

# Financial Stability Report

May 2019



BANCO CENTRAL  
DE LA REPÚBLICA ARGENTINA

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May 2019

## Foreword

*The purpose of the Central Bank of Argentina (BCRA) “is to promote monetary stability, financial stability, employment and economic development with social equity, to the extent of its powers and within the framework of the policies established by the National Government” (Article 3 of the Charter). In general terms, there are financial stability conditions when the financial system as a whole can provide services for financial intermediation, hedging and payments in an adequate, efficient and ongoing manner, even in adverse operating contexts.*

*For the financial system to contribute to economic development with social equity, financial stability is a priority –by providing adequate means to save, enhancing the possibilities of production and consumption and allocating resources more efficiently–, and the system must be deep and inclusive.*

*In its regular transactions, the financial system is exposed to different types of risks that the system needs to manage. The interaction among exogenous risk factors, vulnerability sources and elements of resilience defines a specific level of systemic financial risk. Within the context of such interaction, an eventual materialization of the risk factors will result in some impact on the financial system and on the economy at large.*

*The policies of the BCRA seek to limit systemic risk, preserve stability and promote higher levels of depth and inclusion in the financial system. Thus, the BCRA implements a micro and macroprudential approach tending to limit such vulnerabilities and to enhance the resilience of the system. This includes the continuous monitoring of the financial system’s soundness and the exercise of its powers as regulator, supervisor and liquidity provider of last resort.*

*In this context, the BCRA publishes its Financial Stability Report (IEF) every six months to inform about its assessment of the stability conditions and explain the policy measures implemented to such effect. The IEF is underpinned by the assessment of the domestic and global macroeconomic conditions made in the Monetary Policy Report (IPOM). The Financial Stability Report provides information and analysis to the different agents of the financial system and is designed to be an instrument to encourage public debate on aspects related to financial stability and, especially, on the Central Bank’s actions on such matter.*

*The next issue of the IEF will be published in November 2019.*

*Autonomous City of Buenos Aires, May 15, 2019.*

## Contents

Page. 3 | 1. Executive summary

Page. 5 | 2. Risk factors for the financial system

Page. 9 | 3. Financial system stability analysis

Page. 26 | Exhibit 1 / Financial situation of publicly-traded companies

Page. 30 | Exhibit 2 / Analysis of households' indebtedness based on debtors' database microdata

Page. 32 | Exhibit 3 / Non-bank financing in Argentina

Page. 35 | Abbreviations and acronyms

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# 1. Executive summary

The financial system has continued to exhibit a significant degree of resilience to face a challenging context. Since the publication of the last Financial Stability Report (IEF) in November 2018, the Argentine economy has made progress in its regularization process, with clear improvements in terms of both current account and fiscal situations. However, in recent months, exchange rate volatility and inflation rates have been temporarily higher than expected. In this context, the Central Bank of Argentina (BCRA) decided to reinforce the contractionary bias of its monetary policy, with the conviction that resuming the disinflation path is the best contribution to the expected improvement of the economic activity and the recovery of financial intermediation momentum.

Banks' relative levels of solvency and liquidity have improved in recent months, showing historically sizable margins and keeping limited exposures to risks inherent in their activity, to structural risks as well as to risks related to the financial cycle. Subject to a regulatory framework in line with international standards (Bank for International Settlements –BIS-) and an adequate macro and microprudential monitoring, banks' financial position continue to be sound vis-à-vis the expected evolution of the economy. In turn, the main sources of potential risk that might eventually limit a good performance of the financial system would be contained in the next few months. While sources related to the international context have not changed significantly in aggregate terms since the publication of the last IEF, domestic risk sources intensified on the margin (including the effects on the financial systems of the uncertainty inherent in all electoral processes and the likelihood that the economic recovery may be slower than expected). Given the soundness of the Argentine financial system, the truth is that only extremely adverse deviations might disturb financial stability conditions.

Financial intermediation continued to lose momentum in recent months, mainly due to a decrease in lending. Deposits have exhibited a positive performance in recent months, in line with the borrowing interest rate movements, given the rises in the monetary policy rate, the incentives created by the minimum reserve requirements policy and, more recently, the increasing competition among banks for time deposits in domestic currency. In turn, funding with corporate bonds is relatively limited and the maturities expected for next months are manageable and mainly denominated in domestic currency.

In line with the evolution of the economic activity, the quality of banks' loan portfolio has deteriorated on the margin (largely explained by the evolution of lending to companies), with an increase of the delinquency rate from historically low levels. This trend is likely to continue in the next months because the recovery of the sectors' income would be gradual, added to some lags in credit rating adjustments. It is worth highlighting that non-performance still stands at minimum levels in the UVA-loans segment (which accounted for a large part of the latest financing expansion phase), in line with the good practices applied at the time of credit origination. Another remarkable factor is the persistence of relatively low leveraging at aggregate level and low debt burden of companies and households. In turn, in line with the existing regulation in terms of portfolio provisioning, there is a relatively high level of coverage with provisions for the non-performing portfolio in the financial system. Together with the low gross exposure to credit risk and the abovementioned excess capital compliance, this situation contributes to provide resilience to the ensemble of financial institutions. The

regulatory framework also helps to limit balance sheet currency mismatches of the institutions, as well as of their debtors.

Within the framework of the macroprudential policy approach that has been implemented, the BCRA will keep on following up potential risk sources and the evolution of the financial sector so as to detect any eventual increase of vulnerabilities that may have systemic implications.

## 2. Risk factors for the financial system

The regularization process of the Argentine economy poses challenges in terms of the context where the financial system operates. The analysis of the most relevant exogenous risk factors –given their degree of probability and eventual impact– shows that those associated with the international scenario remained largely unchanged in the aggregate while domestic risk factors kept growing on the margin. Domestic risk factors include the uncertainty inherent in the electoral process and a slower-than-expected recovery of the economy. They may impact on the intermediation process –via a higher volatility of the exchange rate and of domestic interest rates– and on the non-performance of banks’ loan portfolio. The financial system is expected to continue showing a significant resilience on the basis of the solvency and liquidity levels observed (see Chapter 3). The Central Bank of Argentina (BCRA) will continue to monitor these developments so as to mitigate any eventual systemic effect.

### Context

As mentioned in the last [Monetary Policy Report](#), the Argentine economy is undergoing a process devoted to correcting the existing imbalances. A more accelerated convergence towards the primary fiscal balance is taking place, without monetary financing to the Treasury and with regulated utilities prices already largely corrected. In turn, in recent months, the BCRA has given a more contractionary bias to its monetary policy, which will continue throughout 2019.<sup>1</sup> These measures are expected to contribute to the gradual reduction of inflation and, consequently, of interest rates. Achieving greater nominal certainty is one of the BCRA’s main contributions to financial stability and to the fostering of a growth context. A more competitive exchange rate and the reduction of the fiscal deficit are helping to quickly reduce the current account deficit. As a result, the future economic recovery will be underpinned by more sustainable foundations than in the past.

Within this transition context and given the macroprudential approach, the BCRA has been monitoring a series of risk factors that may potentially generate some degree of tension in the Argentine financial system. To this effect, the BCRA has identified some exogenous risk factors that are likely to occur, even though they imply an extremely adverse evolution. If these risk factors held in practice –given the exposures to pre-existing risks– they might put to test the stability of the financial conditions. The rest of this Chapter includes a summary of the main risk factors involved, while Chapter 3 analyzes the level of resilience of the financial system vis-à-vis these potential shocks.

### 2.1 Likelihood of a more adverse international scenario

The likelihood of an external shock continues to be relevant though, in aggregate terms, its probability did not show significant changes since the publication of last issue of the Financial Stability Report (IEF). The main factors that may lead to a deterioration of the international context evidenced a heterogeneous evolution. On the one hand, fears about the deceleration of global growth intensified in recent months. As regards Argentina’s main trading partners, the Brazilian economy has been showing a more favorable evolution so far if compared to that of previous years, even though their growth perspectives have worsened in recent months.<sup>2</sup> On the other

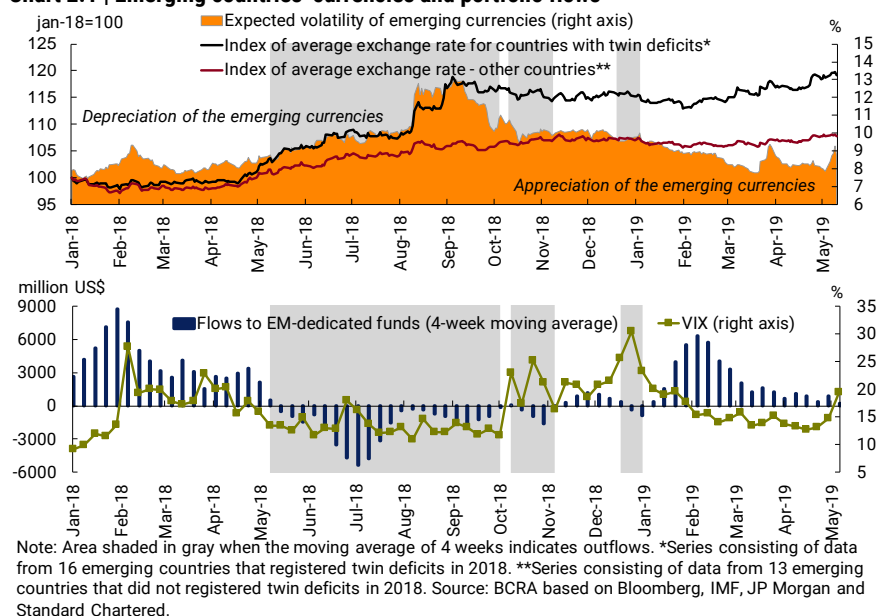
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<sup>1</sup> See [Monetary Policy press releases](#) of March and April.

<sup>2</sup> The negotiation of structural reforms may become a relevant source of uncertainty in the next few months.

hand, the United States and China have intensified their trade dispute with announcements of new protectionist measures in May. The possibility of a disorderly exit of the United Kingdom from the European Union, and the greater uncertainty associated with the economic situation of some countries of the Euro Zone (like Italy), or the materialization of geopolitical conflicts, are still latent. Finally, the possibility of a more aggressive-than-expected tightening of the monetary policy by advanced economies has lost ground.

**Chart 2.1 | Emerging countries' currencies and portfolio flows**



The impact of an eventual unfavorable international context will depend on the factor unleashing this adverse situation. An external shock mainly related to the financial channel, with a growing uncertainty at global level, would initially imply negative portfolio flows for emerging economies and the depreciation of their currencies (as it temporarily occurred until December 2018).<sup>3</sup> In recent episodes of persistent negative portfolio flows and strong pressure on emerging countries' currencies (by the end of the second quarter and during the third quarter of 2018), the exchange rate fluctuations were more marked in economies with more vulnerable macroeconomic fundamentals (see Chart 2.1). In turn, a scenario of greater volatility in the domestic market, impacting on interest rates, may condition banking operations. On the other hand, a shock related to the trade channel would impact more directly on the activity level, with a primary effect on the quality of the financial system's loan portfolio.

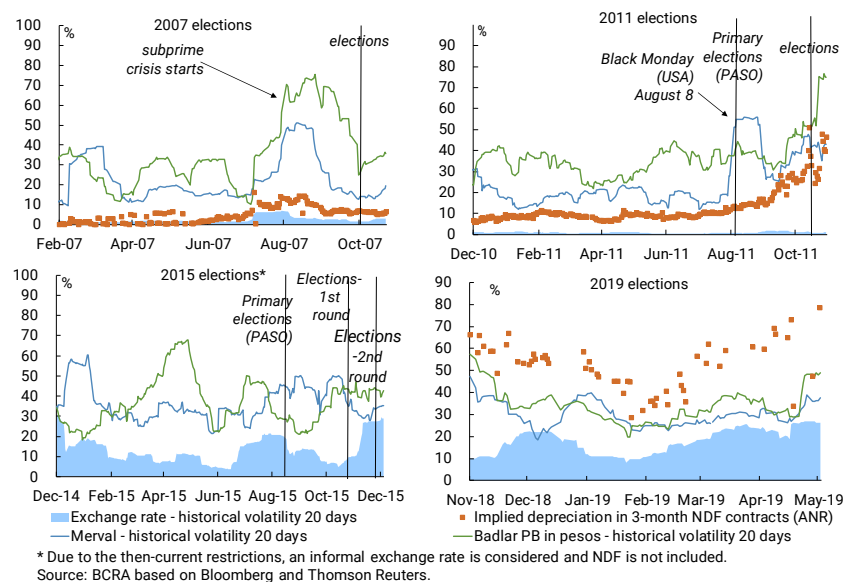
## 2.2 Growing uncertainty about the electoral process impacting on domestic financial markets

The uncertainty generated by the coming electoral process in 2019, as is usually the case, has become evident in recent months (see Chart 2.2). This uncertainty may lead economic players to adjust their portfolios, with an eventual impact on the exchange rate and on domestic interest rates (as it has been observed since late February) and, in more extreme cases, on the evolution of funding of the ensemble of institutions belonging to the financial system.

<sup>3</sup> A new episode of position unwinding in emerging countries' assets and greater volatility of their currencies (related to the growing uncertainty about the US stock markets) took place in December. Nevertheless, it was shorter and less intense than the episodes observed in previous situations.

