



# Financial Development and Stability An Emerging Market Perspective

*Banque de France*

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# Agenda

- 1. Economic development and finance**
- 2. Financial development in practice: the case of Chile**
- 3. Current reforms and future challenges**



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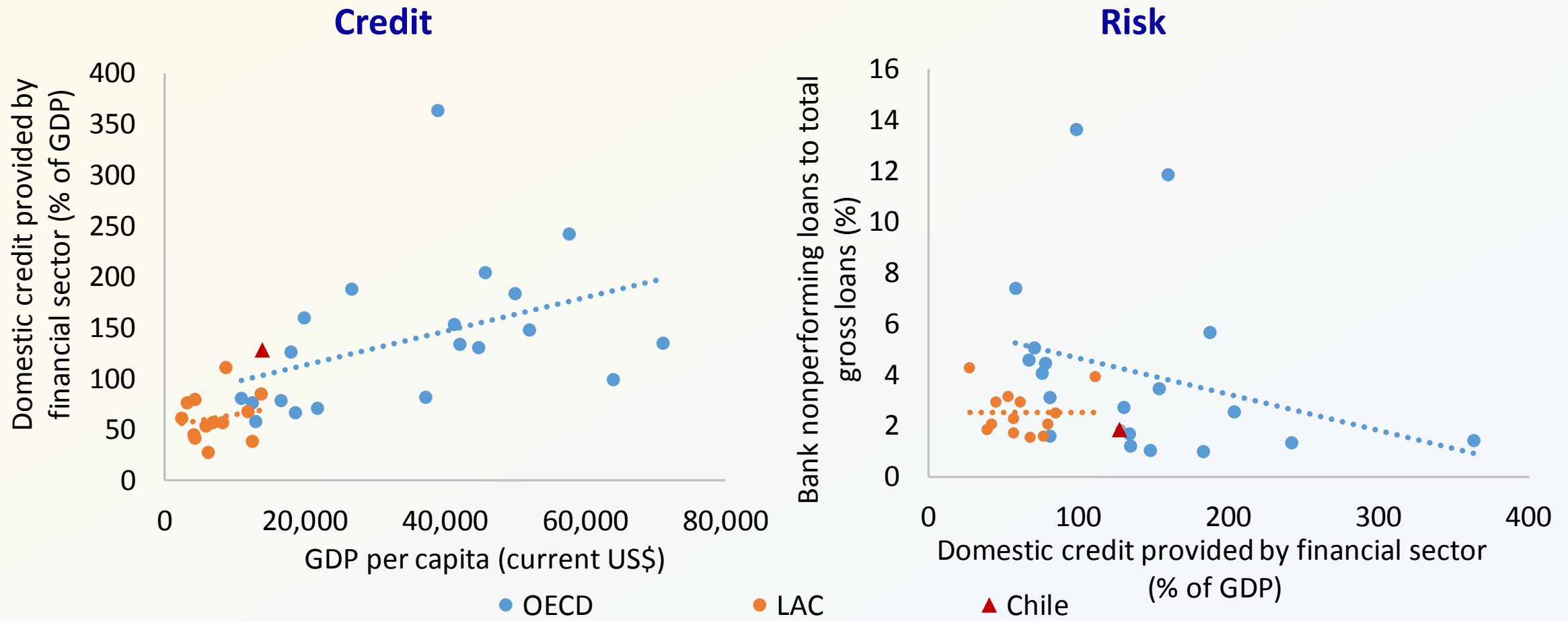
# Finance in economic development

- Finance is usually seen by development theory as a key component of the development of market economies
- Well-functioning financial markets:
  - Key to match savings (local and foreign) and investment
  - Resolve potential bottlenecks and inequity from liquidity constraints
  - Help hedge risks—including macro
- Economic development:
  - Growing volume of savings that need to be managed
  - Financial services as superior goods
  - Middle class demand for autonomy and economic security



# Finance in economic development

**Financial development, economic performance, and risks**  
(% and current US\$)



Source: Central Bank of Chile.



# Financial development in practice

- Traditionally, countries would progress from basic, custodian services to secured products, risk-management services
- Depth, inclusiveness and competition as key dimensions
- Yet in reality many alternative paths, and some dilemmas:
  - Innovation and inclusiveness
  - Access to financial services and risk-taking
- Financial crises:
  - Countries with small financial sectors may be less vulnerable to financial crises but at the cost of economic efficiency
  - In less developed countries, financial crises are a byproduct of BoP or fiscal crises



# Chilean financial development in a nutshell

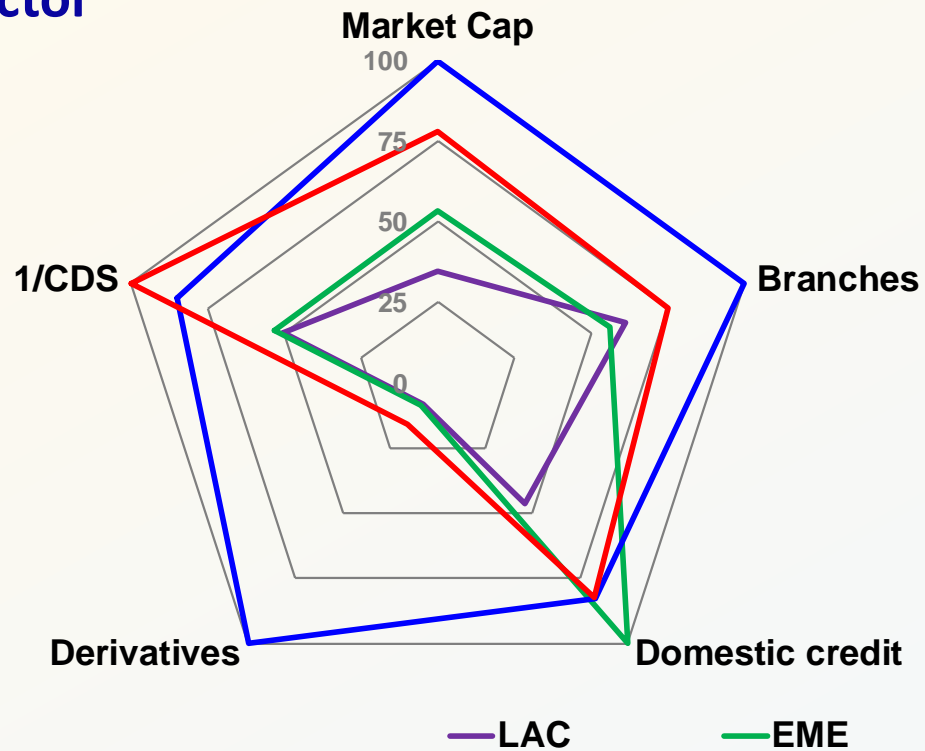
- Chile is at an intermediate point between LAC and OECD countries
  - **Inclusion**: large coverage of basic banking services, electronic transactions and household risk management
  - **Depth**: securities, long-term capital markets enhanced by strong presence of institutional investors
  - **Competition**: profitable banking, corporate access to international funding sources
  - **Credit risk**: lower than for benchmark economies
- Pending issues: bank solvency and resolution, derivatives markets, infrastructures



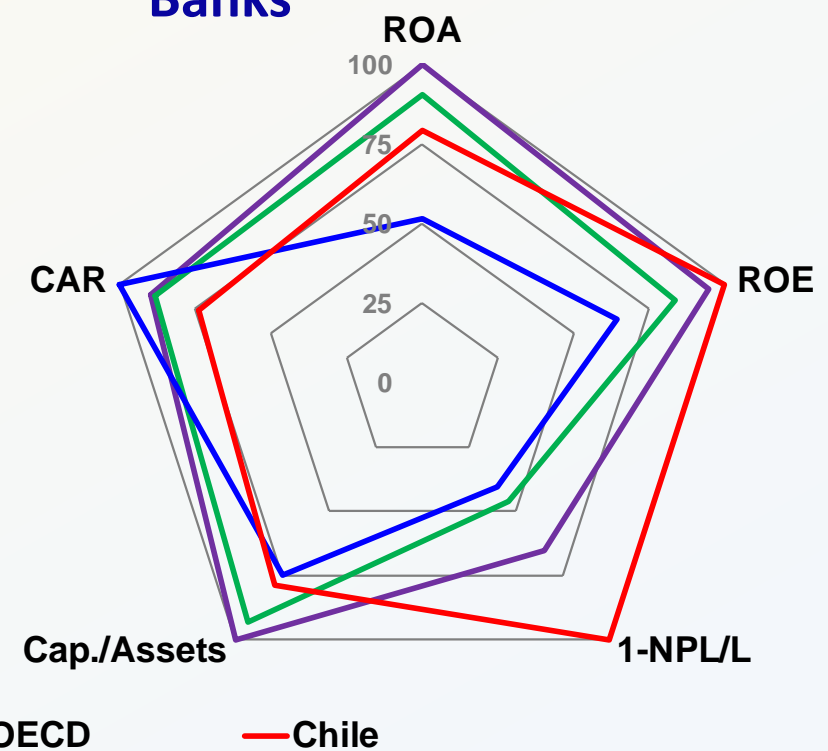
# Chilean financial development in a nutshell

Recent situation (\*)  
(relative percent)

## Financial sector



## Banks



(\*) Data are relative to the maximum on each dimension at the end of 2016 or to the latest availability. Emerging countries substituted by middle income statistics depending on data availability.

