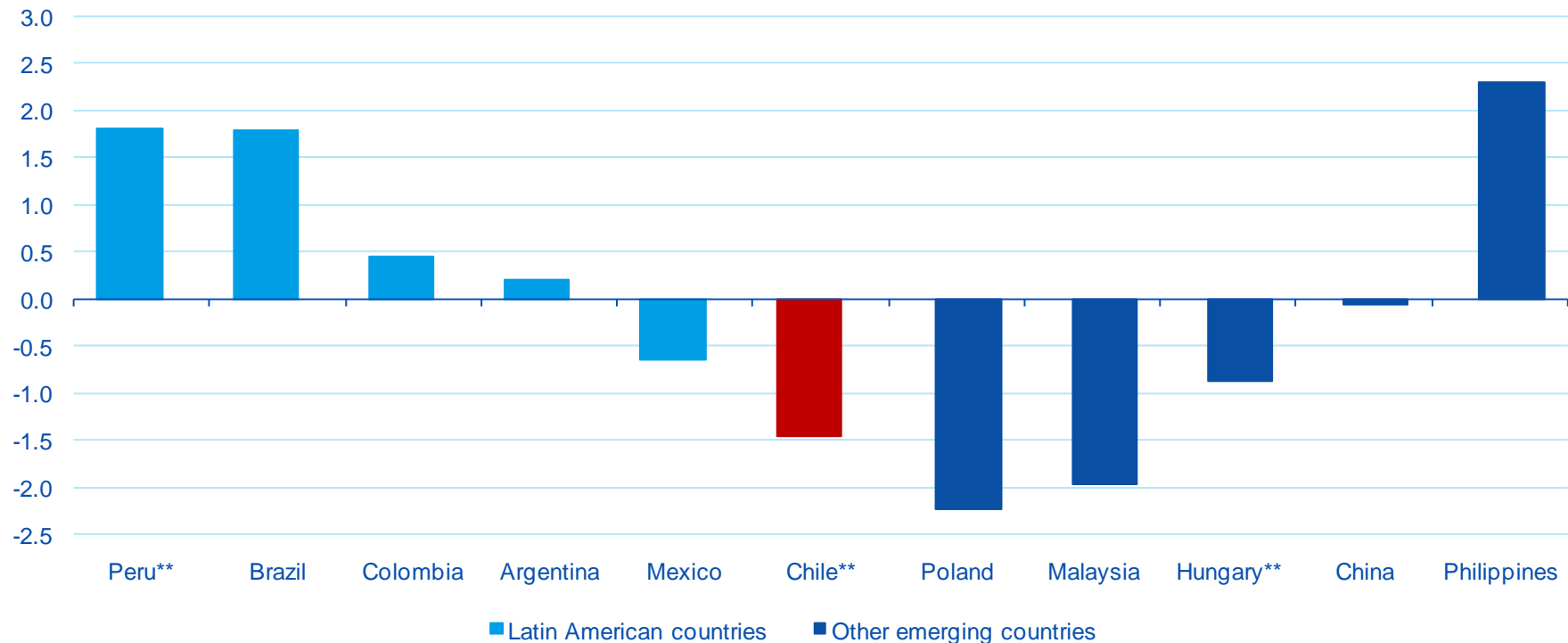


\*\* The data for these countries include adjustments beyond the output cycle

# ... the primary balance figure does not show sustainability risks

Cyclically Adjusted Primary Balance, average 2007-2014 (% of potential GDP)

Source: International Monetary Fund, Fiscal Monitor

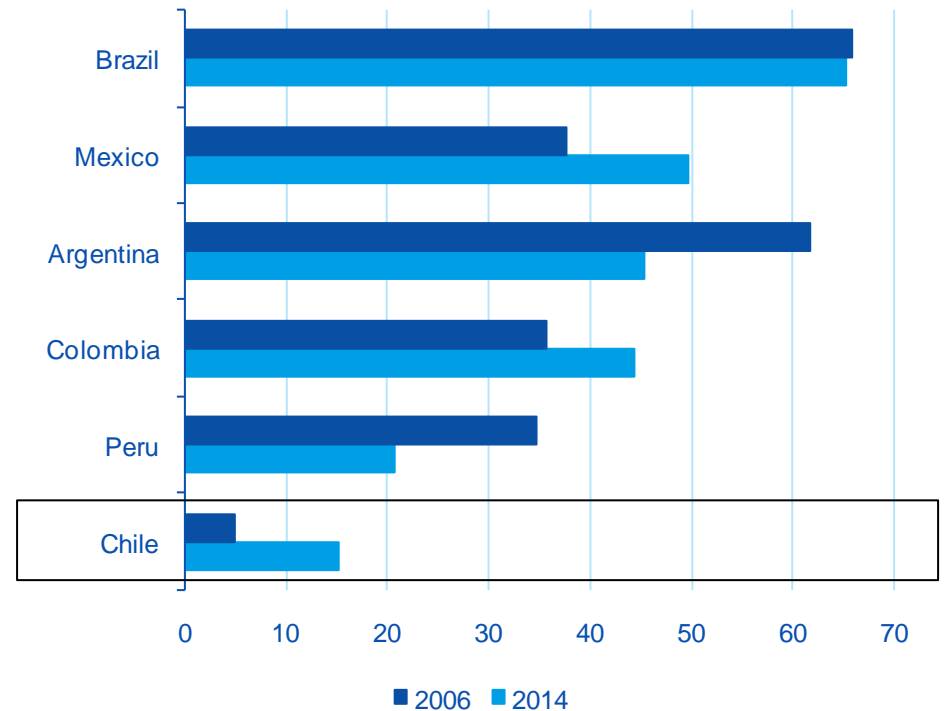
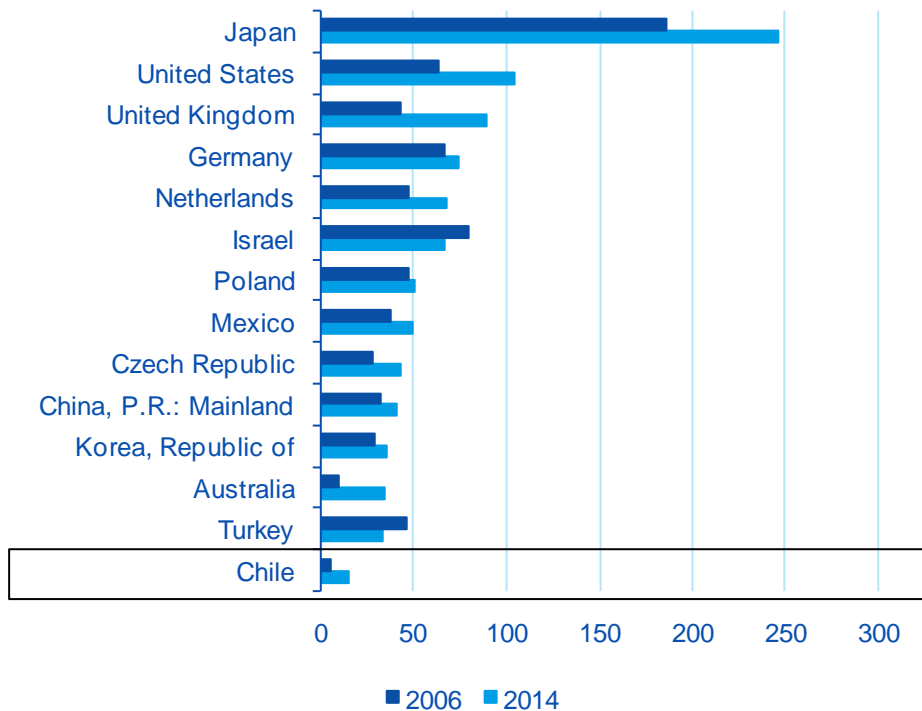


\*\* The data for these countries include adjustments beyond the output cycle

# Gross debt had increased, but remains relatively low

Public Gross Debt (% GDP)

