

# Macroprudential policy framework, implementation and relationships with other policies

Central Bank of Argentina

## Abstract

Sources of systemic financial risk change across countries and over time. Multiple features need to be considered when making macroprudential policy choices, such as the depth of the financial system, the institutional background, the existing governance framework, and the links between macroprudential, monetary and capital flow policies. Such policy choices should be flexible enough to suit such heterogeneity, especially in emerging market economies.

The case of Argentina, as presented in this note, provides an example of a policy framework in which specific circumstances have strongly influenced the cost/benefit analysis of policy, and the timing and sequence of reforms.

Against this backdrop, international standard setters play an important role in promoting a better understanding of macroprudential policy issues as well as of the type of analysis that should guide policy choices prior to standardising a specific macroprudential policy toolkit.

Keywords: macroprudential policy, systemic risks, policy interaction, financial deepening

JEL classification: E44, E58, F42, G28

## Introduction

Argentina provides an interesting example of a jurisdiction where the application of international standards and rules has been complemented by other policy elements. An all-encompassing approach that considers all systemic financial risks was adopted against a backdrop of structural reform and renewed growth. Moreover, the effective implementation of institutional changes has taken into account their potential impact on the reputation of the Central Bank of Argentina (BCRA).

While traditional measures of systemic risk rank the domestic banking sector favourably, financial institutions are not free from vulnerabilities. At present, one of the most significant sources of risk to banks' financial health is the possibility that the current context of disinflation (a result of the BCRA's monetary policy) has an impact on their levels of profitability and solvency. In this framework, financial institutions face a major challenge in terms of adapting their business models and achieving a greater scale. The BCRA is implementing measures aimed at promoting the proper functioning of the financial system under the new macroeconomic scenario.

## Risk assessment of the local financial system

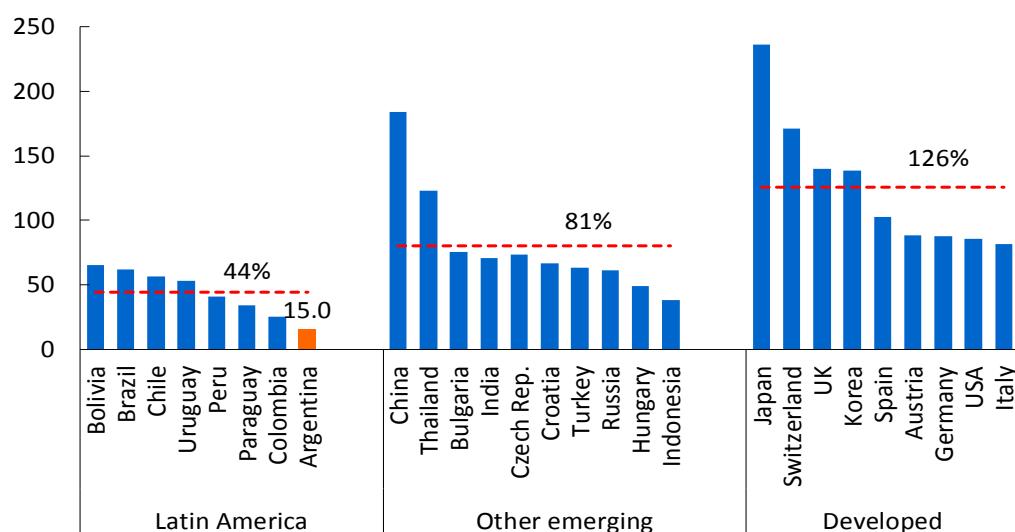
The traditional analytical framework pertaining to systemic risk raises little concern when applied to Argentina's financial system. To begin with, the financial system is small compared with that of other economies. Total private sector deposits are only 15% of GDP, compared with 57% in Chile, 62% in Brazil, 140% in the United Kingdom and 236% in Japan (Graph 1).