Source: Central Bank of Chile based on information from IFS, BIS, WDI, and FSI.





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# Some landmarks in the evolution of Chilean financial markets

- 1855: First state mortgage bank
- 1860: First General Banking Law
- 1892-93: Creation of stock exchanges
- 1925: Creation of Central Bank and Banking Superintendency
- 1953: Merging of several public financial institutions into National State Bank (currently *Banco Estado*)
- 1960: New General Banking Law
- 1967: Creation of UF (inflation-adjusted unit)
- 1970-75: Major banks nationalized, then privatized
- 1977: Banks authorized to issue on-balance mortgage-backed securities
- 1981: Pension reform creates private pension fund administrators
- 1983: Financial crisis, most banks go bankrupt, government bailout and major upgrade of banking legislation
- 1994: Securitization legislation
- 2006: *Banco Estado* creates ID sight accounts



# Some features of the Chilean financial market

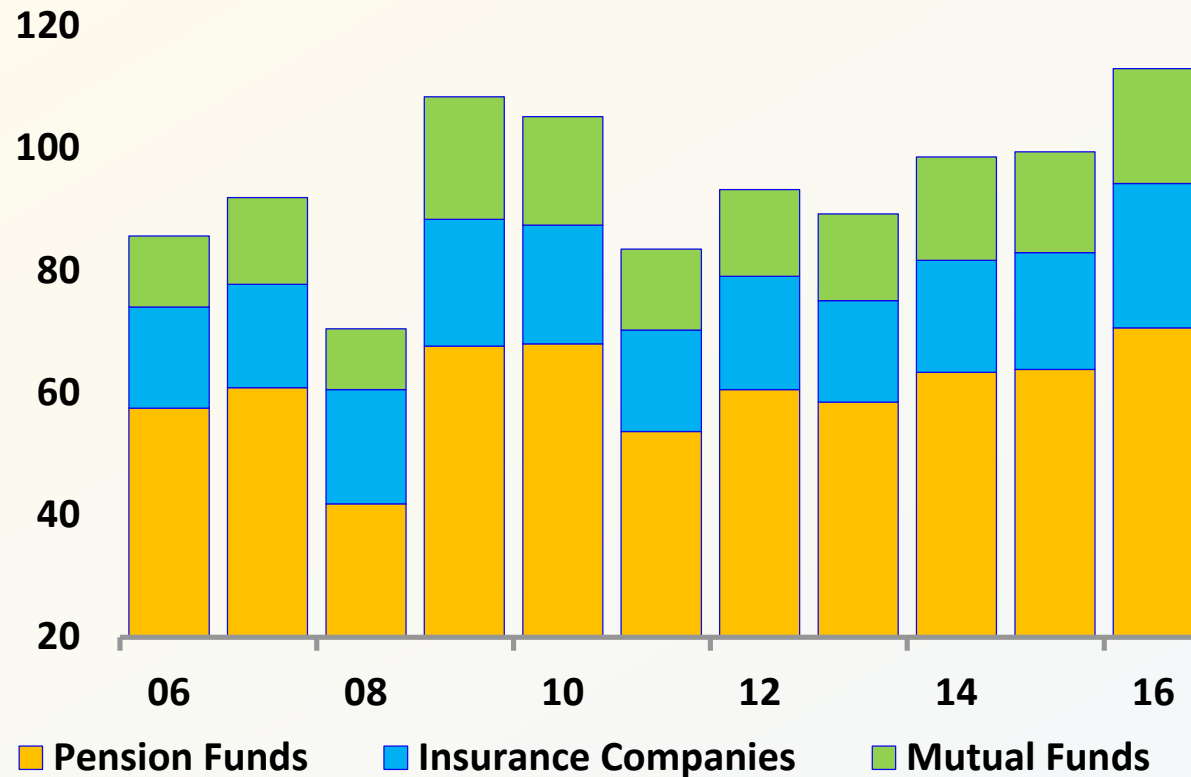
- Bank lending over 80% of GDP (~60% of total credit)
- Firms represent about 2/3 of the current lending
- Bank lending more relevant to companies with limited access to international markets
- High financial inclusion (e.g. accounts, credit cards, savings)
- Most household credit is mortgage, granted at fixed interest rates, and denominated in CPI-indexed units
- Strong bank regulations as legacy of the devastating banking crisis of the early-80s
- Financial development and macroeconomics: exchange risk hedging