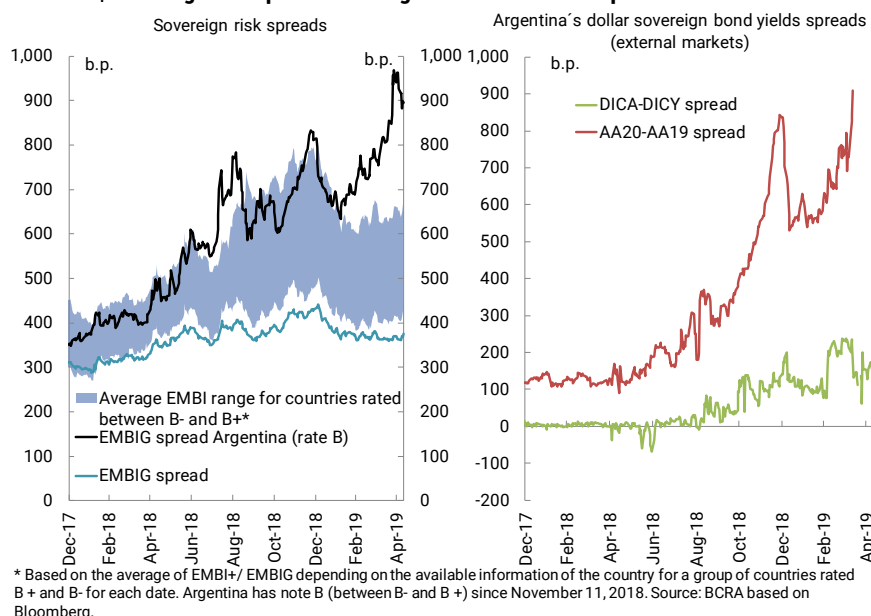


**Chart 2.2 | Elections, historical volatility of market variables and implicit depreciation of Non-Deliverable Forwards Contracts (NDF)**



At present, the inflation rate is higher than expected by the BCRA. Nevertheless, given the monetary policy measures applied and the progress made in the reduction of the fiscal and external imbalances, current expectations signal that the trend towards a more stable currency would be resumed in the following months, even though the disinflation process might not be linear.<sup>4</sup>

**Chart 2.3 | Sovereign risk spreads and Argentine bonds curve spreads**



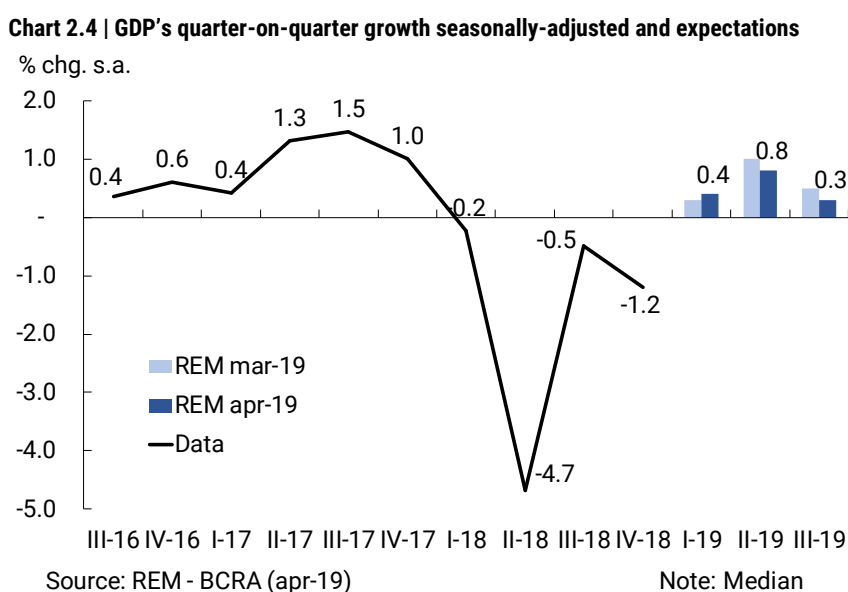
4 Given the response lag of the monetary policy, the inflationary inertia and the effects of the exchange rate increase (as it has been observed since late February).

This greater uncertainty also affects the perceived risk of the sovereign debt in foreign currency, with a more limited direct impact on banks. Even though as a result of the agreement with the IMF the government does not need to resort to international markets until 2020<sup>5</sup>, there was an increase in the overspread required for the trading of Argentine bonds in dollars (the Argentine EMBI spread exceeded 1,000 bp intraday in April). In addition, the yield spread widened among bonds maturing during, or after, 2019 (the yield curve of bonds in dollars shows a negative slope as from 2020) and there was a wider spread among bonds with the same financial conditions subject to international legislation and domestic legislation (see Chart 2.3). In the case of companies, there is a limited amortization of short-term bonds in dollars, with repayments that become more stringent as from 2023 (see Exhibit 1).

### 2.3 Eventually, the economic recovery may be slower than expected

The activity level, which had started a contraction cycle during the third quarter of 2018, exhibited the first signs of recovery by late 2018.<sup>6</sup> During January and February 2019, the Monthly Economic Activity Indicator (EMAE) has shown positive changes in line with the BCRA's GDP Contemporaneous Forecasting (PCP-BCRA), which anticipates that GDP will grow during the first quarter of 2019.

According to the Market Expectations Survey (REM)'s analysts, recovery expectations have shown only marginal adjustments so far, after the latest exchange and financial tensions seen as from late February.<sup>7</sup> In fact, REM's analysts foresee that the cyclical reactivation phase of GDP has started during the first quarter of 2019 (see Chart 2.4). Vis-à-vis this baseline scenario, recovery would be underpinned by the positive contribution of the agricultural and livestock sector and by a gradual recovery of household income. An alternative scenario with a slower-than-expected economic recovery might impact on the quality of banks' loan portfolio. The activity recovery pace would also impact on the evolution of the demand for loans (and, therefore, on the financial intermediation process).



<sup>5</sup> At domestic level, LETES in dollars have been renewed with renewal levels over 60% so far in 2019 (83% on average).

<sup>6</sup> Because of the reduction of the financial uncertainty. The implementation of a set of income policies intended for households highly prone to consumption as well as the reopening of several wage bargaining agreements also contributed positively to the activity level.

<sup>7</sup> The last REM issued corresponds to [April](#).

### 3. Financial system stability analysis

Both solvency and liquidity indicators of the sector improved in recent months and stood at relatively sizable levels, in a context where intermediation of deposits to loans remained weak (deposits exhibited a positive performance, but loans fell in real terms). The quality of the lending portfolio of banks has recently recorded some deterioration, starting from relatively low delinquency levels and in a context of a high level of coverage with provisions. There should be extremely adverse deviations of the main variables for the financial stability conditions to be significantly affected. The degree of resilience shown by the ensemble of financial institutions is underpinned by a micro- and macro-prudential approach in line with international standards.

#### Main strengths

Upon analyzing the main factors impacting on the Argentine financial system stability conditions, it is estimated that the sector exhibits a significant level of resilience to face the challenges mentioned in Chapter 2, and to continue with compliance of duties inherent in such system (see Table 3.1). In line with the analyses developed in [IEF Second Half 2018](#) and in the [Reports on Banks](#) for recent months<sup>8</sup>, in a context of reduced financial depth, low operating complexity of the sector, scarce maturity transformation and low sectoral levels of aggregate leverage, the ensemble of domestic banks show the following features:

**i. Total liquidity at high levels in historical terms**, with a gradual but widespread growth in recent months. There is a broad compliance with liquidity requirements designed and implemented by virtue of international standards, both in terms of the liquidity coverage ratio and the net stable funding ratio.<sup>9</sup> In terms of liquidity risk management tools, the domestic safety net relies on the deposit insurance and the BCRA's role as lender of last resort in domestic currency (liquidity windows).

**ii. Sizable solvency levels**, above the levels recorded at the time of the last issue of the Financial Stability Report (IEF) ([Second Half 2018](#)). Given the nominal profitability of the sector, some new capitalizations in medium-/small-sized entities, and risk-weighted assets (RWA) with a relatively reduced growth, capital compliance rose by 1.3 p.p. since September 2018 up to a level of 15.9% of RWA in March 2019. This trend was specially boosted on the margin by private banks. Against this backdrop, there is significant compliance with additional regulatory capital buffers (both the capital conservation buffer of 2.5% of RWA for all financial institutions –90% of the total in aggregate– and the additional buffer of 1% of RWA for the 5 domestic banks defined as systemically important –100% compliance-). In turn, in terms of the standard recommended by the Basel Committee, the general leverage ratio –for the aggregate financial system– significantly exceeds both the domestic regulatory limit and the values recorded at international level.

**iii. High levels of coverage with provisions of the non-performing portfolio, in a context of a historically low gross exposure to credit risk.** The non-performing loan portfolio is increasing on the margin, in line with the

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<sup>8</sup> See issues of October 2018 to February 2019.

<sup>9</sup> In both cases, only enforceable for the largest banks of the system: Group "A" banks accounting for 88% of total assets of the financial system as of March 2019. Group "A" banks are classified according to Consolidated Text of the BCRA on "[Authorities of Financial Institutions](#)".

performance of economy. That notwithstanding, the system's non-performance ratio is still relatively low if compared to its own historical records and is not significantly far from the average value for the region. Given the provisioning and capital sizable levels, as well as the moderate credit exposure to the private sector, the financial system's solvency level would not be significantly affected upon any extreme increases in non-performance levels. This occurs in a context of domestic macro-prudential regulations restricting balance sheet currency mismatches of both debtors and banks (see Section 3.5). By the end of the first quarter of 2019, the currency mismatch of the financial system's balance sheets continued to be reduced, irrespective of an increase in the weight of instruments in foreign currency both in assets and liabilities of the system's balance sheet.

iv. **Regulatory framework in line with the best international banking standards**, not disregarding the characteristics inherent in a financial system under development, like the Argentine financial system. This is added to an appropriate macro- and micro-prudential monitoring. In this regard, under the Regulatory Consistency Assessment Programme (RCAP) of the Bank for International Settlements (BIS) on domestic application of Basel III standards, in 2016, Argentina obtained the best grade possible ("compliant"). In addition, more recently, in March 2019, the European Commission stated that the [Argentine](#) regulatory framework includes requirements equivalent to those of the European Union in terms of both prudential and supervision frameworks. This type of recognition by the European Commission is reserved for third-party countries with the highest regulatory standards.

**Table 3.1 | Main indicators of soundness of the financial system**

|   | Financial system |        |        | State-owned banks |        |        | Domestic private banks |        |        | Branches and subsidiaries of foreign banks |        |        |
|---|------------------|--------|--------|-------------------|--------|--------|------------------------|--------|--------|--|--------|--------|
|   | Mar-18           | Sep-18 | Mar-19 | Mar-18            | Sep-18 | Mar-19 | Mar-18                 | Sep-18 | Mar-19 | Mar-18                                     | Sep-18 | Mar-19 |
| <b>Liquidity</b>  |                  |        |        |                   |        |        |                        |        |        |  |        |        |
| Liquidity coverage ratio (LCR)  | 1.9              | 2.0    | 2.2    | 1.5               | 1.6    | 1.7    | 2.1                    | 2.1    | 2.6    | 2.7  | 2.3    | 2.9    |
| Net Stable Funding Ratio (1)  | 1.5              | 1.6    | 1.7    | 1.2               | 1.3    | 1.4    | 1.7                    | 1.7    | 2.0    | 1.6  | 1.6    | 1.7    |
| Broad liquidity (%)   |                  |        |        |                   |        |        |                        |        |        |  |        |        |
| In \$   | 43.1             | 48.4   | 60.6   | 40.0              | 40.8   | 43.9   | 46.1                   | 54.6   | 75.8   | 47.4                                       | 59.4   | 74.8   |
| In US\$   | 51.6             | 52.8   | 57.3   | 57.2              | 45.8   | 61.0   | 47.7                   | 60.2   | 55.5   | 49.6                                       | 52.6   | 55.1   |
| <b>Solvency</b>   |                  |        |        |                   |        |        |                        |        |        |  |        |        |
| Regulatory capital / RWA (%)  | 15.6             | 14.6   | 15.9   | 15.5              | 14.0   | 13.9   | 17.3                   | 17.0   | 19.0   | 14.1                                       | 13.2   | 15.3   |
| Regulatory capital Tier 1 / RWA (%)   | 14.0             | 12.6   | 13.9   | 14.5              | 13.0   | 13.0   | 14.9                   | 13.6   | 15.6   | 12.6                                       | 11.4   | 13.6   |
| Leverage ratio (%)  | 10.5             | 8.5    | 8.6    | 8.8               | 7.5    | 7.4    | 13.3                   | 9.5    | 9.3    | 10.4                                       | 8.6    | 8.9    |
| Capital conservation buffer (% verification)                                | 89               | 89     | 90     | 71                | 73     | 72     | 97                     | 99     | 100    | 100  | 98     | 100    |
| Domestic systemically important banks buffers (% verification)              | 100              | 88     | 100    | 100               | 100    | 100    | 100                    | 100    | 100    | 100  | 62     | 100    |
| <b>Profitability</b>  |                  |        |        |                   |        |        |                        |        |        |  |        |        |
| ROE (quarterly %a.)   | 23.6             | 48.6   | 43.2   | 22.6              | 60.2   | 21.3   | 26.7                   | 36.2   | 50.4   | 22.5                                       | 49.7   | 63.9   |
| ROA (quarterly %a.)   | 2.9              | 5.2    | 4.7    | 2.4               | 6.1    | 2.2    | 3.7                    | 4.2    | 5.8    | 2.9  | 5.3    | 7.3    |
| <b>Private sector credit risk</b>   |                  |        |        |                   |        |        |                        |        |        |  |        |        |
| Private sector exposure (%)   | 50.0             | 46.0   | 40.0   | 38.2              | 37.8   | 37.2   | 57.4                   | 51.4   | 39.2   | 58.7                                       | 50.9   | 42.2   |
| Non-performing loan ratio (%)   | 2.0              | 2.3    | 4.0    | 1.6               | 2.0    | 3.8    | 2.1                    | 2.5    | 4.1    | 1.9  | 2.2    | 3.8    |
| Provisions / Non-performing loans (%)                                       | 82               | 79     | 74     | 113               | 97     | 75     | 69                     | 69     | 80     | 76   | 78     | 71     |
| (Non-performing loans - Non-performing loans provisions) / Net worth (%)    | 1.4              | 2.0    | 3.8    | -0.8              | 0.2    | 3.5    | 2.4                    | 3.2    | 2.7    | 1.9  | 2.2    | 4.1    |
| <b>Currency risk</b>  |                  |        |        |                   |        |        |                        |        |        |  |        |        |
| (Assets - Liabilities + Net undelivered purchases) / Regulatory capital (%) | 9.5              | 17.5   | 10.2   | 28.1              | 36.3   | 33.6   | -0.2                   | 2.1    | 2.3    | -0.6                                       | 12.2   | -3.2   |
| Dollarization of private sector deposits (%)                                | 26               | 39     | 37     | 18                | 28     | 27     | 25                     | 39     | 35     | 35   | 48     | 48     |
| Dollarization of private sector loans (%)                                   | 18               | 29     | 30     | 14                | 24     | 22     | 19                     | 30     | 32     | 23   | 35     | 38     |

(1) December 2018 last available data

RWA: Risk weight assets

Source: BCRA

The relative soundness of banks occurs in a context where the BCRA kept on intensifying the policies aimed at anchoring expectations. The BCRA's constant efforts concerning monetary policy for the purpose of reducing inflation and excessive volatility of the exchange rate (which is currently mirrored in the funding costs of the system) represent the best contribution by this Institution to the sustained recovery of the economic activity level and the intermediation process from deposits to loans in the medium term.