### Private sector deposits

As a percentage of GDP

Graph 1

%



Note: As of 2015 (except Argentina (as of September 2016)).

Source: IMF, International Financial Statistics (IFS); BCRA.

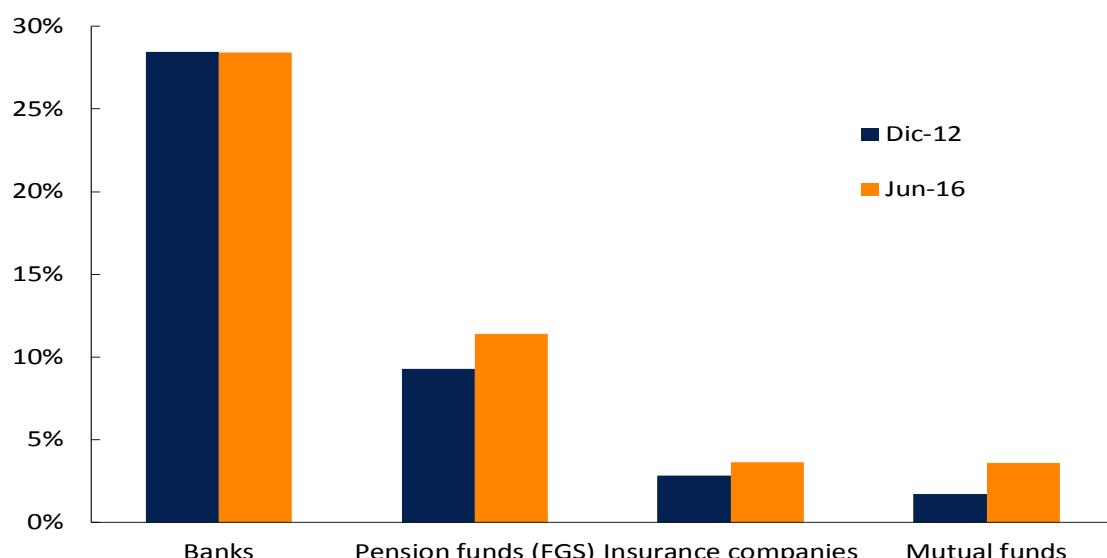
The financial system is also heavily bank-based. Deposit-taking institutions' assets account for 28% of GDP, followed by those of pension funds, at 11%, and those of insurance companies and mutual funds, at less than 5%. These major financial intermediaries comprise jointly about 50% of GDP (Graph 2).

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### Argentine financial system – asset ownership structure

Assets as a percentage of GDP – 2016

Graph 2



Source: BCRA based on ANSES-FGS, SSN and CAFCI.

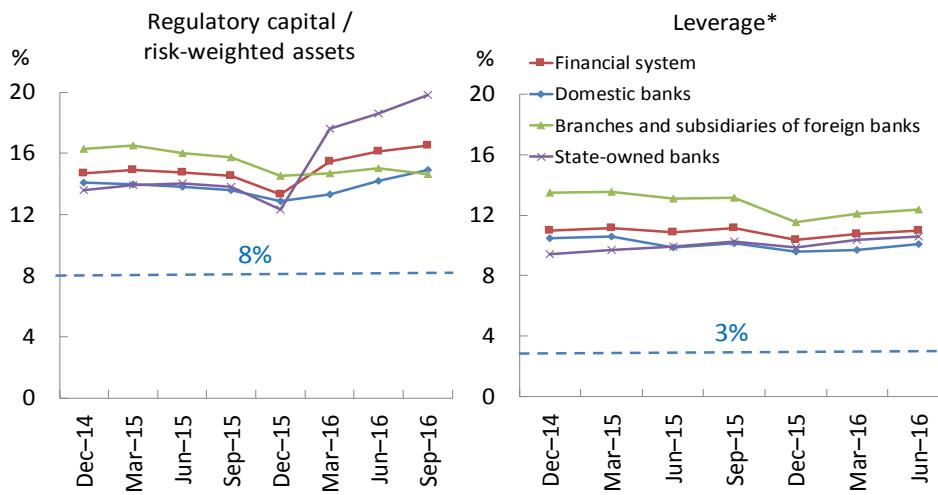
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Banks and other regulated financial institutions concentrate their business on non-complex products (such as deposits and plain loans) and transactional operations. Deposits represent around 74% of assets, while wholesale funding and foreign credit lines are of little significance. Around 50% of deposits are sight deposits derived from households' transactional needs and corporations' operational needs. As a result, while their residual maturity is extremely short, their effective term is somewhat longer. In fact, they constitute one of the most stable sources of funding. To illustrate the point, the residual maturity of 80% of banks' funding sources is less than one month and the residual maturity of assets is also quite low. Maturity transformation is virtually absent.

