The Chilean economy: current standing and prospects in a more challenging environment

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Governor

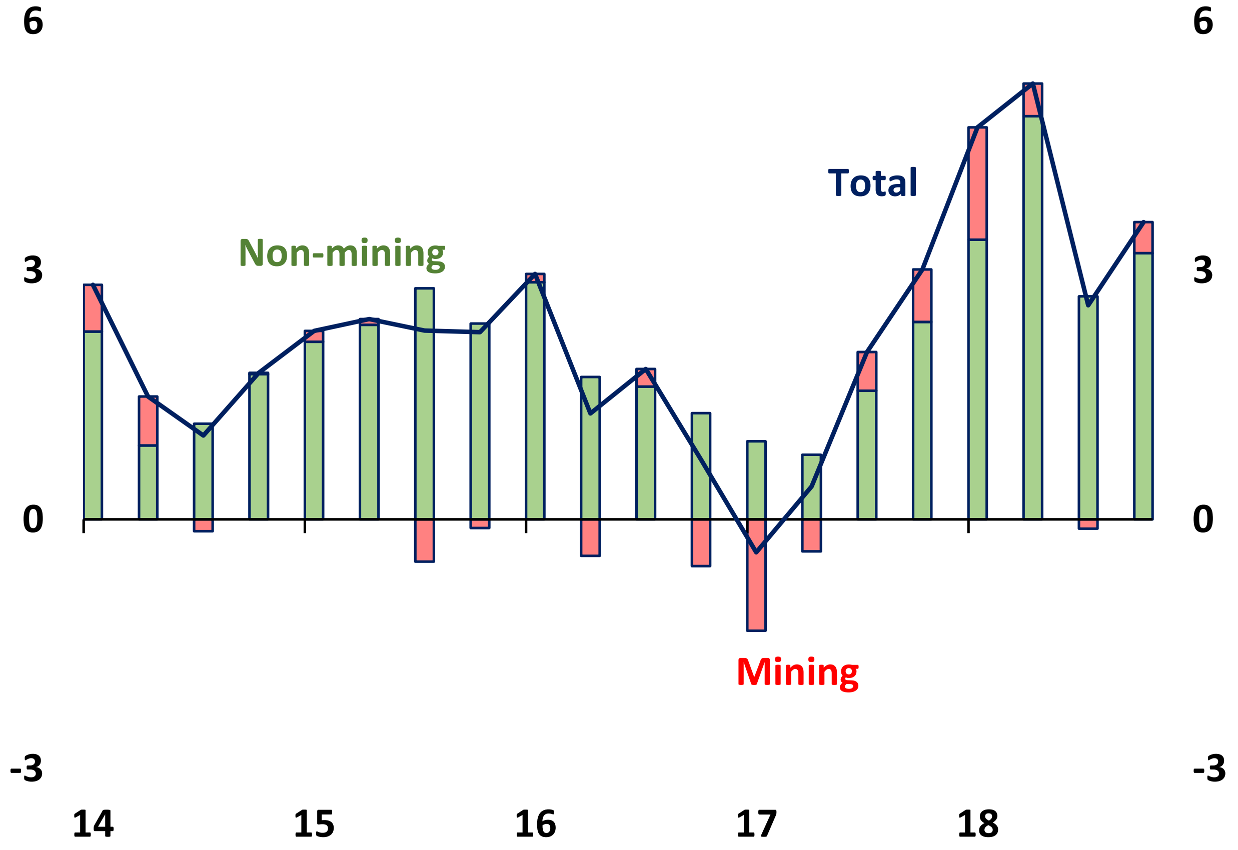
Central Bank of Chile

Council of The Americas, Washington DC, April 11, 2019

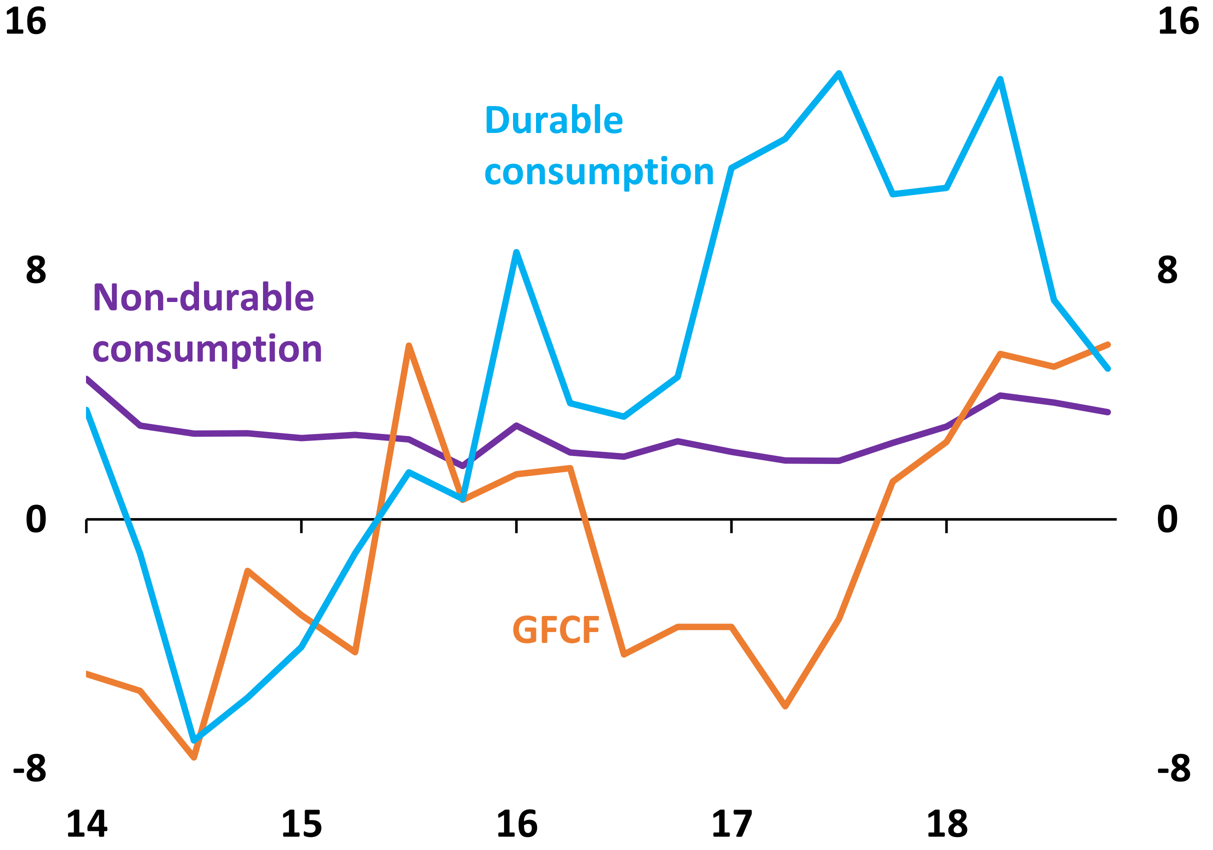
Contents

Economic activity and demand

Annual GDP growth
(contributions, percentage points)

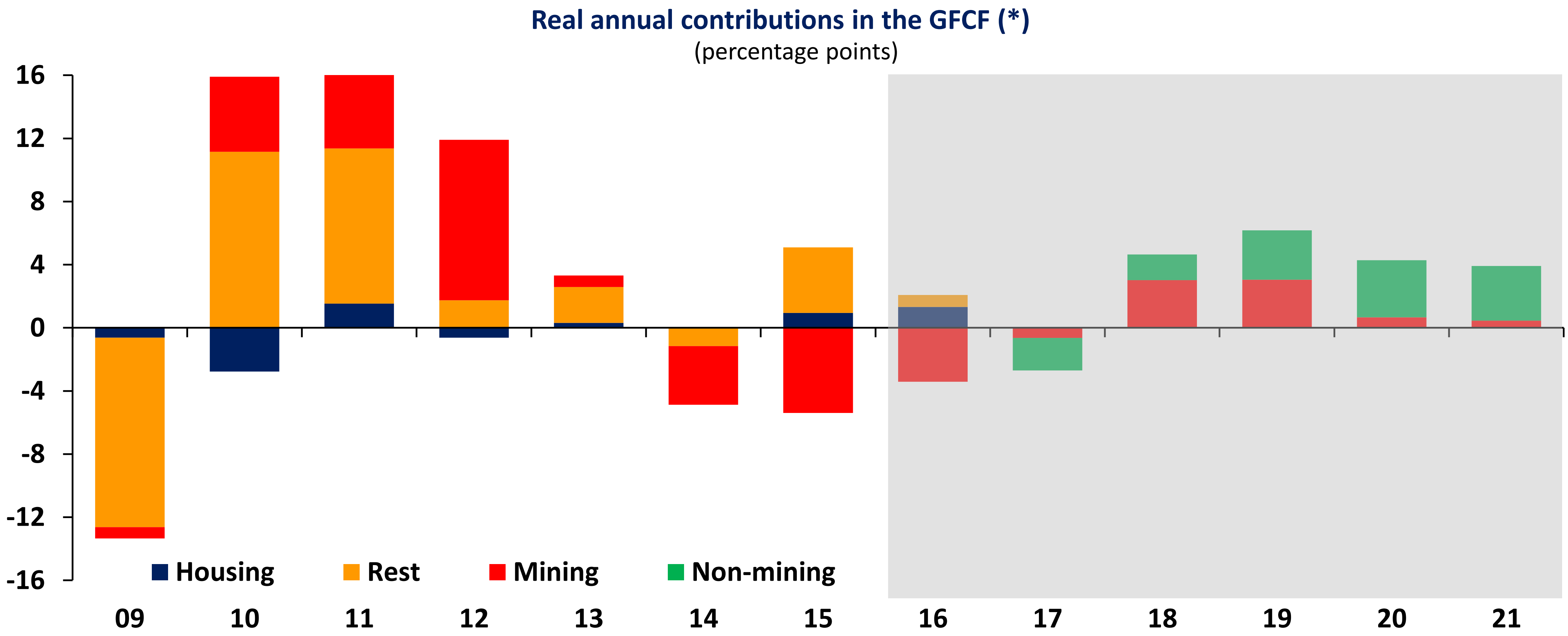


Domestic demand
(real annual variation, percentage)



Source: Central Bank of Chile.

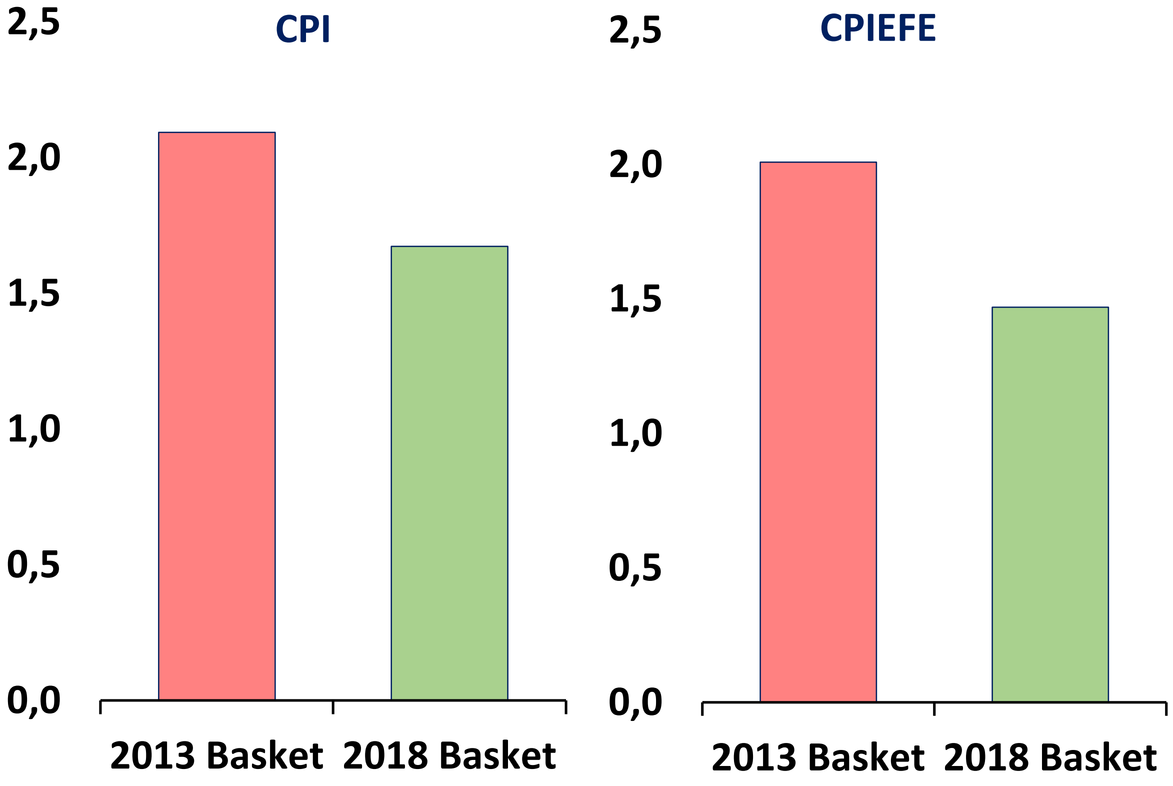
Fixed Investment: recent evolution and forecasts



(*) Sectoral investment for 2016 is an estimate constructed from the revised data for the aggregate investment. The sector figure updated for 2016 will be published in April 2019. For 2017 and 2018, the mining investment is estimated considering the information available in the FECUS. The housing investment considers the investment information of households obtained from the National Accounts by Institutional Sector. The remaining FBCF component is treated residually. To inform the projections for the 2019-2021 period, central bank projection models and sectoral sources are used, such as the investment plans and the CBC Cadaster. Source: Central Bank of Chile.