The following Sections of this Chapter include an assessment –with identification of changes as from the previous IEF– of both the most relevant aspects for the analysis of the sources of vulnerability for the financial system, and the specific resilience elements in the hypothetical case of materialization of the risk factors stated in Chapter 2. The last Section mentions the most relevant macro-prudential measures in effect and the changes implemented most recently.

### 3.1 Financial intermediation

The weak economic activity, together with higher-than-expected inflation levels, continued to limit banking intermediation (between deposits and loans to the private sector), in line with data recorded in the previous IEF ([Second Half 2018](#)). The eventual materialization of a more adverse-than-expected domestic economic scenario, added to a financial intermediation activity failing to resume the growth path in the short term, might affect the profitability of the sector.

In early 2019, as recorded since the second half of 2018, the stock of loans in pesos to the private sector continued to go down in real terms.<sup>10</sup> This was reflected in a drop of the share of these loans in the financial system's total assets (-4.3 p.p. in the last 6 months) (see Table 3.2), as well as in relation to the GDP of the economy. In this sense, bank lending in pesos went from 11% of GDP in September 2018 to 9.1% at the end of the first quarter of 2019. If taking into account loans in foreign currency, the credit-to-GDP ratio reached 12.8% in the first quarter, 2.2 p.p. below the value recorded in September last year.

With respect to structure of the financial system funding, as from the last quarter of 2018, the growth of time deposits in pesos of the private sector accelerated. This trend reflects mainly the impact of the measures adopted by the BCRA with respect to monetary policy interest rates and changes in minimum reserve requirements for banks<sup>11</sup>, thus improving the transmission channel between the monetary policy interest rate and borrowing interest rates of the economy. More recently, some measures were implemented to encourage competition in the market of time deposits in pesos.<sup>12</sup> The share of time deposits increased in total liabilities of the system in the last 6 months (up 4 p.p. to 20% of total funding). In turn, the weight of sight deposits of the private sector went down slightly against the levels recorded when the previous IEF was published (up to 17% of funding).

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10 For further detail, see IEF [Second Half of 2018](#) and the editions from October 2018 to February 2019 of the [Report on Banks](#).

11 This was supplemented by the funds from full unwinding of the stock of LEBACs during the second half of 2018.

12 In early April, the BCRA authorized users to make online time deposits in institutions where they do not have a sight account. Thus, users may compare the interest rates offered by different banks and choose the most convenient option, which encourages competition among financial institutions.

**Table 3.2 | Balance Sheet – Financial system**

|                                 | In % of netted assets |           |           | Variation in p.p. |                   |
|---------------------------------|-----------------------|-----------|-----------|-------------------|-------------------|
|                                 | Mar-18                | Sep-18    | Mar-19    | mar-19 vs. sep-18 | mar-19 vs. mar-18 |
| <b>Netted assets</b>            |                       |           |           |                   |                   |
| Liquid assets                   | 17                    | 24        | 26        | 1.1               | 8.3               |
| In pesos                        | 9                     | 12        | 11        | -0.6              | 2.1               |
| In foreign currency             | 8                     | 13        | 15        | 1.7               | 6.2               |
| BCRA repos, LEBAC and LELIQ     | 14                    | 9         | 16        | 6.2               | 1.3               |
| LELIQ                           | 3                     | 8         | 15        | 7.4               | 12.4              |
| LEBAC                           | 11                    | 1         | 0         | -1.0              | -10.6             |
| Loans to public sector*         | 10                    | 11        | 10        | -1.2              | -0.1              |
| Loans to private sector         | 48                    | 45        | 40        | -5.3              | -8.8              |
| Loans in \$ to private sector   | 40                    | 32        | 28        | -4.3              | -12.0             |
| Loans in US\$ to private sector | 9                     | 13        | 12        | -1.0              | 3.2               |
| Other assets                    | 10                    | 10        | 9         | -0.8              | -0.6              |
| <b>Netted liabilities</b>       |                       |           |           |                   |                   |
| Public sector deposits          | 18                    | 18        | 13        | -4.1              | -4.2              |
| Private sector deposits         | 54                    | 55        | 59        | 3.7               | 4.5               |
| In pesos                        | 40                    | 34        | 37        | 3.5               | -3.1              |
| Sight deposits                  | 21                    | 18        | 17        | -0.5              | -4.2              |
| Time deposits                   | 18                    | 15        | 20        | 4.0               | 1.3               |
| In foreign currency             | 14                    | 21        | 22        | 0.3               | 7.6               |
| CB, SD and foreign credit lines | 5                     | 6         | 5         | -0.3              | 0.4               |
| Other liabilities               | 10                    | 11        | 11        | 0.4               | 0.9               |
| <b>Net worth</b>                | <b>13</b>             | <b>11</b> | <b>11</b> | <b>0.3</b>        | <b>-1.5</b>       |

\* Includes National Treasury Bond admissible for minimum cash integration.

Source: BCRA

The relative evolution of loans against deposits –both in pesos to the private sector– caused that the relationship between them is currently at the lowest level recorded in the last 10 years for the aggregate of the financial system (a level of 75%), with a sharp decrease in recent months. On the other hand, the share of liquid assets in its broadest definition (liquid assets plus instruments of the BCRA) continued to grow.

**Table 3.3 | Financial system profitability**

| Annualized (a.) - In %a. of netted assets | Annual      |             |             |             | Quarterly   |             |             |             |             |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|   | 2015        | 2016        | 2017        | 2018        | IQ-18       | IIQ-18      | IIIQ-18     | IVQ-18      | IQ-19       |
| <b>Financial margin</b>                   | <b>11.8</b> | <b>11.4</b> | <b>10.1</b> | <b>10.8</b> | <b>10.3</b> | <b>10.9</b> | <b>11.4</b> | <b>10.6</b> | <b>11.7</b> |
| Interest income                           | 12.6        | 12.5        | 10.5        | 11.2        | 10.5        | 10.8        | 11.1        | 11.9        | 11.0        |
| CER and CVS adjustments                   | 0.2         | 0.3         | 0.3         | 1.5         | 0.7         | 1.0         | 1.4         | 2.3         | 1.5         |
| Foreign exchange price adjustments        | 0.8         | 1.0         | 0.8         | 0.9         | 0.7         | 1.3         | 0.7         | 1.0         | 0.6         |
| Gains on securities                       | 5.6         | 5.5         | 3.8         | 7.3         | 4.6         | 5.3         | 7.3         | 10.8        | 11.9        |
| Returns on repo                           | 0.1         | 0.2         | 0.5         | 0.2         | 0.5         | 0.2         | 0.1         | 0.1         | 0.1         |
| Interest expense                          | -7.3        | -7.9        | -5.7        | -10.2       | -6.8        | -7.4        | -9.9        | -14.9       | -13.4       |
| Other financial income                    | -0.2        | -0.2        | -0.2        | -0.1        | 0.0         | -0.4        | 0.6         | -0.5        | 0.0         |
| <b>Service income margin</b>              | <b>3.7</b>  | <b>3.3</b>  | <b>2.8</b>  | <b>2.2</b>  | <b>2.2</b>  | <b>2.3</b>  | <b>2.2</b>  | <b>2.2</b>  | <b>2.1</b>  |
| Loan loss provisions                      | -0.9        | -0.8        | -1.0        | -1.4        | -1.1        | -1.4        | -1.3        | -1.6        | -2.0        |
| Operating costs                           | -7.7        | -7.7        | -7.1        | -6.3        | -6.6        | -6.3        | -6.0        | -6.3        | -6.1        |
| Tax charges                               | -2.8        | -2.5        | -2.0        | -2.1        | -1.9        | -1.9        | -2.4        | -2.2        | -1.5        |
| <b>Results</b>                            | <b>4.1</b>  | <b>3.6</b>  | <b>2.7</b>  | <b>3.2</b>  | <b>2.8</b>  | <b>3.6</b>  | <b>3.9</b>  | <b>2.7</b>  | <b>4.2</b>  |
| Other Comprehensive Income (OCI)          | 0.0         | 0.0         | 0.0         | 0.8         | 0.1         | 0.7         | 1.4         | 0.9         | 0.5         |
| <b>Return on assets (ROA)</b>             | <b>4.1</b>  | <b>3.6</b>  | <b>2.7</b>  | <b>4.1</b>  | <b>2.9</b>  | <b>4.3</b>  | <b>5.2</b>  | <b>3.6</b>  | <b>4.7</b>  |
| <b>Return on equity (ROE) - In %</b>      | <b>32.4</b> | <b>29.6</b> | <b>23.4</b> | <b>36.1</b> | <b>23.6</b> | <b>37.1</b> | <b>48.6</b> | <b>33.5</b> | <b>43.2</b> |

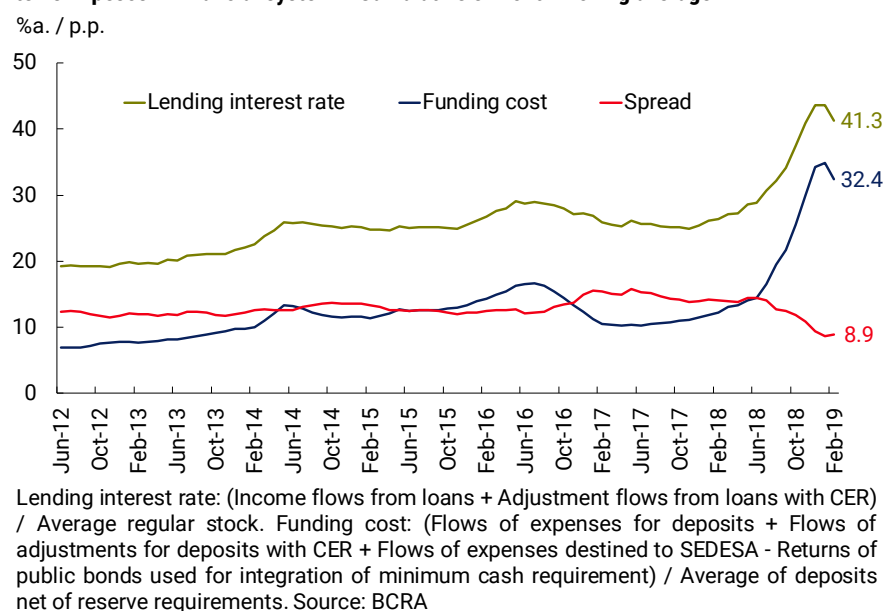
Source: BCRA

In spite of this reduced intermediation between deposits and loans to the private sector, no sharp changes have been recorded so far in the system's profitability (see Table 3.3). In the last two quarters, a drop was observed in results for services by banks with respect to the aggregate of 2018, higher expenses for interest related to

deposits and gradually-increasing charges for bad debts (due to the deterioration of the lending portfolio). However, these effects are partially offset by the increase in other sources of income (results for securities, especially BCRA's instruments) and reduction of the weight of expenses such as administrative and tax expenses.

Focusing on the recent evolution of profitability sources associated with intermediation in the segment in pesos, it is observed that –in the last quarters– the lesser weight of loans in assets was accompanied by a decrease of the implicit interest rates spread. Since mid-2018, the cost of funding for deposits in pesos increased more markedly than implicit lending interest rates in the same currency, leading to a gradual decrease of such spread (see Chart 3.1). As already stated, this performance takes place in the context of the measures adopted by the BCRA in terms of interest rates and minimum reserve requirements.

**Chart 3.1 | Estimate of implicit interest rate and implicit cost of funding for deposits – Items in pesos – Financial system – Cumulative 3-month moving average**



### Specific elements of resilience and policy measures adopted

As detailed at the beginning of this Chapter, the current configuration of the main soundness indicators of the financial system –especially in terms of liquidity and solvency– show a good relative position to face an eventual scenario of lesser intermediation between deposits and loans to the private sector. Below, some additional aspects are stated, which contribute to creating resilience in case of a potentially adverse scenario.

**The BCRA continues to adopt specific measures seeking to boost financial intermediation.** The most remarkable measures include the extension of preferred guarantees<sup>13</sup>, the increase in the limit of maximum exposure for a Micro and SME to be classified as retail portfolio, the regulation of the ECHEQ, the authorization to operate for agent banking, the elimination of fees on deposits made through bank cashiers

<sup>13</sup> Including security interest or collateral assignment of proceeds from bills of sale on future functional units and ship mortgage or first priority security interest on vessels or watercrafts.

for Micro and SMEs, the increase of limits for instant transfers and the implementation of online time deposits with institutions in which users do not have a sight account, among other measures.<sup>14</sup>

**Monitoring is appropriate at microprudential level.** Financial institutions are subject to a constant supervision process focused on the risk profile assumed; such process adopts international best practices and recommendations as well as the domestic experience on the matter. Thus, the Superintendency of Financial and Foreign Exchange Institutions (SEFyC) takes multiple monitoring actions (general and specific inspections, off-site supervision, etc.), adjusting their scope, intensity and frequency to the business model of the different institutions.