Liquidity and solvency indicators for the banking system are strong. In September 2016, regulatory capital amounted to 16.5% of risk-weighted assets (RWAs), considerably above international standards (Graph 4). Of that figure, 15.5% of RWAs corresponded to Core Tier 1 capital. The Basel III leverage ratio (Tier 1 capital relative to total exposures) stood at around 10.8% for the aggregate of banks, significantly above the 3% minimum recommended (initially) at the international level (Graph 3).

## Solvency indicators by type of bank

Graph 3



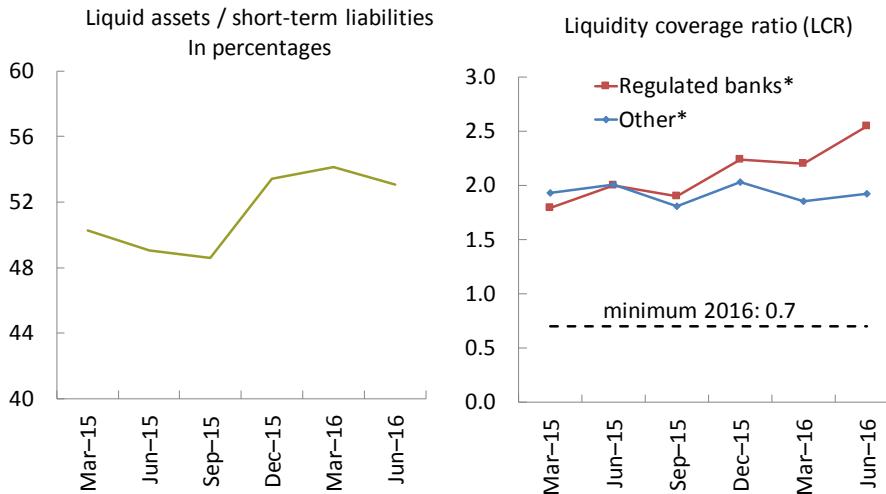
\* As in Basel III, Tier 1 capital / (Total assets + off-balance sheet exposures).

Source: BCRA.

The stock of liquid assets is high and of good quality. It accounted for 47% of deposits in September 2016 and consisted of holdings of BCRA bonds (37%) and cash and cash equivalents in pesos (33%) – mainly deposits at the BCRA – cash and cash equivalents in foreign currency (25%) and reverse repos with the BCRA. The Basel III liquidity coverage ratio (LCR) averaged 250% for institutions required to comply (representing 88% of the banking system in terms of assets), well above the internationally agreed minimum of 70% for 2016 (Graph 4).