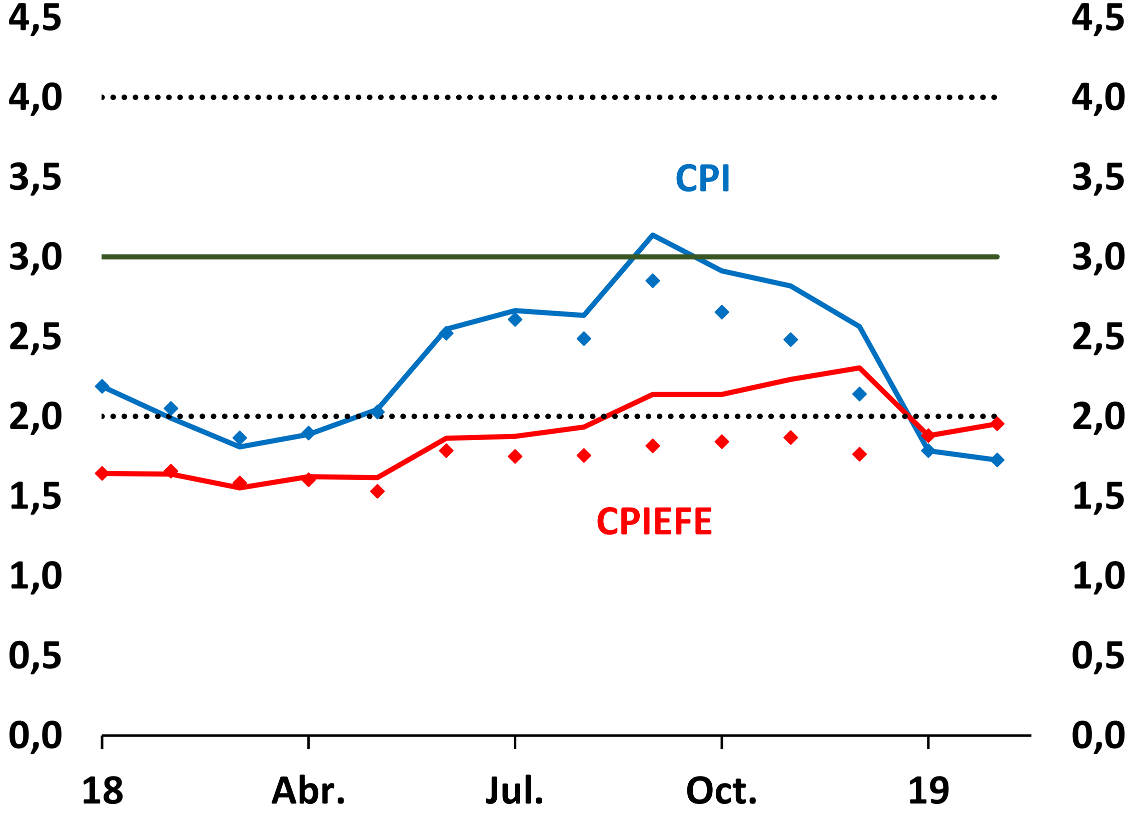
Inflation in a new light

Accumulated inflation between Feb-Dec 2018
(percentage)



Source: National Statistics Institute.

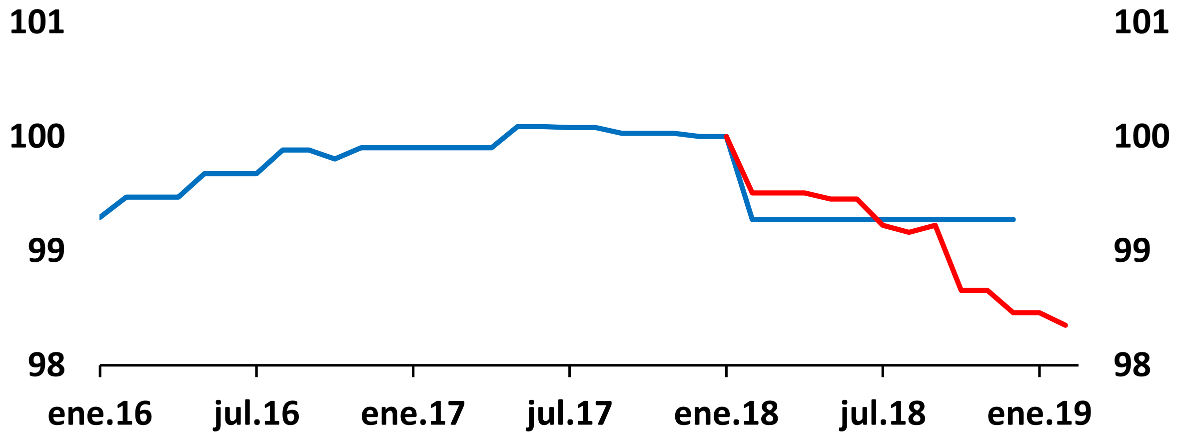
Evolution of the CPI and CPIEFE inflation (1) (2)
(annual variation, percentage)



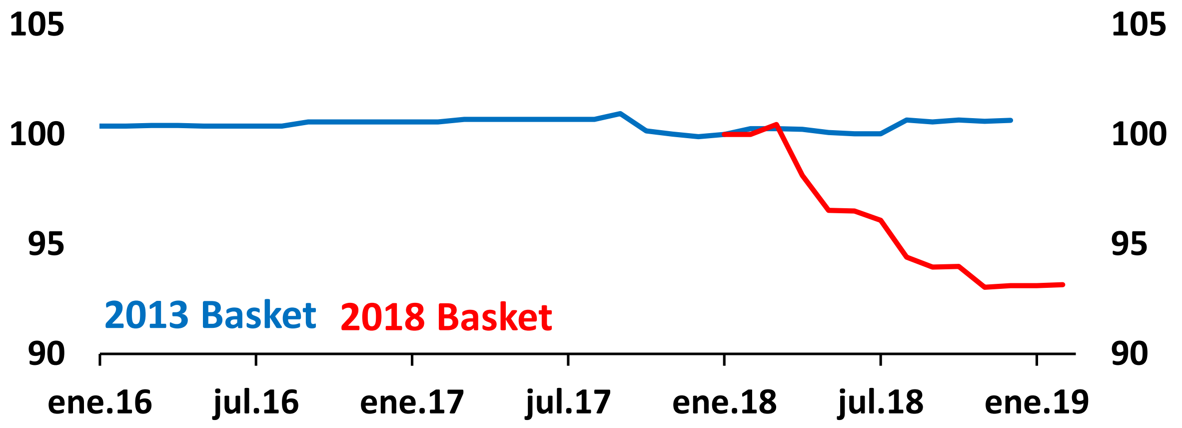
(1) As of January 2019 the lines use the new indices with annual base 2018 = 100, so they are not strictly comparable with the previous figures. (2) Blue rhombuses (red) show the annual variation of the CPI (CPIEFE) considering the basket 2013 = 100. As of February 2018, they show the annual variation obtained by joining the basket series 2013 = 100 with the monthly variations of the basket 2018 = 100.
Sources: Central Bank of Chile and National Statistics Institute.

Price dynamics in shifting markets

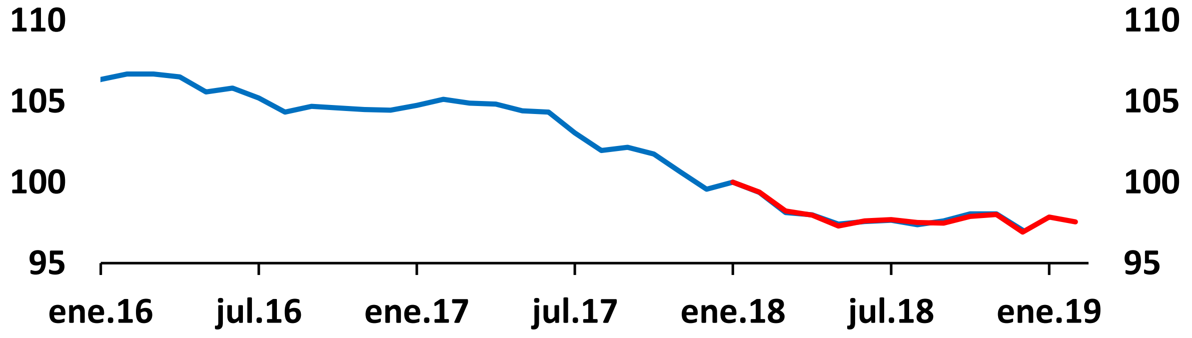
Mobile phone services
(index, January 2018=100)



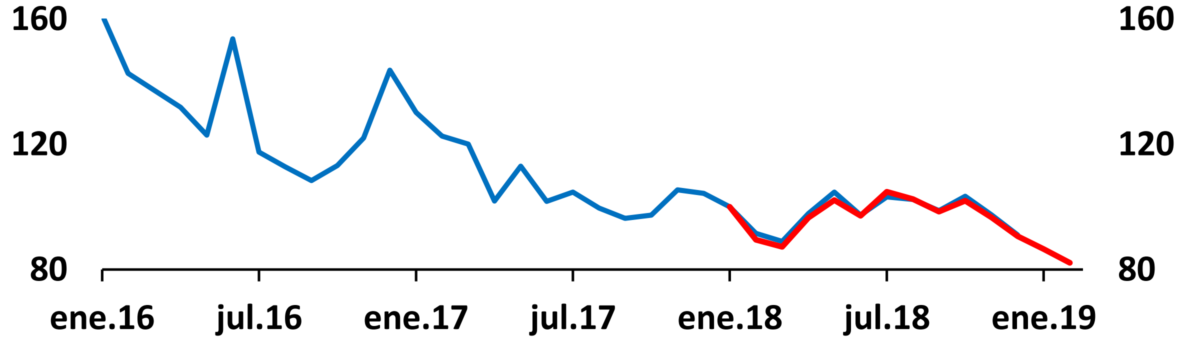
Telecommunications pack services
(index, January 2018=100)



New automobile
(index, January 2018=100)

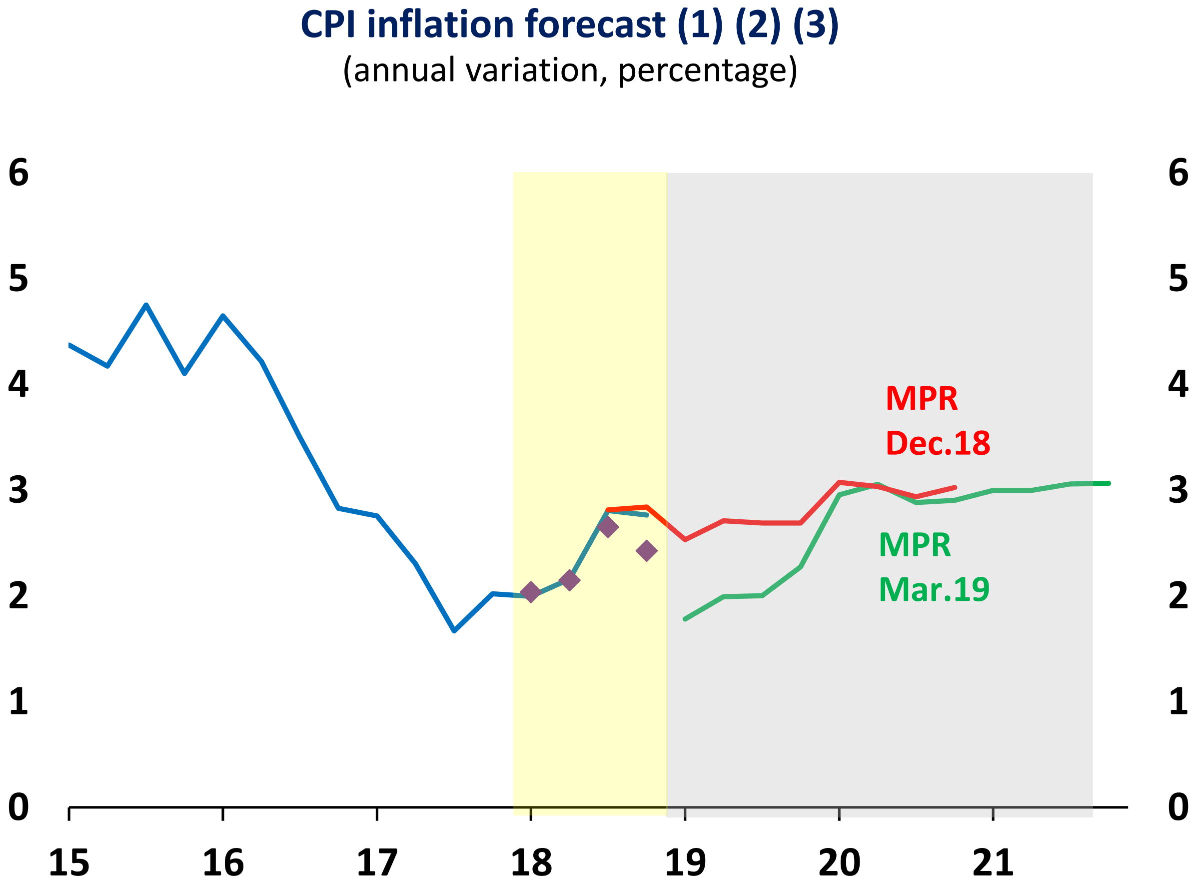


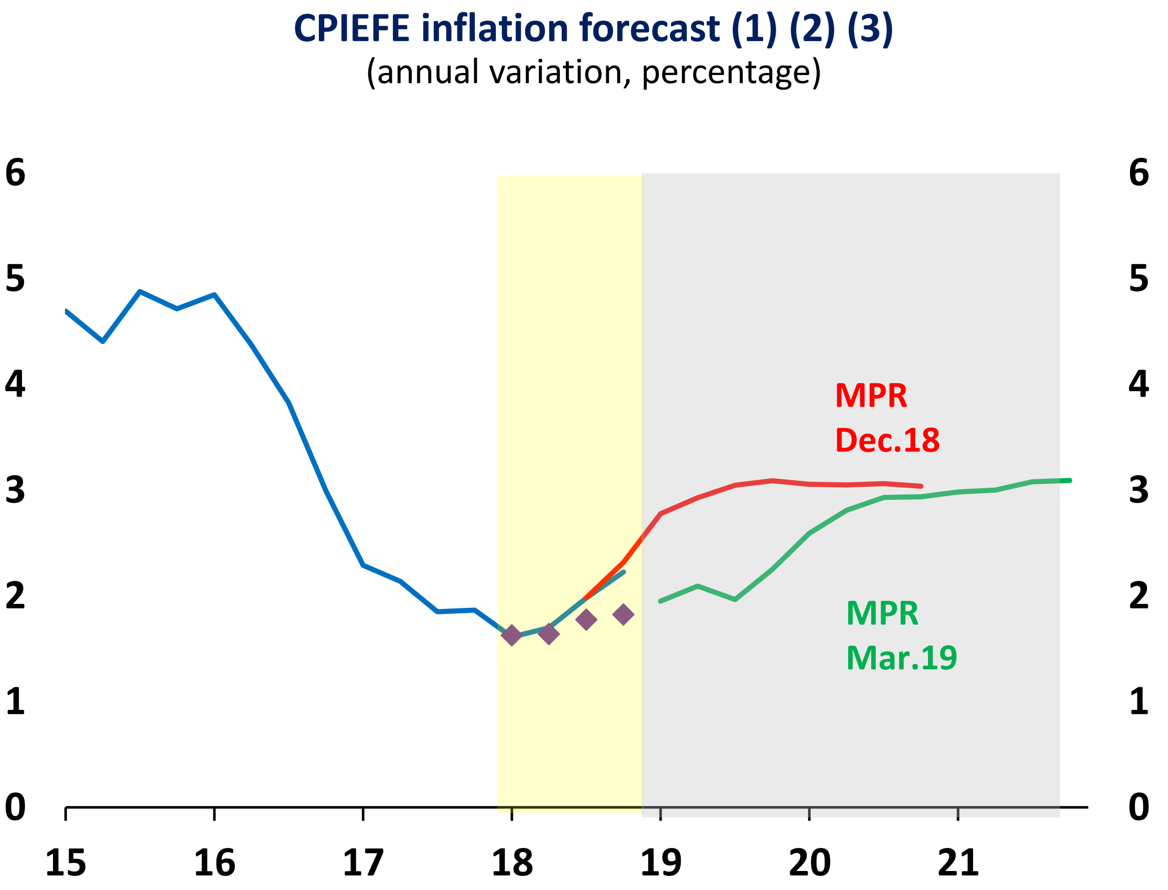
Air transport services
(index, January 2018=100)



Source: National Statistics Institute.

