MACROPRUDENTIAL POLICIES, A VIEW FROM CHILE

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Introductory Remarks

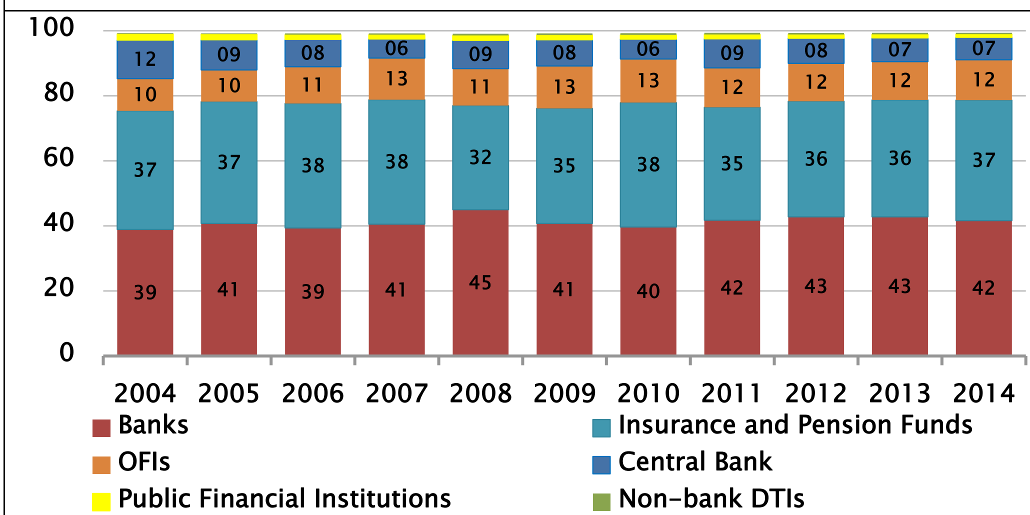
For more than a decade, Chile has not been very active in the use of macro-prudential policies. Indeed, we would like to think that we have been prudent about them. This prudence does not come from a deep conceptual objection to the macro-prudential idea. Instead, it arises from the pragmatism and healthy skepticism we think policymakers should have when facing a new policy regime whose goals and tools have only gradually become clearer. In fact, while after the global financial crisis many countries deployed a large set of macro-prudential policies in different ways and various contexts, we are just now gathering some systematic evidence about their effectiveness and costs. Furthermore, the Chilean financial system did not suffer major disruptions as a result of the global financial crisis. This has given us the possibility to follow the international debate on the use and effectiveness of macro-prudential policies with some distance, and wait for some aspects to settle before deciding if and how to adopt a macro-prudential framework in our country.

In this short note, I will briefly touch on some aspects of our policy framework that have some relation to macro-prudential ideas. First, I will outlay some aspects of banking regulation in Chile and argue that they lead to a financial system, and especially a banking system, that is simple by design, not by chance. Second, I will discuss the role of signaling by the central bank as a macro-prudential tool. Finally, I will touch on the reasons for Chile's abandonment of capital account management measures a long time ago.

The Chilean Banking System: Simplicity by Design

The Chilean financial system is mainly bank-dominated. This is clear in Figure 1, which shows the share of total financial assets captured by different types of financial institutions. The figure shows that banks' assets are about 40% of total financial assets. Another 40% corresponds to institutional investors (insurance companies and pension funds). Other financial intermediaries, the broadest measure of "shadow banking" considered by the FSB, represent only 12% of TFA, which corresponds mainly to money-market and medium- and long-term mutual funds.

Figure 1. Share of Total Financial Assets of Financial Institutions (%, end 2014)



Central Bank of Chile, SVS, SBIF, and SP.