## Liquidity risk coverage

Graph 4



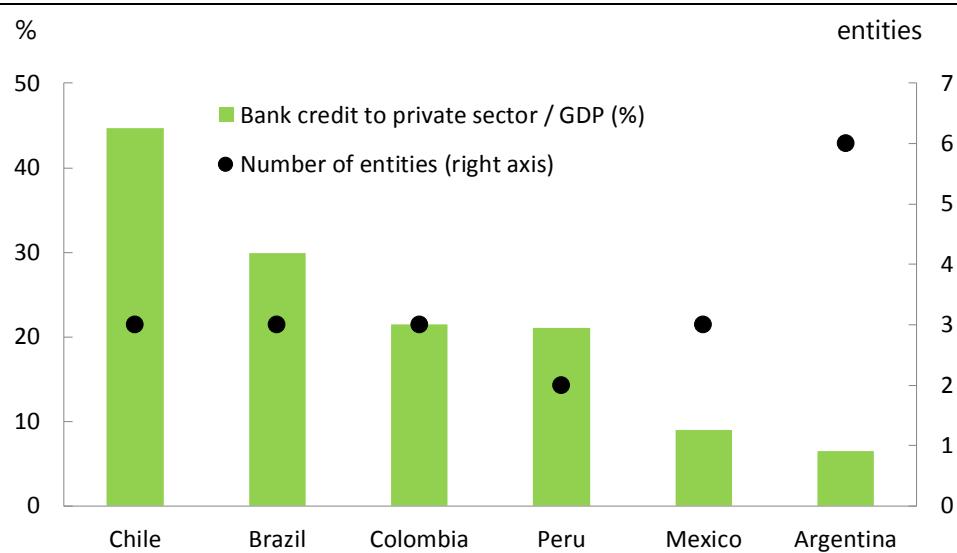
\* Regulated institutions represented 88% of assets as of June 2016.

Source: BCRA.

The degree of concentration in the local banking sector is low. Half of the volume of aggregate credit to the private sector is provided by the six largest banks (accounting for only 7% of GDP). By contrast, in other Latin American economies a smaller number of large banks account for the same volume of aggregate credit. Moreover, this volume is much more relevant in terms of GDP (Graph 5).

Number and relative importance of the largest financial institutions - those explaining half of bank credit to private sector

Graph 5



Note: As of 2016, except Peru (2015).

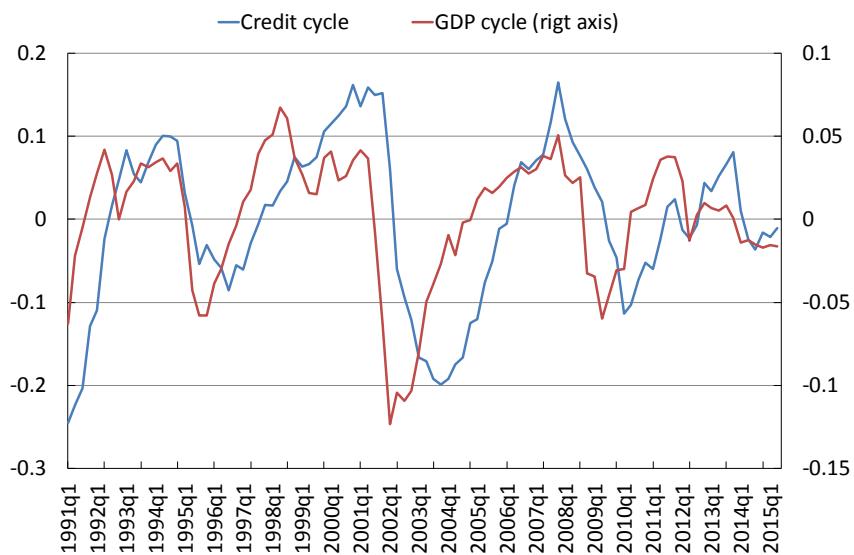
Source: Central Banks and Superintendencies of Financial Institutions.

Cross-border activities remain very limited. Claims on foreign counterparties represent less than 2% of total assets and consist mainly of cash equivalents in correspondent accounts or in foreign branches of local banks. Banks' liabilities to non-residents represent less than 3% of total liabilities and are related mainly with foreign banks' financing and the issuance of bonds in international capital markets.