Source: International Monetary Fund

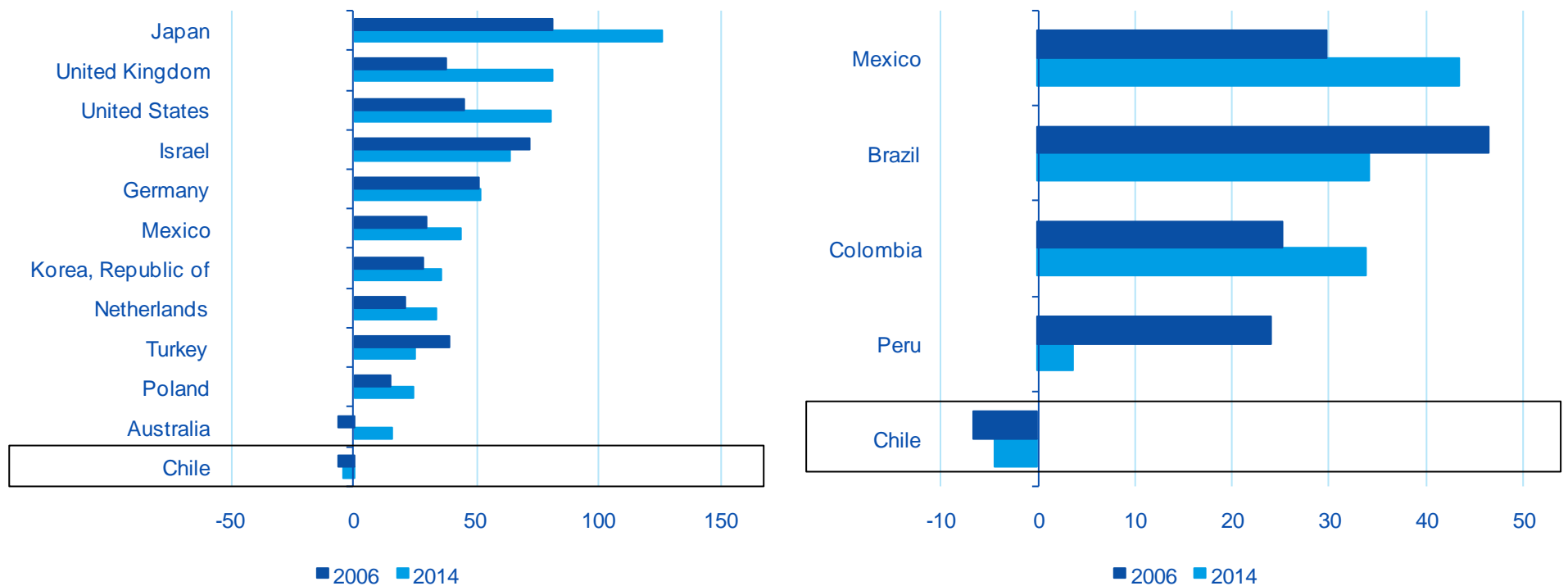




# Additionally, in net terms, debt continues to be negative

**Public Net Debt (% GDP)**

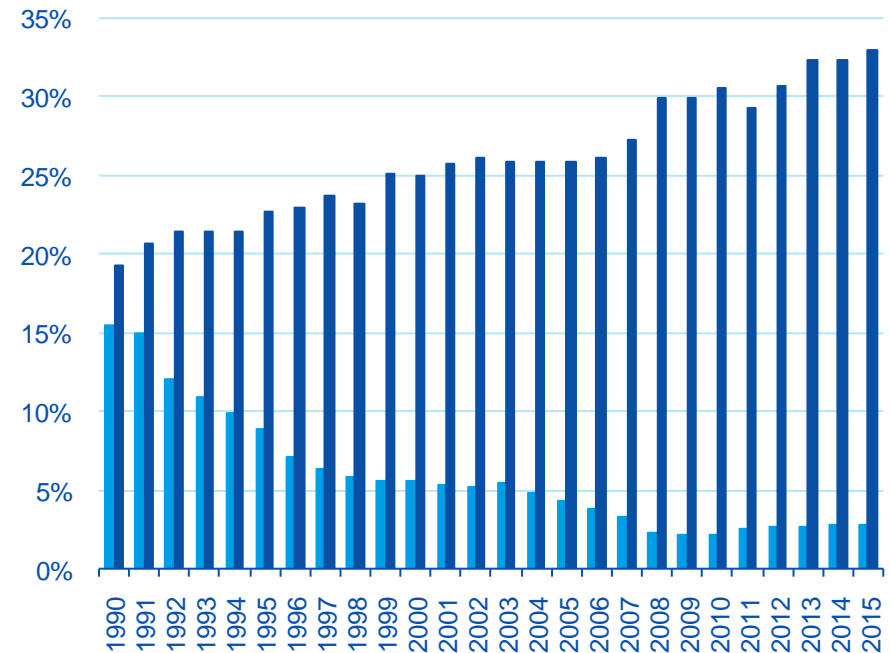
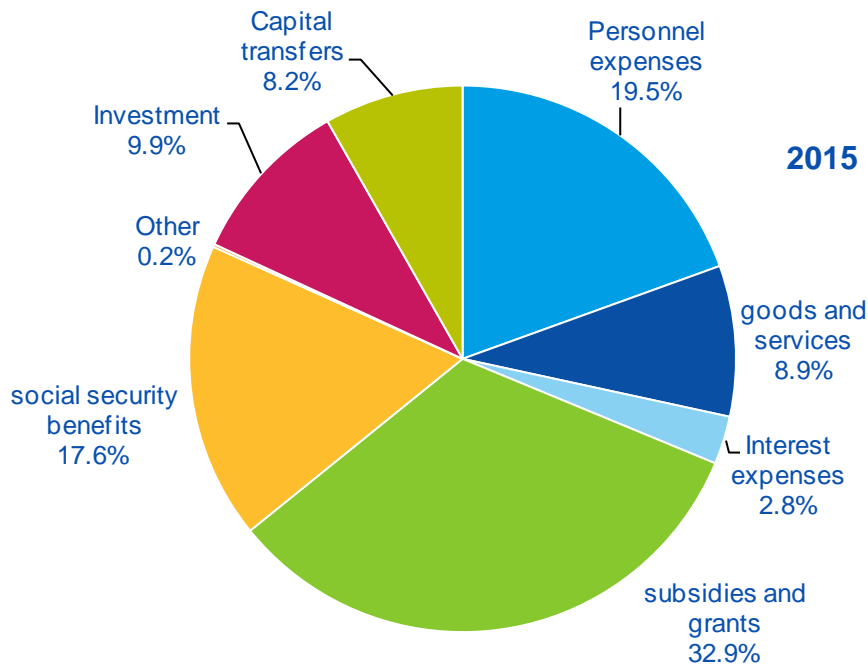
Source: International Monetary Fund



# Debt services had declined significantly, mainly due to lower borrowing costs

Government expenditures, constant currency 2014 (% of total)

Source: Budget Office



Interest expenses subsidies and grants

# Fundamentals Chile

## *7. Financial System*

# Assets under management (AUM) by institutions

2015

	Assets (million USD)	Assets as % of GDP
Institutional Investors	247,981.0	103%
Mutual Funds	41,380	17.2%
Insurance Businesses **	51,890	21.6%
Pension Funds (AFP)	154,711	64.4%
Sovereign Wealth Fund	27,578.5	11%
FEES	13,966	5.8%
FRP	8,112	3.4%
Other	2,003	0.8%
EF	3,497	1.5%
Central Bank International Reserves***	40,446.9	17%
US dollar	21,605	9.0%
EURO	7,888	3.3%
CAD	3,093	1.3%
AUD	2,015	0.8%
Other	5,846	2.4%

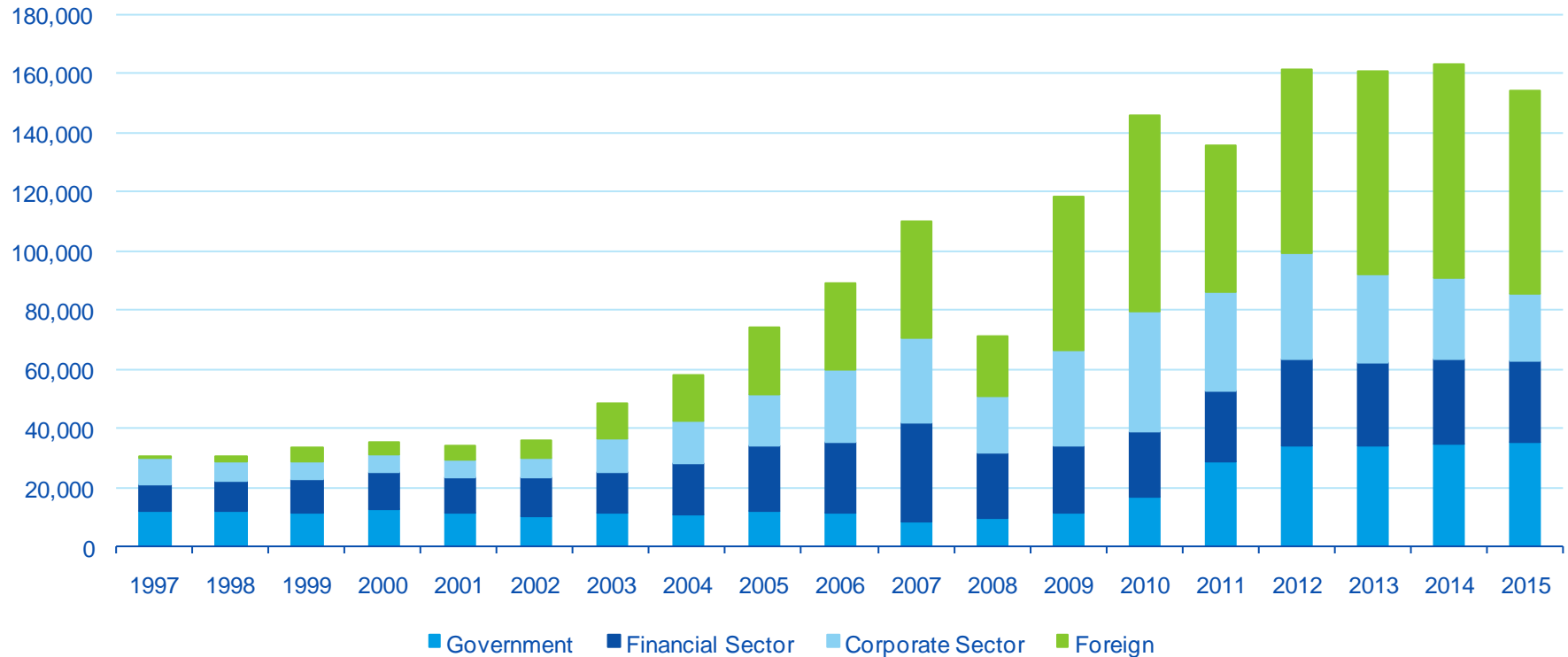
\*\*September 2015

Source: Mutual Funds association, Central Bank of Chile, Budget Office, Pension Supervisor, Values and Insurance Supervisor