Headline and core inflation: recent record and forecasts

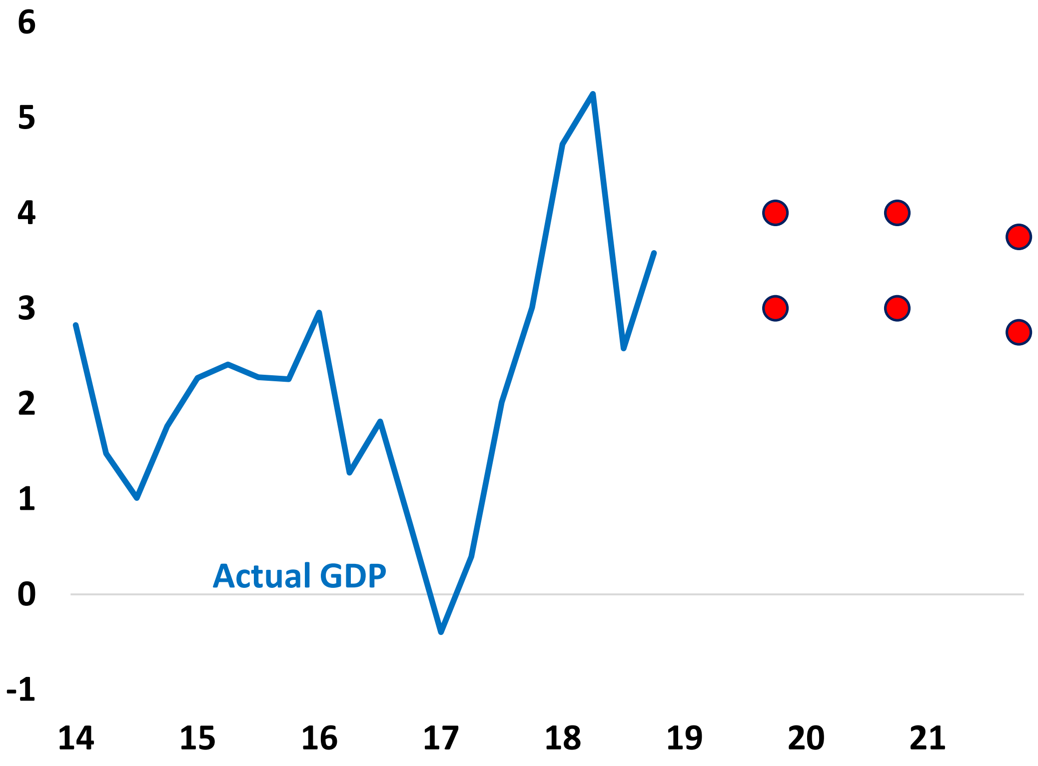




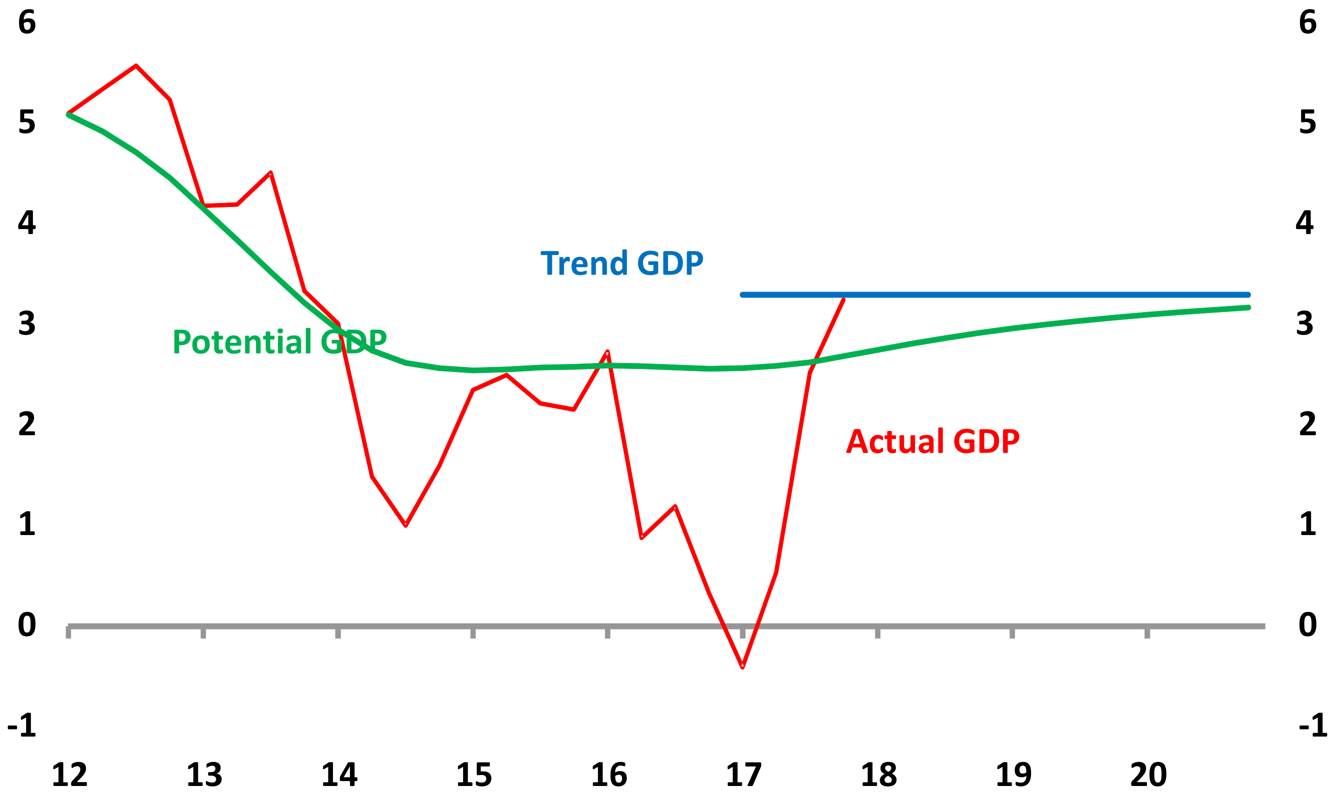
(1) As of January 2019, the new indexes with annual base 2018 = 100 are used, so they are not strictly comparable with the previous figures. (2) The gray area, as of the first quarter of 2019, corresponds to the projection. (3) The yellow area shows the annual variation of the CPI considering the basket 2013 = 100 (blue line) and the annual variation of the CPI that is obtained by joining that series (basket 2013 = 100) with the monthly variations of the basket 2018 = 100 as of February 2018 (purple rhombuses). Sources: Central Bank of Chile and National Statistics Institute.

Growth prospects 2018-2021

GDP forecasts
(annual variation)



Trend and potential GDP: September 2017 estimates
(annual variation)



Source: Central Bank of Chile.

Labor market puzzles

- Elements of puzzle:
  - Unemployment very stable over the last cycle; current “stubborn” rate, mirrors “resilience” in 2015-2017–all below historical averages
  - Disparate figures on job creation from surveys and administrative databases
  - High labor turnover, despite supposed rigidities in regulations

- Solving the puzzle:
  - Structural changes in the composition of the labor force
  - Macro policy and cycle smoothing
  - Impact of migration wave
  - Segmentation in labor market and productivity
  - Effect of technology change?

Growth and unemployment

Growth and unemployment rates

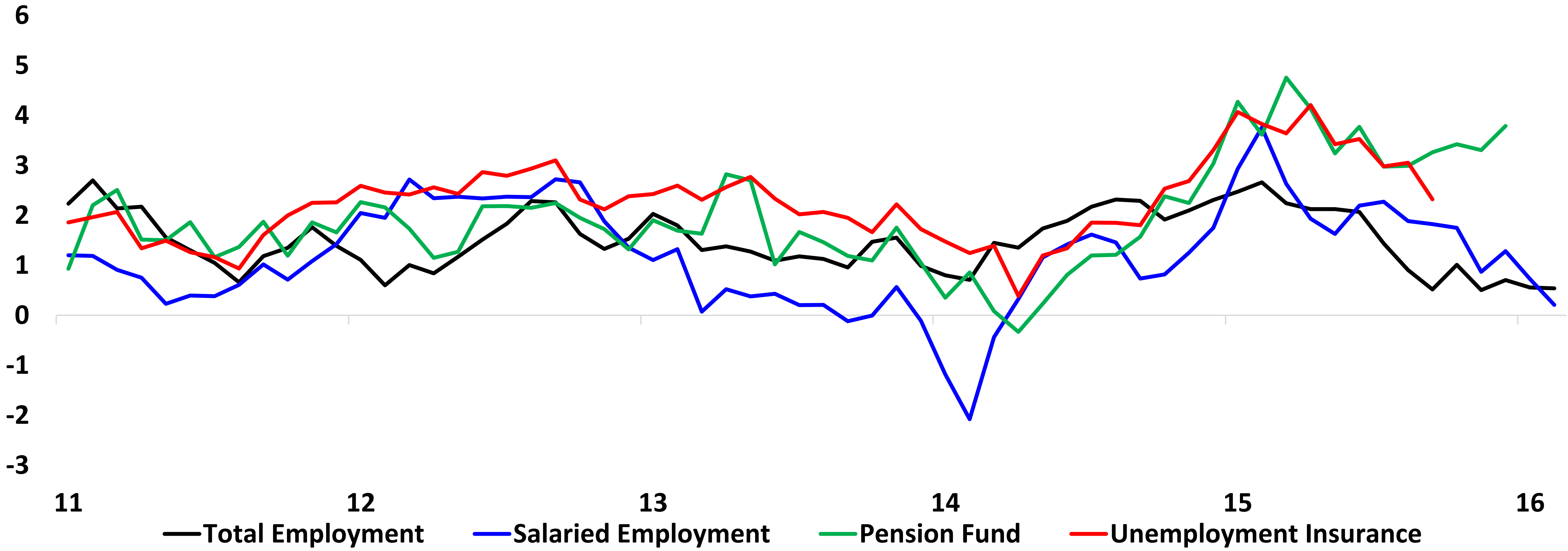
(annual variation, percent, horizontal line= unemployment average 2000-2018)

Source: Central Bank of Chile and National Statistics Institute.

Employment

Total, pension fund contributors, and unemployment insurance

Employment rate: total, salaried, and pension fund and unemployment insurance based
(thousands of people)



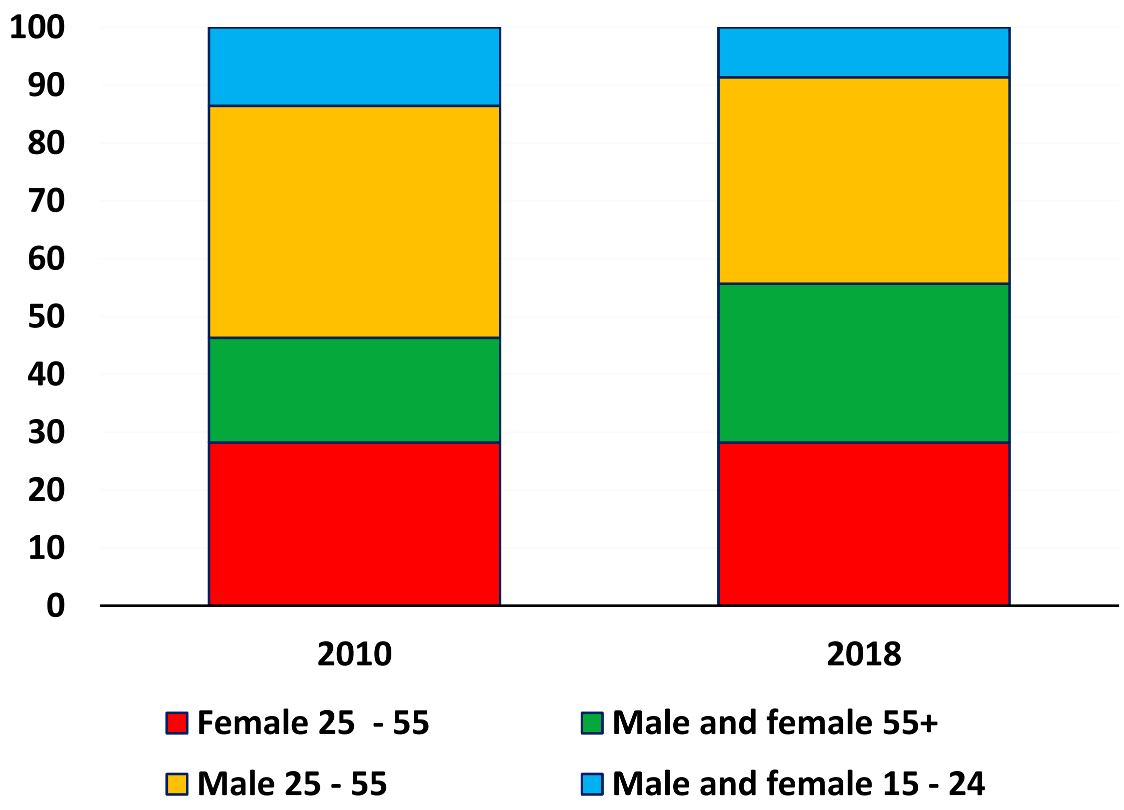
Source: Central Bank of Chile, National Statistics Institute, and CMF.