### 3.2 Loan portfolio performance

Upon the eventual materialization of any of the risks factors presented in Chapter 2, the financial system may face a greater deterioration of the loan portfolio quality. This situation would exert pressures on profitability and on the indicators of aggregate solvency of the sector. In the hypothetical case of a significant additional worsening of assets quality, the evolution of granting new financing might be even more limited<sup>15</sup>, with a possible impact on the generation of results. It is worth noting that, so far, repercussion of the materialization of credit risk on profitability and solvency margins in the aggregate has remained significantly limited, while the current excess in terms of both capitalization level and coverage with provisions is providing a significant amount of resilience to the financial system vis-à-vis such potential source of vulnerability.

The quality of the system's loan portfolio started to deteriorate (from historically low delinquency levels) since late 2017. This trend intensified as from mid-2018, in the context of the recessive phase undergone by the Argentine economy and of the significant drop in real terms of lending to the private sector. The non-performance ratio of lending to the private sector reached 4% in March 2019, with a year-on-year increase of 2.1 p.p. (see Chart 3.2). Most of such increase occurred in the last 6 months, and it was mainly due to the evolution of the non-performance of lending to companies (+2.8 p.p. y.o.y.). The rise in the ratio was mainly due to the performance of manufacturing and trade debtors. The increase of non-performance of loans to households, exhibiting a higher relative level, was less marked (+1.4 p.p. y.o.y.). Among loans to households, the performance of UVA-denominated mortgage loans stands out (0.3% non-performance as of March 2019).

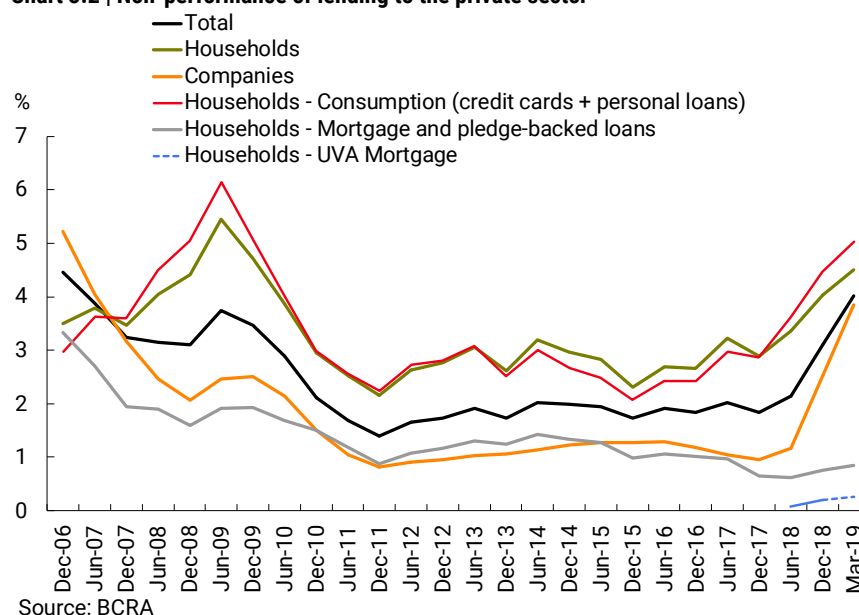
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<sup>14</sup> For further detail, see Regulatory Annex.

<sup>15</sup> The result of the [Survey on Credit Conditions](#) of the BCRA corresponding to the end of 2018 and the beginning of 2019 account for this situation.



**Chart 3.2 | Non-performance of lending to the private sector**



In recent months, a drop was observed in the weight of financing granted to debtors with a better credit rating. Against March 2018, at aggregate level, the proportion of debtors with credit rating 1 –normal– went down 2.5 p.p., and the proportion of debtors with credit rating 2 –low risk or special monitoring– rose 0.5 p.p. (see Table 3.4). This change was mainly explained by the segment of lending to companies.

**Table 3.4 | Financing according to private sector debtors' credit rating – In % - According to debtors rating standard**

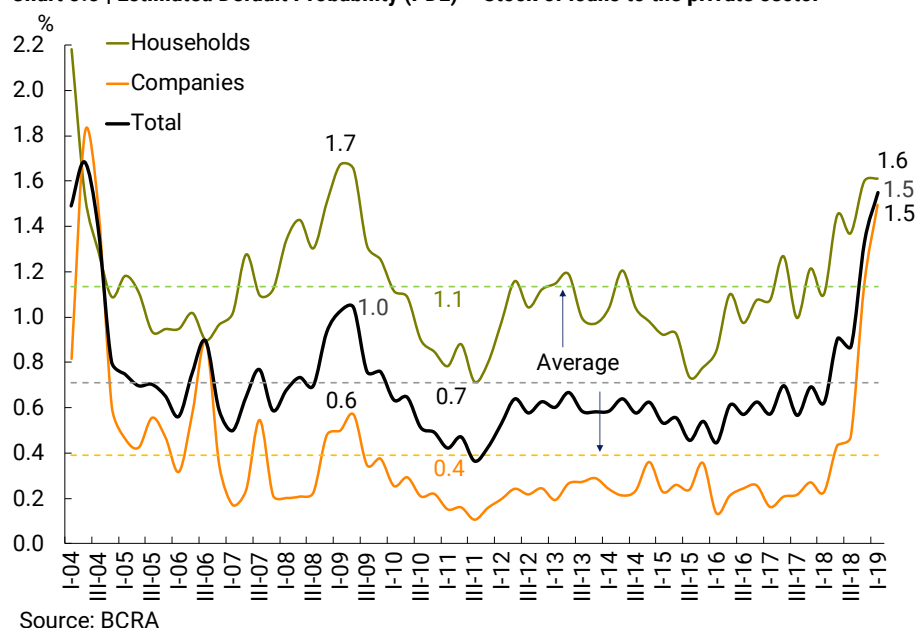
|             | Private sector |        |             | Companies |        |             | Households |        |
|-------------|----------------|--------|-------------|-----------|--------|-------------|------------|--------|
|             | Mar-18         | Mar-19 |             | Mar-18    | Mar-19 |             | Mar-18     | Mar-19 |
| Sit. 1      | 96.6           | 94.1   | Sit. 1      | 98.4      | 95.0   | Sit. 1      | 94.5       | 92.6   |
| Sit. 2      | 1.4            | 1.9    | Sit. 2      | 0.6       | 1.1    | Sit. 2      | 2.4        | 2.9    |
| Sit. 3 to 6 | 2.0            | 4.0    | Sit. 3 to 6 | 1.0       | 3.8    | Sit. 3 to 6 | 3.1        | 4.5    |

Source: BCRA

Indicators designed to capture the eventual transition of debtors at individual level –according to loan loss risk–, and which, therefore, provide an estimate of non-payment likelihood by credit holders, continued to reflect the deterioration of lending quality (see Chart 3.3). The levels recorded were high against the values observed in the last 15 years.<sup>16</sup>

<sup>16</sup> The Estimated Default Probability (PDE) is taken into consideration. It is defined as the proportion of credits initially with a credit rating of 1 and 2 (performing) that turn into a credit rating of 3, 4, 5 and 6 (non-performing) at the end of the period under analysis (in this case, a three-month comparison basis is taken). The Quarterly Frequency of Debtor Rating Deterioration is also used. It results from an estimate of the probability that a debtor may fall under a worse credit rating within a term of three months.

**Chart 3.3 | Estimated Default Probability (PDE) – Stock of loans to the private sector**



In terms relative to the fall observed in the economic activity level, the percentage change of the non-performance ratio of lending to the private sector from March 2018 to the present was higher than the one recorded in past recession experiences (in particular, 2008-2009). Even though the market anticipates a slight increase of the economic activity for the first and second quarters of 2019, the indicators of portfolio quality are expected to continue showing some deterioration in the next months. This is explained, on the one hand, by the gradual nature of the income recovery of both households and companies and, on the other hand, by a certain temporary lag for adjustment of the classification of debtors by some financial institutions. Besides, since the contractionary bias of the monetary scheme will be kept in 2019, it is estimated that the decrease of interest rates will occur gradually and only to the extent that inflation may go down.

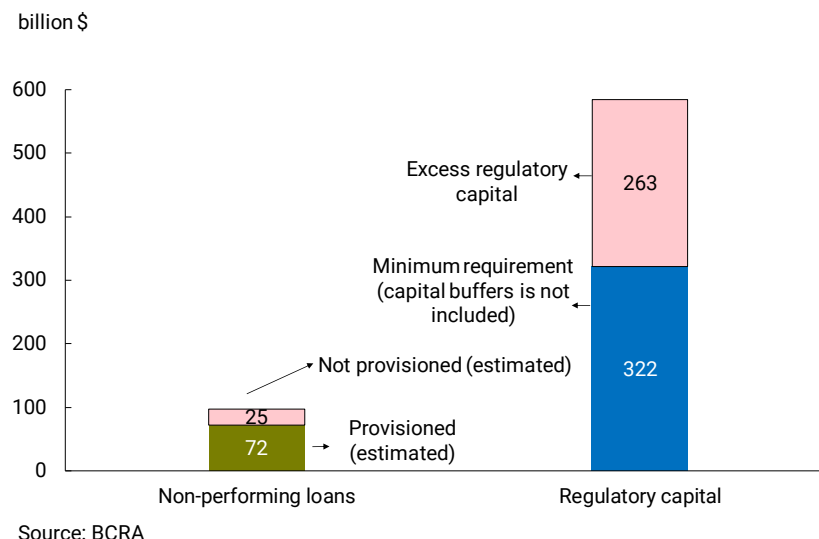
### Specific elements of resilience

To the considerations made at the beginning of the Section with respect to the financial system's level of resilience in the face of this vulnerability source, some other elements must be added which would act as mitigating factors of the eventual impact which might result from an additional materialization of credit risk.

**Very low balance sheet exposure to credit risk.** Given the present combination of a historically low exposure to gross credit risk (39.4% of assets) and still limited non-performance and high relative levels of provisioning and solvency, the current level of excess regulatory capital at financial system level would continue even under hypothetical extreme scenarios of credit risk materialization. In this sense, it is estimated that loans to the private sector not covered by accounting provisions would reach \$ 25.3 billion in March 2019<sup>17</sup>, and this is equal to less than 10% of the excess regulatory capital (compliance minus total requirements) (see Chart 3.4).

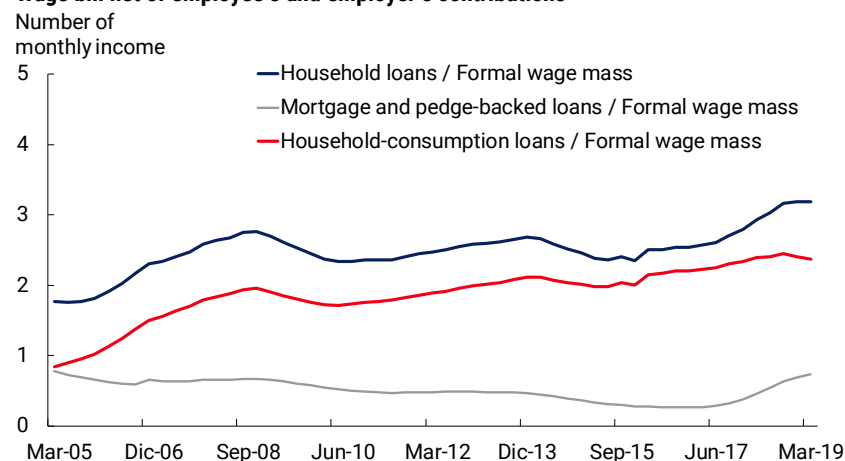
<sup>17</sup> In the event that the non-performing portfolio may become loans losses, this amount would potentially impact on capital.

**Chart 3.4 | Non-performing portfolio, provisioning and capital  
Financial system. March 2019**



**Moderate leverage and debt burden of private sector debtors.** Households, both at general level and by income strata (see Exhibit 2), bear a low ratio of their debt level to their income (see Chart 3.5). Especially remarkable is the low level of estimated indebtedness of households compared to other countries of the region: 7% of GDP in Argentina against a regional average exceeding 20%.<sup>18</sup>

**Chart 3.5 | Debt of households – In terms of monthly income amount  
Wage bill net of employee's and employer's contributions**

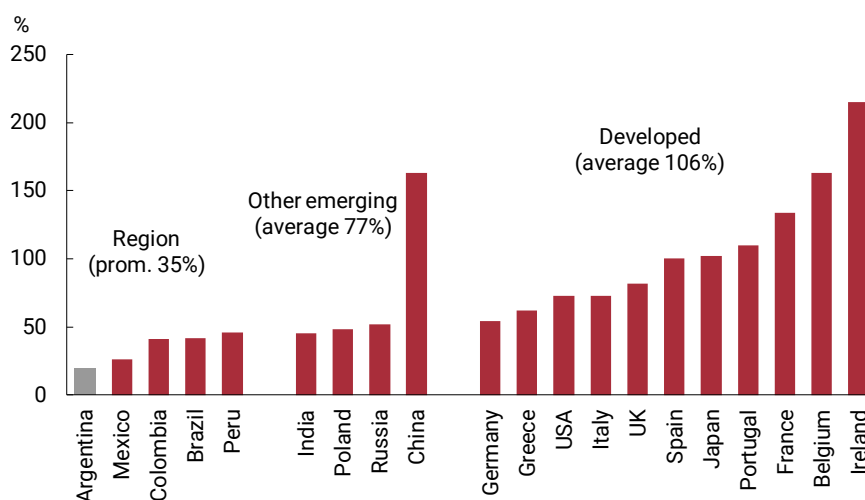


Note: Loans to households include financial system financing, financial trusts for consumption loans as underlying assets (credit cards and personal loans), collateralized loans (mortgage and pledge-backed) and the stock of non-bank credit cards. Data subject to subsequent changes. Moving annual average are considered.  
Source: BCRA, INDEC and CNV

<sup>18</sup> Source: [International Monetary Fund - Financial Soundness Indicator](#)

The corporate sector's leverage is also low at aggregate level. The debt of companies accounts for around 20% of GDP, well below the figure recorded by other economies (see Chart 3.6).