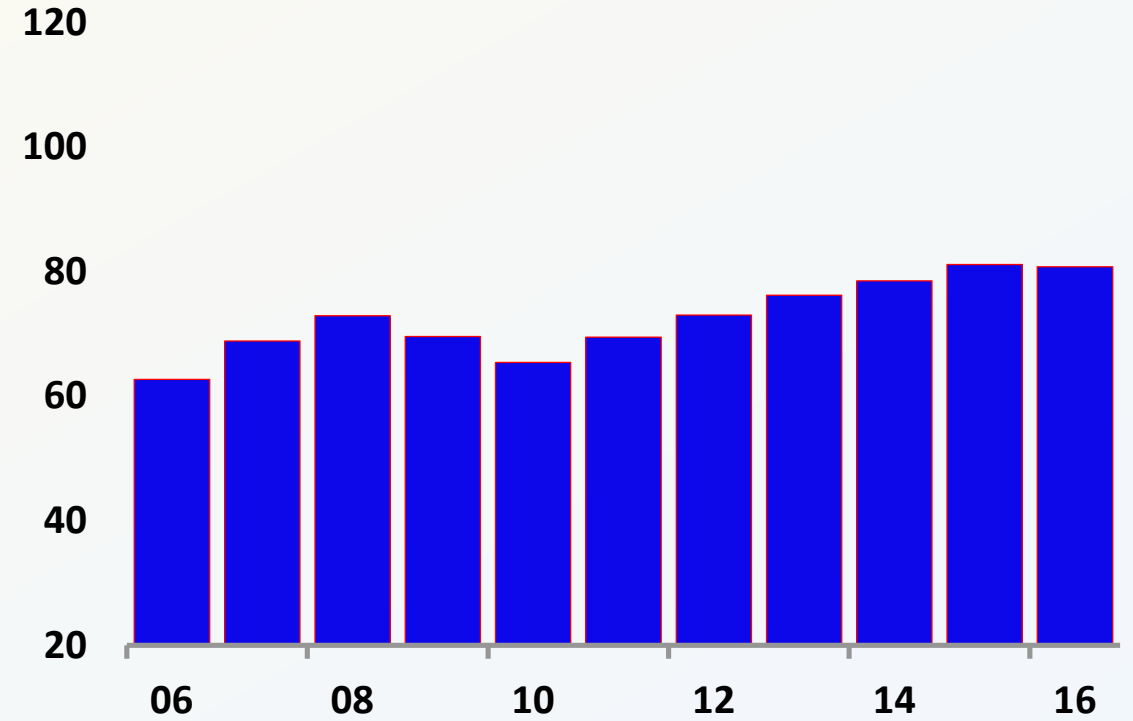
# Financial sector dynamics

## Financial system depth (percent of GDP)

### Institutional investors assets

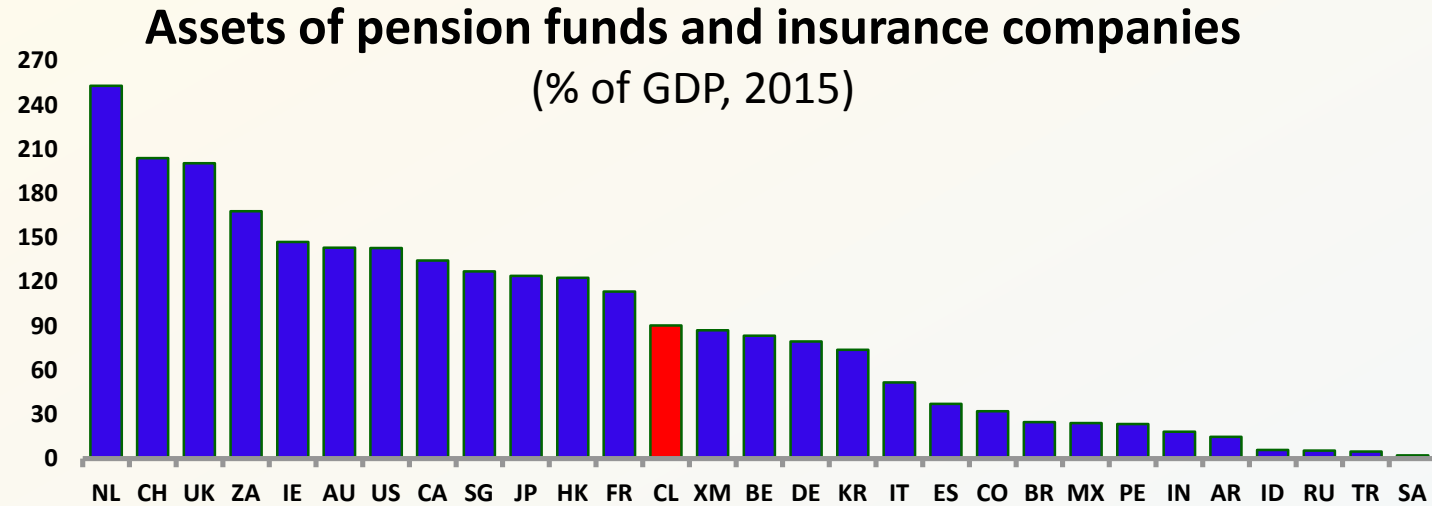


### Domestic banking credit

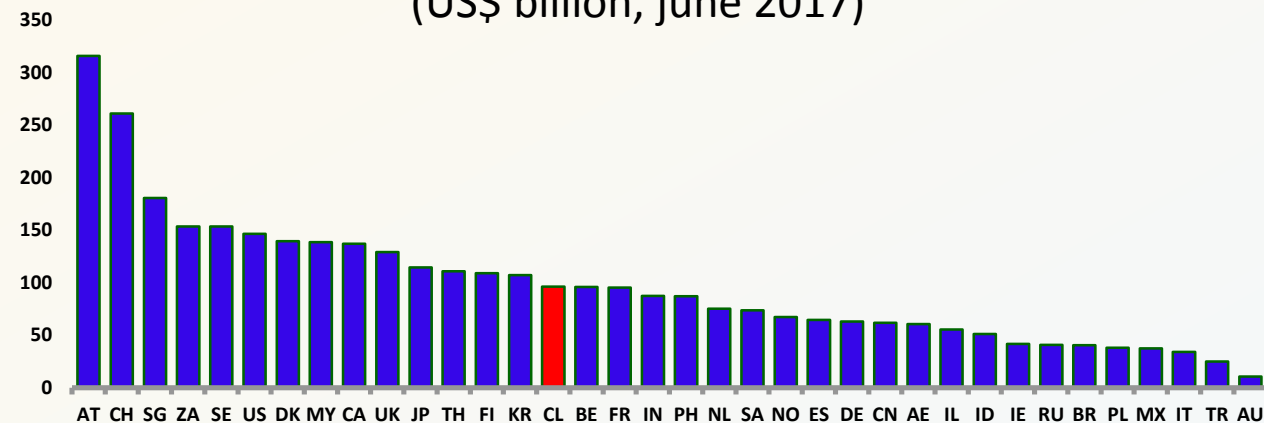




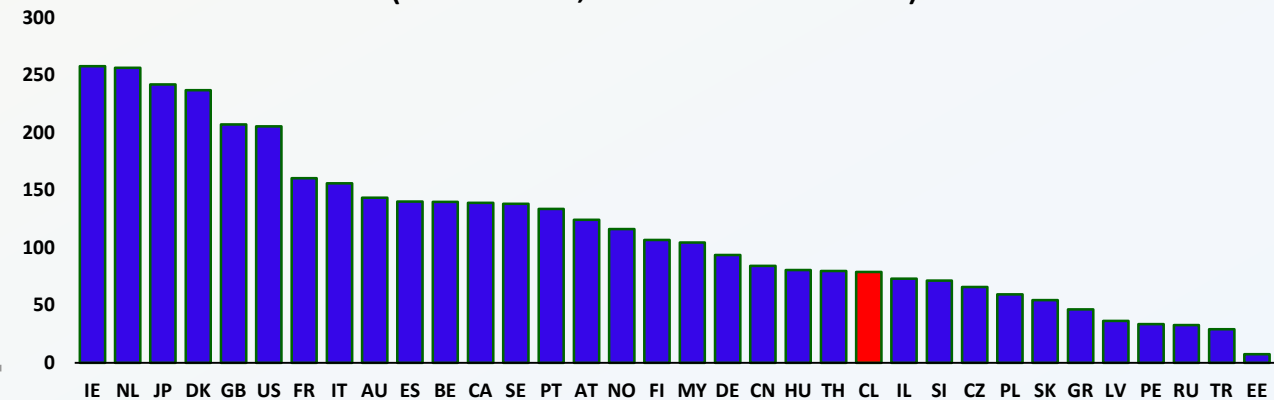
# Institutional investors and corporate finance