Stylized facts of the Chilean labor market

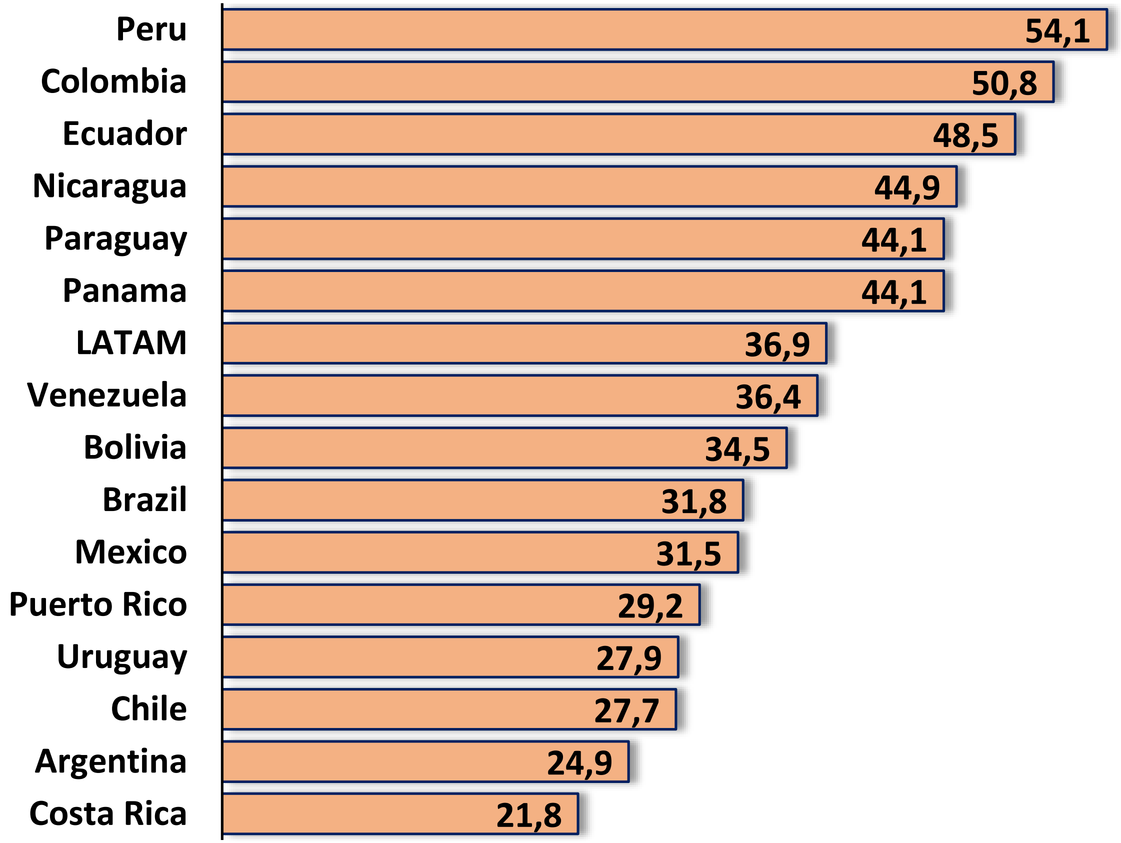
1. Female participation has rise while youth participation has diminished, in line with increased coverage of college education.
2. Human capital has grown importantly, but lags remain with respect to developed countries in terms of coverage and especially quality.
3. The return on working expertise of Chilean workers is low from an international perspective, with wide differences among persons with different educational levels.
4. Informal work has decreased in Chile, but is still way above the standard of developed countries.
5. Salaried employment increasingly concentrated in bigger companies (more tan 50% of total).
6. Chile's real wages have increase significantly for all income brackets but high dispersion remains associated with employment duration.
7. Women's incomes are smaller and grow more slowly, even after controlling for features such as education, occupation and expertise.
8. Women have a lower probability of holding their Jobs, and a greater propensity to go from unemployed to inactive.

Employment composition and self-employment across LATAM

Labor force composition by age and gender
(percent of the total)

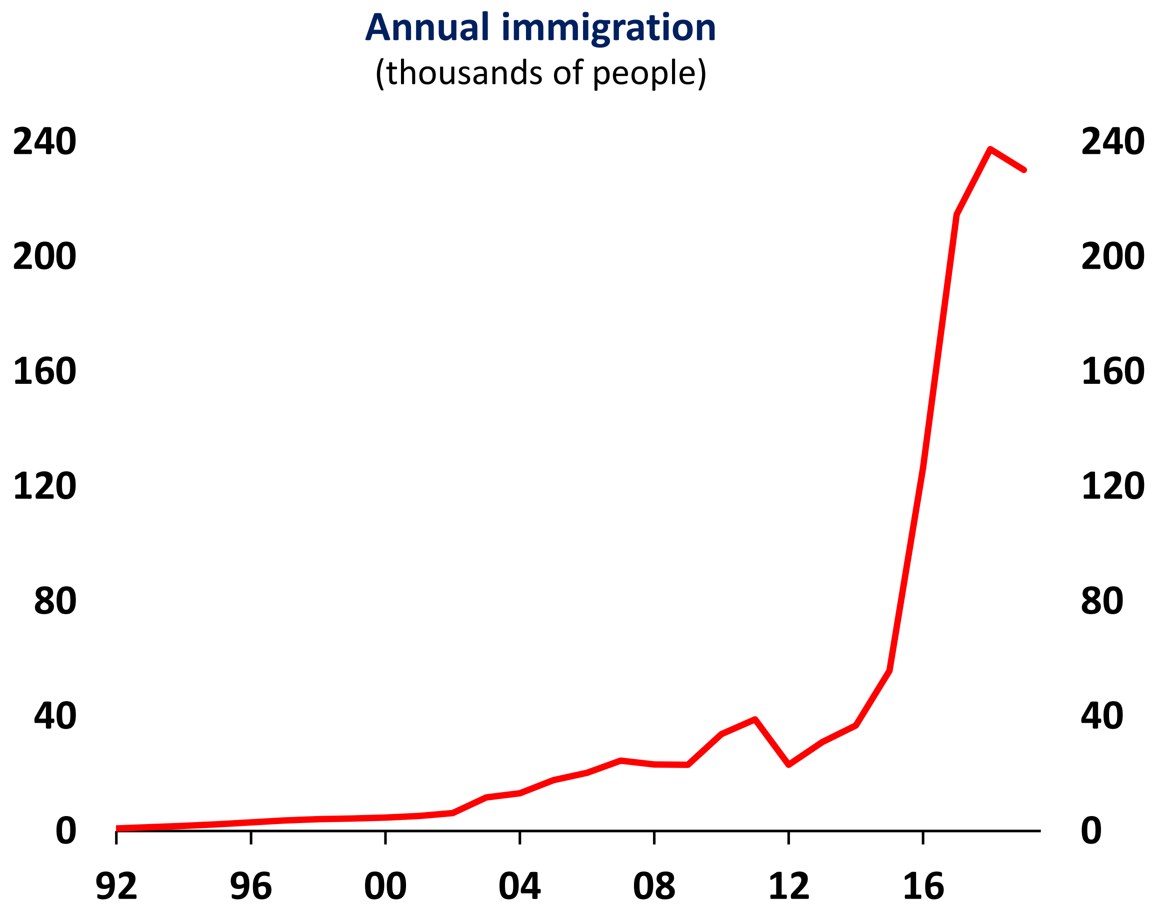


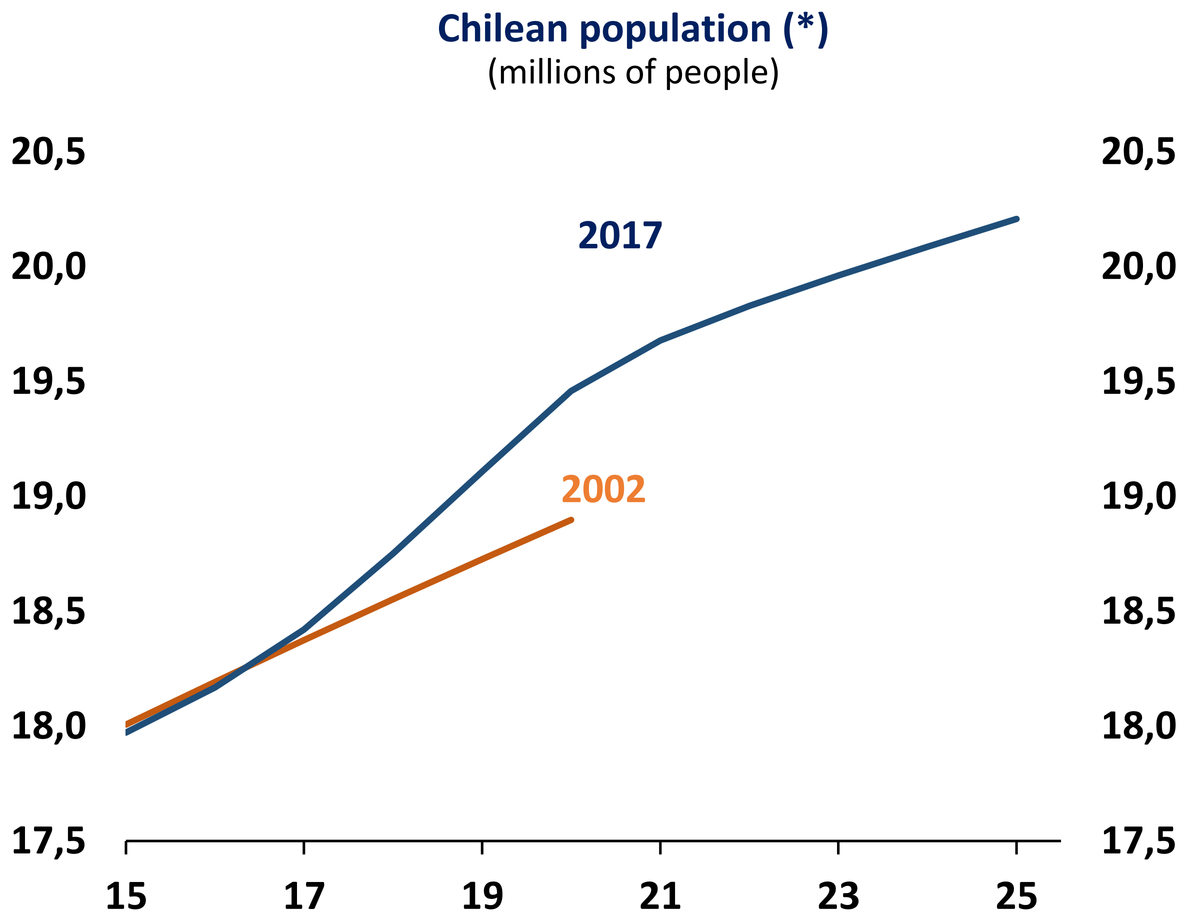
Self-employment in LATAM countries
(percent of total employment)



Source: National Statistics Institute and IMF *World Economic Outlook*.

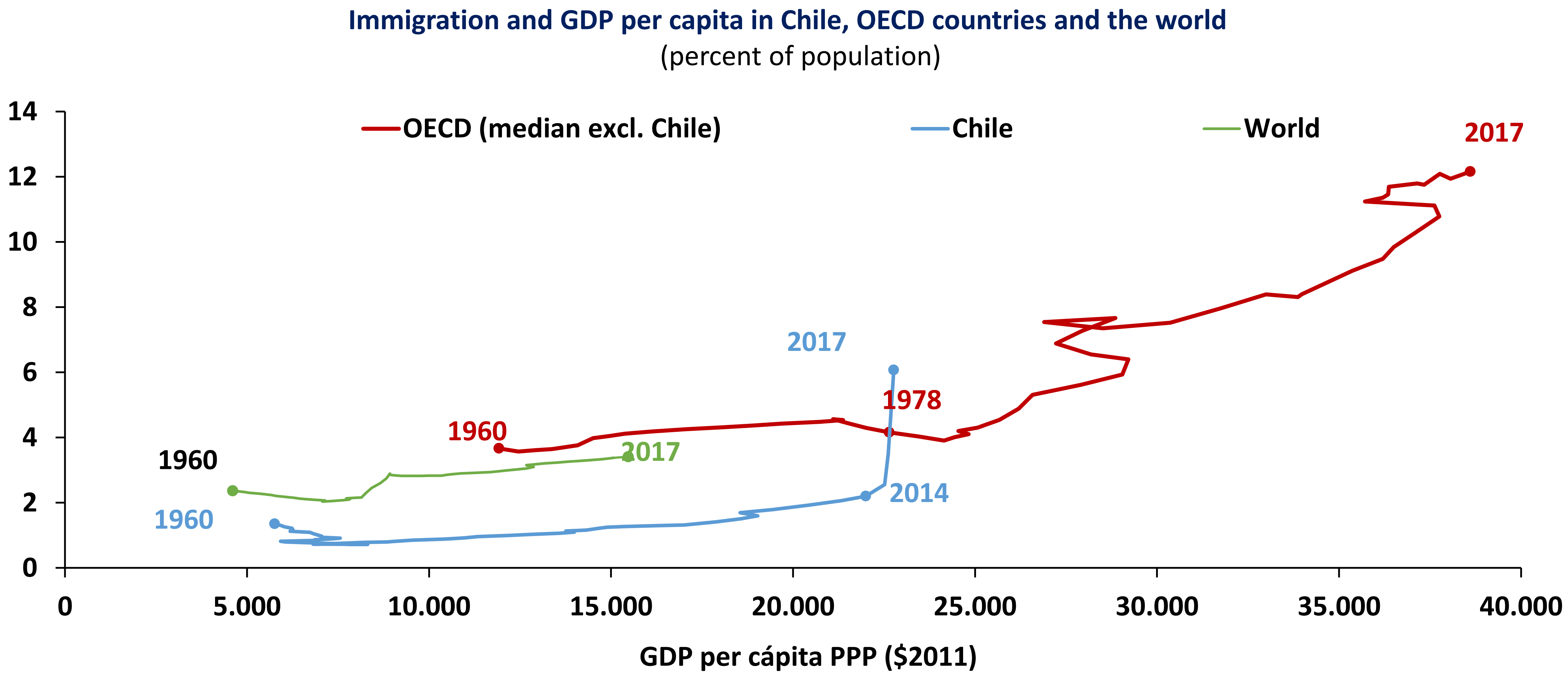
Chilean population and annual immigration





(*) Corresponds to the estimates and population projections made from each Census. For 2002, the updated figures published in 2014 are used. Source: National Institute of Statistics.

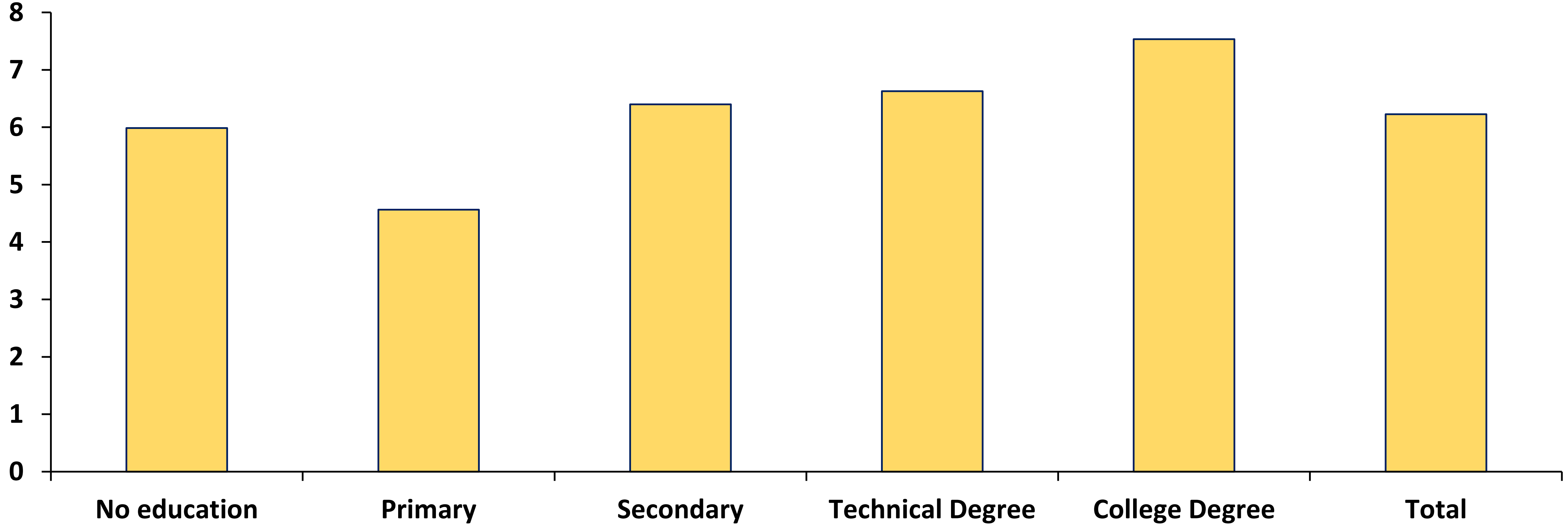
Immigration and economic development



Sources: Aldunate, Contreras, de la Huerta, and Tapia (2018) based on data from the World Bank, the Department of Migration and the UN.