**Chart 3.6 | Debt of companies – International comparison – In % of GDP**



Note: Data to 2017, except Argentina to 2018  
Source: McKinsey Global Institute (June 2018) and BCRA

**Conservative standards for credit origination.** During the latest expansion phase of credit, from early 2017 to mid-2018, no significant easing was observed in the standards, terms and conditions for credit origination that were applied by the institutions.<sup>19</sup> As an example, the origination of UVA-denominated mortgage loans was consistent with good banking practices: the ratio between the initial instalment and the borrower's income required by the institutions stood at around 30% and the quotient between the loan amount and the price of property to be purchased was around 70%.<sup>20</sup> This is consistent with the low relative level of delinquency shown by the different vintages of this type of credit.

**Moderate currency mismatch of debtors.** The risk associated with currency mismatches in the balance sheets of debtors is also low. Indebtedness (domestic and foreign) in foreign currency is reduced and several of the sectors with the greater exposure have inflows related to the exchange rate evolution. In case of domestic bank lending, the macroprudential regulation of the BCRA restricts the use of the lending capacity related to foreign currency deposits to prevent banks from getting exposed to currency mismatches of debtors (see Table 3.6).

**Low exposure to the public sector.** The credit exposure of the financial system to the different levels of government stood at low levels. The ensemble of banks' gross exposure to the non-financial public sector totaled 9.7% of assets as of March 2019 (see Table 3.2), with no significant changes in the last 5 years. If total deposits of the public sector are taken into consideration, the financial system kept a negative net exposure (debtor position) to such sector.

<sup>19</sup> See, for instance, the results of the [Survey on Credit Conditions](#) of the BCRA.

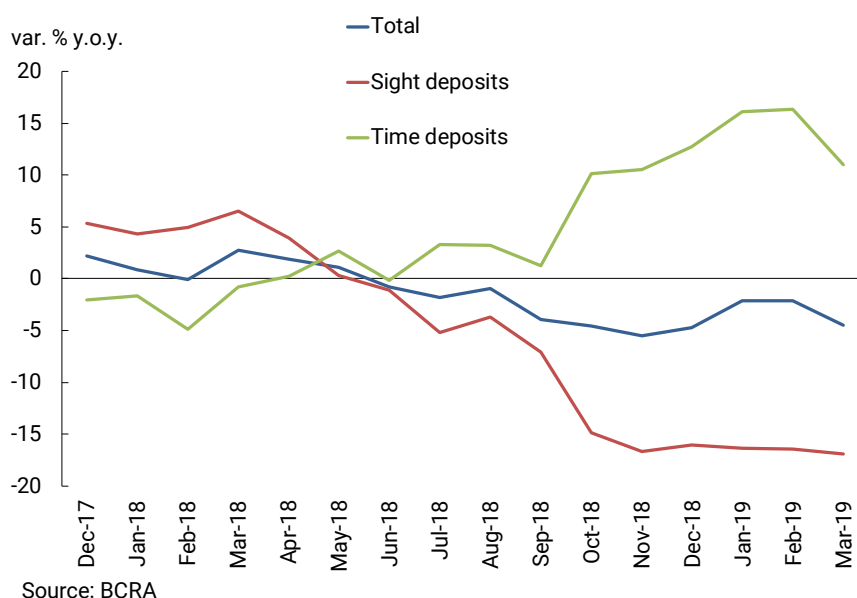
<sup>20</sup> According to information provided by banks to the [Transparency Regime of the BCRA](#). The stock of UVA-denominated mortgage loans accounted for 8.5% of the stock of loans to the private sector.

### 3.3 Bank funding

Deposits are the main source of the domestic financial system's funding (72% of the total as of the end of the first quarter of 2019), with a greater weight of deposits from the private sector (more than 80% of total deposits) (see Table 3.1). The net worth and, to a lesser extent, other instruments such as Corporate Bonds, subordinated debt and foreign credit lines are the institutions' remaining sources of funding. This funding structure, with the prevalence of sources considered to be relatively more stable, is in general a feature of the domestic financial system's strength.

However, in view of the electoral year and/or the materialization of a more adverse international scenario – with domestic economic agents relatively adjusted to performing in high volatility contexts –, there might be some changes of portfolio, with an eventual negative impact on the level and/or composition of banks' funding. This situation may eventually translate into pressure on liquidity margins at systemic level. A context of extremely volatile exchange rate and interest rates would also affect the possibility that banks may refinance Corporate Bonds in the domestic market.

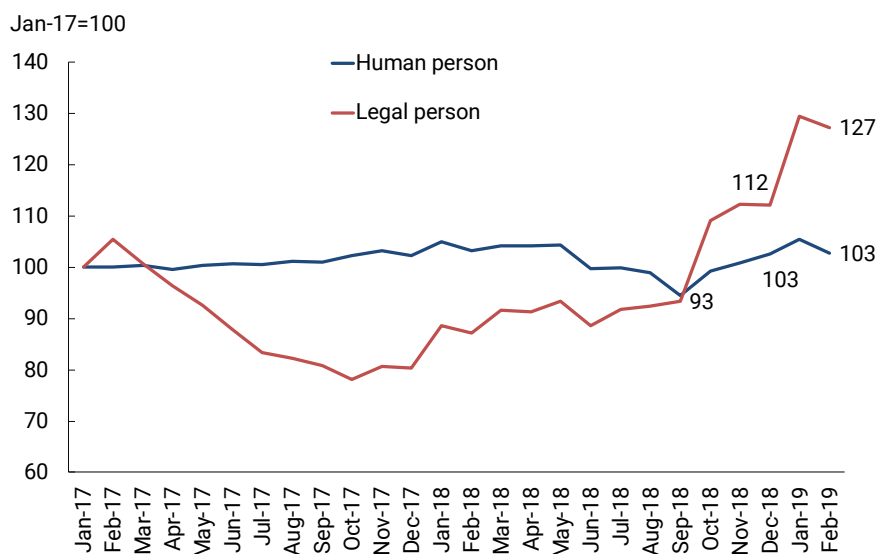
**Chart 3.7 | Evolution of private sector deposits in pesos in real terms**



As stated in detail in Section 3.1, time deposits in pesos of the private sector exhibited a positive performance in recent months (see Chart 3.7). Consequently, at the end of the first quarter of 2019, time deposits stood slightly above 52.5% of total deposits in pesos of the private sector, with a year-on-year increase of almost 7 p.p. of its share relative to 6 months ago.

The evolution of time deposits in pesos was mainly boosted by the increase of deposits by legal persons (see Chart 3.8), whereas the stock of natural persons' time deposits stood relatively stable in real terms. In recent months, both types of deposits were made for a contractual term shorter than 2 months (in line with the records of last years). Even though this source of funding is for the short term, it has exhibited a positive performance in the last quarters, within a context of broad liquidity levels in pesos of the system.

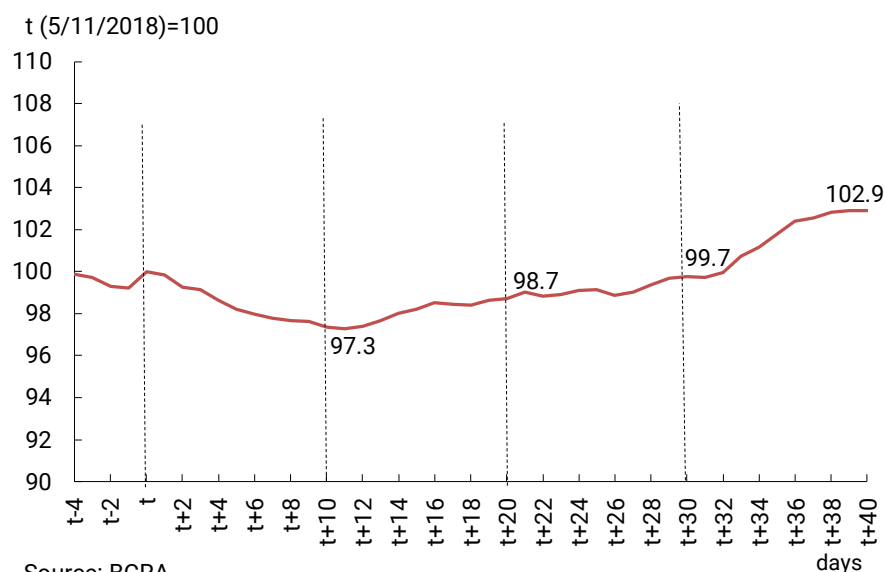
**Chart 3.8 | Evolution of time deposits in pesos in real terms**



Source: BCRA

In recent quarters, the weight of foreign currency deposits gradually increased relative to total deposits of the private sector. These deposits (mainly sight deposits) went from 26% of total deposits of the private sector in the first quarter of 2018 to almost 37% of total deposits at the end of the same period of 2019. This increase was explained by the expansion of the total stock in currency of origin (15%) and by the increase of the nominal exchange rate in the period. This type of deposits recorded a temporary contractionary episode in the second quarter of 2018 (see Chart 3.9), which coincided with the instability experienced in the exchange market. These deposits became stable very quickly and recovered their growth, in a context where banks maintained broad liquidity levels in foreign currency. As of March 2019, the stock of private sector deposits in foreign currency –in currency of origin– is 150% higher than the level recorded three years ago.

**Chart 3.9 | Episode of temporary reduction in the stock of deposits in dollars of the private sector**



Source: BCRA

## Specific elements of resilience

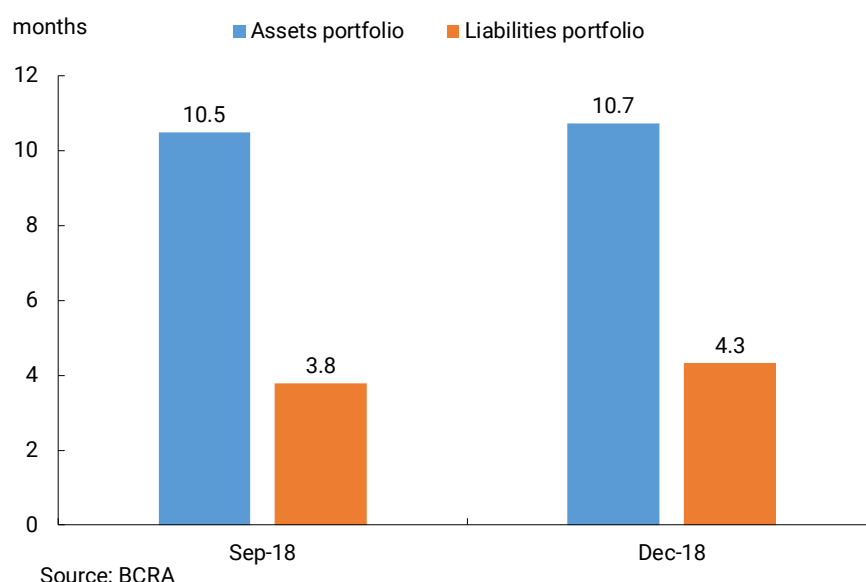
The impact on bank funding of higher volatility would be limited, mainly for the following reasons:

**Currency liquidity at high levels in historical terms.** Liquidity stands at 61% for deposits in pesos and at 57% for deposits in dollars. Besides, at present there is a broad compliance with requirements which are in line with Basel international standards, both in terms of the liquidity coverage ratio (2.2 for larger banks in aggregate<sup>21</sup>, with a regulatory minimum of 1) and of the net stable funding ratio (1.7 also for the same type of banks, with a regulatory minimum of 1). With respect to liquidity risk management tools, the domestic safety net relies on the deposit insurance (the limit of which has been recently increased to cover deposits for up to \$ 1 million) and the BCRA's role of lender of last resort in domestic currency (liquidity windows).

**Restrictions on the lending capacity of foreign currency deposits.** This macroprudential policy effective since 2002 (see Section 3.5) assures an appropriate channeling of deposits in foreign currency to loans also denominated in foreign currency, specifically granted to debtors with the capacity of generating income in such currency.

**Limited maturity transformation.** Even though the creation of UVA-denominated loans and deposits allowed for an extension of the weighted average term of credit lines to the private sector and of deposits, at general level, the maturity transformation of the financial system is still relatively limited. In particular, at the end of 2018, upon an average length of slightly over 4 months in liabilities, the average term for assets of the system was almost 11 months (see Chart 3.10).<sup>22</sup>

**Chart 3.10 | Length of the portfolio in pesos of the financial system (including CER).  
Financial System**

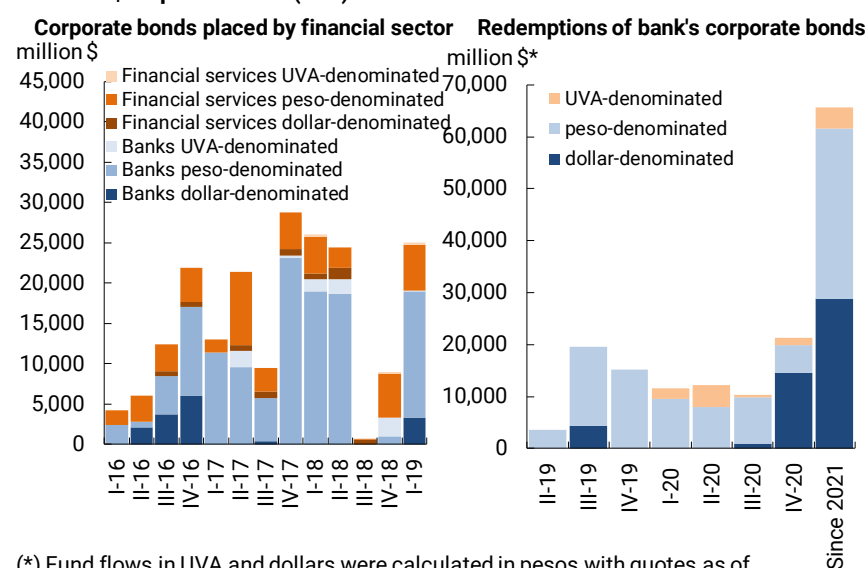


<sup>21</sup> Banks classified as Group "A" according to Consolidated Text of the BCRA on "[Authorities of Financial Institutions](#)".