Our current banking law was drafted following our 1982 banking crisis, which was very deep and costly. Not surprisingly, the resulting law is very conservative. For instance, the law clearly defines the activities that banks are allowed to conduct (Table1). For instance, banks cannot trade stocks or commodities and they can participate in a limited set of derivative contracts—defined by the Central Bank of Chile. The set of derivatives included are mainly plain vanilla currency and interest rate derivatives (e.g. forwards and swaps). Overall, the set of activities allowed by law is relatively narrow compared with other jurisdictions.

Table 1

Allowed operations for banks in Chile (LGB)
Taking deposits, offering current accounts, making transfers and payments
Issuing senior bonds, mortgage linked bonds, guaranteed and unguaranteed loans
Issuing letters of credit, payment orders and guarantees of deposits
Issuing and trading commercial paper
Trading derivatives according to Central Bank regulations, and engaging in exchange rate operations
Offering services of securities custody
Issuing and operating credit cards
Acting as investment agent and stock underwriter
Buying, keeping and selling securities and other assets in order to provide banking services;
Establishing on-shore subsidiaries and acquiring ownership stakes in foreign firms
Subsidiaries in Chile are allowed to act as securities agents; broker dealers; Mutual or investment funds administrators; and insurance broker.
Subsidiaries are not allowed to buy shares unless it is stricly necessary for its functions (parent banks are not allowed to buy or hold shares)

Solvency requirements in our banking law are anchored in Basel I. They do not allow for an internal rating based system, and have a set of standard credit risk-weights that are defined by law. In general terms, they are on the conservative side of the ranges suggested in Basel II (Table 2), although it should be noted that our law only considers capital charges for credit risk and does not add market and operational risk to the calculation. The composition of banks' capital is also simple, corresponding mainly to common equity tier-1 and to subordinated debt that constitutes tier-2 capital (Figure 2). While this framework should be updated to converge to the current standards on solvency requirements established by Basel III, it is worth noting that these new standards also aim to simplify banks' activities and credit risk management.

Table 2

Risk weights in the standard Basel II model and in Chile (General Banking Law)

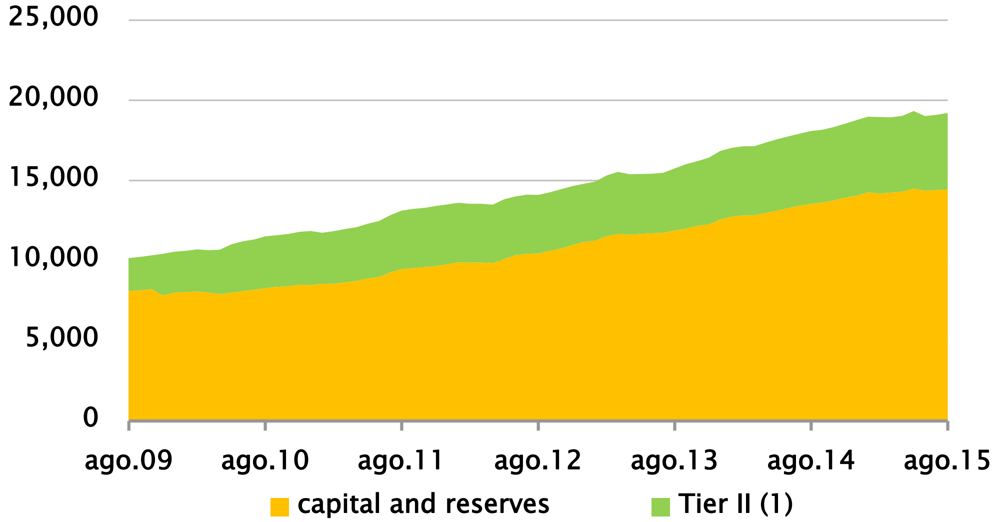
Bank Assets	Basilea II	LGB
Cash	0%	0%
Exposure to sovereign or central bank debt	0-100%	o 100%(2)
Trade credits (1)	0-100%	100%
Commercial mortgages	100%	100%
Multilateral development banks	0%	100%
Banks (1)	20-100%	100%
Consumer	75%	100%
Home mortgages	35% o >	60%
90-day default portfolio (net of provisions) (1)	100%	100%
90-day default portfolio (net of provisions), mortgages	50-100%	100%

(1) A weight of over 150% could be applied to: sovereign, state-owned or bank debt or corporate securities rated lower than B–; commercial credit rated lower than BB–; and mortgage loans in default with provisions of less than 20% of the debt.