**Market capitalization**  
(US\$ billion, june 2017)



**Corporate securities**  
(% of GDP, december 2016)

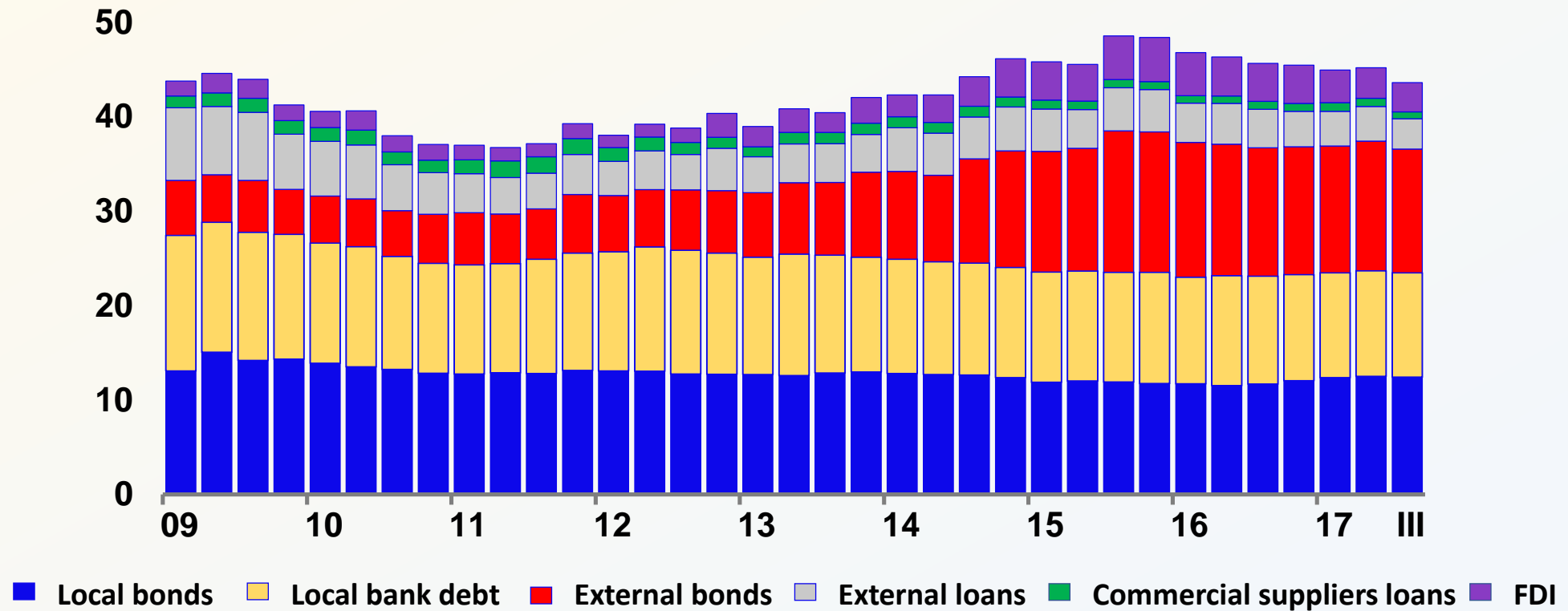




# Diversification of corporate liabilities

## Corporate financing sources (percent of GDP)

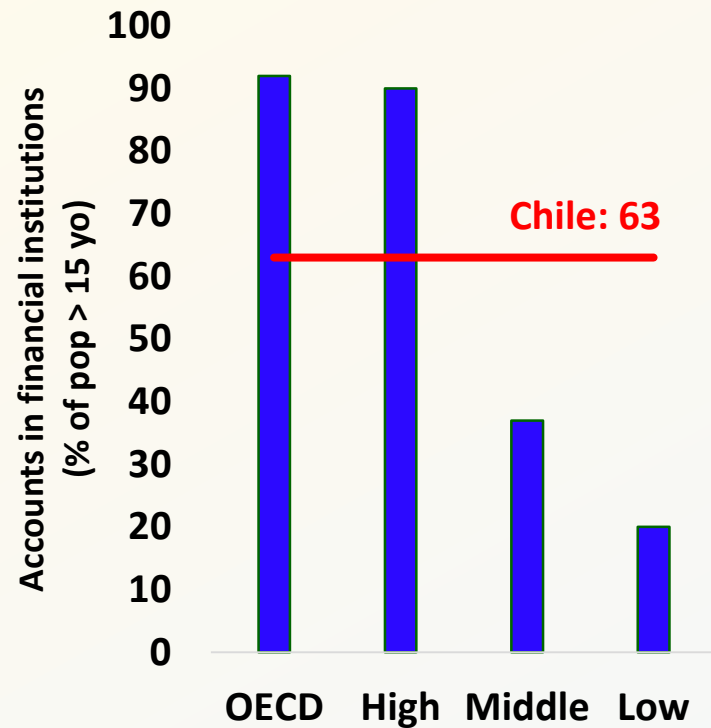
### Public listed companies



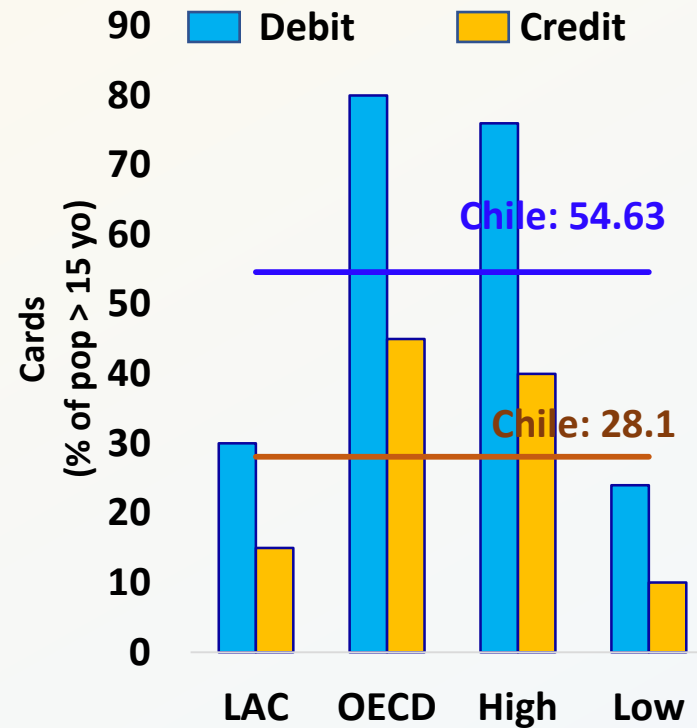


# Financial inclusion

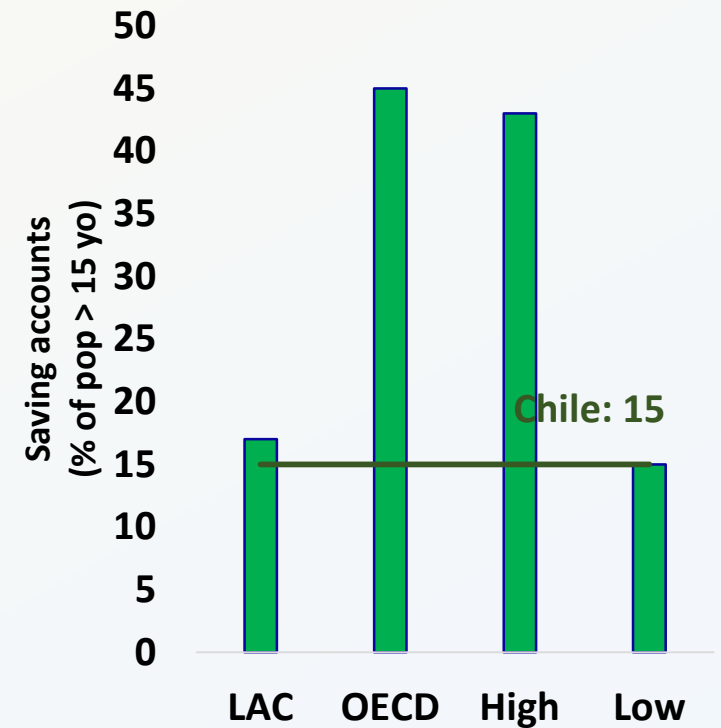
Adult population with any type of account in a financial institution  
(percent, 2014)



Adult population with debit or credit card  
(percent, 2014)



Adult population with savings in financial institutions  
(percent, 2014)

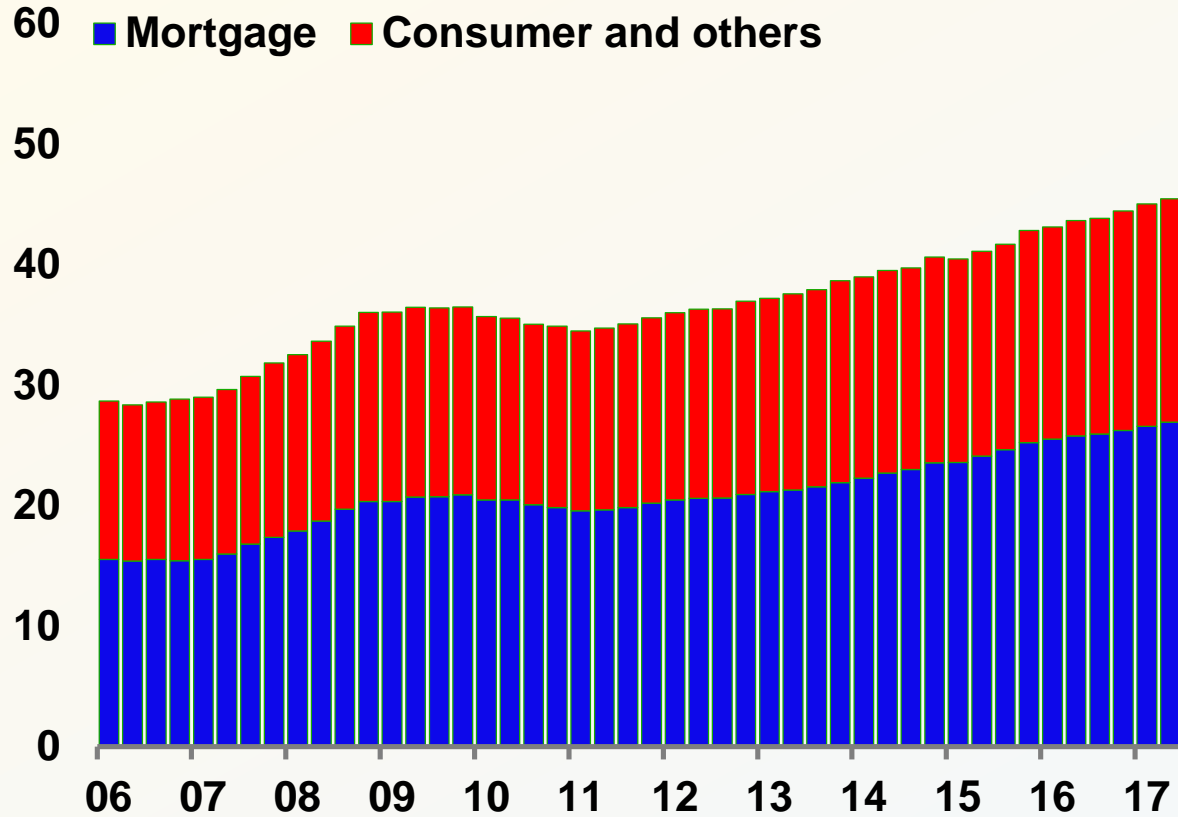


Source: SBIF (2016), "Financial Inclusion Report in Chile 2016".



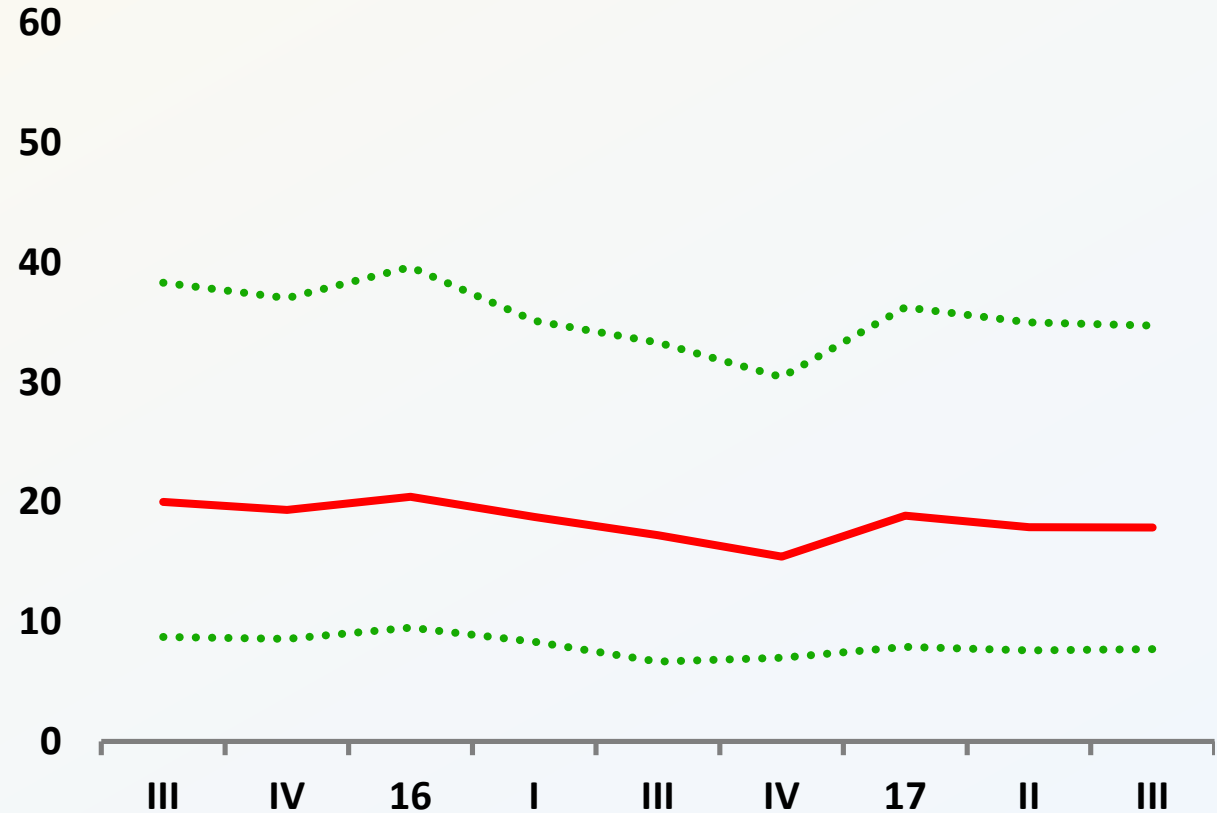
# Mortgage lending

## Leverage



## Household debt (percent)

## Debt service ratio







# Mortgage lending

- Three main mortgage products: mortgage credit letters (LCH), endorsable mortgages (MHE) and mutual non-endorsable mortgages (MH)
- These operations are subject to prudential rules and regulations issued by the banking supervisor
- The MH account for the majority of mortgage credit stock. These are long term (> 15y) and granted at fixed and CPI- indexed interest rates
- Negligible structured finance for the Chilean mortgage market
- Prudential regulation: LTV and NPL based provisions in mortgage lending 2016
- Key component of broader policy for home ownership. Home ownership close to 80% of population