<sup>22</sup> The limited maturity transformation of the domestic financial system is evident, among other dimensions, in the reduced weight of mortgage loans to total loans to the private sector, standing at 13%. This weight reaches, for instance, almost 19% in Brazil, 24% in Bolivia, 38% in Spain and 50% in Portugal (Source: [International Monetary Fund - Financial Soundness Indicator](#)).

**Low dependence of funding through market instruments.** In general, banks get a very limited portion of their funding through Corporate Bonds (only 2.7% of the total<sup>23</sup>) and, in the aggregate, the capital maturities they face in the short term can be easily managed and they are mostly in pesos. Less than one fourth of the total stock of banks' Corporate Bonds matures in the last three quarters of 2019 and almost 90% of such maturities are in pesos. In turn, in the domestic capital market, the issues of Corporate Bonds started to recover in recent months, even though the pace of such recovery was not sustained. Banks took advantage of times of less volatile exchange rates and interest rates in domestic financial markets for the placement of new issues (see Chart 3.11).<sup>24</sup>

**Chart 3.11 | Corporate Bonds (ONs)**



(\*) Fund flows in UVA and dollars were calculated in pesos with quotes as of 3/31/2019. Source: BCRA based on CNV and BCBA.

### 3.4 Other topics of financial system stability

#### Interconnectedness of the financial system

The link between the degree of interconnectedness of the financial system and its stability has several features (see [Exhibit 3](#) of IEF Second Half of 2018). If the financial system is conceived as a network, then the more complete the network, the deeper the market it represents, thus cooperating with a better risk spreading. However, a better interconnectedness may also imply a relatively quicker and intensified propagation of an eventual materialization of risks factors.

In the Argentine financial system, a relatively important source of direct interconnectedness between institutions is represented by interfinancial markets (repo market and call market). These markets are of limited size (thus restricting the possibility of managing liquidity) and they usually present a limited direct interconnectedness

23 It is almost 2% of the total for Corporate Bonds denominated in pesos.

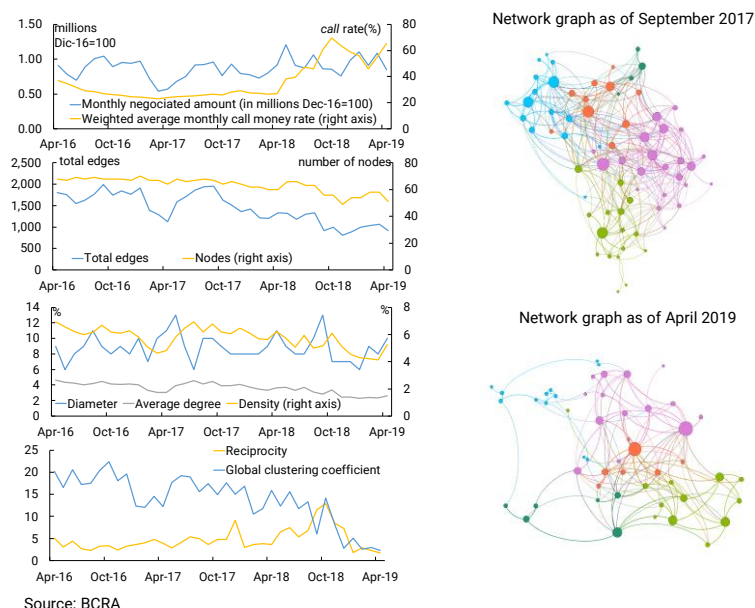
24 From May to late October 2018, in a context of higher volatility of the exchange rate and rises in domestic interest rates, banks made no issues of these instruments. From then onwards, new issues were made by banks, even though most of them were in pesos and for around 15 months in weighted average per amount (almost half the level recorded in the first four-month period of 2018). Issues concentrated from late October to early November 2018 and, more recently, from February 14 to February 28.



among institutions (which might eventually generate a lesser contagion risk). Even though the call market is relatively smaller than the repo market, since transactions are unsecured, its analysis is more relevant in terms of financial stability.

In a context of increase in the weighted average rate and of a marginal fall of traded amounts in real terms, in recent months the different metrics of network analysis applied to the call market show a relatively low degree of interconnectedness (see Chart 3.12).<sup>25</sup> These results are consistent with those observed in other episodes of higher volatility in the markets.

**Chart 3.12 | Metrics and graphs of the network analysis, and amounts and rates traded in the call market**



Direct links between the banks and the rest of the financial sector are also limited, taking into account, for instance, the interconnectedness through deposits and loans (see Exhibit 3).

### Soundness of domestic systemically important banks (D-SIBs)

Eventual problems in the soundness of domestic systemically important banks (D-SIBs) may result in undesired consequences for the financial sector and for the economy at large due to their size, interconnectedness, complex nature and low substitutability. In line with international standards, the BCRA has already developed a method to identify such institutions.<sup>26</sup>

<sup>25</sup> This reduces the number of nodes and links, the global clustering coefficient, reciprocity and density. Reciprocity refers to the proportion of times when there are links in both ways, considering nodes taken in pairs. The global clustering coefficient is based on triplets of nodes (triad). A triad consists of three nodes connected by any of the other two (open triplet) or three (closed triplet) undirected ties. The global clustering coefficient is the number of closed triplets on the total number of triplets (both open and closed triplets).

<sup>26</sup> The definition of domestic systemically important banks (D-SIBs) may be consulted [HERE](#).

Banks deemed to be D-SIBs in Argentina account for half the assets of the Argentine financial system. In addition to comply in full with the capital conservation buffer in force for all financial institutions, these banks at present comply with the whole additional conservation buffer since they are classified as systemically important banks.<sup>27</sup> Given the relative importance of this group of D-SIBs, their performance was mirrored, to a large extent, in aggregate indicators for the financial system. In particular, liquidity and solvency indicators stood at high levels, in a context where there was evidence of certain deterioration in the quality of assets (see Table 3.5).

**Table 3.5 | Soundness indicators for institutions classified as D-SIBs**

|  | Mar-18 | Sep-18 | Mar-19 |
|--|--------|--------|--------|
| <b>Liquidity</b>   |        |        |        |
| Broad liquidity (%)  |        |        |        |
| In \$  | 36.8   | 43.1   | 49.2   |
| In US\$  | 53.1   | 50.1   | 57.5   |
| <b>Solvency</b>  |        |        |        |
| Regulatory capital / RWA (%)   | 17.1   | 15.8   | 15.9   |
| <b>Profitability</b>   |        |        |        |
| ROE (quarterly %a.)  | 22.0   | 61.3   | 42.7   |
| <b>Private sector credit risk</b>  |        |        |        |
| Non-performing loan ratio (%)  | 1.6    | 1.8    | 3.2    |
| (Non-performing loans - Non-performing loans provisions) / Net worth (%) | -0.2   | 0.1    | 2.1    |

RWA: Risk weighted assets

Source: BCRA

### 3.5 Main measures of macroprudential policy

The BCRA has a wide range of macroprudential policy instruments contributing to mitigate eventual systemic risks. This set of instruments was designed in part to address the vulnerabilities observed during the 2001-2002 domestic financial crisis. This includes risks related to excessive exposure to the public sector –at all levels– and to currency mismatch, both in the balance sheets of banks and in the net worth of debtors (see Table 3.6). These measures were supplemented by the strengthening of the existing liquidity requirements (minimum reserve requirements) according to the currency of origin of deposits and by improvements in the regulation on exposures of banks to individual debtors.

The macroprudential regulations include also some regulations related to Basel III (end of 2010). These regulations include those related to new international standards on capital (improvements in components of capital, limits on leverage and incorporation of additional capital buffers, among other provisions) and on liquidity (new ratios to comply with, among other), as well as better supervision standards.

In recent months, two new regulations were adopted intended to limit the development of sources of vulnerability for the domestic financial system. On the one hand, and following the Basel recommendations, as from early 2019, regulations on Large Exposures to Credit Risk were incorporated, which aligned domestic regulations on this matter with international standards. On the other hand, in February 2019, a limit was added to the position of the BCRA's instruments (LELIQs) by financial institutions. At present, such limit is the lesser of: i.

<sup>27</sup> Requirement equivalent to 1% of its risk-weighted assets (RWA), additional to the conservation buffer of 2.5% of RWA in force for all financial institutions.

the institution's Adjusted Stockholders' Equity (RPC) and ii. 100% of the monthly average of total deposits in pesos –excluding deposits of the financial sector– and of the residual value of Corporate Bonds in pesos – issued up to February 8, 2019. In practice, this meant a limit to the position in liabilities of the BCRA for short-term external capital flows, which may result in higher volatility in the exchange market.

In line with the information of [IEF Second Half of 2018](#) and the considerations of Section 3.2 of this Chapter, the present situation with respect to the business and financial cycles is consistent with a reduction of the financial system's exposure to credit risk, within a context of moderate levels of sectoral leverage (households and companies). These factors, together with other additional variables taken into account by the BCRA when assessing the vulnerabilities faced by the system and its level of resilience, support the decision made by the Central Bank to keep the additional rate of the Countercyclical Capital Buffer ([Distribution of Results](#)) at 0% as from June 2019.

**Table 3.6 | Instruments of macroprudential policy**

| Category                                      | Instrument  | Introduced | Requirement (current ratios)   |
|---|---|------------|--|
| Capital Requirements                          | . <a href="#">Changes in Pillar 2</a> and in supervision mechanisms (Basel III)   | 2011       |  |
|   | . <a href="#">Minimum ratios and definitions of capital</a> (Basel III)           | 2012       | . Core Tier 1 4.5% of RWA, Tier 1 6% of RWA and Total capital 8% of RWA                                  |
|   | . <a href="#">Capital conservation buffer</a>                                     | 2016       | . 2.5% of RWA  |
|   | .. <a href="#">Systemically important banks buffer</a>                            | 2016       | . 1% of RWA  |
|   | . <a href="#">Countercyclical capital buffer</a>                                  | 2016       | . 0% of RWA  |
|   | . <a href="#">Leverage ratio</a>  | 2018       | . 3% minimum   |
| Liquidity requirements                        | . <a href="#">Minimum cash</a> (minimum reserve requirements)                     | 1980/1990  | . According to type of deposit   |
|   | . <a href="#">Liquidity coverage ratio</a>  | 2015       | . 100% (Group A banks)   |
|   | . <a href="#">Net stable funding ratio</a>  | 2018       | . 100% ( Group A banks)  |
| Foreign currency mismatch (banks and debtors) | . <a href="#">Application of lending capacity of deposits in foreign currency</a> | 2002       | . According to sources of income/activity of debtors   |
|   | . <a href="#">Foreign currency net global position</a>                            | 2003       | . +5% of RPC / -30% of RPC   |
| Holdings of BCRA instruments                  | . <a href="#">Daily net position in LELIQs</a>                                    | 2019       | . Higher of: 100% of RPC and 100% of deposits + Corporate Bonds in pesos (issued up to February 8, 2019) |
| Exposure to the public sector                 | . <a href="#">Limits to exposure to the public sector at all levels</a>           | 2003       | . 35% of assets and 75% of RPC for the total (plus limits per jurisdiction)                              |
| Exposure to the private sector                | . <a href="#">Large exposures to credit risk</a> (formerly, Spreading of risk)    | 2019       | . Limits according to exposure   |

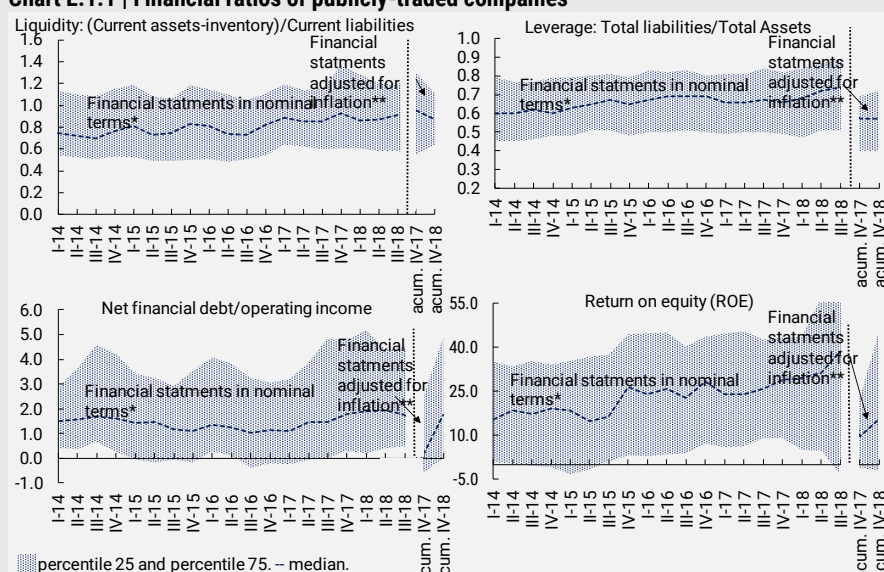
Source: BCRA

## Exhibit 1 / Financial situation of publicly-traded companies

The monitoring of the corporate sector and its interconnectedness with the financial system is a relevant component of the macroprudential analysis. Any change in the context (i.e., activity level, exchange rate, interest rates) may affect the companies' financial situation, including their payment capacity, and this may eventually impact on their creditors (banks, bond holders, among others). These changes may also influence variables such as investment and employment, with second round effects on the activity level. This is why it is important to survey the trends observed in the corporate sector and to identify segments with potential vulnerabilities.