(2) Sovereign or Central Bank of Chile debt: 10%; remainder: 100%.

Source: Central Bank of Chile, based on BIS and SBIF data.

Figure 2: Level and Composition of Bank's Capital in Chile (million US$)



(1) Includes subordinated bonds, additional provisions, etc.

Source: Central Bank of Chile

As a result of this framework, the balance sheets of Chilean banks are relatively simple. Assets are heavily dominated by loans, mainly commercial ones (representing about 60% of the loan portfolio), and deposits are by far the main source of financing.

In sum, a quick look at our financial system shows a simple one, but this is not coincidence or lack of development. In fact, Chile's ratio of bank assets to GDP, at 96%, is similar to that of the US, and the ratio of assets of financial institutions to GDP, at 230%, is comparable to several developed countries.[1] The simplicity of our system is largely by design. Chile has been cautious in determining the type of risks and activities that banks can engage in, as well as what constitutes capital, and this has helped to increase its resilience. Of course, this conservatism has costs, but this is a policy choice that was largely motivated by the conditions under which it was taken, with our country coming out of a very large crisis, and capturing the lessons learned in that episode. We think it is crucial to maintain this resilience, especially through the preservation of adequate levels of capitalization.

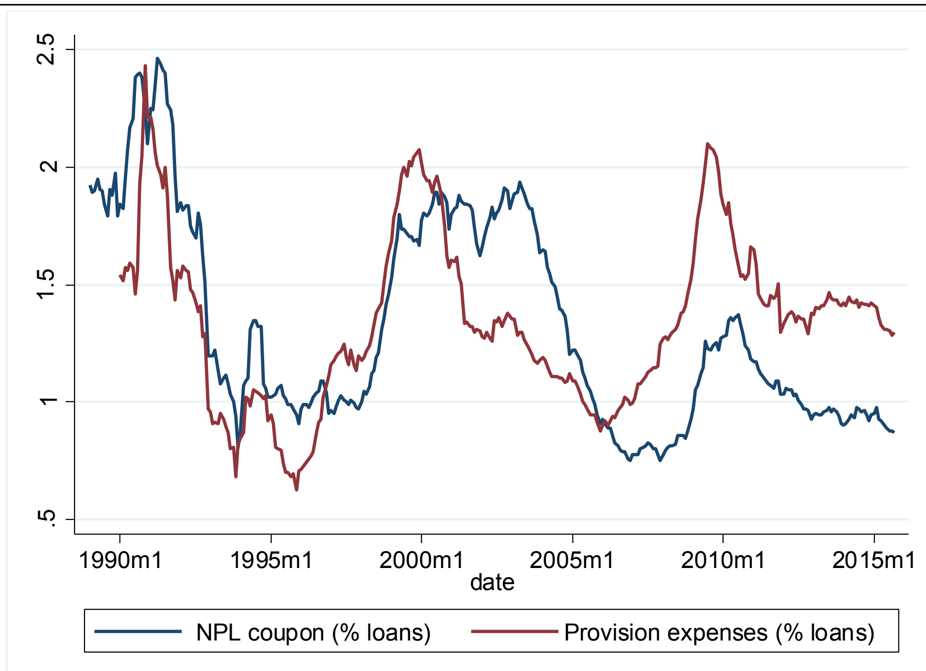
On top of the simplicity of banking activities, our regulation also includes some macro-prudential features aimed to limit complexity and interconnections. For instance, for a long time it has included limits to counterparty exposure for banks that limits a bank's maximum loan to a single counterparty (10% of total capital for an unguaranteed loan). These limits are stricter for related counterparties. There are also limits to interbank loans that constrain the exposition to a single counterparty and to the system. Large banks resulting from mergers of existing banks are subject to higher capital requirements, an early form of capturing the idea that large banks pose a systemic risk.