Immigration and educational level

Ratio of immigrants to employed by education level
(percent of employed by education level, 2017)

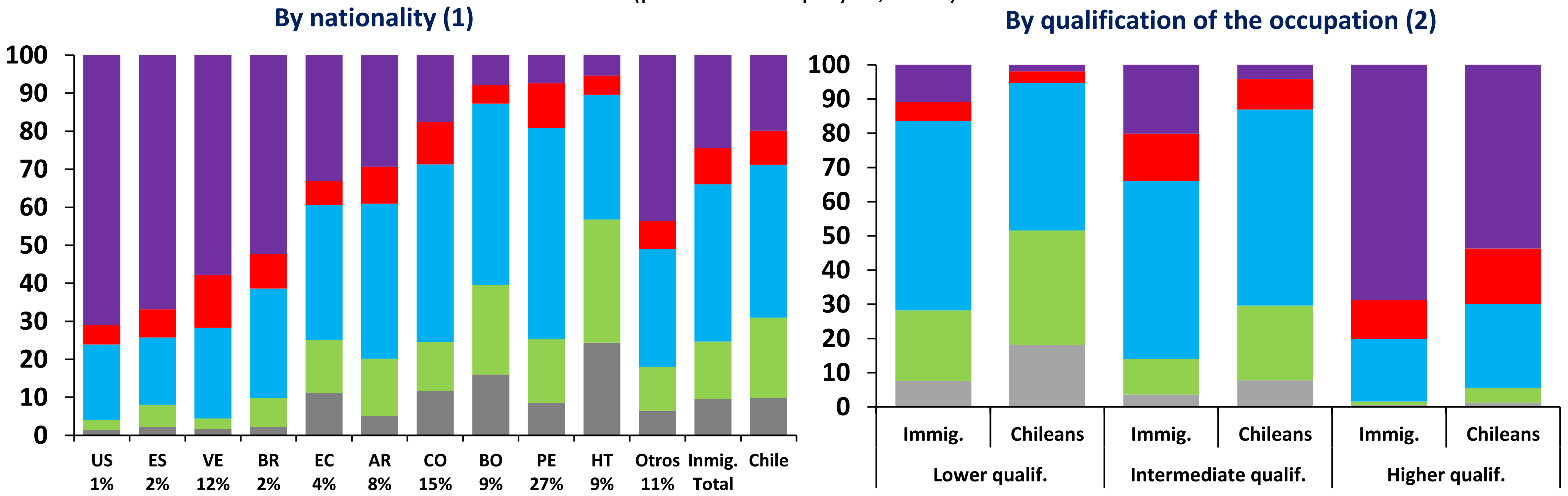


Sources: Aldunate, Contreras, de la Huerta, and Tapia (2018) based on data from the National Institute of Statistics (Census 2017).

Employment composition

Employment composition: Chilean and immigrants by education level

(percent of employed, 2017)



(1) The percentage of each nationality in the occupied immigrants is indicated under the countries, and the acronyms correspond to the United States (US), Spain (ES), Venezuela (VE), Brazil (BR), Ecuador (EC), Argentina (AR), Colombia (CO), Bolivia (BO), Peru (PE) and Haiti (HT).

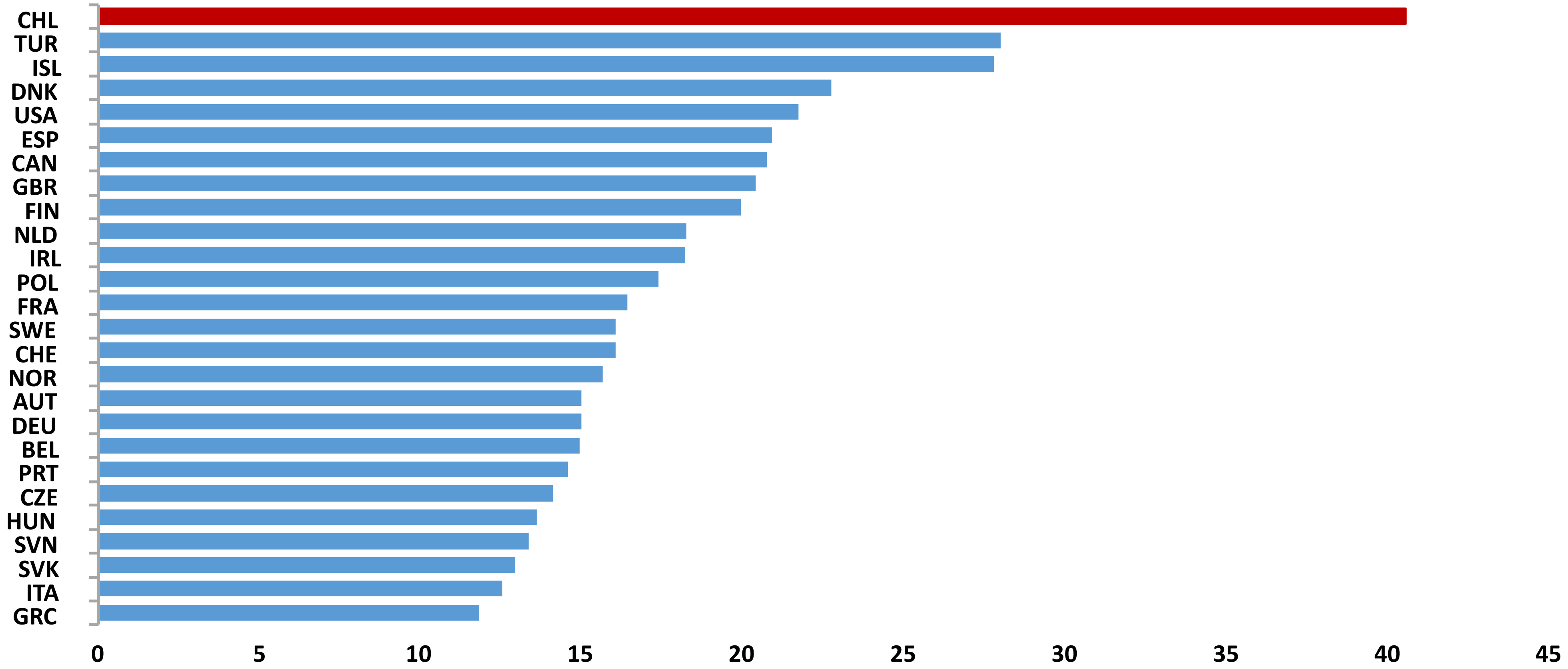
(2) Classification of occupations according to Lagakos *et al*. (2018) with high qualification (directors and managers, scientific professionals and intellectuals and technicians and professionals of medium level), media (administrative support personnel, service workers and sellers of shops and markets, and officials, craftsmen and craftsmen of mechanical arts and of other trades) and low qualification (farmers and skilled agricultural, forestry and fishing workers, operators of facilities and machines and assemblers and elementary occupations).

Source: Aldunate, Contreras, de la Huerta and Tapia (2018) based on 2017 data from the Ministry of Social Development (CASEN) and the National Institute of Statistics (Census 2017).

The paradox of labor mobility

The labor market in Chile is very dynamic: turnover levels are very high in international comparison

Rate of rotation in Chile and OECD countries (*)
(percent)



(*) Rotation rate of Chile is calculated as average 2005-2016. For the rest of the countries it represents the average 2000-2007.Source: Update of Albagli, Chovar, Luttini, Madeira, Naudon and Tapia (2017) based on data from the IRS and Bassanini and Garnero (2013).

Mobility, income profiles and aggregate productivity

1. A labor mobility paradox is that, although more often than not a job change is associated with a wage gain (54%), any (46%) are not.

2. This paradox is more prevalent among workers that exhibit high turnover and low income.

3. Those lower-turnover workers have significantly larger wage gains over time, reflecting the value of developing employer-specific human capital as well as higher gains from direct transitions between jobs.

4. High turnover workers obtain smaller gains from staying in the job and from direct transitions, and exhibit slower growth in income throughout their working lives.

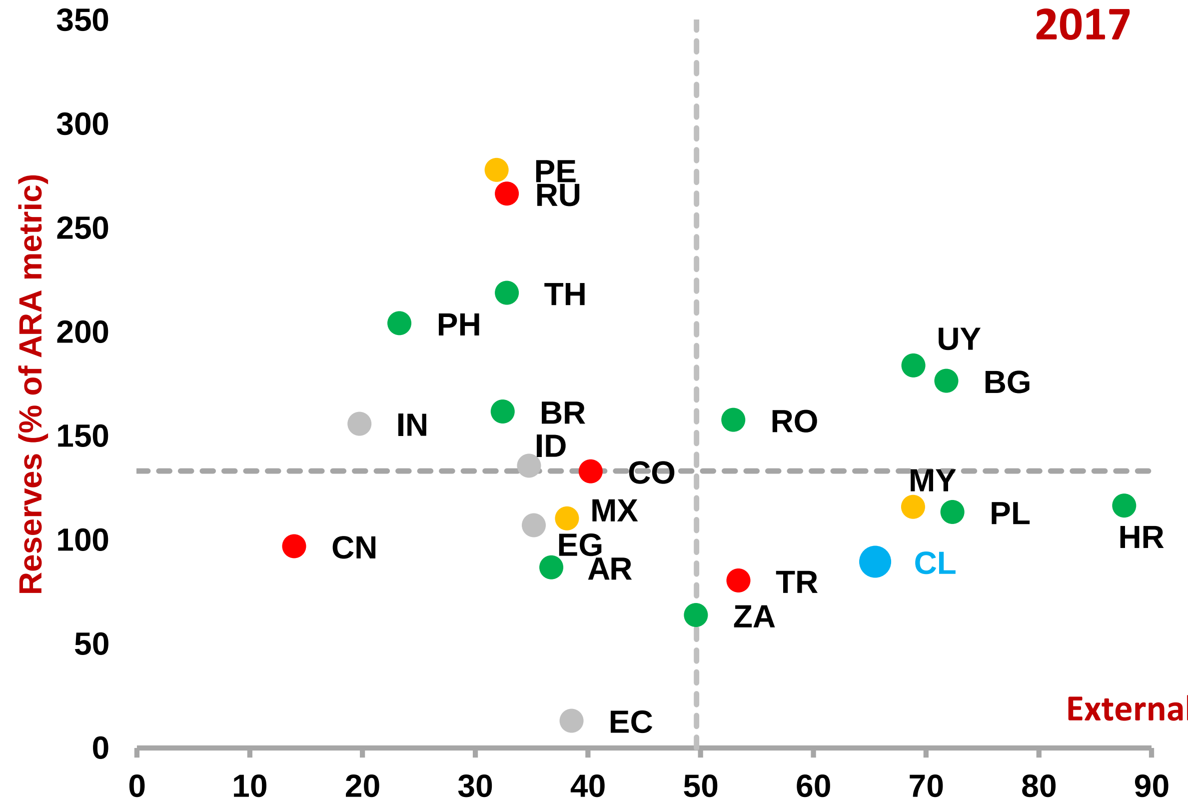
Facing a more challenging environment

- Declining growth prospects for major economies
- Financial market volatility
- Policy responses: FED, ECB accommodative forward guidance; China fiscal and monetary policy
- Lower long-term rates, commodity prices
- Sensibility to new information
- Lasting policy uncertainty, conflict
- Volatile exchange rates
- Renewed concern on vulnerable emerging economies

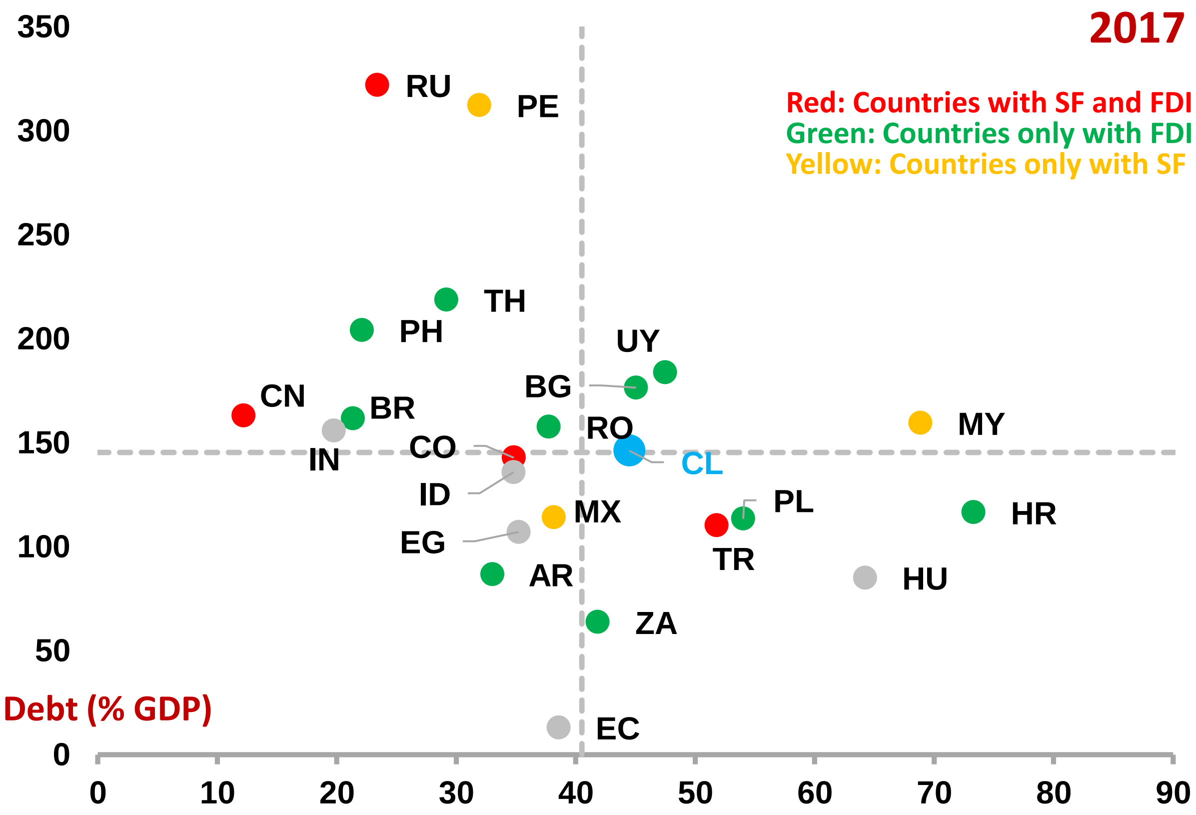
External debt and reserves

Change in comparisons when considering FDI debt and sovereign wealth funds

Reserves and External Debt (1) (2)
(percent)



Reserves + SF and Ext. Debt – FDI (1)(2)
(percent)