# Local exposition of pension fund has declined during recent years

Pension Funds (million USD)

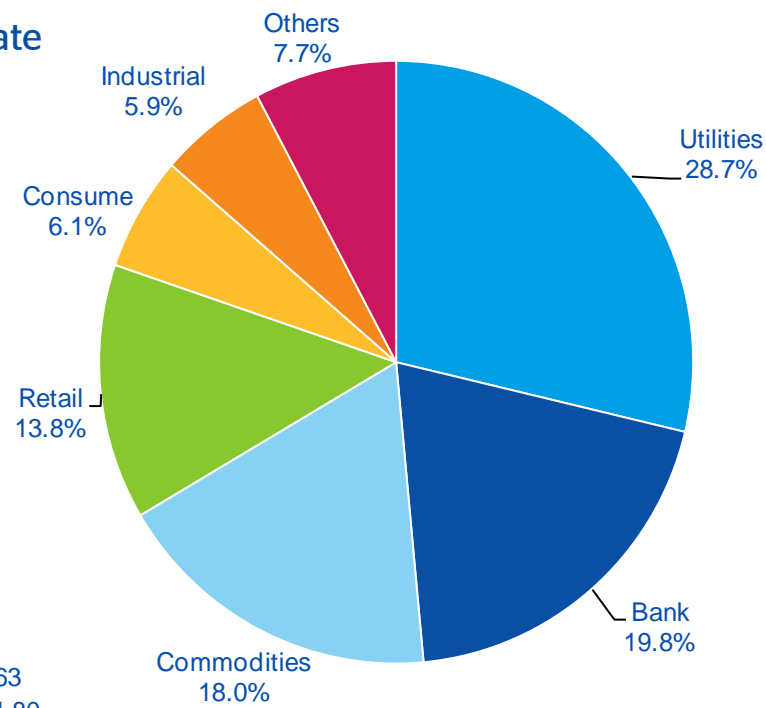
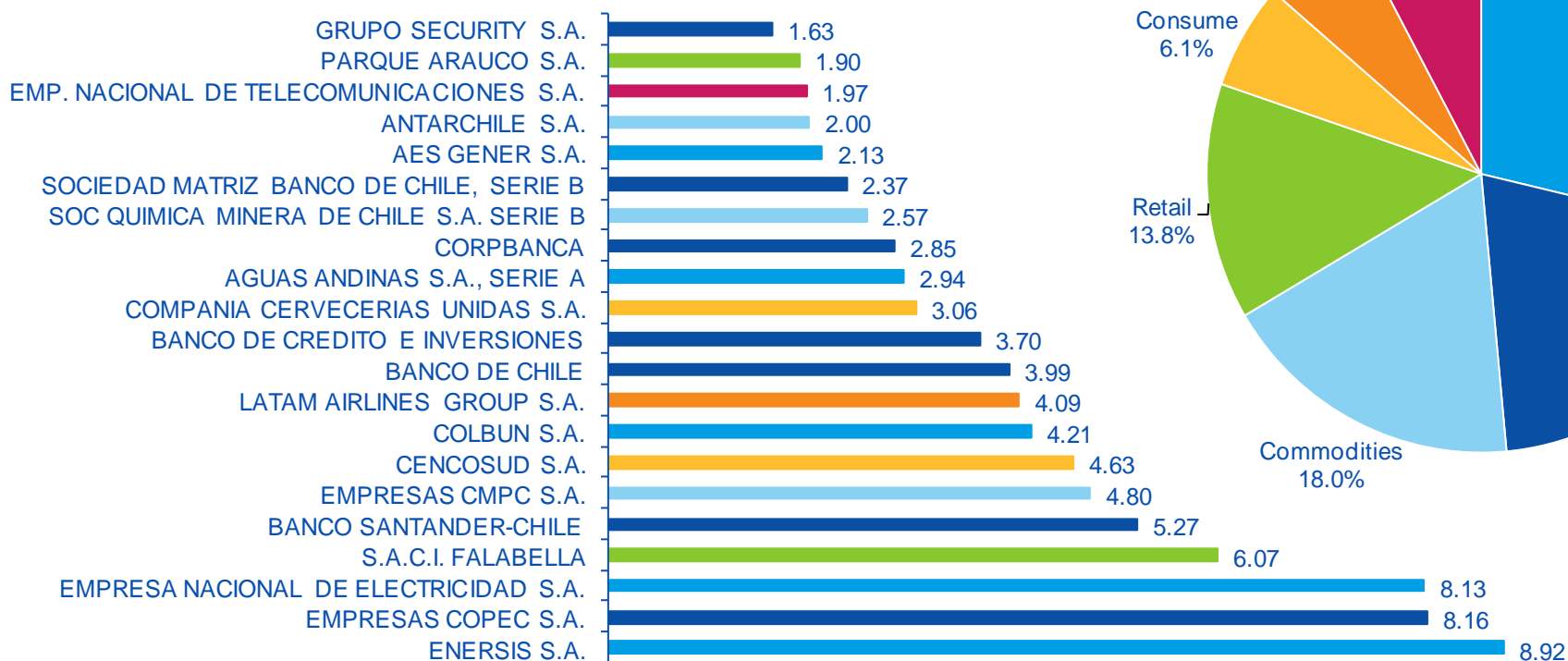
Source: Pension Supervisor