Turning to cyclicity, by contrast to what is observed in the most advanced economies, the domestic business cycle seems to be synchronised with the financial cycle. Moreover, variations in economic activity seem to lead to variations in credit levels (rather than the other way around), weakening the argument that excessive credit growth is a driver of financial booms and busts (Graph 6).

## Credit and GDP cycles

Graph 6



Note: The graph shows cycles in private sector credit and GDP. The cycle is defined as the difference between the corresponding series (in real terms transformed into logarithms) and its trend. The latter is calculated from the Hodrick and Prescott filter.

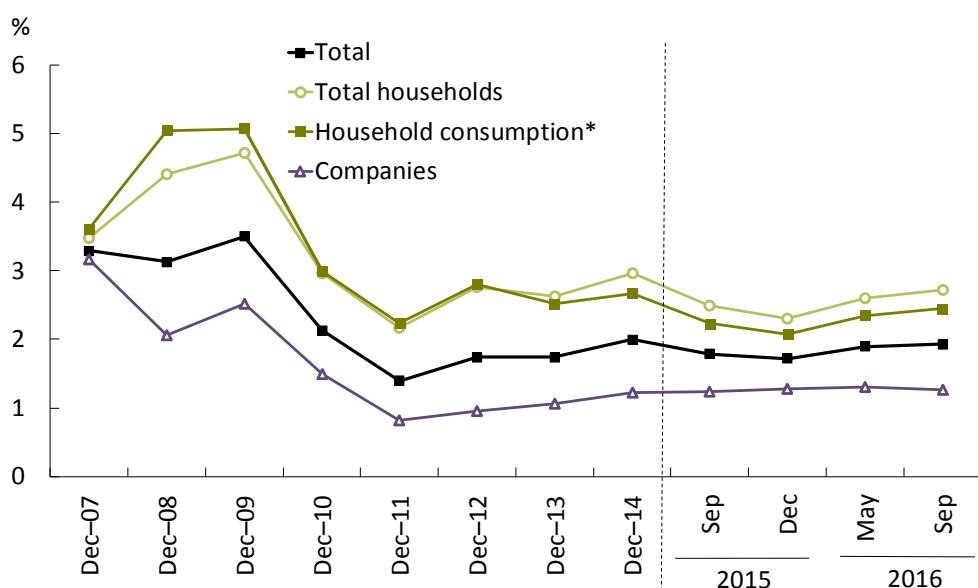
Source: National Institute of Statistics and Census of Argentina (INDEC), BCRA.

Risks related to loan defaults appear limited. The ratio of non-performing credit to total credit is below 2%, which is very low, both historically and internationally (Graph 7). This level has remained low in spite of the country's ongoing recession from mid-2015 and weak labour markets.

## Non-performing credit in the private sector

As a percentage of total credit

Graph 7

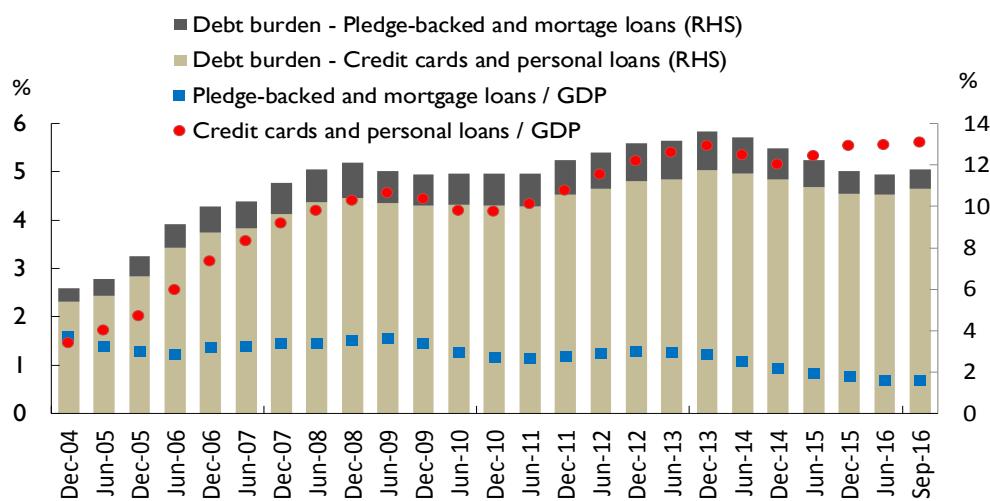


Source: BCRA.