# Hedging currency risks

- Currency fluctuations as intrinsic feature that affects emerging economies
- Free floating exchange rate as part of monetary policy framework since 2000
- Regulation of bank currency mismatches as part of the 1980s regulatory overhaul, set as specific and general limits to currency mismatches relative to banking size
- For non-banking firms, Central Bank authorized banks to trade currency derivatives in local and foreign markets as of 1992. This allowed non-financial companies to hedge their positions
- Pension funds and insurance companies required to hedge their foreign positions
- Exchange rate derivatives grow five-fold in 10 years

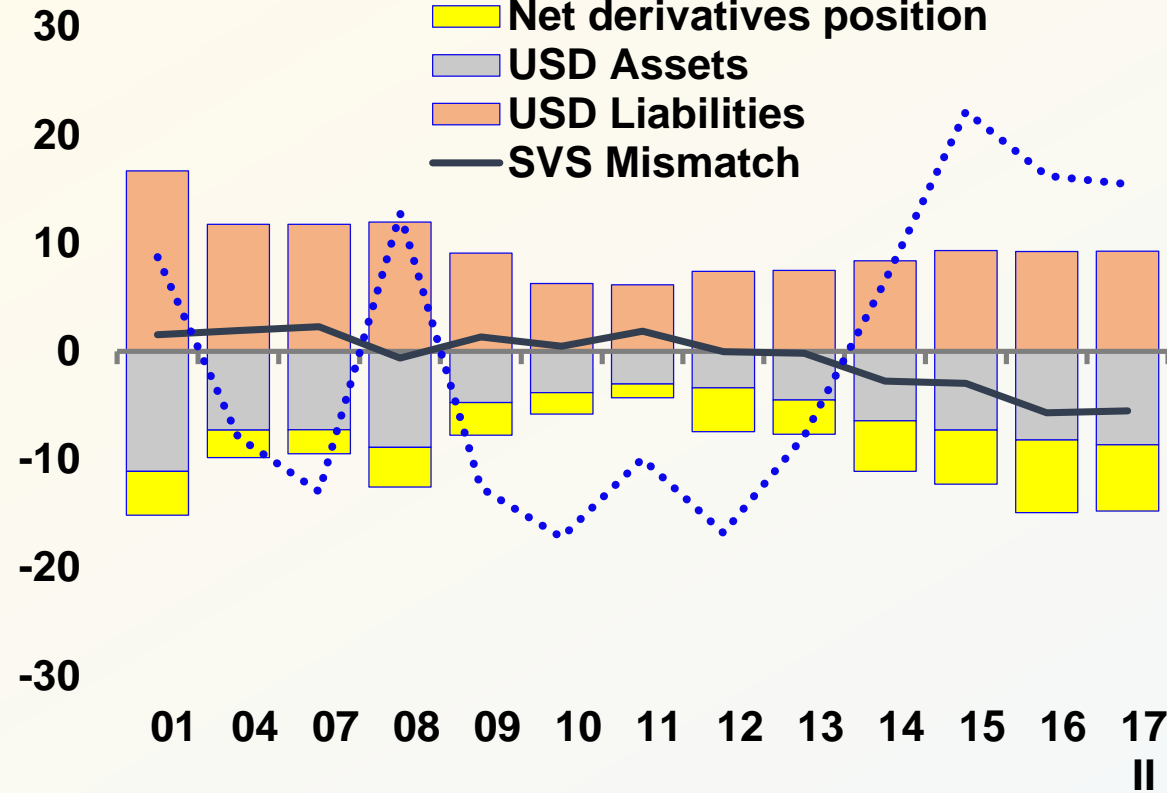


# Hedging currency risks

## Currency mismatch composition (\*) (percent of total assets)

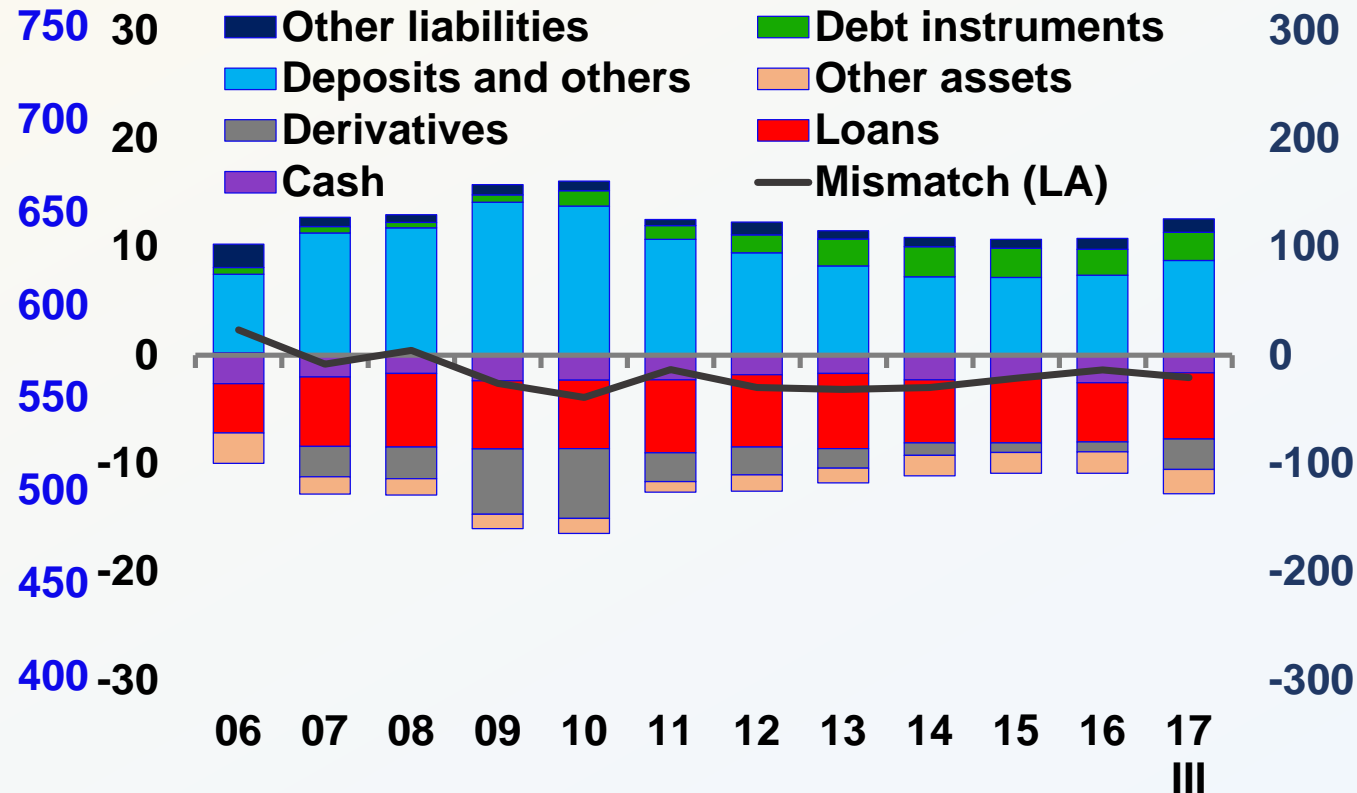
### Corporates

- Net derivatives position
- USD Assets
- USD Liabilities
- SVS Mismatch



### Banks

- Other liabilities
- Deposits and others
- Derivatives
- Cash
- Debt instruments
- Other assets
- Loans
- Mismatch (LA)



(\*) Mismatch is calculated as liabilities in dollars less active in dollars, less net position in derivatives, over total assets. Individual information of companies that report their balances in pesos. Does not consider State, Mining and Financial companies. Annual data until 2006, from now on, quarterly data. Preliminary data for the second quarter of 2017. Average exchange rate of the last month of the quarter (or year) in the secondary axis. Source: Central Bank of Chile based on information from the SVS.