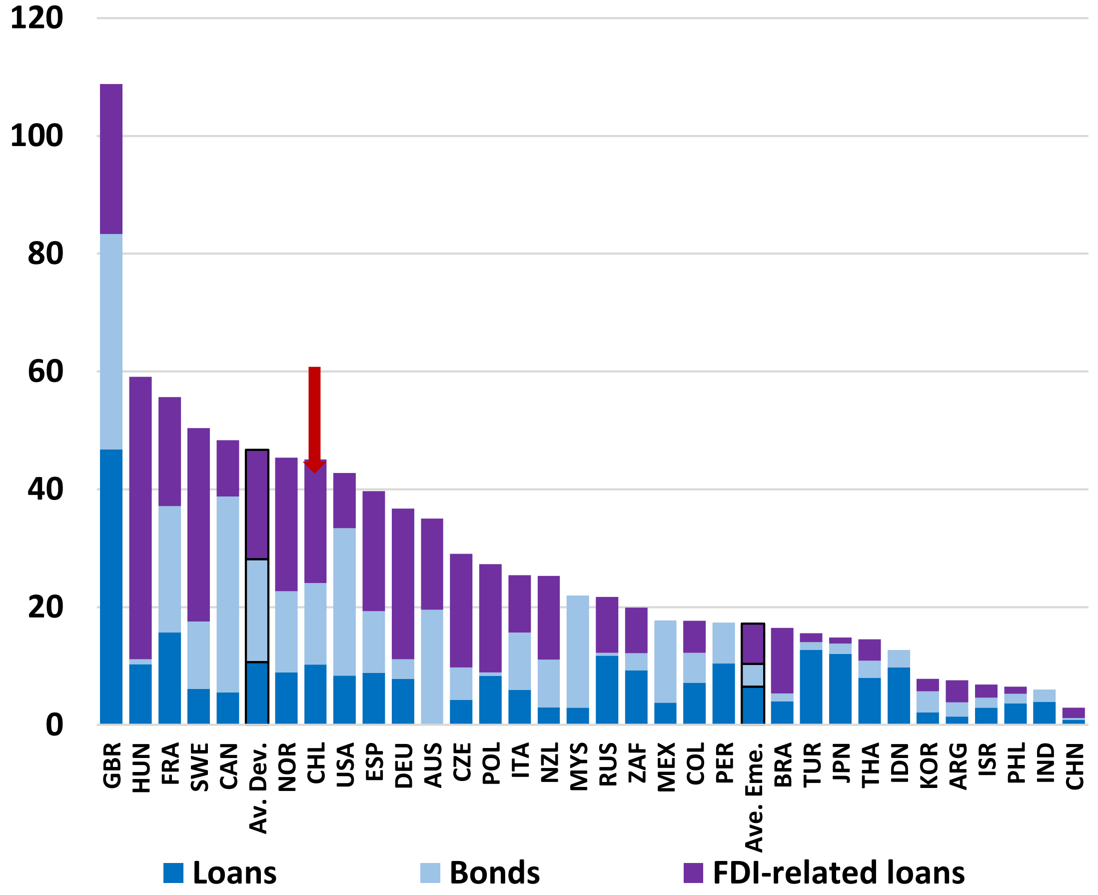


(1) ARA Metric: Fixed (Float) Exchange Rate = 10(5)% × Exports + 10(5)% × Broad Money + 30% × ST Debt + 20(15)% × Other Liabilities (2) Dotted lines mark annual average of the respective series without considering the minimum and maximum values. Source: IMF, WB and Central Bank of Chile.

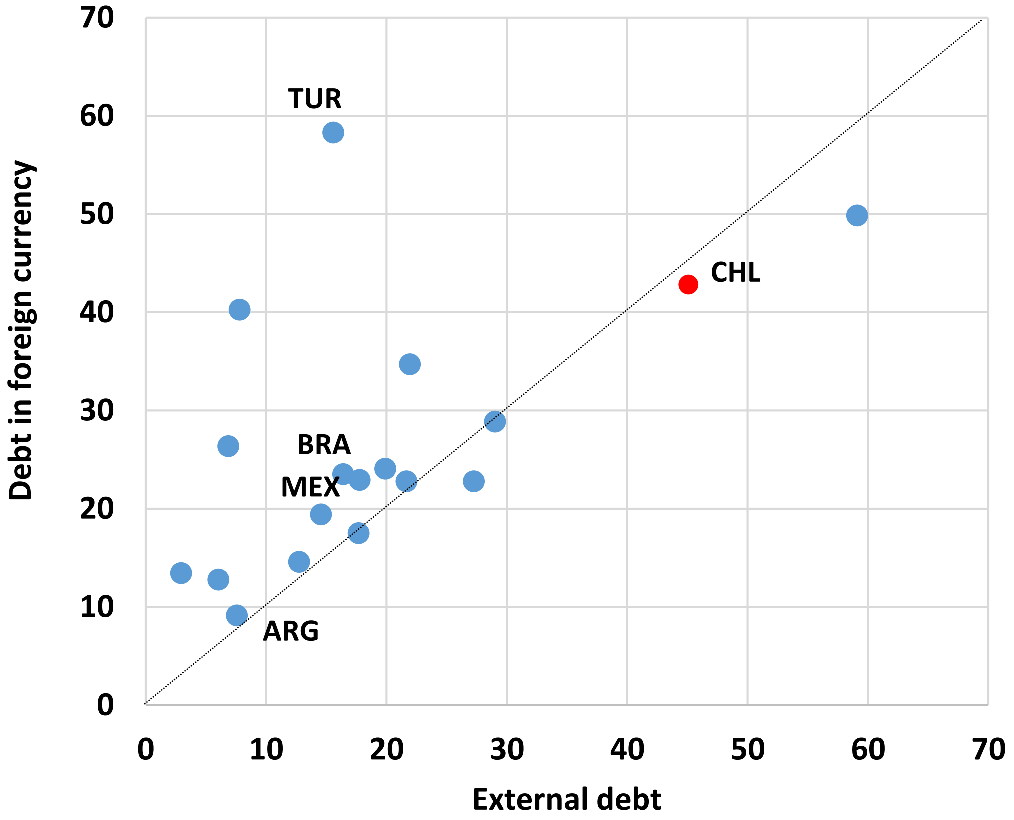
Vulnerabilities

Corporate debt

External debt of firms 2017 (1) (2) (3)
(percent of GDP)



External debt and foreign currency debt 2017 (1) (2) (3)
(percent of GDP)

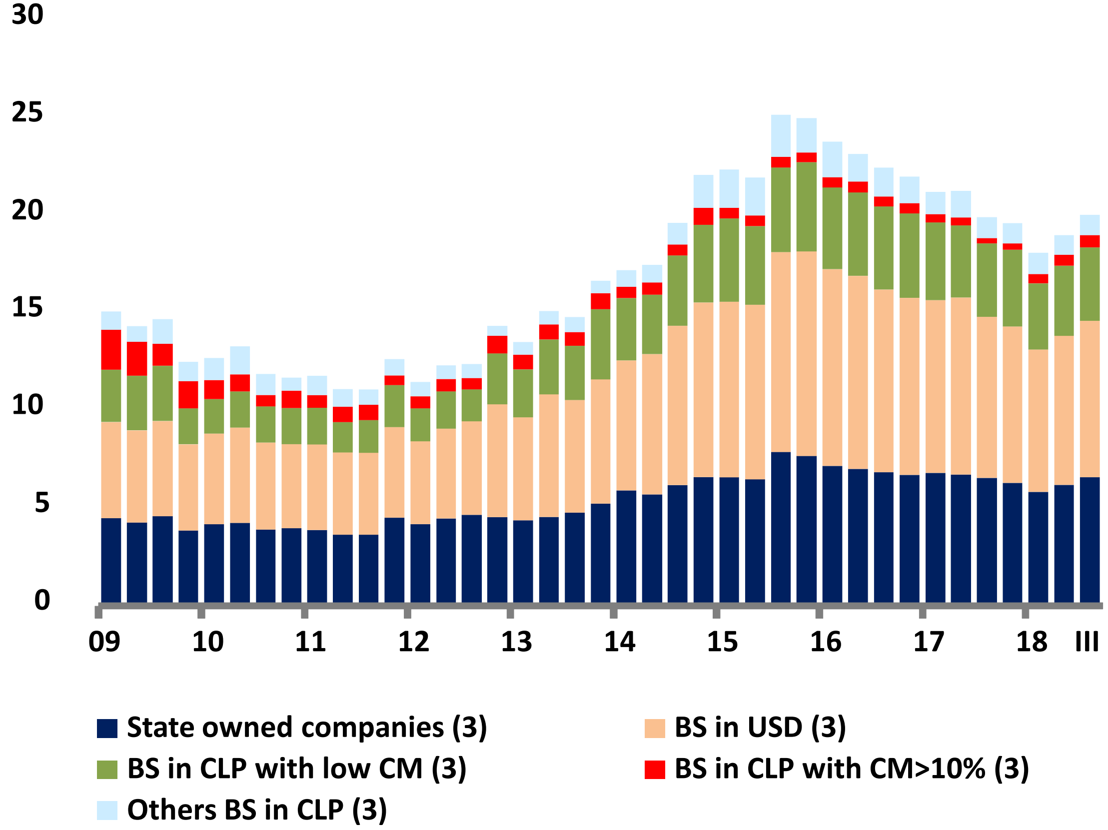


(1) Includes financial, non financial and households (2) Simple averages (3) Does not include banks. Source: Central Bank of Chile based on World Bank (WB) and Institute of International Finance (IIF).

Reporting companies allow to identify the firm accounting currency as a natural hedge. Between the non reporting firms, where balances are not available, most of the debt is FDI-related. In Chile this debt is mostly to subsidiaries firms.

External debt of reporting companies (1) (2) (3)

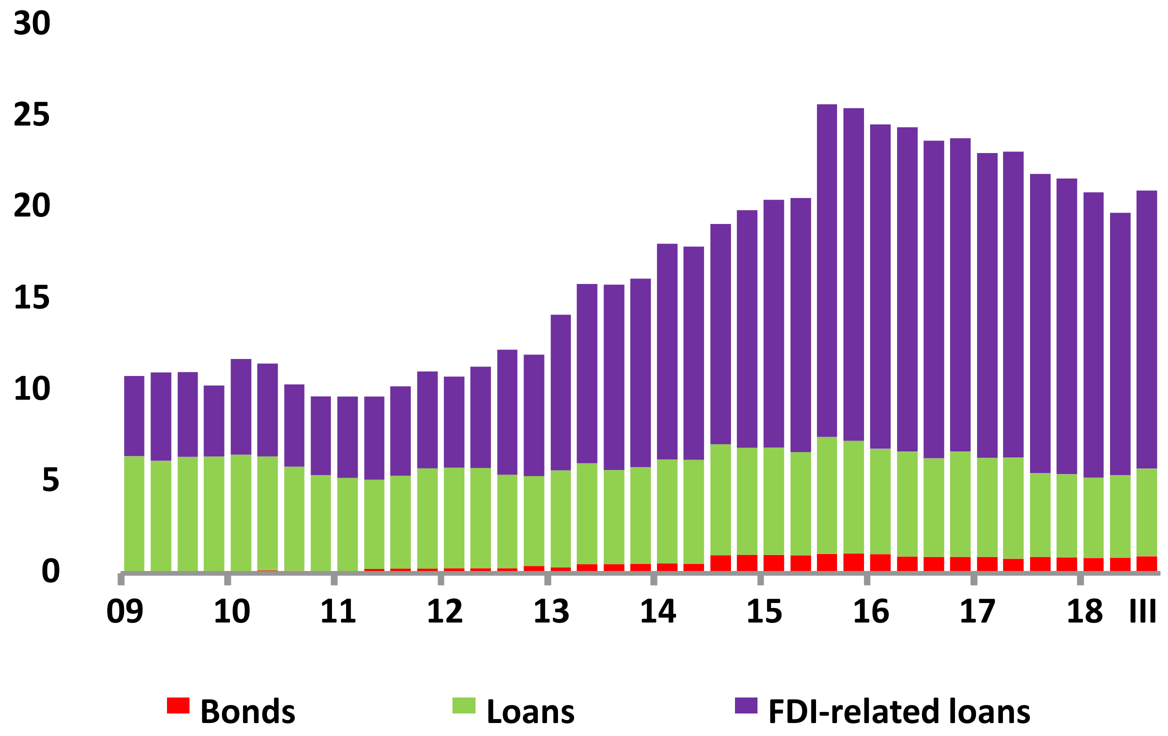
(percent of GDP)



(1) Based on firm-level information .(2) Uses annual nominal GDP. (3) BS stands for balance sheet reporting, thus BS in CLP means firms with Chilean peso as accounting currency, CM stands for currency mismatch measured as liabilities in USD minus asset in USD plus net-derivatives. Source: Central Bank of Chile using information from SBIF and CMF.

External debt of non reporting companies (4) (5)

(percent of GDP)

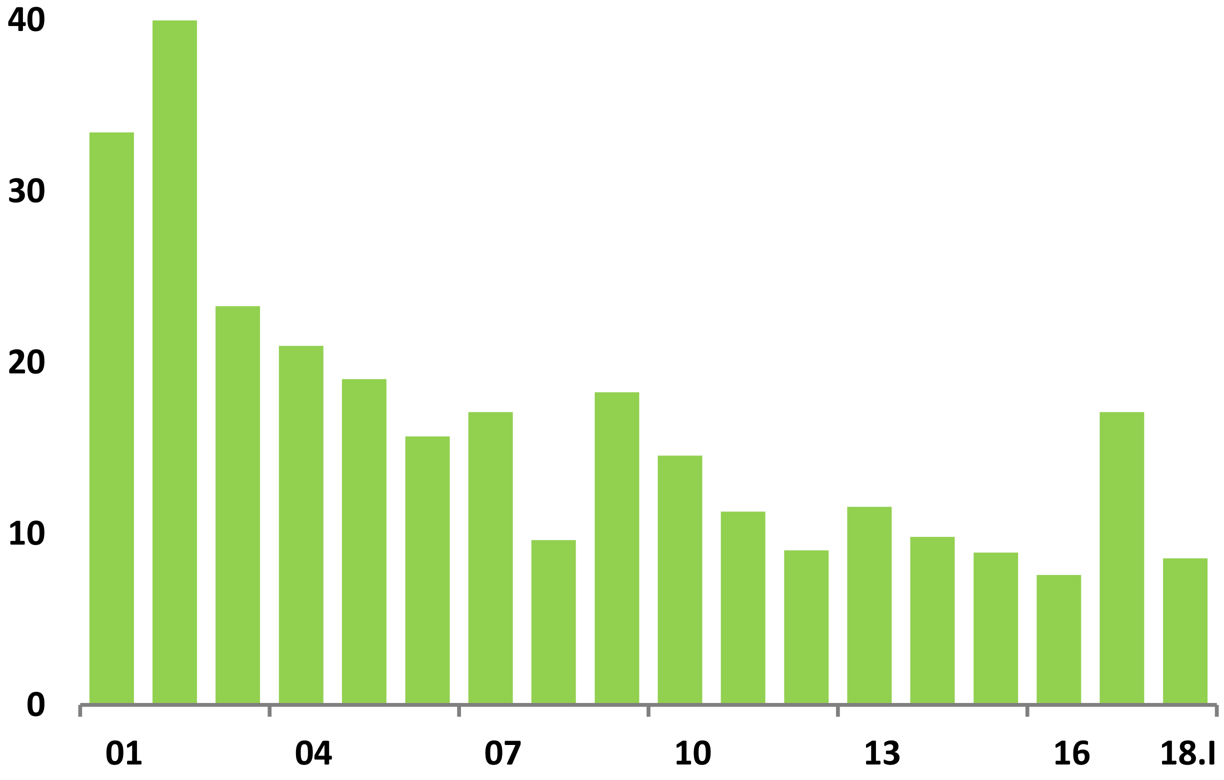


(4) Based on firm-level information (5) Uses annual nominal GDP Source: Central Bank of Chile using information from SBIF and CMF.