# Copper industry is sub-represented in Chilean equity market (IPSA)

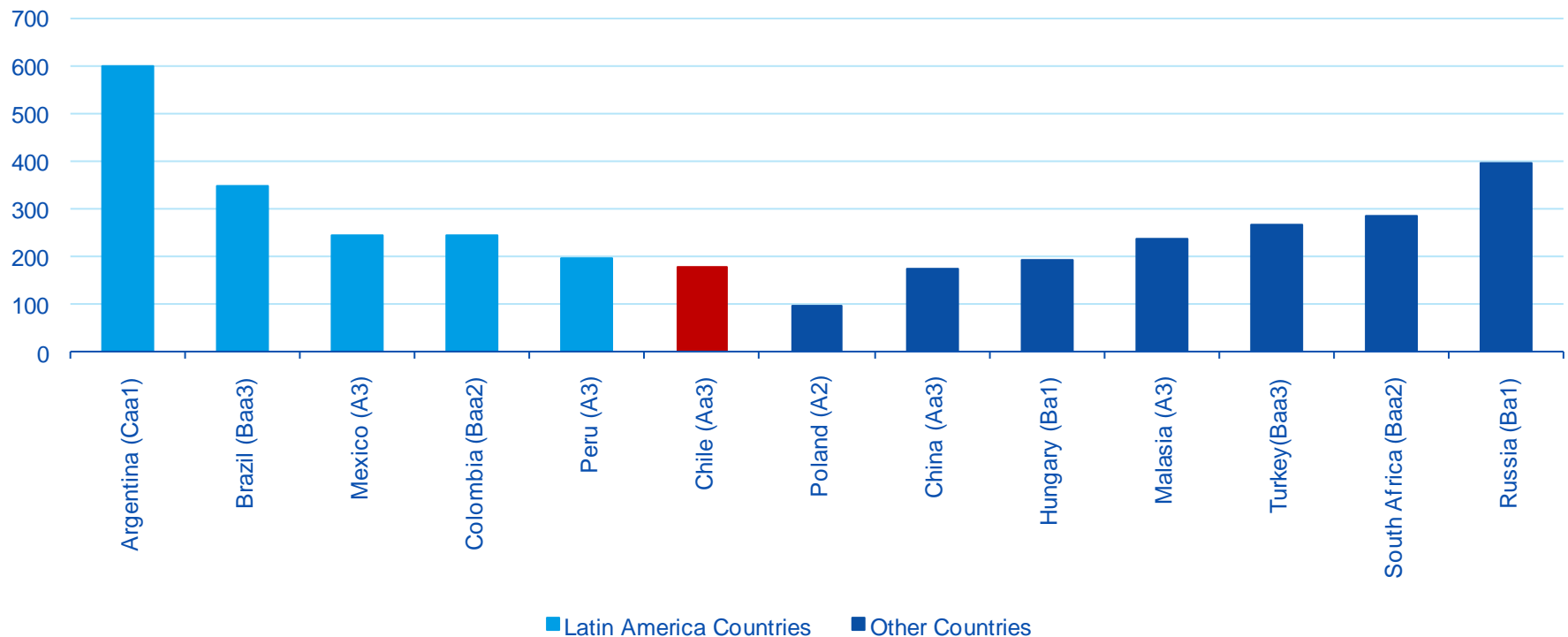
IPSA 2015 Participation rate

Source: Santiago Exchange



# Chile shows low risk premium relative to other emerging economies

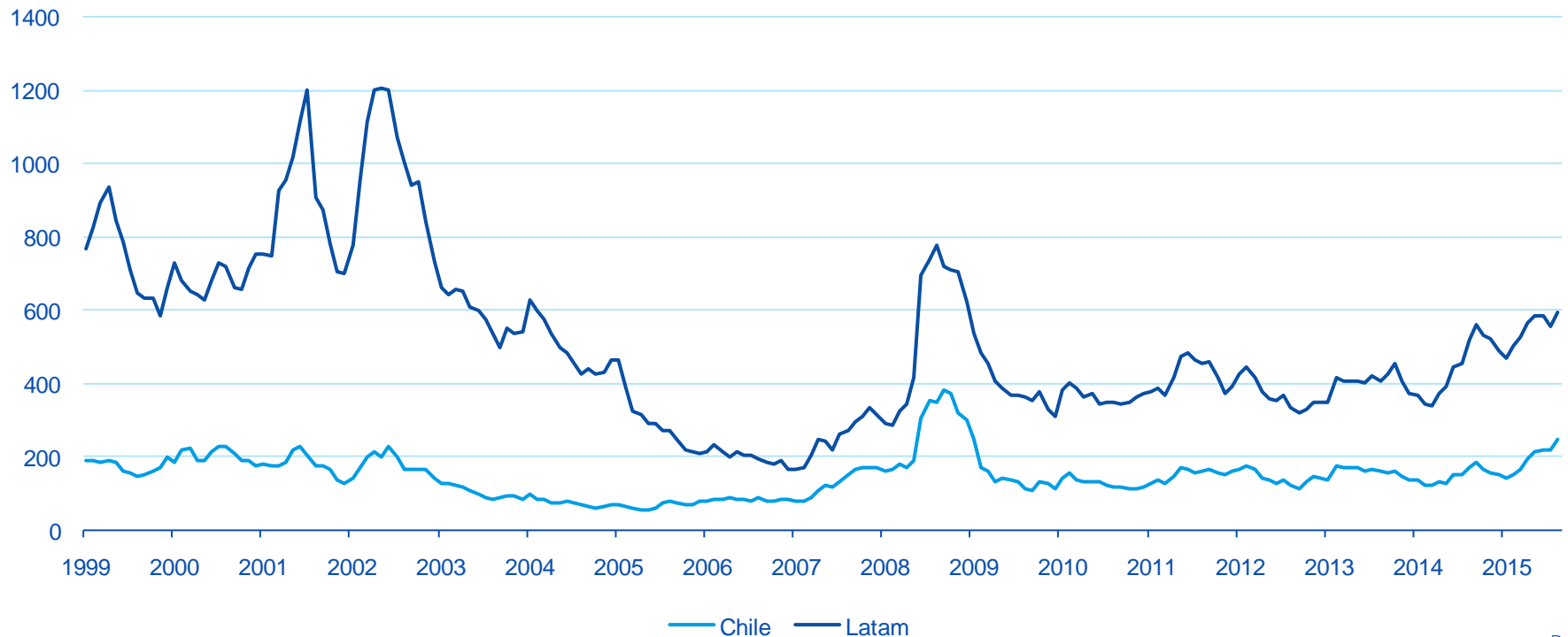
Country risk\*, Average 2015 (basis points, EMBI)  
 Source: based on JP Morgan Chase



\*Risk classification by MOODY'S

# Nonetheless, borrowing cost has increased recently ...

Sovereign spreads: Global EMBI spread (averages, basis points)  
 Source Central Bank of Chile

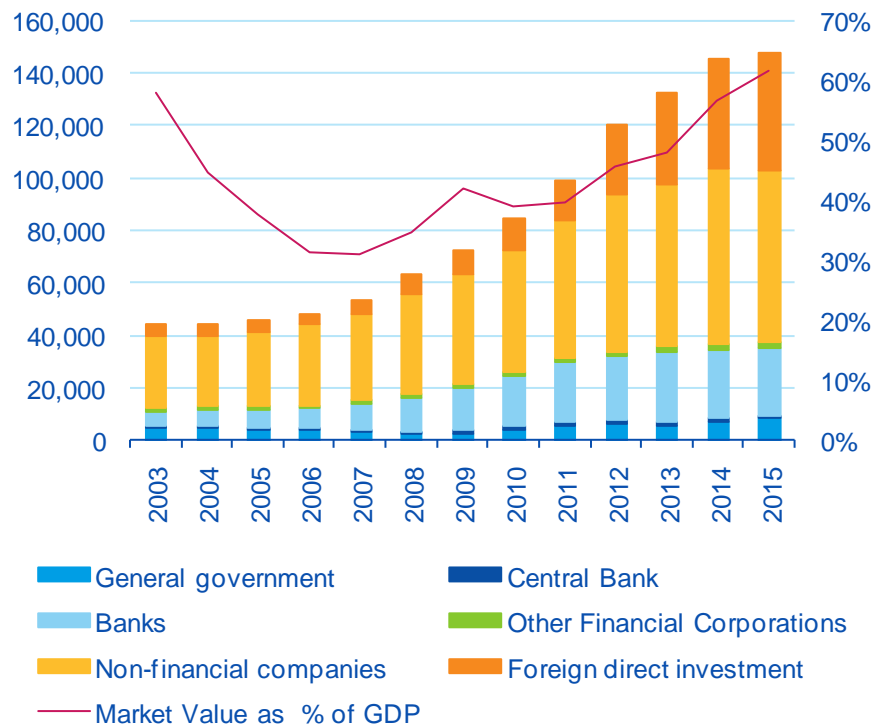




# ... while external debt has raised sharply

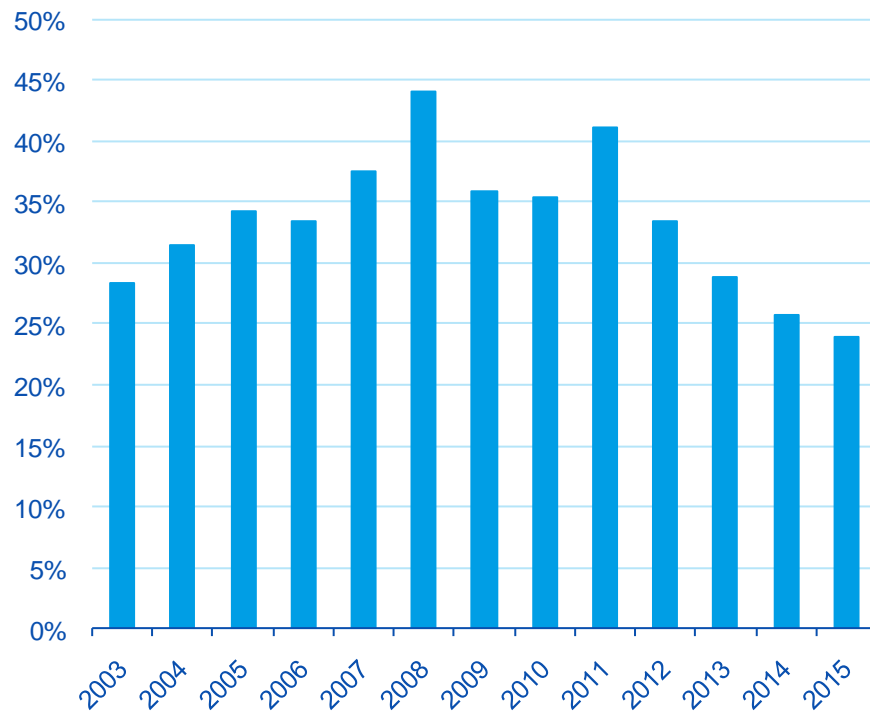
External Debt at Market value(millions of dollars)

Source: Central Bank of Chile



Gross External Debt, Short term (% of External Debt)

Source: Central Bank of Chile



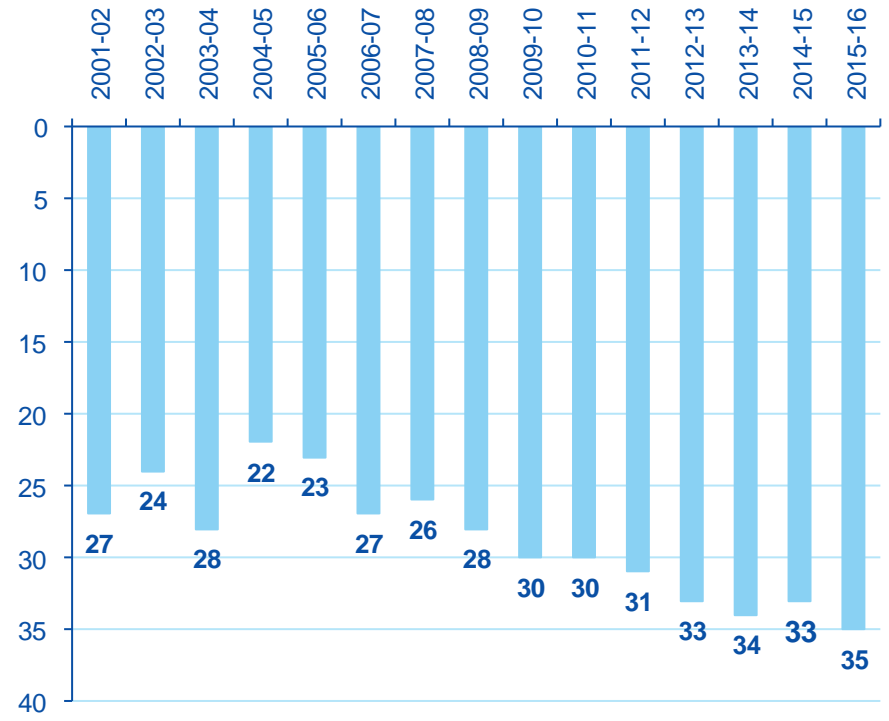
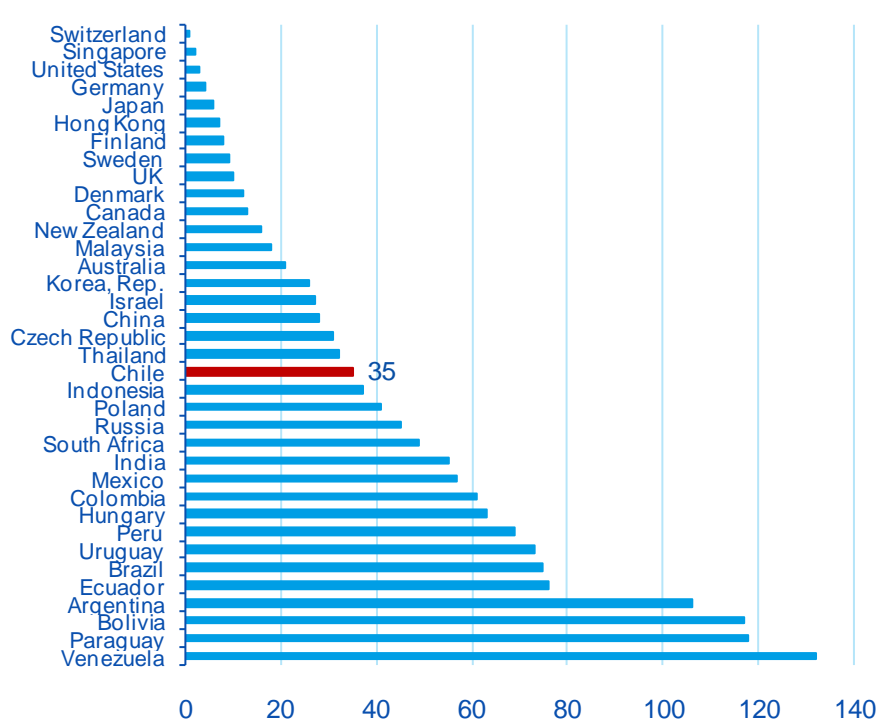
# Fundamentals Chile