[1] Working Group on Shadow Banking of the Regional Consultative Group for the Americas. Second Report. October 2015.

We have also had for quite some time limits to maximum loan-to-value ratios for mortgages that can be securitized by banks, and we are in the process of implementing new provisioning rules for mortgage lending that apply to loans that are held in the lending book of banks. These new rules relate a bank's provisions with the loan-to-value and non-payment of the loan portfolio. They do not prohibit high LTV origination, but impose larger provisions for those credits, especially if they become late or delinquent. These restrictions are similar to restrictions imposed in other jurisdictions based on macro-prudential concerns, but we do not really think of them as macro-prudential since they do not change in the cycle and apply to individual institutions based on their specific lending portfolios. Nonetheless, they are more likely to be binding during periods of fast expansion of mortgage credit.

Our financial regulation does not explicitly include time-varying measures aimed to tame credit cyclicality. However, the rules issued by their superintendency of banks require provision expenses to be forward-looking. Thus, banks are supposed to evaluate risk prospectively and consider, for instance, the exchange rate risk faced by their borrowers in their lending decisions. Furthermore, the regulation explicitly asks banks to consider the state of the business cycle when establishing extraordinary provisions (although few banks constitute this type of provisions). While it is hard to know how prospective banks are in their provision expenses, they seem to anticipate the deterioration of the loan portfolio to some degree (Figure 3).

Figure 3. Provision Expenses and NPL coupons (% of loans)



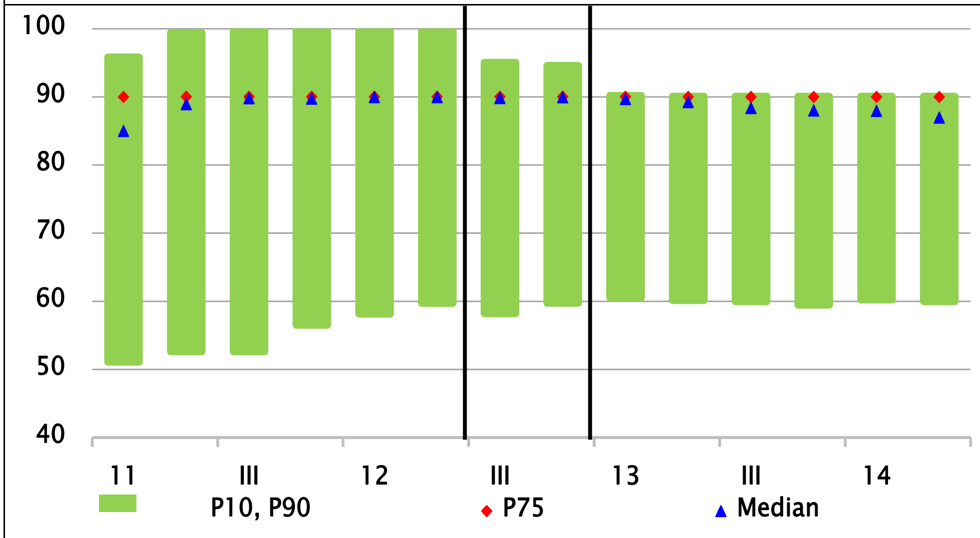
Signaling by the Central Bank as a Macro-prudential Policy

As many other central banks in the world, the Central Bank of Chile conducts regular surveillance of the estate of our financial system and the risks it faces, and communicates its view on these issues through its semi-annual financial stability report. This report, which has been produced for eleven years now, is broadly shared with supervisors and market participants. The central bank interacts with financial supervisors during the elaboration of the report, and widely disseminates its main conclusions after its release to place them into the public debate.