Both the debt service burden of households and corporates in terms of GDP remain contained and low by international standards (Graph 8 and Graph 9).

### Debt and debt financial burden of households\*

Graph 8



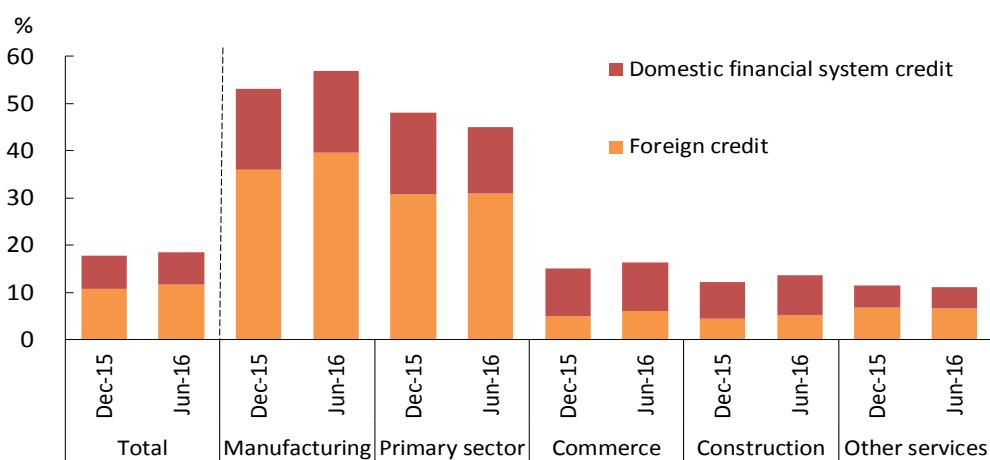
\* Loan payments from regulated financial institutions, securitisations and credit cards/income.

Source: BCRA, INDEC.

### Corporate sector debt

As a percentage of GDP (four-quarter moving average)

Graph 9



Source: BCRA, INDEC.

In order to have a more adequate assessment of the sources of vulnerabilities in the local financial system, the previous approach –based on indicators related to exposures and risk hedging– needs to be complemented by a slightly more forward-looking analysis. In particular, in the current context of disinflation, banks have begun to experience downward pressure on profitability, as exceptional profits stemming from the high inflation environment have begun to dissipate. Indeed, the progressive success in tackling inflation has revealed structural weaknesses in profitability and operating efficiencies. The aggregate financial margin –though increasing from 11.8% of assets in 2015 to 12.1% in Q1 2016 – has since declined. It stood at 12.0%, 11.2% and 10.6% in the second, third and fourth quarters of 2016, respectively (annualised figures; estimate for the fourth). High financial margins have been the result of high nominal rates charged on loans (in the context of annual inflation rates between 20% and 40% in the last few years), whereas these loans have been largely funded with sight deposits (funds with relatively very low financial cost). Moreover, the high inflation environment has affected not only interest margins but also other sources of income (Table 1 shows an international comparison and Graph 10 highlights a profitability breakdown for the last 10 years).