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# Recent reforms

- Portfolio diversification of institutional investors (pension funds and insurance companies)
- Enhancing retail payments systems—towards universal access to transfer and payments system
- Governance of financial supervision—integrated financial regulator
- Upgrade of banking solvency framework—Basel III

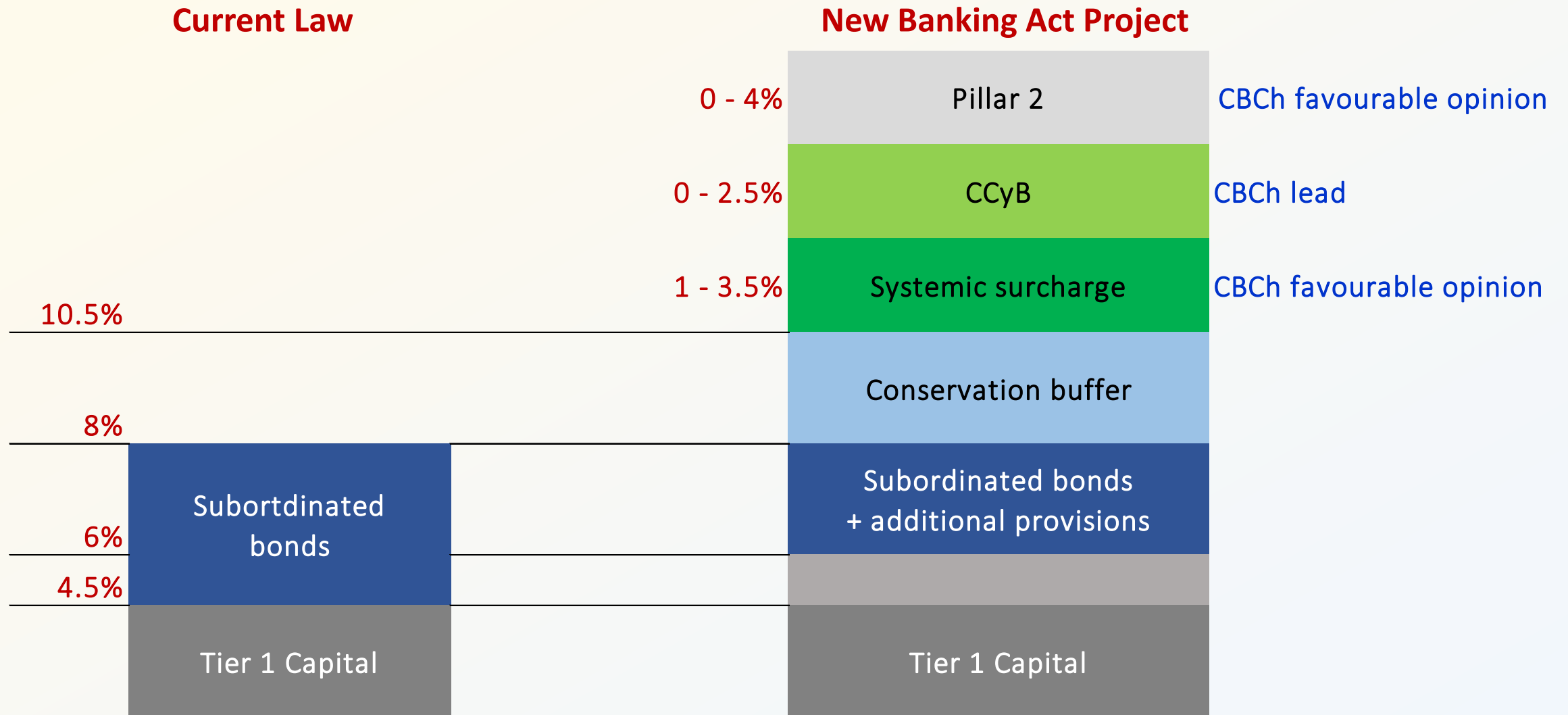


# New Banking Act

- Chile is currently advancing towards a New Banking Act, which is the deepest reform to the existing framework since 1997.
- The bill involves integration of banking supervision into the *Financial Markets Commission* (FMC) and the adoption of Basel III solvency standards
- The updated capital adequacy rules will include additional capital charges: systemic and countercyclical
- The Central Bank of Chile (CBCh) will be in charge of the Counter-cyclical Capital buffer (CCyB), and will be consulted in the decision process of the banking systemic importance
- CBCh research agenda focusing on the financial cycle and systemic risks



# The New Banking Act



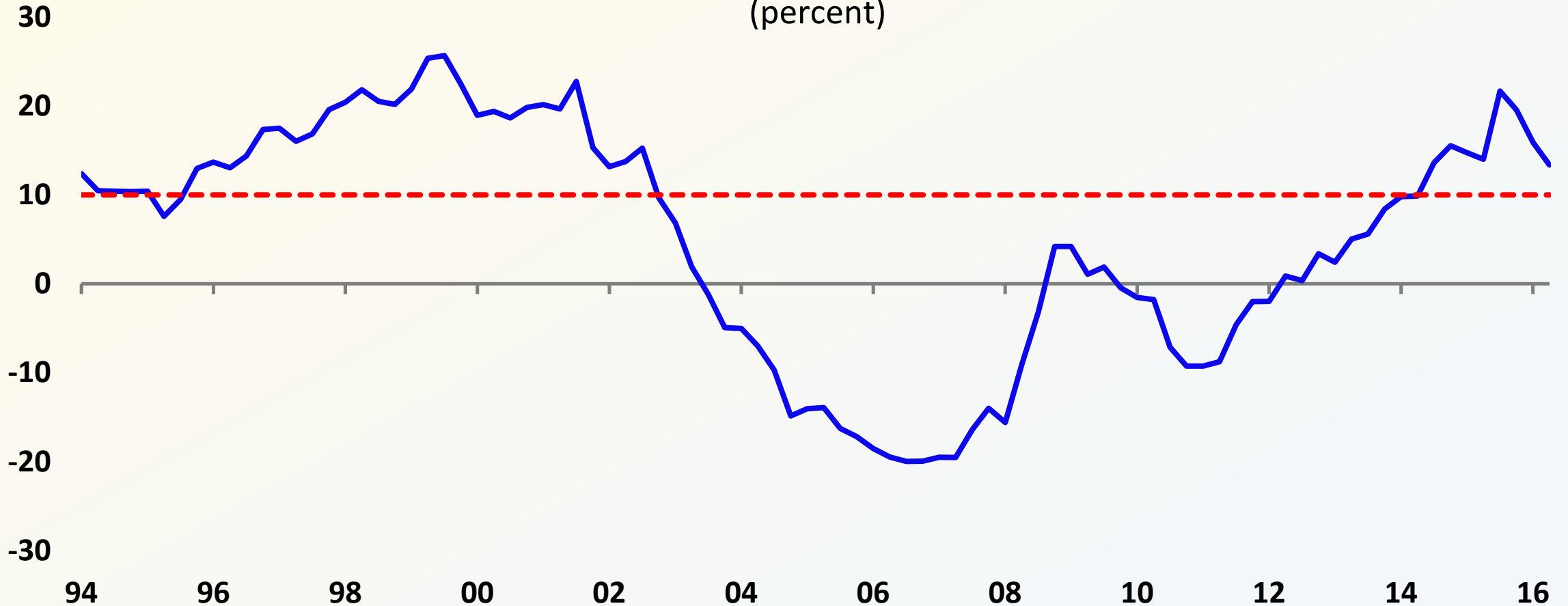






# BCBS recommendation for Chile

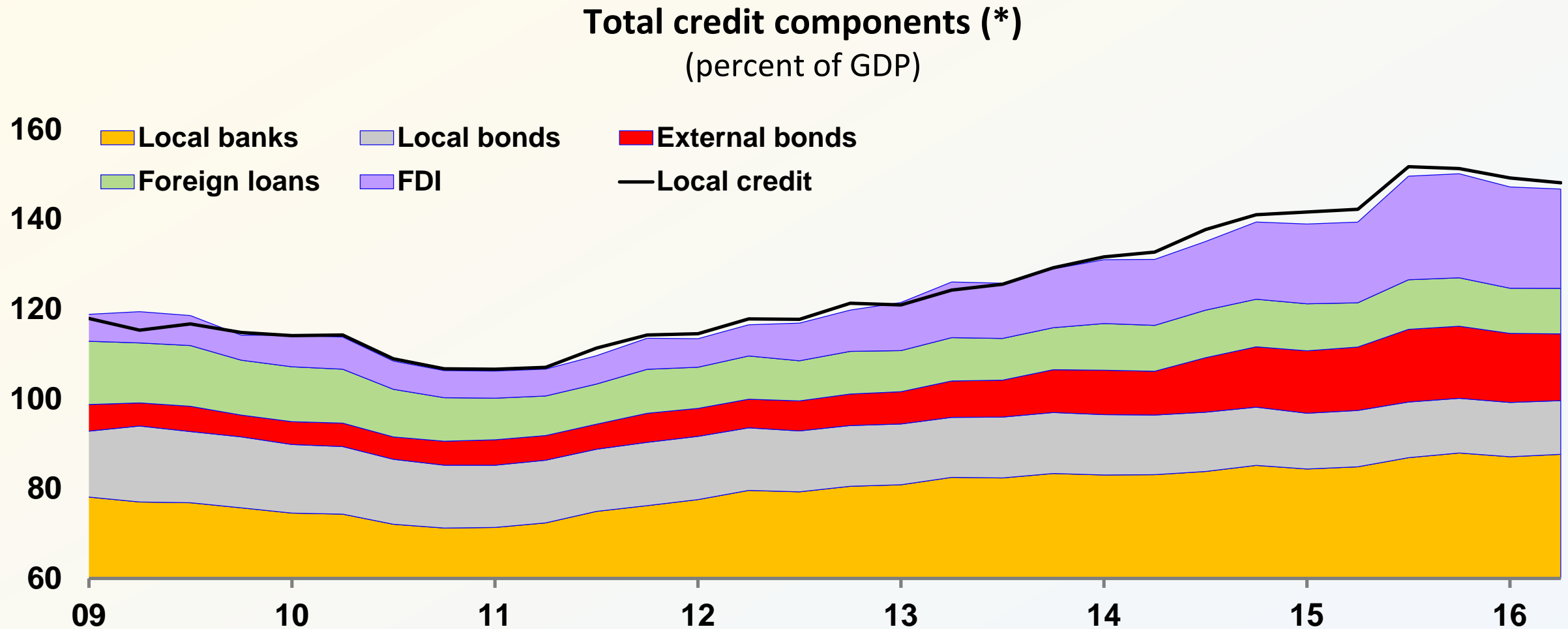
**Credit to GDP gap (\*)**  
(percent)



(\*) Calculated by HP filter with a factor of 400,000 in cumulative windows, as recommended by the BCBS (Drehmann *et al.*, 2012). Credit data used include all sources of credit from the non-financial private sector as a percent of annual GDP. Horizontal dashed line indicates limit for the full application of CCyB suggested by Basel III. Source: Central Bank of Chile based on information from BIS.