## *8. Competitiveness and Other Indicators*

# High competitiveness but stagnant since 2007

## Competitiveness\* (Ranking 2015-16)

Source: World Economic Forum

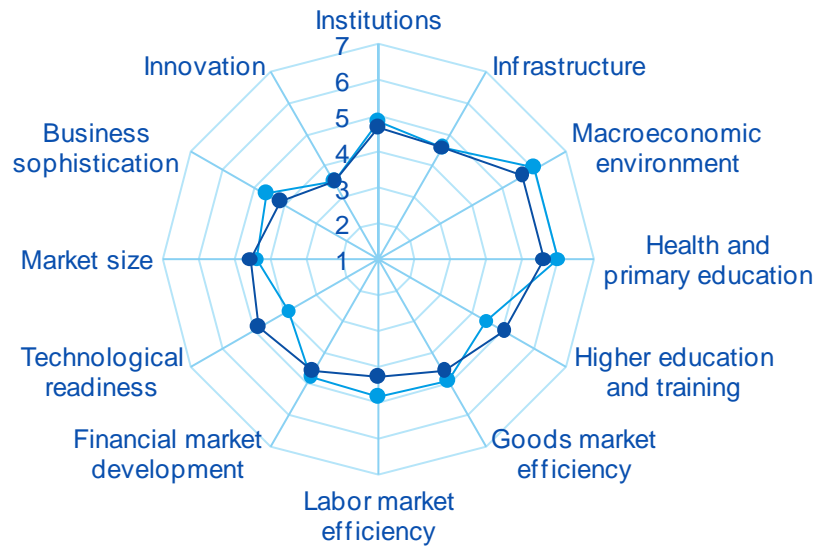


\*The competitiveness index measures country's ability to achieve high and sustainable per capita GDP growth. The number beside each bar represents the place in the ranking.

# Weakest link in innovation

## Competitiveness index, Chile

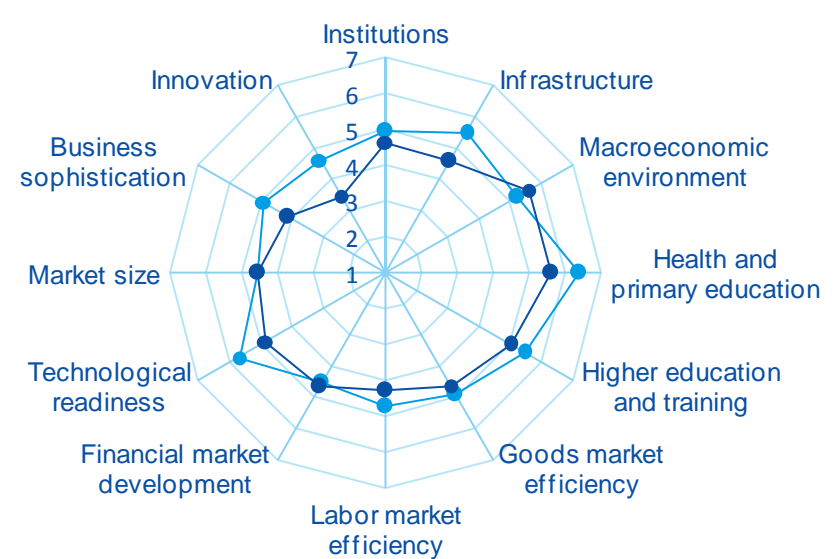
Source: World Economic Forum, Global competitiveness Index



● 2006-2007 ● 2015-2016

## Competitiveness index (2015-16)

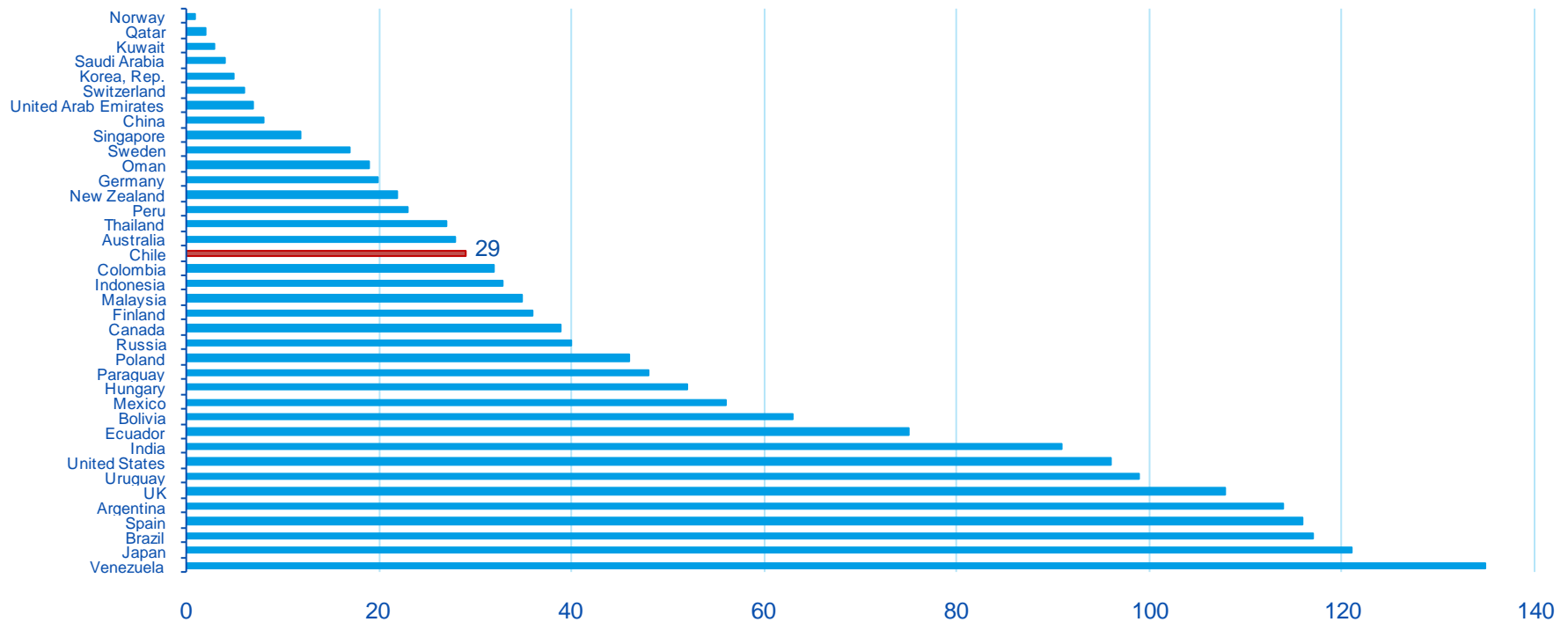
Source: World Economic Forum, Global competitiveness Index