Indicators of profit and loss

Table 1

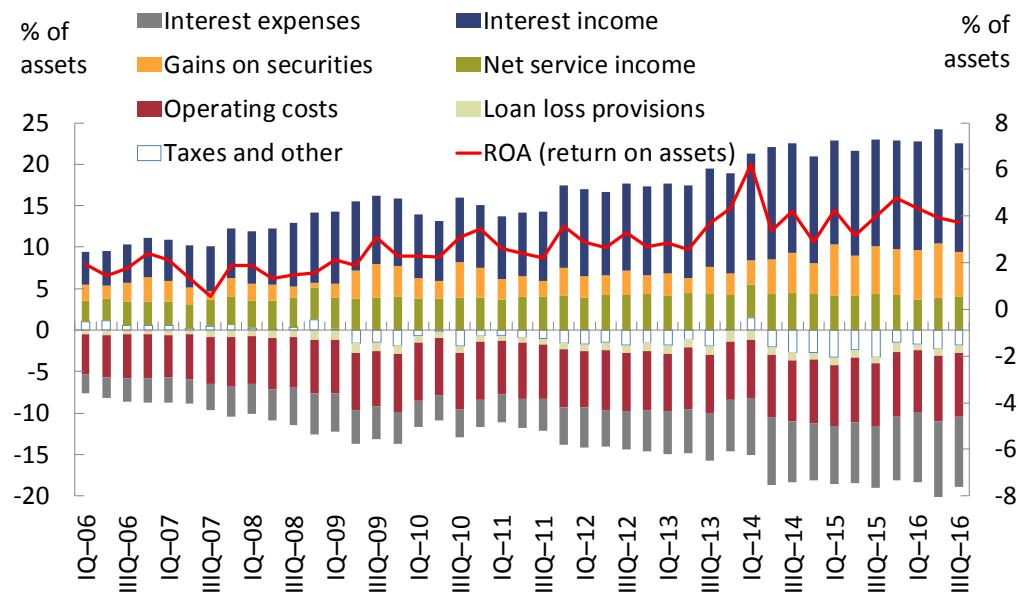
2015	ROA	Net interest income	Loan provisions	Net services income	Operating costs	Taxes and other
% of Assets						
Latam <sup>(1)</sup>	1.4%	4.7%	-1.3%	0.8%	-2.7%	-0.1%
USA	1.0%	2.7%	-0.2%	0.1%	-1.5%	0.0%
Euro zone	0.2%	2.1%	-1.1%	0.5%	-1.0%	-0.2%
Argentina	4.1%	11.8%	-0.9%	4.2%	-7.7%	-3.3%

Note: As of 2015.

Source: Central Banks and Superintendencies of Financial Institutions.

<sup>(1)</sup> Equally weighted average of Chile, Colombia, Mexico, Peru and Uruguay.

While lowering inflation is an overarching macroeconomic goal, the impact that this is having on financial stability needs to be addressed. To that aim, the BCRA is promoting improvements in efficiency through the incorporation of technology, reduced bureaucracy, and improved transparency and competition. The projected expansion of financial intermediation is also expected to help counterbalance the reduction in financial margins by bringing about economies of scale. The BCRA's recent policies have supported financial deepening by generating a context of positive real interest rates, introducing new inflation-indexed instruments (deposits and loans) and implementing other financial development measures.



Source: BCRA.

From an overall perspective, local banks will have to adapt their business models to the significant economic and financial policy reorientation, that has been implemented by the new government since late 2015, and which aims at reversing macroeconomic imbalances, correcting microeconomic distortions and strengthening the institutional framework. Measures introduced include a removal of capital controls and restrictions on foreign currency, a unification and normalisation of the foreign exchange market, a lowering of barriers to trade, and a reduction of the significant uncertainty surrounding fiscal and monetary imbalances (an inflation targeting scheme has been introduced). Argentina has regained access to international financial markets as a result of the settlement of the dispute with the so-called "holdout" creditors (who had rejected renegotiations involving the country's debt in 2005 and 2010). Important relative prices, such as energy prices, have been allowed to move progressively closer to their production costs. Other important planned policy measures are focusing on developing and deepening local capital markets (a capital market amendment bill is under review), including a peso yield curve and reducing local vulnerabilities to external shocks (peso-denominated financial instruments are progressively being introduced).