The work performed on the balance sheets submitted by companies before the National Securities Commission (CNV<sup>28</sup>; see Chart E.1.1) shows that, until the third quarter of 2018, there was an increase in the leverage median, in the weight of the financial debt (total financial liabilities net of cash and cash equivalents, as percentage of the operating result) and in liquidity (measured as current assets net of inventories, as a percentage of current liabilities). Particularly, given the evolution of the exchange rate (\$/US\$), companies with outstanding Corporate Bonds (ONs) in dollars exhibited a more marked increase in the three abovementioned indicators. In turn, the nominal profitability (in terms of net worth) rose due to the performance of companies belonging to the primary and services sectors but dropped in the case of the industrial sector due to a reduction of its profitability margin (net income as percentage of sales).

**Chart E.1.1 | Financial ratios of publicly-traded companies**



Note: (\*) Three-months period. (\*\*) Annualized flows to the end of each year (12-months only for companies that close its annual statements in december)

Source: BCRA based on CNV and BCBA

As a result of the enactment of Law No. 27468 and General Resolution No. 777/18 of the CNV<sup>29</sup>, the balance sheets closed by the end of 2018 were prepared taking into account an adjustment for inflation. Therefore,

28 Balance sheets of 131 companies as of the third quarter of 2018, with companies from different sectors (where industry, primary production and services stand out). This basis is, in general, more representative of the situation of large and medium-sized enterprises.

29 In September 2018, the Argentine Federation of Professional Associations of Economic Sciences and the Professional Association of Economic Sciences of the City of Buenos Aires indicated that Argentina must be considered an inflationary economy in terms of the professional accounting rules

data for late 2018 in inflation-adjusted figures show some sort of stability in leverage (even though there is an increase in the ratio of weight of debt to results), a rise of profitability (even though with a greater dispersion) and a fall of the liquidity ratio against the data of 12 months ago expressed in the same currency (submitted for comparative purposes)<sup>30</sup>.

One of the usual indicators to measure the level of financial vulnerability in terms of companies' repayment capacity is the interest coverage ratio (ICR, operating results as percentage of interest paid). For the balance sheets analyzed, the median of this ratio recorded a slight decrease in the second quarter of 2018 and then went up during the third quarter of 2018 to 2.6 (see Chart E.1.2 – left panel) due to an income improvement in some sectors such as primary production. As reference, and based on an analysis of companies' balance sheets at global level, the IMF defines a threshold of 2 for this indicator; if a company ICR were standing below this threshold, then it would show a significant level of financial vulnerability.<sup>31</sup> For the aggregate up to December 2018 and on the basis of balance sheets expressed in inflation-adjusted figures, this ratio still stands above 2 for the median of publicly-traded companies (with a slight increase if compared to the figure recorded 12 months ago).

In order to understand the eventual systemic scope of the situation of companies considered to be more vulnerable in relative terms, a subset of companies showing vulnerabilities in two out of the three most relevant financial ratios (interest coverage, leverage and liquidity)<sup>32 33</sup> was identified. This group was made up by 28 companies of heterogeneous sectors, which account for around 10% of the total financial debt of the sample of publicly-traded companies (see Chart E.1.2. right panel)<sup>34</sup>. As of December 2018, the funding of this subset of companies would lie mainly in Corporate Bonds, followed by bank lending (see Chart E.1.3). In terms of payment capacity, the liquidity median and the Return on Equity (ROE) of this subset of companies are lower than those of the total of the sample.

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as from July 1, 2018 and, as a result, financial statements must be prepared taking into account an adjustment for inflation by virtue of IAS (International Accounting Standard) 29. Law No. 27468 was published in December 2018 and it repealed, among others, Executive Order No. 664/03 (which prevented official agencies from receiving financial statements adjusted for inflation), and then the CNV published General Resolution No. 777/18, which stated that the financial statements closing as from, and including, December 31, 2018 must be submitted in inflation-adjusted figures.

30 The methodological change to the preparation of financial statements does not allow for making a direct comparison between these new data and the data submitted before.

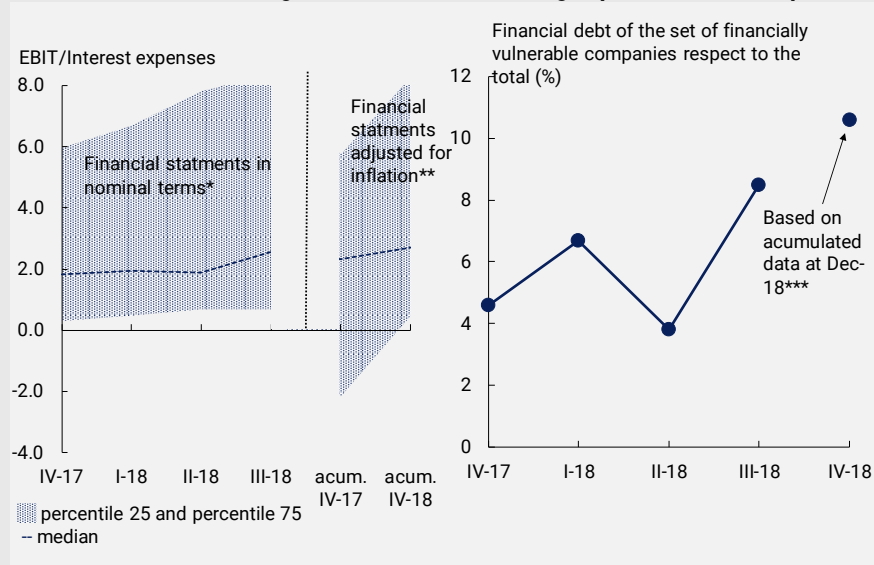
31 See for example *"Global Financial Stability Report", April 2014*.

32 Thus adapting a simplified version of the World Bank methodology presented in *"Which Emerging Markets and Developing Economies Face Corporate Balance Sheet Vulnerabilities?: A Novel Monitoring Framework"*, September 2017.

33 Based on data of late 2018 and considering a level of 2 as threshold for interest coverage (benchmark considered by the IMF) and the location in the worst decile of the quarter for leverage and liquidity ratios. Since this information in inflation-adjusted figures has no historical record, companies considered to be potentially vulnerable as of the third quarter of 2018 were added to this group (and, in this case, since there was historical comparable data, the worst decile of leverage and liquidity is considered by taking into account each sector in a 5-year period).

34 Although data are not strictly comparable, on the basis of this methodology as of December 2017, there were 12 potentially vulnerable companies and they accounted for 4.6% of the financial debt of publicly-traded companies.

**Chart E.1.2 | Interest coverage and financial debt for the group of vulnerable companies**



Note: (\*) Three-months period. (\*\*) Annualized flows to the end of each year (12-months only for companies that close its annual statements in december). (\*\*\*) Financially vulnerable companies at Dec-18 (constant currency terms) plus financially vulnerable companies during 3Q-18 vulnerable al IIIT-18". Source: BCRA based on CNV and BCBA

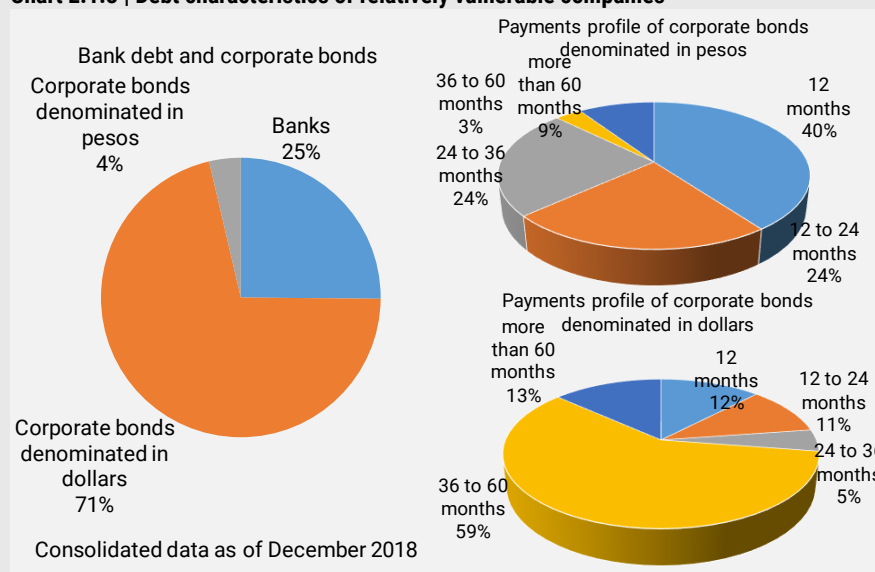
The financial system's credit exposure to the subset of companies identified as relatively more vulnerable is very limited. These companies' total stock of bank debt accounted for less than 2% of the credit aggregate of the financial system to the corporate sector. As of March 2019 (latest available data), 97% of the debt had a 1 or 2 credit regulatory rating (performing) even though a deterioration on the margin has been recorded (as of December 2017, almost 100% of these companies exhibited a 1 credit regulatory rating)<sup>35</sup>. The remaining 3% is distributed between 3 and 4 credit regulatory ratings (1.4% and 1.7%, respectively).

The debt in bonds of these potentially vulnerable companies accounts for 9% of Corporate Bonds' total stock of the corporate sector as of December 2018. These companies' bonds are mainly in dollars (95% of their outstanding bonds). The maturity profile of these Corporate Bonds in dollars (both interest and amortization) concentrates after 2022 (72% of the total) given the refinancing operations made in recent years<sup>36</sup> and corresponds to companies of different economic sectors (several of them in tradeable sectors or with foreign transactions). As regards their Corporate Bonds in pesos (which can be refinanced in the domestic market), 40% of these bonds matures in 2019 and 24%, in 2020.

35 According to the regulation on "Classification of Debtors", financial institutions must classify their loan clients following a quality descending order (6 classification levels) according to their loan loss risk.

36 See [IEF Second Half 2018](#).

**Chart E.1.3 | Debt characteristics of relatively vulnerable companies**



Source: BCRA based on CNV and BCBA

In short, the situation of the corporate sector is monitored with a focus on the most vulnerable segments in order to assess their relevance in systemic terms, an assessment that will be enriched as new balance sheets are submitted in inflation-adjusted figures (thus extending the historical record of comparable data). The analysis shows that publicly-traded companies with relatively less sound financial ratios have a low weight in the banks' lending aggregate portfolio while their bonds in dollars (their main financing source) imply repayment commitments that are relatively less stringent in the short term.

## Exhibit 2 / Analysis of households' indebtedness based on debtors' database microdata

As mentioned in Chapter 3, Argentine households' aggregate indebtedness<sup>37</sup> is low (around 8% of GDP) and stands below both the maximum historical records of Argentina and the current readings of other countries of the region (above 20% of GDP on average). This occurs despite the fact that lending to this sector has grown significantly between the end of 2016 and mid-2018, where the expansion of UVA mortgage lines stood out remarkably.

Even though the abovementioned information provides an outlook about households' indebtedness, it represents an average of Argentine households (including both indebted and non-indebted families). In order to perform a detailed analysis of this sector's leverage that may allow for capturing potential differential behaviors and risk sources unobservable at aggregate level, a monitoring process is performed of families' relative indebtedness according to the income strata (remunerations) they belong to. An estimate of these characteristics was shown in Exhibit 3 of [IEF Second Half 2016](#), as well as in a [note of December 2017 published in the blog "Ideas de Peso"](#).

Using the same methodology<sup>38</sup>, the evolution of indebtedness is analyzed on the basis of income strata from mid-2016 to late 2018<sup>39</sup>, in order to assess the impact of the last period of credit expansion on households' leverage. It is observed that, between both ends of this period, indebtedness increased —relative to the annual income— for all deciles of remunerations (see Chart E.2.1). This ratio stood in a range from 24% to 27% in deciles 2 to 10, with a peak of 47% in decile 1.<sup>40</sup>

The increase of indebtedness between mid-2016 and late 2018 was proportionally higher in the low-income decile (12.8 p.p. change) and in one of the deciles with the highest income (9). Particularly relevant for this growth was the role played by UVA mortgage loans. Even though these credit facilities had a higher weight in overall indebtedness of middle-and-high income families (in the three highest deciles their weight ranges from 21% to 27% of total indebtedness), it is observed that all household strata had access to this credit line.

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37 The definition of debt included financing obtained in the domestic financial system, financial trusts having underlying assets such as credits for consumption and with real property collateral and the financing from non-bank credit cards.

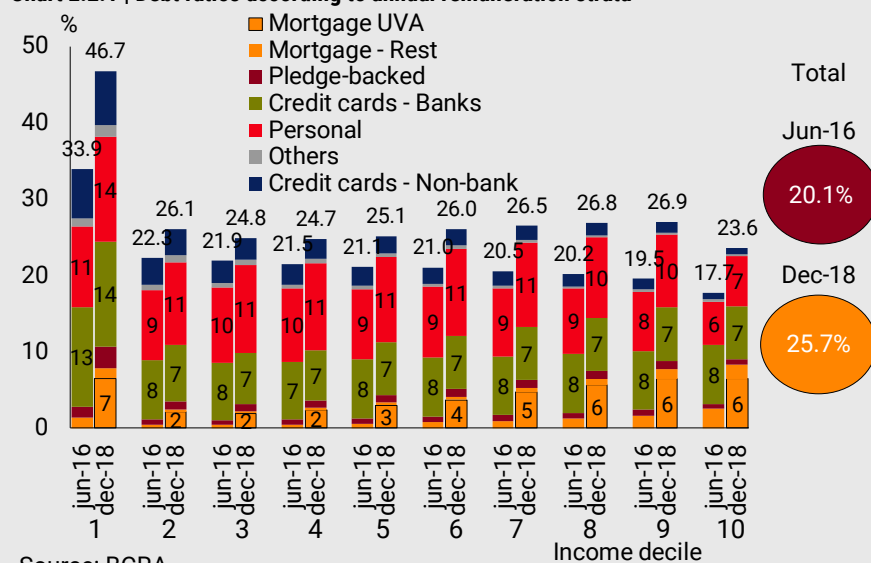
38 The methodology used the Reporting Scheme of the Financial System's Debtors (BCRA) and the Reporting Scheme on Payment of Remunerations (BCRA). It is worth mentioning that the latter is a subset of the population surveyed by the Permanent Household Survey, since it only includes information on the income perceived by workers under contract of employment. Because of this, the individuals included in this Reporting Scheme are generally concentrated in the upper deciles of income distribution at population level according to INDEC's Permanent Household Survey.