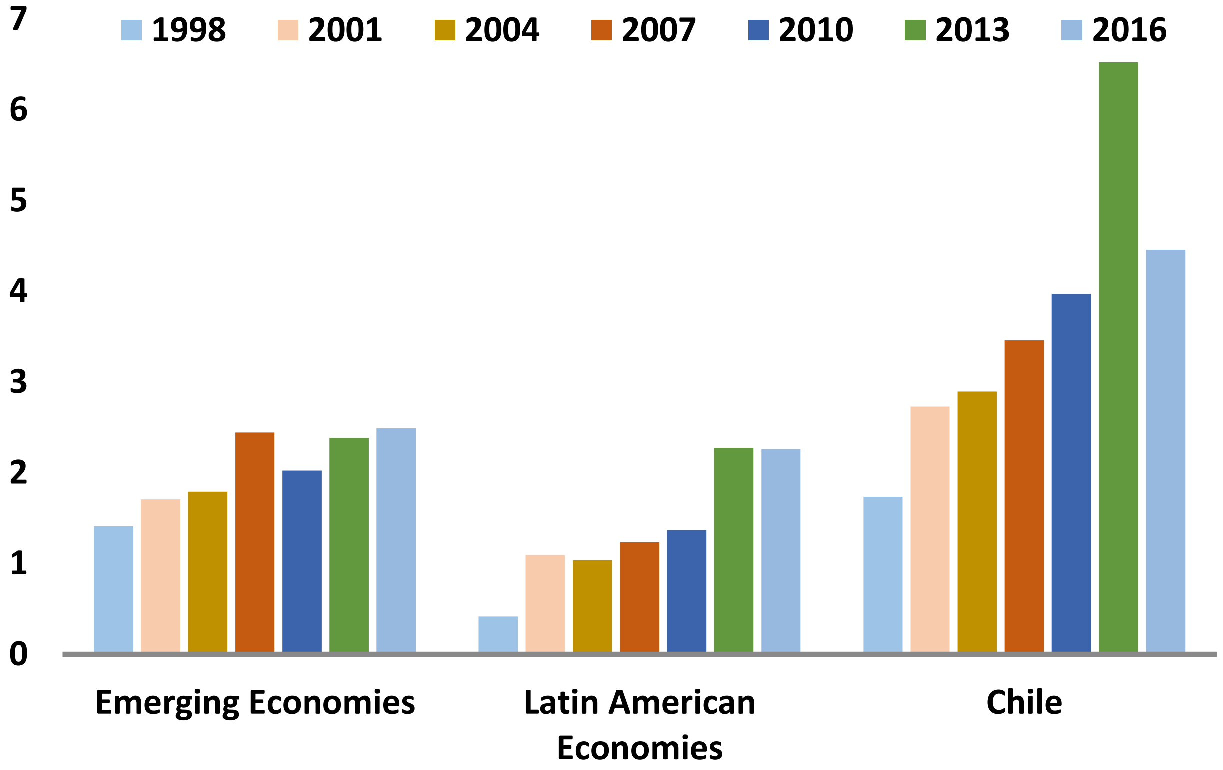
Exchange rate risk coverage

Extensive use of hedging instruments has helped firms to cope with FX volatility

Currency mismatch over 10% in the corp. sector (1)
(percent of total assets)



Derivatives market activity
(annual transactions, percent of GDP)

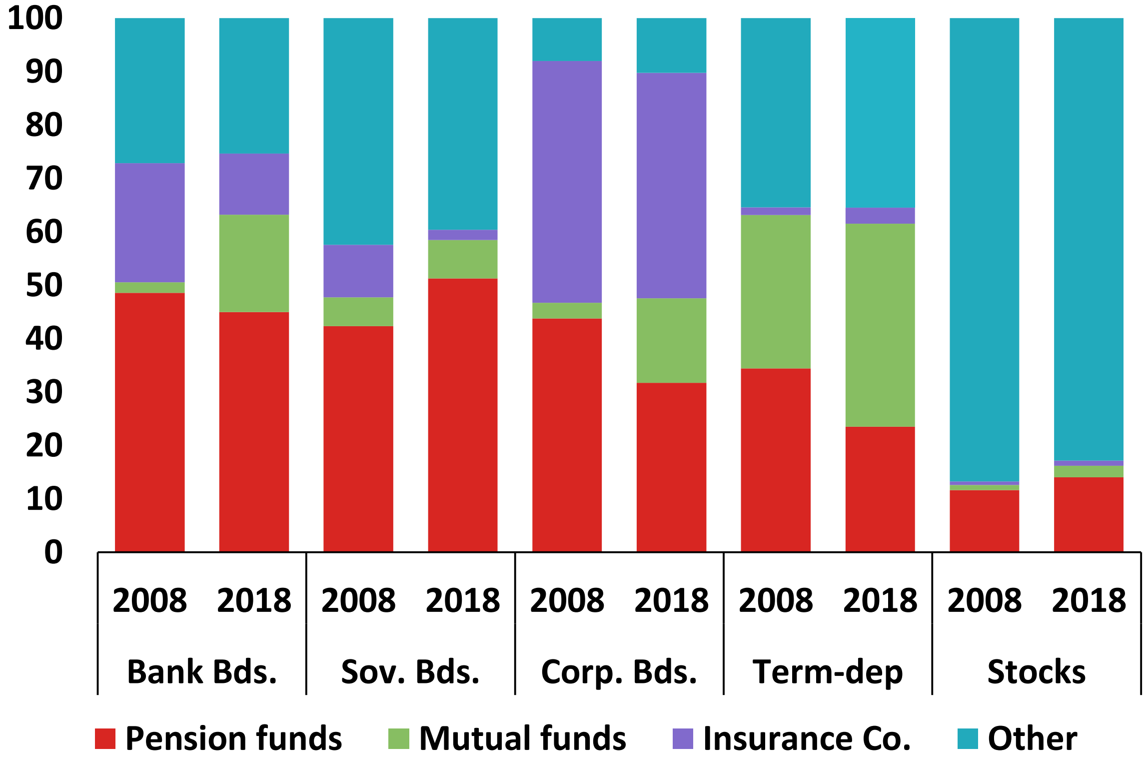


(1) Based on a sample of firms that report their balance sheet in pesos. Currency mismatch is the difference between foreign currency liabilities and foreign currency assets, less the net position in derivatives (the difference between buy and sell positions in derivatives contracts). Sources: WB, IMF, BIS and Central Bank of Chile, based on data from Financial Markets Commission (FMC).

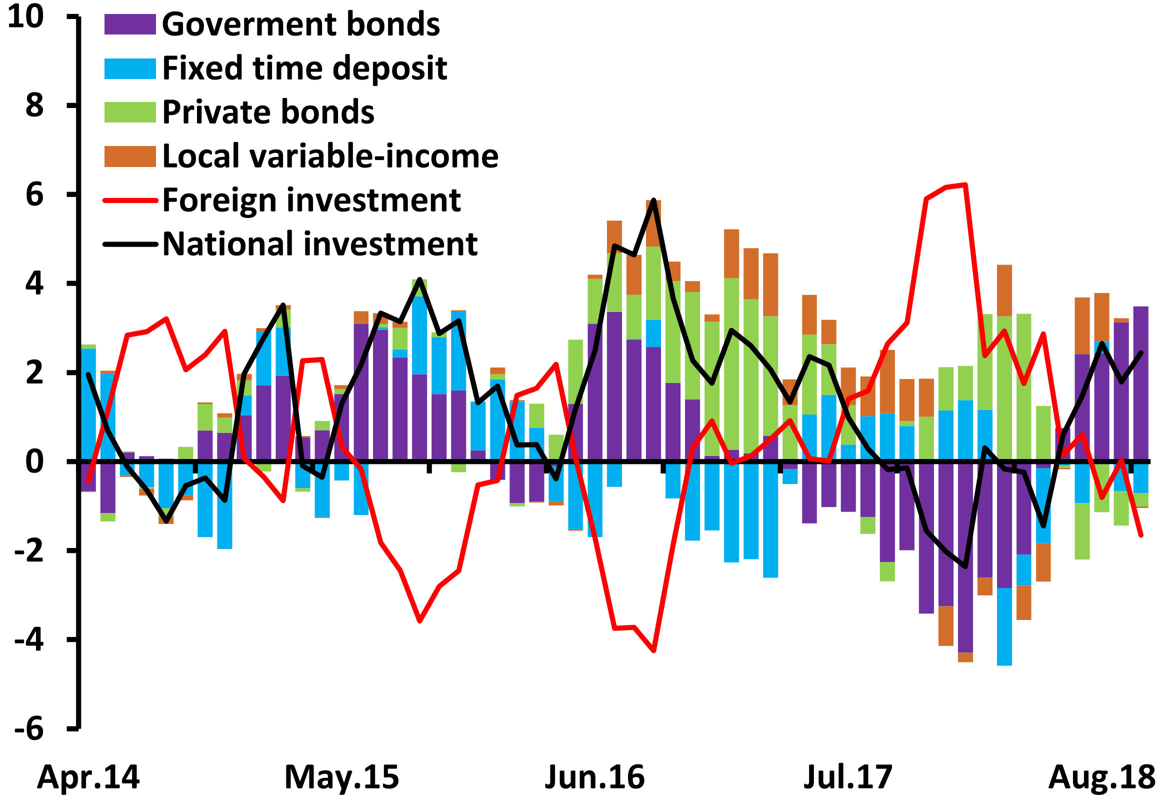
The role of local institutional investors

Institutional investors have played a stabilizing role

Main financial assets holders (1)
(percent)



Pension fund investment flows (2)
(percent of GDP)



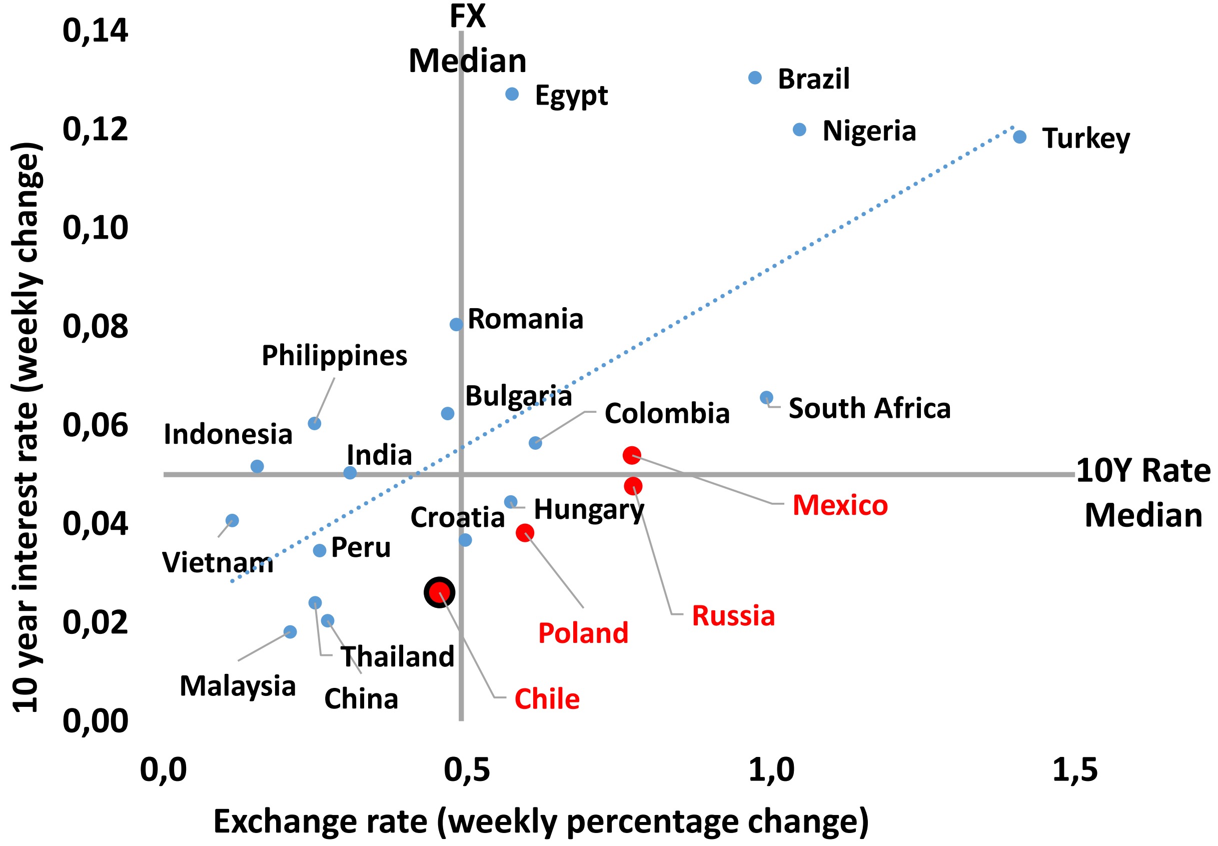
(1) Other includes other investment funds, stock exchanges, and stock brokers. (2) Net change per instrument, including purchases, sales, redemptions, and drawings and excluding derivative maturities, rebates, dividends, and coupon cuts. Last datum updated through 12 October 2018. Source: Central Bank of Chile, based on data from the Superintendence of Pensions, CMF and Santiago Stock Exchange.