The complex array of controls –that have been recently lifted—had bedevilled the economy and led to a decade of stagnant factor productivity. This contributed to poor local economic performance, based upon evidence that differences in income per capita across countries can be attributed, to a large extent, to differences in total factor productivity. The financial sector has an important role to play in making improvements in this respect. First, it is crucial to have a dynamic and deeper financial system to channel domestic saving towards investment. Second, this allocation of funds should be efficient in order to improve total factor productivity.

As a result of the above reforms, going forward it will be difficult to distinguish between cyclical and structural credit growth, and of striking a prudent balance

between risk-taking and financial deepening. There are important welfare gains to be obtained from financial deepening –including those resulting from efficiency in investment allocation, risk-sharing and liquidity insurance– and other policies such as tackling disinflation, improving productivity, and sustaining growth and welfare.

In such a context, the following developments are expected to take place domestically:

- Household and corporate debt levels are highly likely to trend upward. Although bank lending will remain the predominant source of financing for a while, capital market activity should increase. So-called “shadow banking” may also expand. The BCRA and other relevant authorities should monitor such trends in financial intermediation, as they have implications for financial stability. They should also ensure that households, corporations and intermediaries remain financially strong.
- Products and operations are likely to become more complex. While hedging contracts should become more widely available, they could also generate new or higher risks that should be monitored.
- Cross-border and foreign currency financial intermediation should increase. Such operations are more sensitive to global liquidity conditions. Risk levels should therefore be monitored on an ongoing basis and policies should be evaluated to reduce this sensitivity.
- Finally, the BCRA’s growing credibility, acquired in the course of consistent monetary policy implementation, should strengthen prospects for financial stability. In this sense, the current administration has launched an inflation targeting regime that is bringing inflation down and building up the BCRA’s reputation and autonomy. Such institutional changes should pave the way towards a more mature macroprudential policy framework.

Additionally, all the macroprudential regulations established in Basel III have already been implemented locally, in some cases with no phase-in period. The BCRA has also had ample experience in using domestically-defined macroprudential tools.

Two examples highlight the local use of macroprudential policies. First, BCRA regulation mandates that banks’ resources in foreign currency can only be applied to the provision of loans in the same currency to individuals whose income is directly or indirectly linked to international trade. This regulation results from one of the lessons of the 2001–2002 crisis, when banks were hit hard by banks clients’ currency mismatches. Second, the BCRA has also ample experience in managing reserve requirements to ease or tighten liquidity following events of financial instability.

Macroprudential regulations already in place include conservation, domestic systemically important banks (D-SIBs) and countercyclical capital buffers; the LCR for large institutions; capital requirements for financial institutions that act as a compensating member of a qualifying central clearing counterparty (QCCP); limits on credit concentration; and loan-to-value limits on residential mortgages as a requirement for the beneficial treatment of RWAs.

## Conclusion

The multifaceted nature of systemic risks and specific circumstances call for a flexible approach, especially in emerging market economies, as Argentina's case shows. While such flexibility is desirable, it could open the door to inaction. Often, corrective actions end up being abandoned because they are costly or do not have popular support.

A strong governance framework can counteract the bias towards inaction. Mechanisms to increase the interaction among macroprudential, microprudential and monetary policy authorities should be developed. In addition, when such authorities are under the same institution, such as in the BCRA's case, it is crucial to manage potentially competing goals through a responsible designation of authority and mechanisms that make such conflicts transparent.

To conclude, although monetary and supervisory authorities have learned much about macroprudential policies, questions remain. To refine our knowledge about the most effective use of these tools and the most beneficial organisational set up, more policy research and discussion is required. In the meantime, international guidelines should remain flexible and focus on the kind of analysis and framework that is needed, rather than on prescribing a fixed set of tools.