# Local financing sources

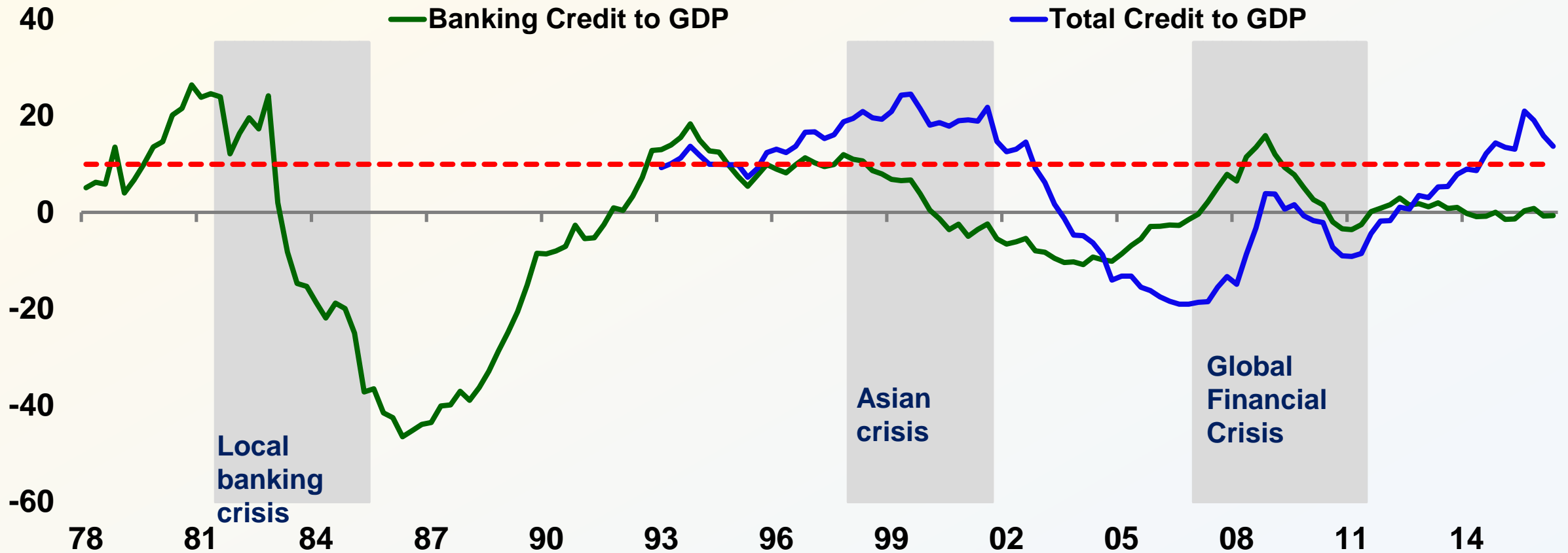


(\*) Excludes other local credits such as leasing and non-banking factoring, and credits with commercial houses. Differences with aggregate (black solid line) external data attributable to the exchange rate. Source: Central Bank of Chile based on information from ACHEF, SBIF, and SVS.



# The role of banking credit

Total and banking credit to GDP gaps (\*)  
(percent)

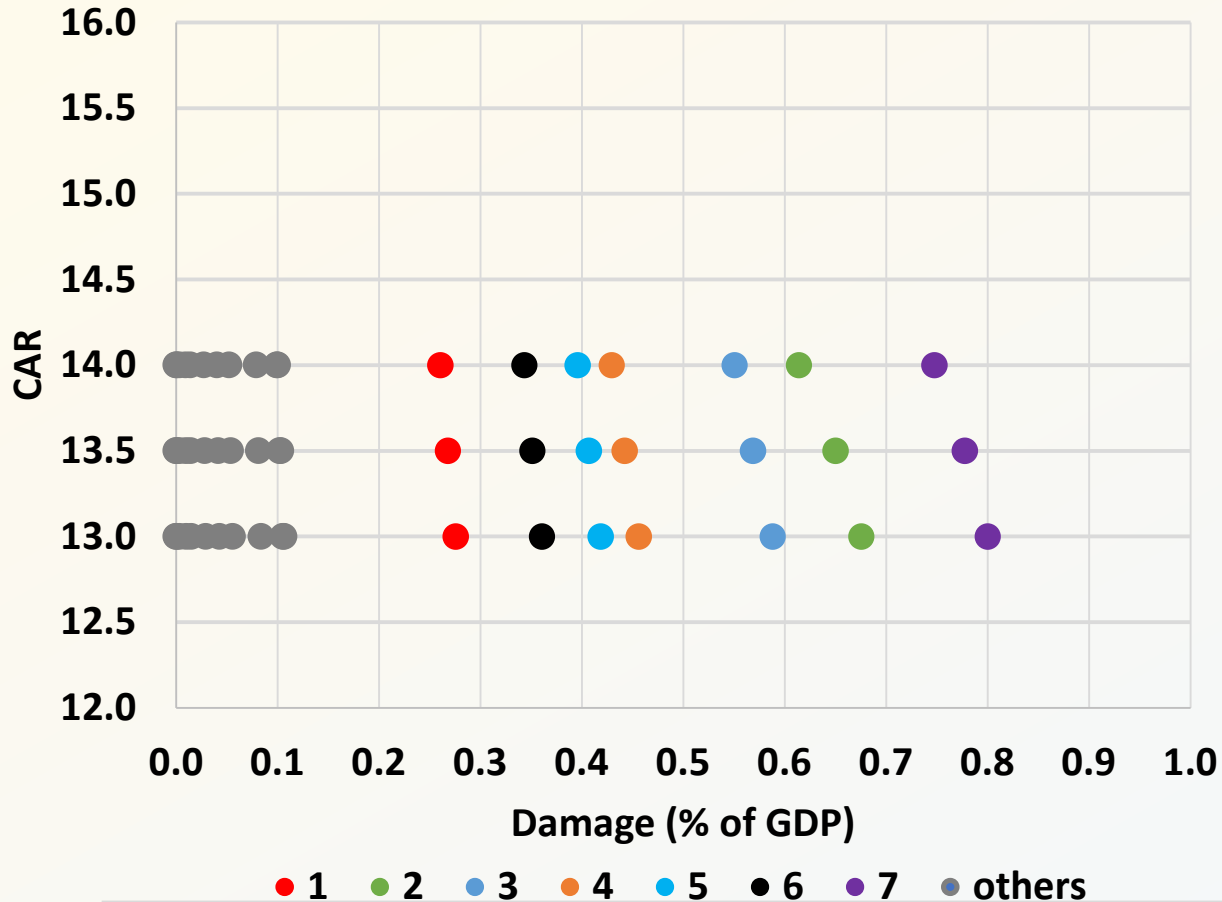


(\*) Gaps of the series illustrated with respect to their tendency. Gray areas show periods of financial fragility. Horizontal dotted line indicates limit for the full application of CCyB suggested by Basel III. In particular, the calculation of the cyclical component of bank credit to GDP considers a 10-year rolling window. Latest data: 2016.II. Source: Central Bank of Chile based on Martínez *et al.* (2017) and Martínez and Oda (2017).