● Advanced Economies ● Chile

# Chile shows one of the best macroeconomic environments in LatAm ...

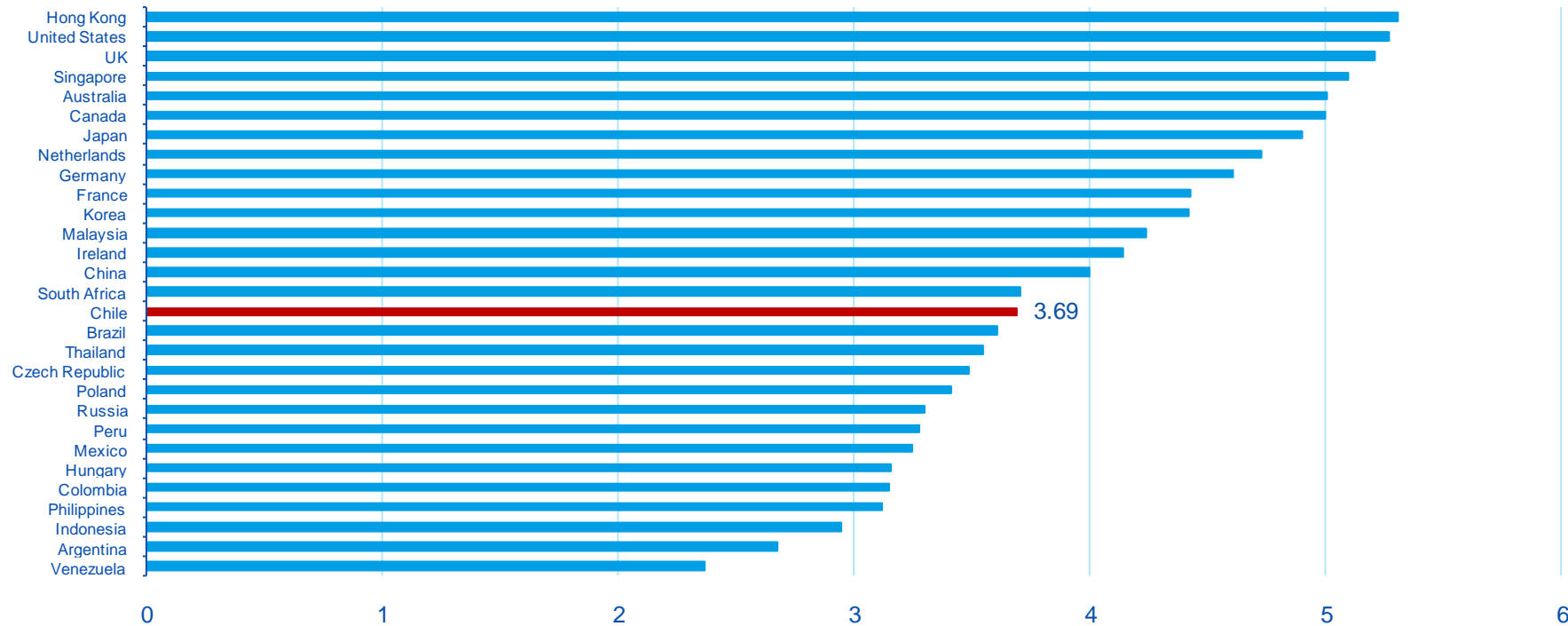
**Macroeconomic Environment\* (Ranking 2015-16)**  
 Source: World Economic Forum



\*Based on: Government budget balance(% GDP), Gross National Savings (% GDP), Inflation (annual % change), General Government debt (% GDP), Country credit rating (0-100 best)

# ... and a deep financial system

**Financial Development\* (Index 2012)**  
 Source: World Economic Forum

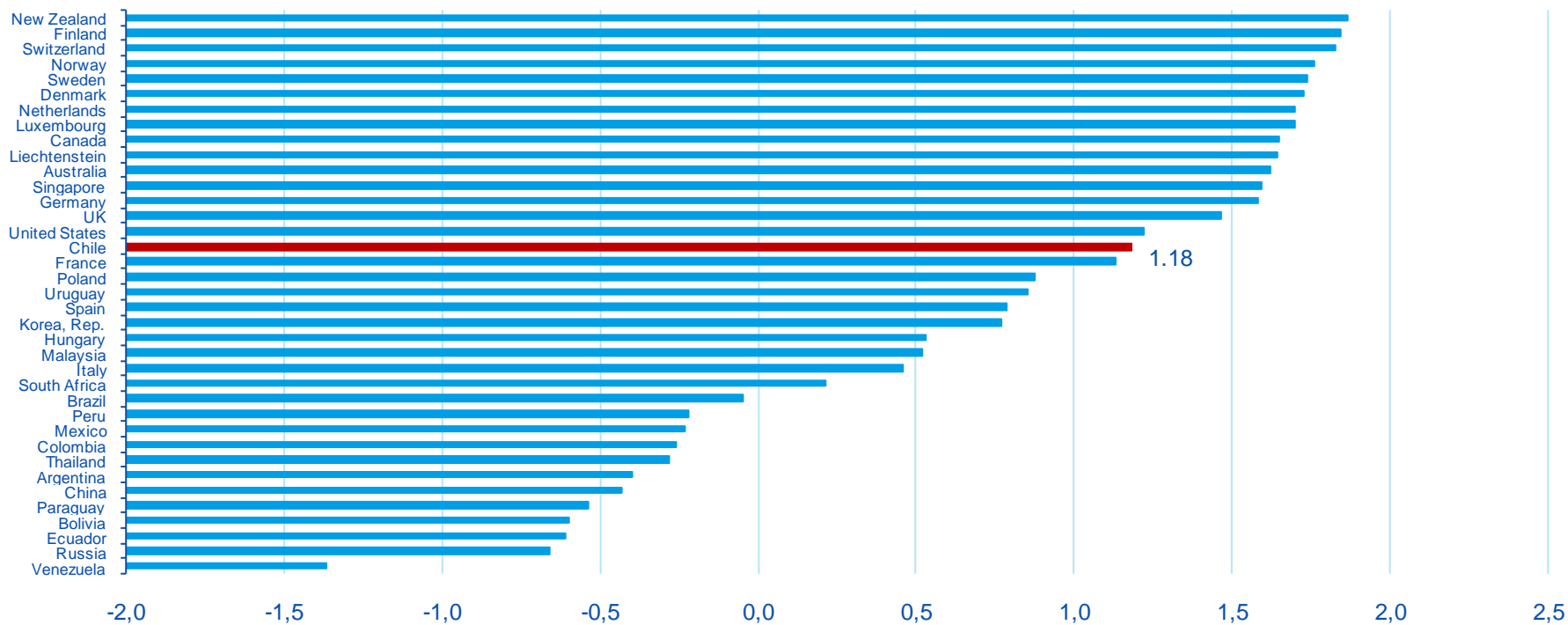


\*It is quantified in a scale from 1 (low) to 7 (high)

# High institutional quality ...

Quality of institutions \*(Index 2015-16)\*\*

Source: World Bank



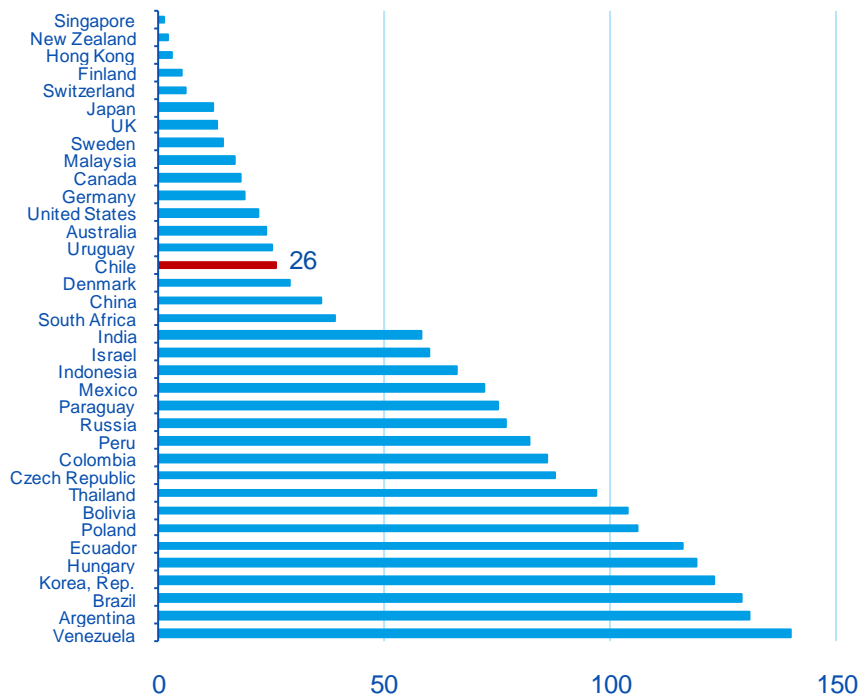
\*Average of six indexes: rule of law, corruption control, political stability, quality of regulations, government effectiveness and accountability

\*\* Ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance

# ... with relatively low levels of corruption

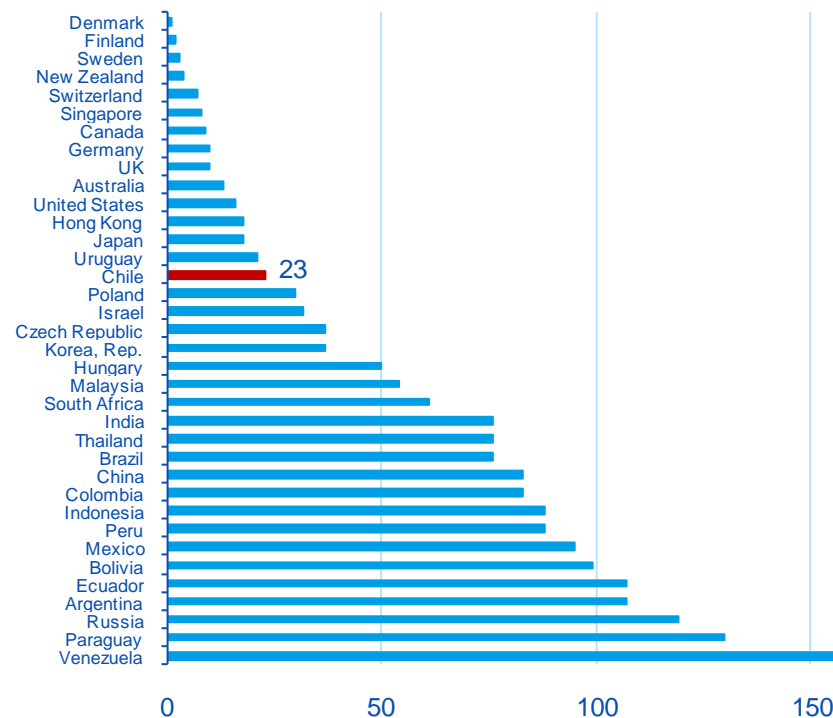
**Transparency of Government\* (Ranking 2015-16)**