Financial channel: foreign exchange

Monetary policy autonomy is supported by the floating exchange rate regime

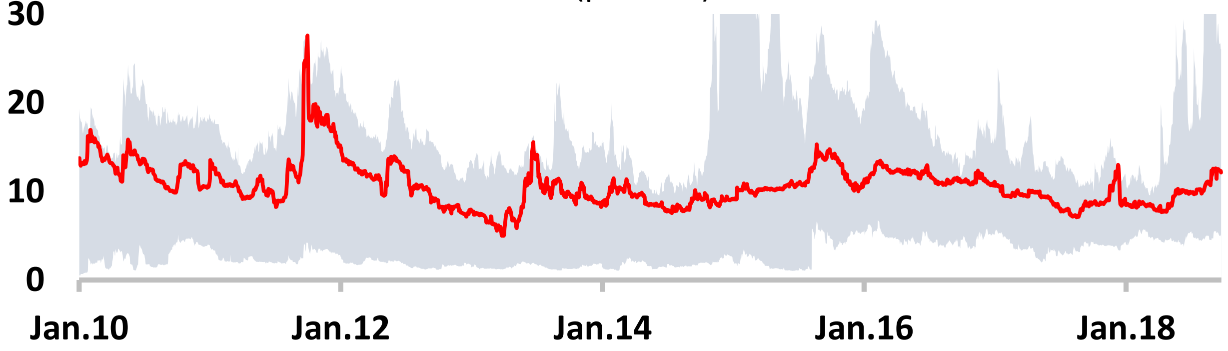
10Y interest rate and FX volatility (1)

(sample 2017-2018)



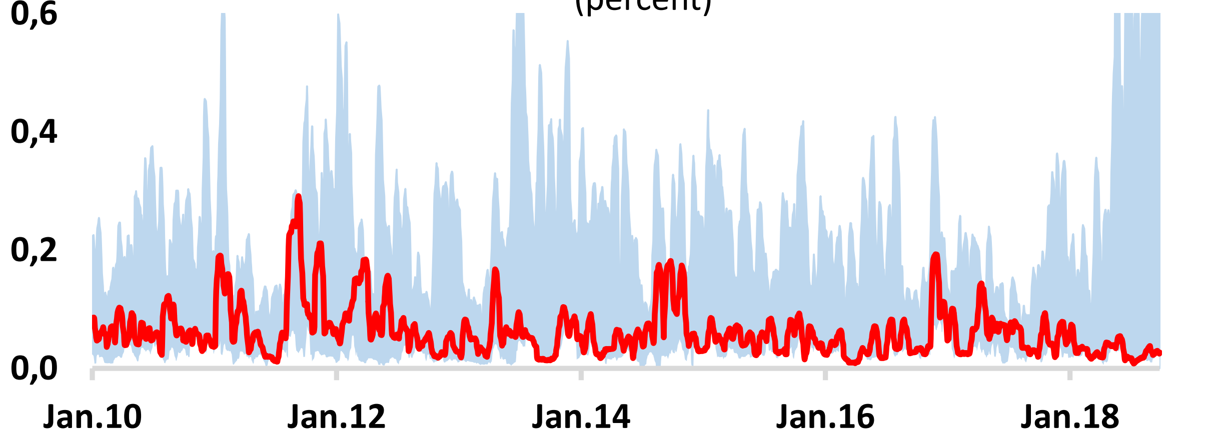
Currency implied volatility 1-month EE

(percent)



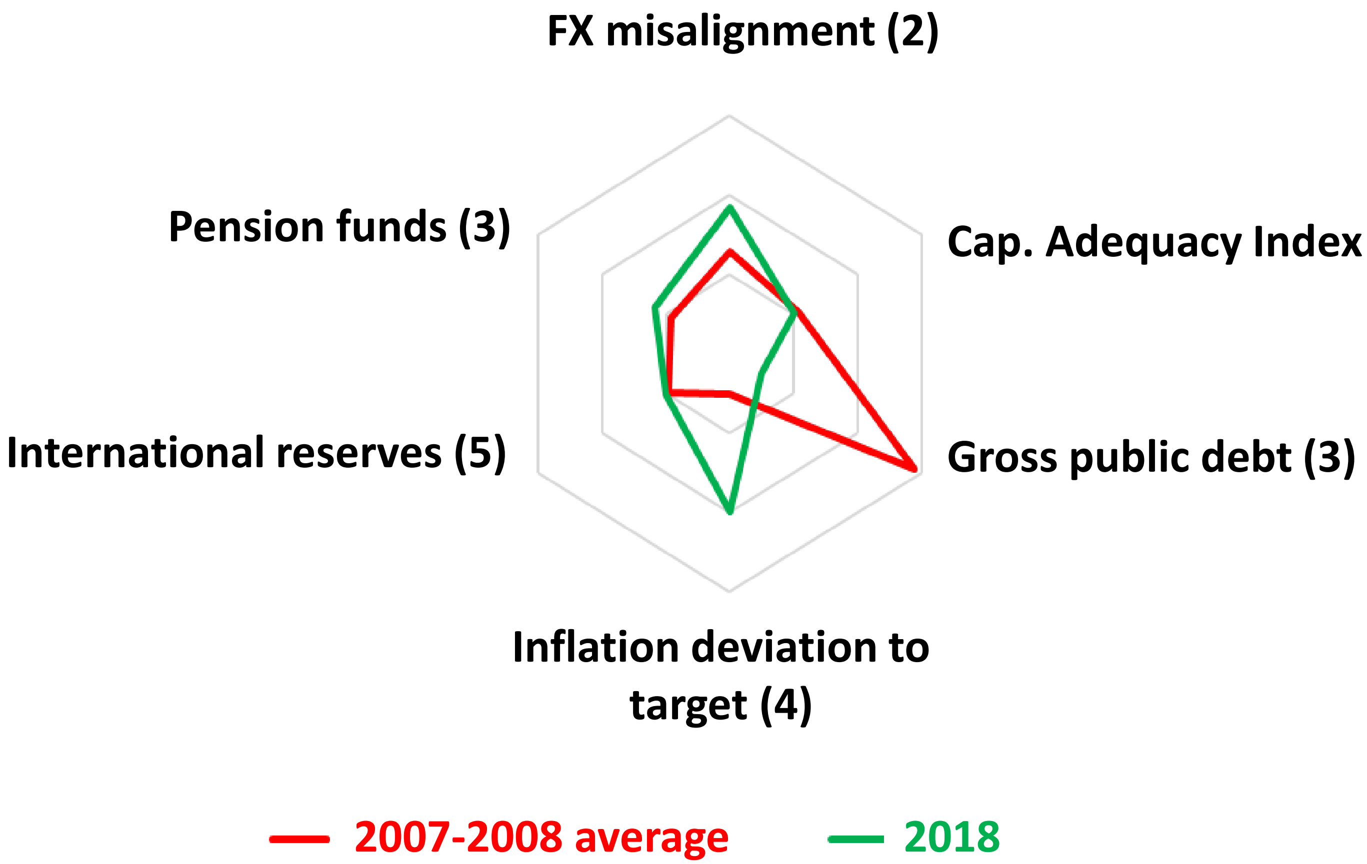
10Y rates volatility 1-month EE

(percent)



(1) Red points correspond to economies with free floating FX regime according to IMF classification (Annual Report on Exchange Rate arrangements and Exchange Restrictions, 2017). Source: IMF and Bloomberg.

Overall, the Chilean economy appears to be best prepared to face external shocks than before the GFC, except on the fiscal front



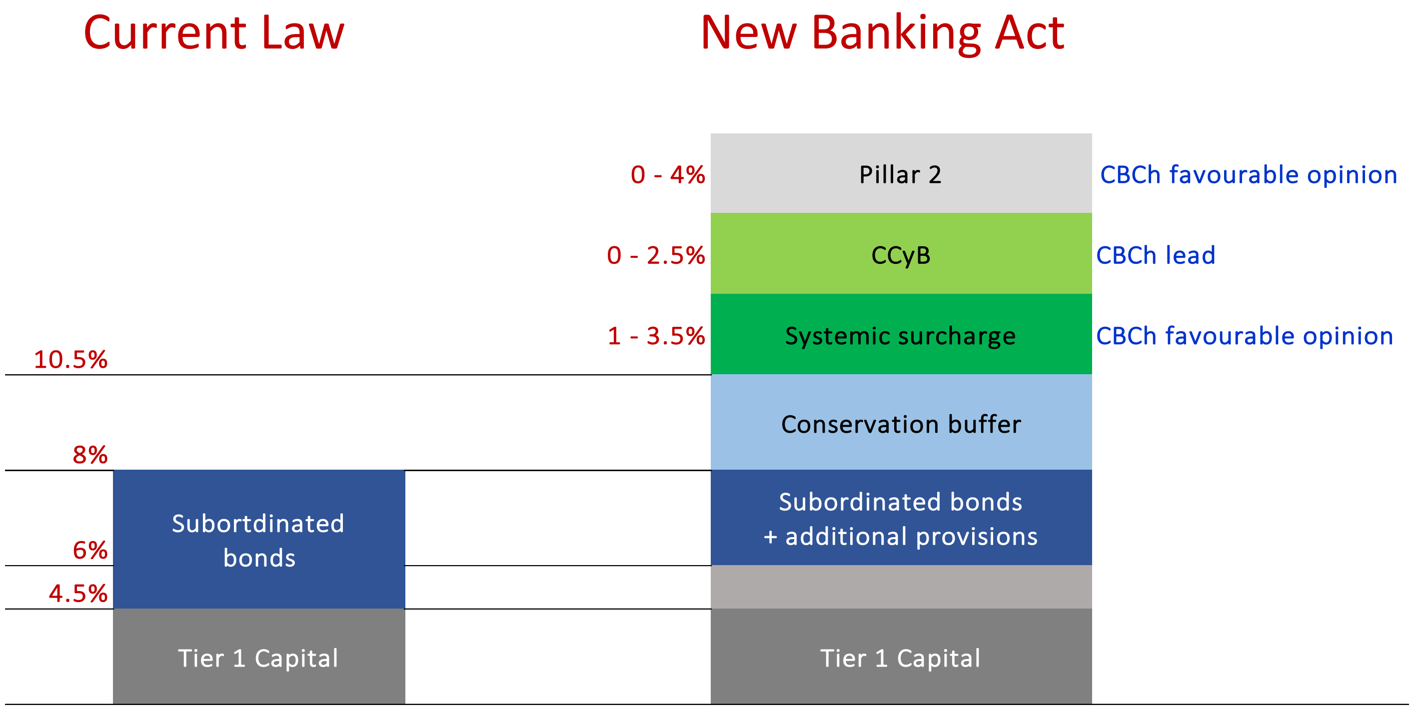
(1) A larger number indicates a better relative position. All the variables measured at the level of the respective period in relation to the average 2001-2018. (2) Measured with the percentage of companies in the corporate sector whose currency mismatch exceeds 10% of the value of their assets; (3) As a percentage of GDP; (4) Difference between average inflation for the period and the Central Bank's target; (5) Corresponds to the ratio between the sum of international reserves and sovereign funds, and short-term residual external debt discounted direct foreign investment. Source: Central Bank of Chile.

Buffers used during the years of slow growth 2014-2017 are being rebuilt

Fiscal consolidation:

- A gradual path to reduce structural deficit by 0,2% of GDP per year, to 2022
- First step above target: structural deficit reduced 0,5% of GDP
- Debt/GDP ratio currently at 24% should level off in the next two years
- Fiscal Council given independent status
- Preferential regime for defense spending in course of reform
- Fiscal sustainability a central concern in discussion of tax and pension reforms

A *New Banking Law* is adopting the Basle III solvency standards and introducing a countercyclical capital buffer

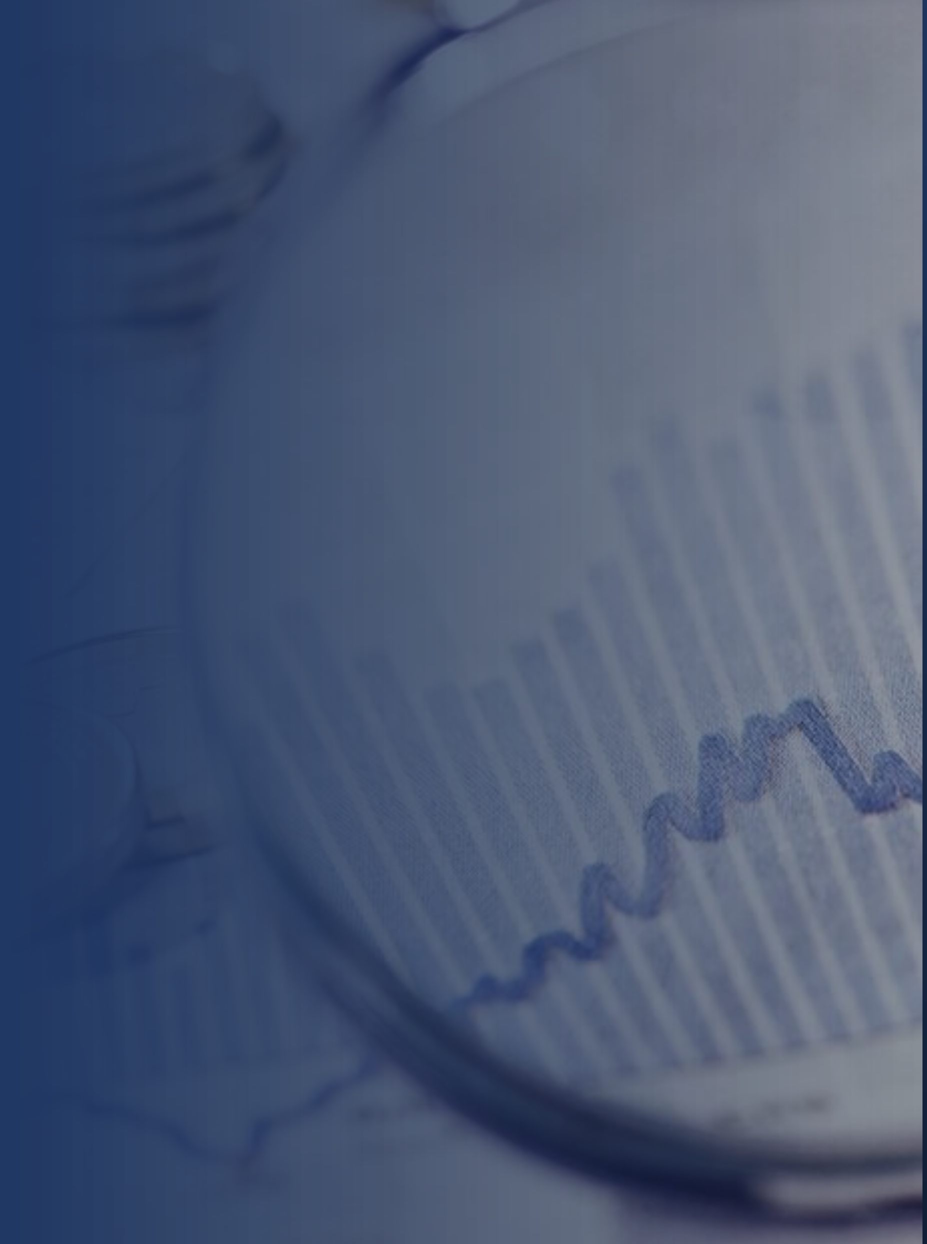


Sources: Central Bank of Chile.

In sum…

- Despite external shocks and alternation in power, the Chilean economy has continued to mature
- A stable and credible macro framework has reduced economic volatility
- The floating FX regime acts as an effective shock absorber to external turbulence
- Financial markets continue to deepen and contribute to resilience
- Economic buffers used up in the lower part of the business cycle need to be rebuilt
- This is being addressed by fiscal consolidation and strengthening capital requirements on Banks
- Meanwhile, in the face of lower inflation, monetary policy will remain accommodative for some time

In sum…



- Investment-led growth in Chile contrasts with global slowdown
- Lower global growth is so far balanced by more accommodative financial conditions and stable ToT
- Growth may continue in the 3-4% range over the next 3 years
- But potential GDP growth is now considerably lower than in the early 2000s
- Migration from other LAC countries may balance out the effect of population ageing
- Productivity remains a challenge, including reallocation of resources and firm growth
- As Chile continues transitioning towards development, a pure EM-optics may become insufficient to interpret the data

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