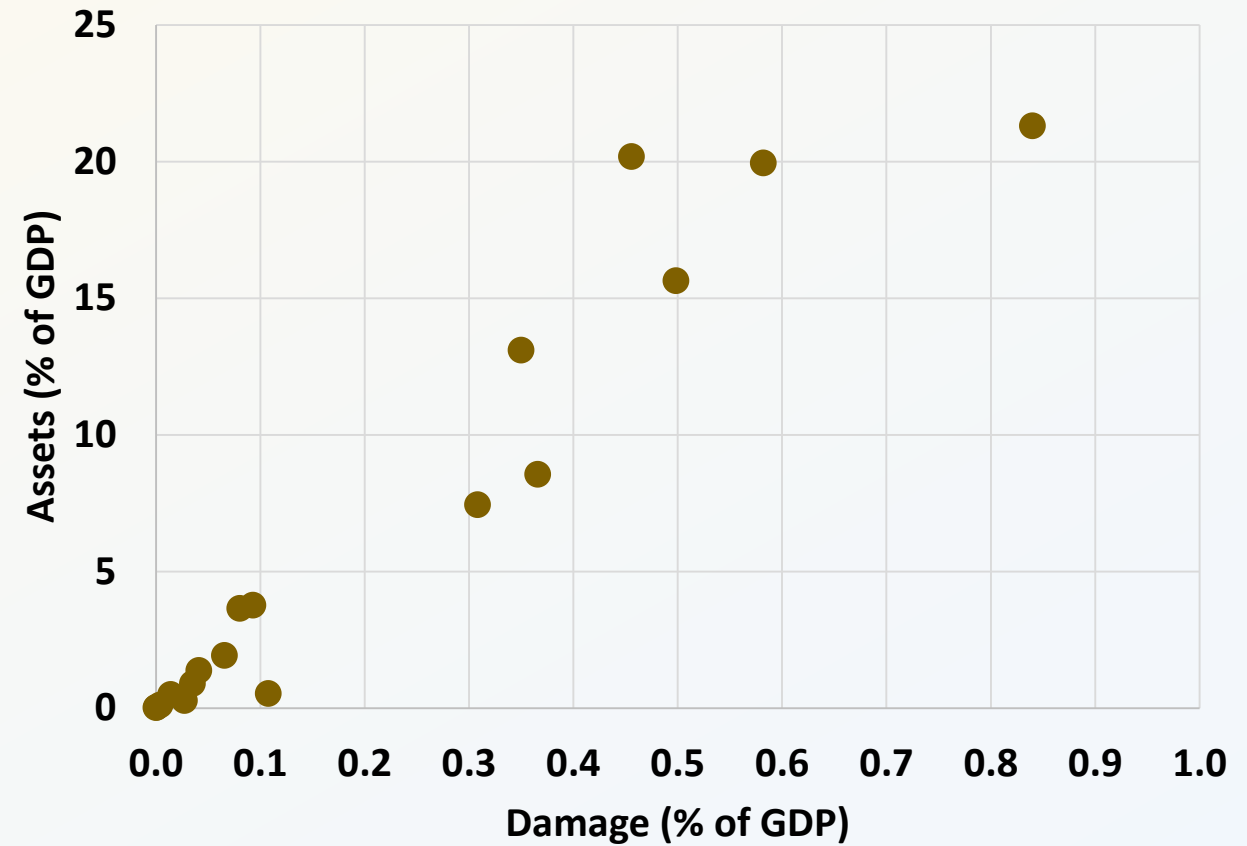


# Systemic banks—going beyond size

Systemic damage due to interconnections  
(2017.III)



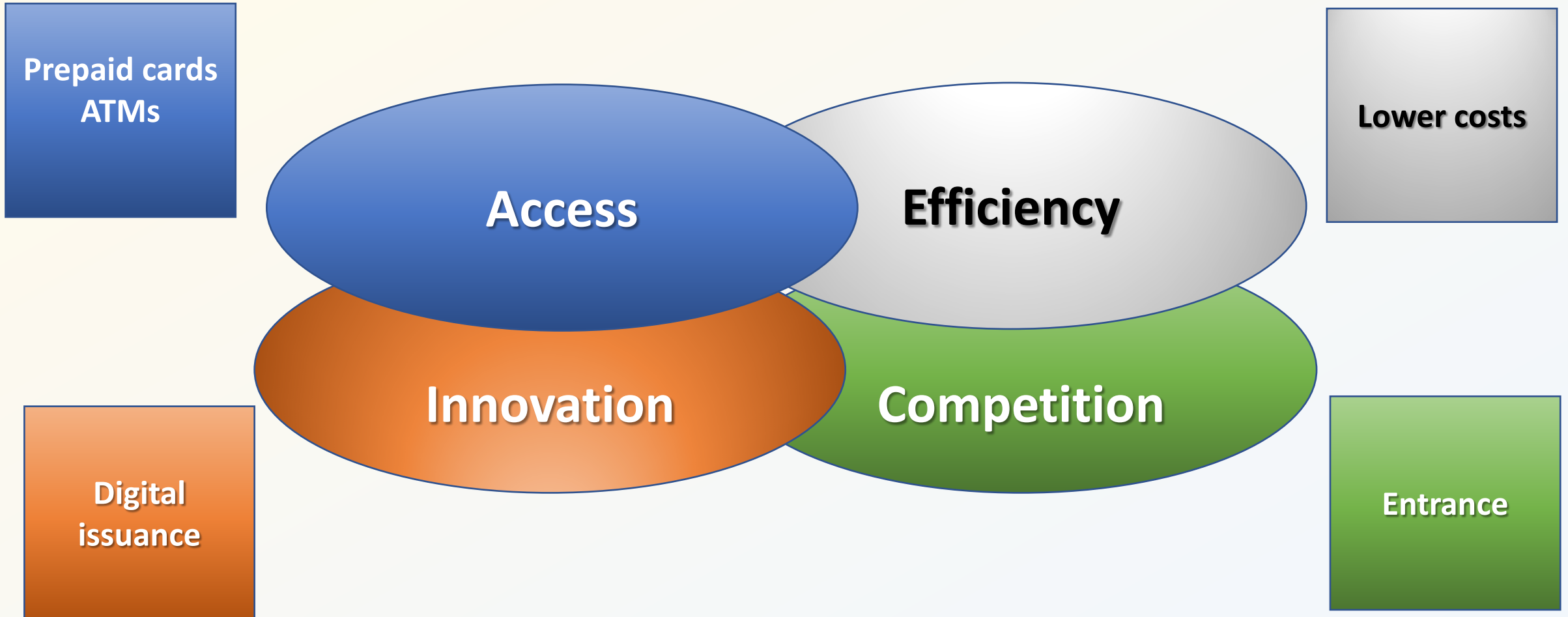
Systemic damage due to interconnections vs size  
(average 13%-14% CAR, 2017.III)





# FinTech challenges and developments

Legal and regulatory improves several dimensions while preserving payment systems continuity

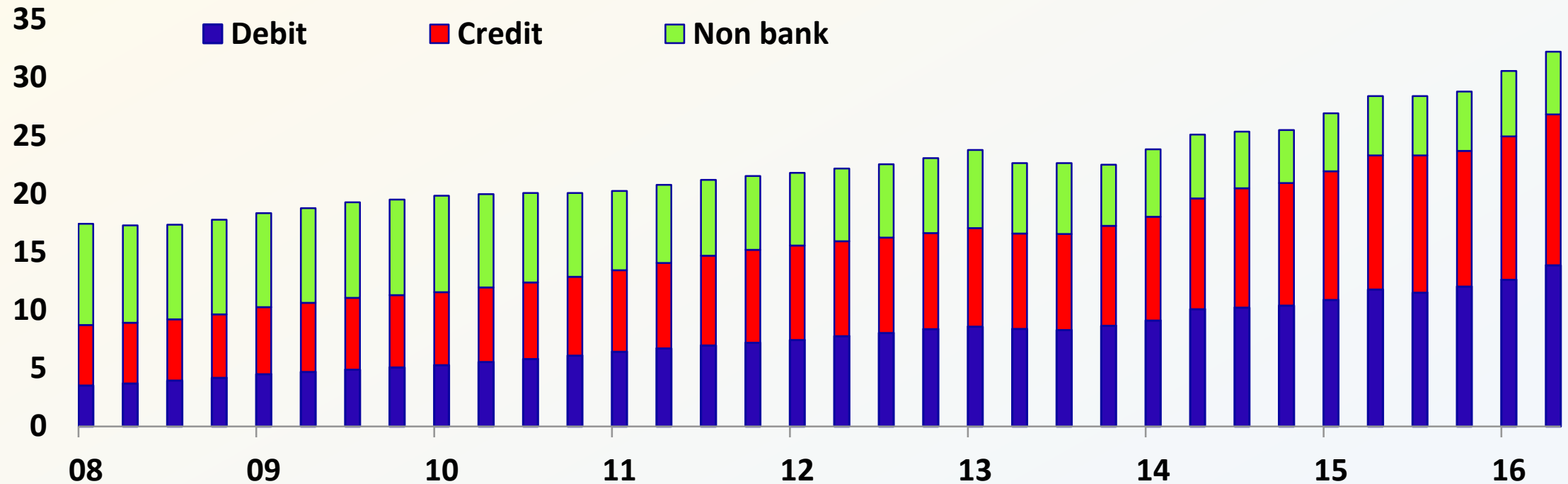




# FinTech challenges and developments

Retail payments in Chile can be improved

**Total spending using cards**  
(percent of households consumption)



Approximately 30% of consumption is paid with electronic means

Source: Central Bank of Chile based on SBIF data.



# FinTech challenges and developments

Recent legal and regulatory changes could allow more people to benefit from electronic payment services

**New regulations to enhance inclusion and competition**

## Central Bank New Regulation

|                                                        |                                                                                                                                                                                                                 |                                                                                                           |                                                                                                             |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Overhauling the whole retail payment regulation</b> | <b>Narrow down the scope of regulated entities dealing with the processing of transactions, reduce capital requirements for new acquirers, and allow for a “four-party model”, which was previously limited</b> | <b>Explicitly consider the possibility of non-physical cards as well as remote purchase and acquiring</b> | <b>Contribute to foster innovation and facilitate the participation of Fintech companies in this market</b> |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|



# Main messages and issues for discussion

- Finance is an essential component of development of market economies
- Yet the speed, shape and depth of financial development may change substantially from one country to another
- Development of particular markets linked to country needs at corporate, social and macro level
- Policy and regulatory decisions face some key dilemmas—inclusion vs risk; competition vs solvency
- Financial education is necessary to solve such dilemmas and foster financial development
- In the meantime, regulations and behavioral economics may need to play a greater role
- International standards may fail to distinguish between deepening and overstretching markets





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