Source: World Economic Forum, Global competitiveness Index



**Corruption perception \*\* (Ranking 2015)**

Source: Transparency international



\*index based on calcification ( 1=extremely difficult to 7=extremely easy) about how easy is it for companies to obtain info. about changes in government policies and regulations affecting their activities

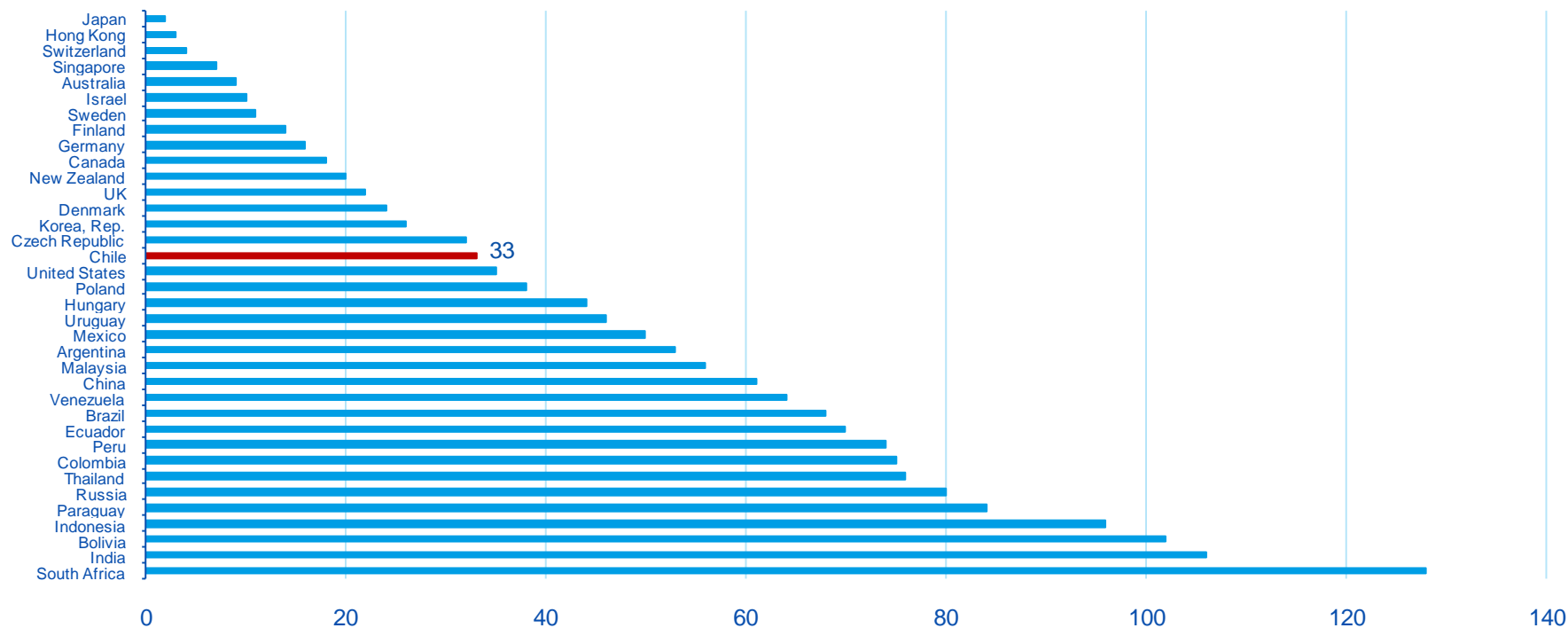
\*\* The Corruption Perception Index 2015 is calculated using 12 different data sources from 11 different institutions that capture perceptions of corruption within the past two years.



# Health index seems reasonable comparable to developed countries ...

## Health Index\* (Ranking 2015-16)

Source: World Economic Forum, Global competitiveness Index

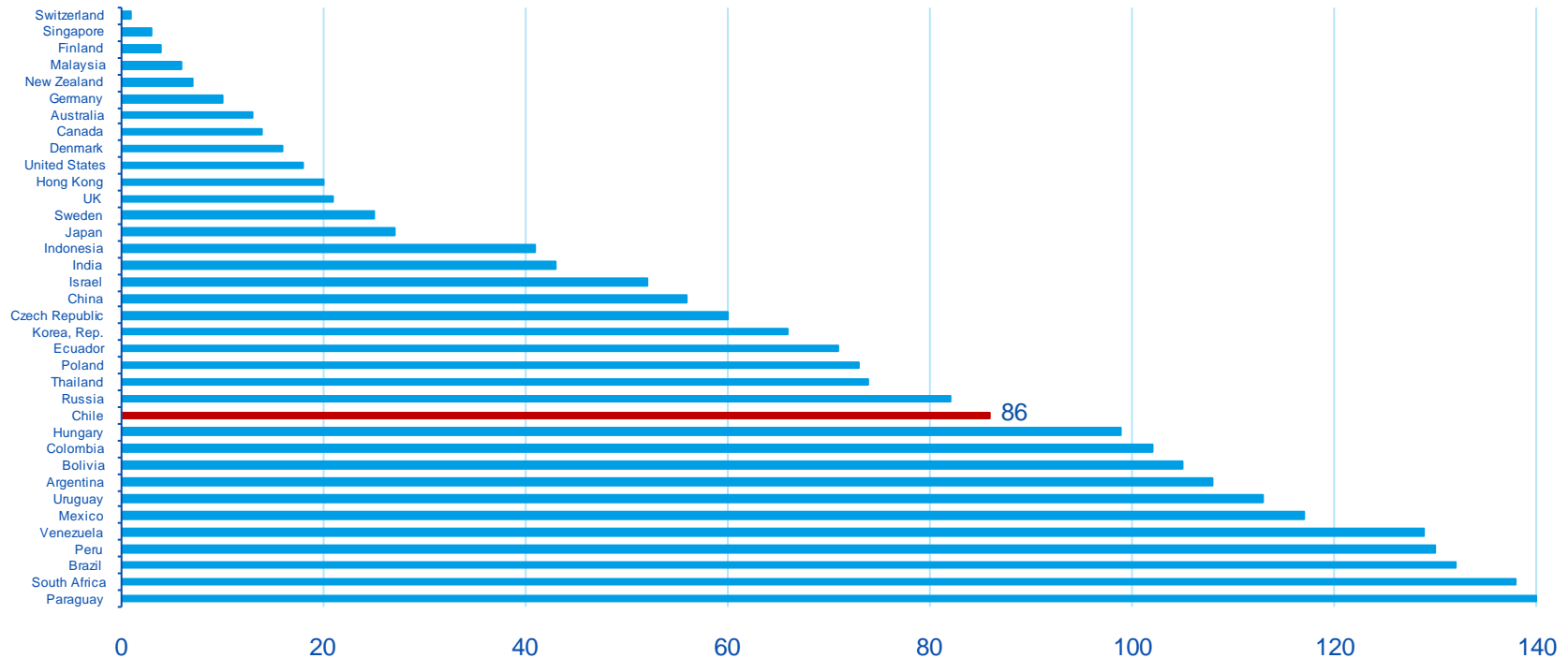


\*includes: Malaria cases/100,000 pop., Business impact of malaria, Tuberculosis cases/100,000 pop., Business impact of tuberculosis, HIV prevalence % adult pop., Business impact of HIV/AIDS, Infant mortality deaths/1,000 live births, Life expectancy years.