Through this process, the central bank has occasionally issued warnings and expressed concern about specific developments in some markets. For instance, during 2012 the central bank had some concerns about the dynamics observed in mortgage markets, where prices were growing fast and, most importantly, lending conditions seemed especially favorable for borrowers, with LTV ratios close to 100% being common. These concerns were transmitted to the public in two issues of the financial stability report. The message seemed to have had some impact, because shortly after those messages, loan-to-value ratios in Chile experienced a gradual but clear decline (Figure 4). In fact, the data shows a clear decline in the fraction of loans originated at very high LTVs. Notably, this took place before any actual measure to limit LTVs was taken.[2] Thus, this episode suggests that the messages of a central bank that credibly monitors financial conditions can have some impact on markets in a manner akin to the signaling channel of monetary policy.

[2] As mentioned above, new regulation on this issue started taking place on January 1st, 2016.

Figure 4: Evolution of the Distribution of Loan to Value Ratios in Chile



(*) The vertical dashed line indicates the central bank warnings about possible risks associated with the dynamics of the housing market.

Source: Central Bank of Chile, based on data of SII.

Why did Chile Abandon Capital Account Management?

During the 1990s, Chile had a system of reserve requirements for certain forms of foreign credit, which came to be known as the Chilean *encaje,* after its name in Spanish.

The Chilean macroeconomic context when this measure was implemented was very different from now. Chile was in the process of converging to a full inflation-targeting regime, and still maintained an exchange rate band that was being gradually widened. Many also had the perception that Chilean firms had significant dollar liabilities. In this context, the *encaje* was seen as necessary to orderly advance in the liberalization process while maintaining as much flexibility as the macro conditions allowed. Later on, in the late 1990s and early 2000s, Chile ended the convergence to our current macro framework based on inflation targeting, exchange rate flexibility, capital account openness, and fiscal discipline.

The effectiveness of the system of capital controls in place during the 1990s has been widely analyzed.[3] The evidence gathered does not lend much support to its ability to tame capital inflows or exchange rate appreciations. There is some consensus that it may have changed the maturity composition of capital flows towards the long term, which is good from a financial stability perspective. But even that evidence faces some criticisms, because the decline in short term portfolio flows seemed to have been accompanied by an increase in non-taxed short-term trade credit, which could indicate a substitution from taxed flows to non-taxed flows.

Overall, our experience indicates that capital account measures may be marginally useful as “sand in the wheels” of capital flows. They may play a role distorting the flows and temporarily reducing their ability of coming into a country. But existing quantitative estimates suggest that quantitatively large taxes for long periods are needed to significantly slow down the wheels of capital inflows. The economic cost of those large taxes should not be disregarded, as well as the political difficulty of their implementation.

Final Remarks

[3] For a good summary of the evidence, see Cowan K. and J. De Gregorio (2007), *International Borrowing, Capital Controls, and the Exchange Rate: Lessons from Chile*, in Capital Controls and Capital Flows in Emerging Economies: Policies, Practices and Consequences. Edited by Sebastian Edwards. University of Chicago Press.

The Chilean financial system was not significantly affected by the global financial crisis, and policy makers have not been active in the use of macro-prudential policies, taking instead a prudent and pragmatic approach to their eventual incorporation to our policy framework. Nonetheless, the Chilean regulatory framework, prevailing since before the crisis, was built around the principle of limiting the complexity of the financial system and the interconnections between their participants, which are nowadays part of the macroprudential agenda.

Central banks and other authorities can also contribute to taming systemic risk through their analysis and communication with markets, leveraging their credibility to induce behavior.

Finally, while many countries actively used capital account management measures to tame capital inflows and exchange rate appreciation a few years ago when global liquidity was abundant, our experience with these measures, and the evidence we have gathered, suggests that their effectiveness is limited and may instead worsen problems if seen as part of a macroeconomic framework where exchange rate risk is managed and controlled.