# ...as well as education quality

## Quality of the education system\* (Ranking 2015-16)

Source: World Economic Forum, Global competitiveness Index

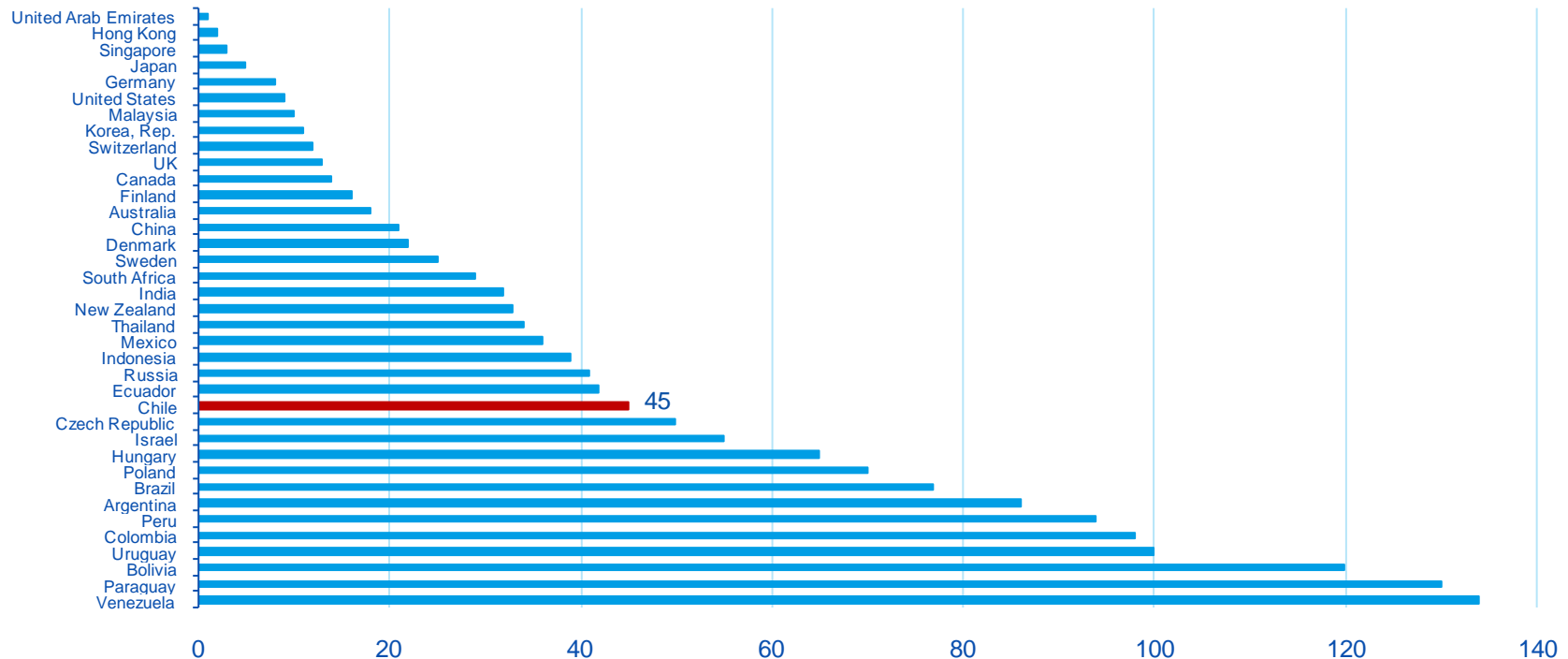


\*index based on calcification ( 1 =not well at all to 7=extremely well) about how well does the education system meet

# Challenge arises in transportation infrastructure ...

## Transport infrastructure\* (Ranking 2015-16)

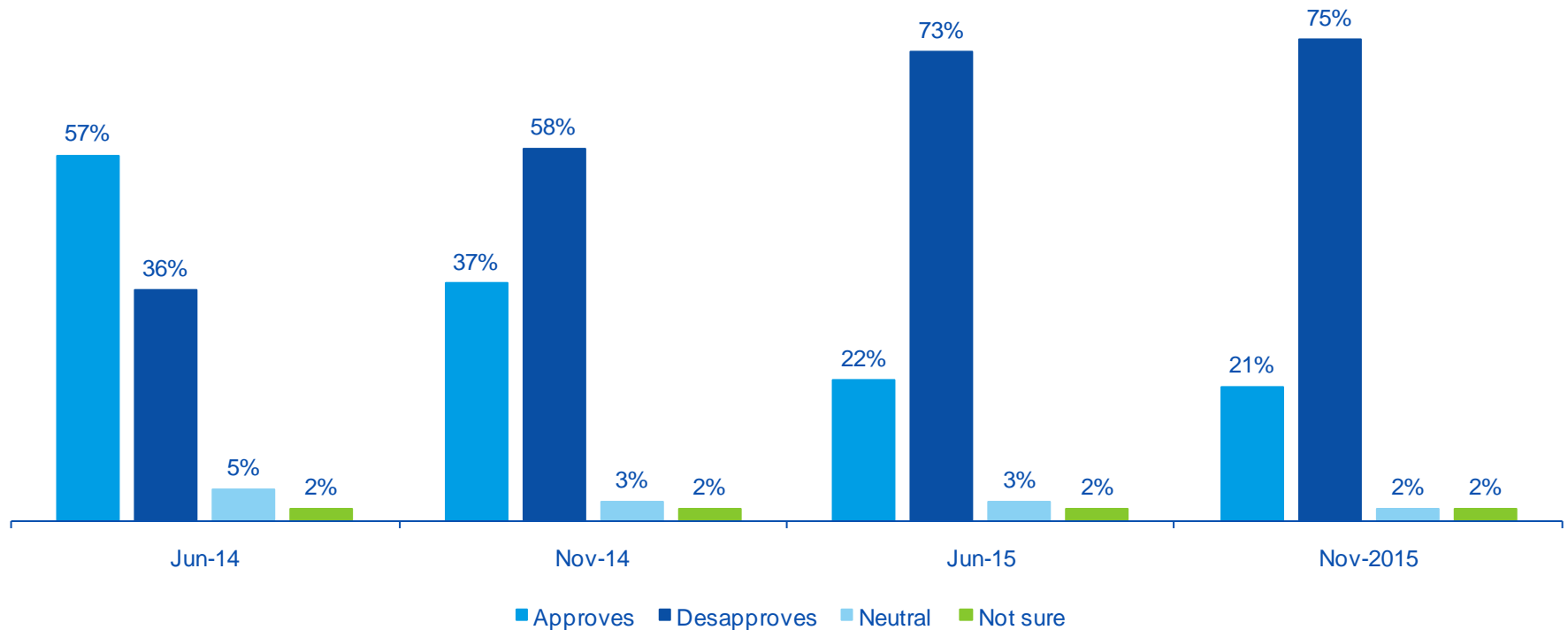
Source: World Economic Forum, Global competitiveness Index



\*Quality of overall infrastructure, Quality of roads, Quality of railroad infrastructure, Quality of air transport infrastructure, Available airline seat km/week, millions.

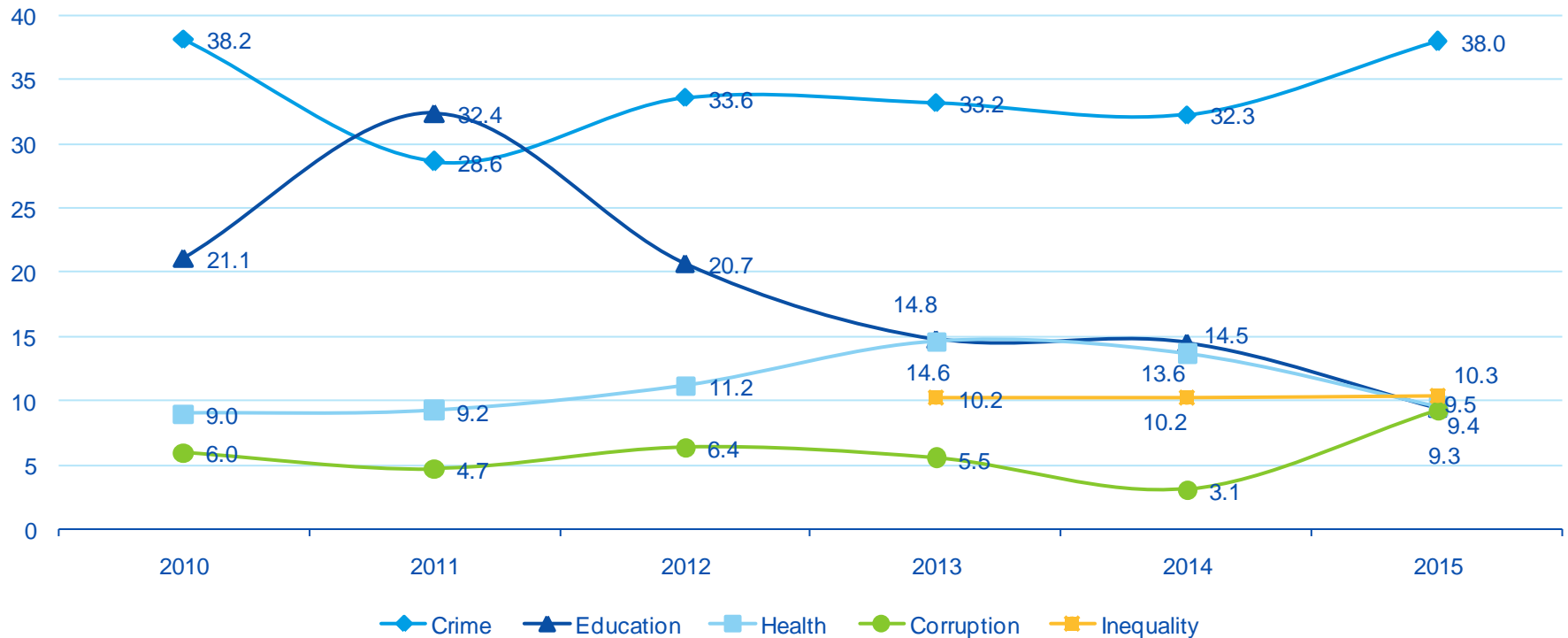
# ...while government's approval has dropped during last years

Government approval  
Source: GFK Chile



# Crime perception: main concern since 2012

**Main problems perception**  
Source: National UDP survey



# Fundamentals of the Chilean Economy

BBVA Chile – March 2016

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