39 The estimation exercise considered the income perceived by workers under contract of employment during 12-month periods: from July 2015 to June 2016 and from January to December 2018. Out of a universe of 8.7 and 9.2 million individuals who reported income during both periods under analysis, respectively, only those who met three requirements were used: i. at least six remunerations in the year, ii. annual remuneration higher than the average of the Minimum Wage corresponding to the period, and iii. maximum income not exceeding ten times the middle income. The objective was to dismiss extreme observations, and the final total number was 7.0 and 7.4 million wage-earners in each period, respectively. For the observations used in the estimation exercise, indebtedness data as of June 2016 and December 2018, respectively, are considered.

40 Other sources of income such as retirement and pension benefits, capital income and income from contractual work relationships other than relationships under contract of employment, as well as income from informal employment, have not been considered. Since these sources of income are not included, there might be a bias in the estimate of indebtedness levels higher than the indebtedness level that families are really facing.



**Chart E.2.1 | Debt ratios according to annual remuneration strata**



Debtors corresponding to the higher income strata of the population tend to show lower delinquency levels (see Table E.2.1). Within the universe of debtors with income derived from a contract of employment, the two deciles with higher income (9 and 10) have a total non-performing ratio of 1.7% and 0.9%, respectively, in 2018. Debtors included in these income segments accounted for a 42% share in the total financing considered for the analysis. On the other hand, the delinquency rate of the two strata with lower remuneration stood at 8.5% and 9.6%, respectively (less than 7% of the financing under analysis). This performance is similar in all credit lines; in addition, especially remarkable is the low non-performing level of UVA mortgage loans in all strata (with a maximum delinquency rate of 0.5%).

**Table E.2.1**

| Non-performing loans by wage level and credit lines. Dec-18 |            |            |            |            |            |            |             |             |             |             |
|---|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|
| Credit lines  | 1          | 2          | 3          | 4          | 5          | 6          | 7           | 8           | 9           | 10          |
| Mortgage - UVA  | 0.5        | 0.2        | 0.5        | 0.4        | 0.2        | 0.2        | 0.3         | 0.2         | 0.2         | 0.2         |
| Mortgage - Rest   | 0.7        | 1.9        | 0.9        | 1.0        | 0.6        | 0.6        | 0.7         | 0.3         | 0.3         | 0.2         |
| Pledge-backed   | 2.5        | 3.4        | 3.0        | 2.6        | 2.5        | 2.0        | 1.8         | 1.3         | 1.1         | 0.7         |
| Credit cards - Banks  | 6.6        | 7.8        | 6.1        | 4.9        | 4.0        | 3.7        | 3.2         | 2.5         | 1.7         | 0.8         |
| Personal  | 12.7       | 10.8       | 7.2        | 5.5        | 4.9        | 4.4        | 3.9         | 3.2         | 2.5         | 1.6         |
| <b>Total</b>  | <b>8.5</b> | <b>9.6</b> | <b>6.9</b> | <b>5.2</b> | <b>4.4</b> | <b>3.8</b> | <b>3.2</b>  | <b>2.4</b>  | <b>1.7</b>  | <b>0.9</b>  |
| Credit cards - Non-bank                                     | 19.2       | 20.4       | 18.3       | 15.4       | 12.9       | 11.7       | 10.5        | 8.6         | 6.5         | 3.4         |
| <b>% debt(*)</b>  | <b>2.8</b> | <b>3.8</b> | <b>5.1</b> | <b>6.2</b> | <b>7.4</b> | <b>8.9</b> | <b>10.7</b> | <b>12.9</b> | <b>16.3</b> | <b>25.8</b> |

(\*) Calculated on the basis of the financing included in the analysis.

The preceding analysis reveals that the Argentine households' indebtedness level is relatively low, from both an aggregate standpoint and in terms of income strata. This means that, if risk factors or events of economic stress such as those observed in 2018 effectively materialized, the vulnerability level of the households segment (and of the financial sector) would be limited.

## Exhibit 3 / Non-bank financing in Argentina

The activity of banks is supplemented by the activity of players that, even though they are not involved in the traditional financial intermediation funded with deposits, provide funds (by means of loans or financial instruments) or facilitate access to them through insurance or guarantees. In addition to extending funding sources, these intermediaries may create competition and drive innovation and financial inclusion.

The activity performed by non-bank agents entails risks, in some cases similar to the risks of banks (leverage, credit and liquidity risk, maturity mismatch). These risks, which are usually followed up in micro supervision, may become systemic depending on the volume of activity of these players and their interconnectedness with banks, as became evident during the peak of the international financial crisis in 2008-2009. An approach to address the analysis of non-bank agents is given by the annual mapping made since 2011 by the Financial Stability Board (FSB, created under the initiative of the G-20), in which Argentina participates.<sup>41</sup> The general mapping of the FSB includes banks, pension funds and insurance companies but it focuses on the remaining non-bank financial agents (other financial intermediaries -OFIs), divided into five economic functions:

| Economic Function  | Typical intermediary types                            | Most usual (micro) risks  |
|--|---|---|
| EF1: Management of collective investment vehicles                        | Mutual funds, hedge funds and real estate funds.      | Liquidity risk. Depending on the business model, maturity mismatch. |
| EF2: Loan provision (based in part on short-term funding)                | Financial companies, consumer credit companies.       | Credit risk. Other risks: leverage, maturity risk, liquidity risk.  |
| EF3: Intermediation in capital markets (in part with short-term funding) | Broker-dealers, securities finance companies.         | Leverage.   |
| EF4: Facilitation of credit creation                                     | Credit insurance companies, credit guarantors.        | Off-balance sheet exposures (contingent liabilities).               |
| EF5: Securitization-based credit intermediation and funding              | Securitization vehicles, structured finance vehicles. | Credit risk. Maturity mismatch.                                     |

Following this methodology, in the Argentine case, it is noticeable that the financial system in a broad sense is small in terms of GDP and it mainly involves banks (see Chart E.3.1).<sup>42</sup> In Argentina, the assets held by OFIs account for 12% of the financial sector's assets while in the rest of countries this figure reaches 30% on average. In the last 10 years, OFIs' assets grew, on average, at a higher rate than the assets of banks, the Sustainability Guarantee Fund (FGS) or the insurance companies (in line with international trends), even though such growth pace slowed down in 2018 (thus differentiating from the evolution of the remaining players).

The composition of OFIs in Argentina according to their economic function does not show significant differences if compared to the rest of the world (see Chart E.3.2). As is the case at global level, in Argentina the highest weight corresponds to collective investment vehicles, which account for 60% of OFIs' assets (and for a large part of their growth until and including 2017, to then decelerate in 2018).<sup>43</sup> This category is basically made up by mutual funds (FCIs - with a strong share of fixed income funds and money markets

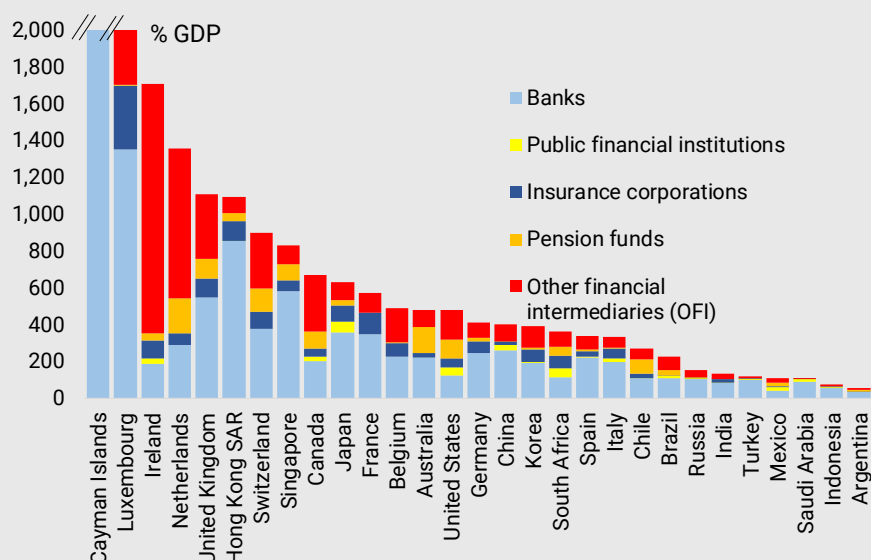
41 This mapping covers 29 jurisdictions, accounting for 80% of world GDP. See the last [annual report of the FSB on non-bank financial intermediation](#), published in early 2019 with data up to late 2017.

42 The data mentioned for Argentina have been estimated as of December 2018. In Argentina, banks account for over 60% of mapped intermediaries' total assets, a similar value, on average, to that of the remaining emerging countries by the end of 2017 (but above the value observed for developed countries, which stand below 45% on average). This estimation is based on the mapping without considering central banks' assets.

43 In recent years, the growth of OFIs at world level has been largely explained by the collective investment vehicles. Before the international financial crisis, the evolution of the sector was mainly determined by structured finance products.

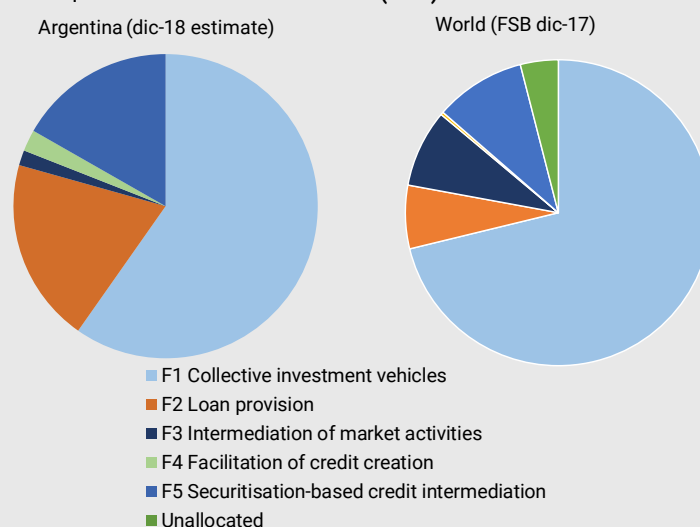
funds) and does not include more complex entities such as hedge funds. The second function in order of relevance among OFIs is the provision of loans (dependent in part on short-term funding) which, in Argentina, includes credit card systems, credit unions, leasing / factoring companies and other.<sup>44</sup> This significant, but not central, role of non-bank credit providers is more common in emerging economies. The third function in order of relevance is structured finance vehicles. In Argentina, this category mainly includes traditional securitizations using financial trusts (FFs – related to infrastructure and, to a lesser extent, the consumer portfolio). More complex structures such as Collateralized Loan Obligations or Collateralized Debt Obligations are not observed. The functions performed by intermediaries of the capital markets (clearing and settlement agents –ALyC–, which in some cases have sizable investment portfolios of their own) and credit access facilitators (reciprocal guarantee companies or SGRs) have a lower share.

**Chart E.3.1 | Financial Sector Mapping per Country**



Source: BCRA based on FSB. Data to Dec-17 except Arg. (estimated to Dec-18)

**Chart E.3.2 | Other Financial Intermediaries (OFIs): FSB-Based Economic Functions**



Source: BCRA based on CNV, CAFCI, INAES, Ministry of Production. Global data based on FSB

44 Including retail consumer companies that provide financing to their clients, financial companies involved in consumer credit, providers of online personal loans, micro-financing entities, etc.

A large part of the OFIs (Mutual Funds [FCIs], Financial Trusts [FFs] and Clearing and Settlement Agents [ALyCs]) is regulated by the National Securities Commission (CNV), which imposes specific requirements to each type of intermediary. As from the Productive Financing Act (Law No. 27440), the CNV has included an objective related to financial stability. In turn, the National Institute of Associations and Social Economy (INAES) regulates the activities of credit unions (requiring compliance with technical ratios) and the Ministry of Production follows up the Reciprocal Guarantee Companies (SGRs) and their regulatory framework.<sup>45</sup>

The level of interconnectedness of the different intermediaries of the financial sector is relatively limited in Argentina.<sup>46</sup> For example, by the end of 2018, the deposits of the Sustainability Guarantee Fund (FGS), insurance companies and several components with a large weight among OFIs (FCIs, FFs, credit unions) accounted for less than 8% of total banks' deposits, up over 1.p.p. against the average of the previous five years (in the case of loans, the weight was only marginal).<sup>47</sup>

In line with international trends, the main innovations of recent years in Argentina were related to the Fintech segment<sup>48</sup>, added to the modernization of closed-end investment funds introduced by the Productive Financing Act. Even though these are segments with development potential, their financing volume is very modest so far in comparative terms.

In short, even though non-bank financial intermediation in Argentina has been showing some relative momentum, its volume is still low, its operations are usually simple, its interconnectedness is limited and its activity is largely supervised by several regulatory systems; therefore, the implications of this financing as source of risk for financial intermediation are limited. In line with [international recommendations](#), this segment of the financial system is monitored in order to identify and mitigate eventual increases in risk factors and sources of vulnerability for the system at large.<sup>49</sup>

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45 Non-bank credit cards must comply with the Credit Cards Act (Law No. 25065) and BCRA's regulations for the protection of financial services' users, in addition to reporting information to the BCRA. Non-bank credit providers that get financing from banks must register with the BCRA and report information. If they issue instruments in the capital markets, they must also report information to the CNV. Likewise, any activity involved in consumer credit is regulated by the Consumer Protection Act (Law No. 24240).

46 Measured as percentage of the banks' assets, the use of OFIs' funds by the banks and the level of exposure of banks to OFIs are rather low if compared to other economies of the FSB's sample. At global level, interconnectedness between banks and OFIs has been recording a marginal growth, and the levels are similar to those of the period 2003-2006.

47 The largest interconnectedness through deposits lies in deposits by the Mutual Funds (FCIs) in banks. In terms of direct interconnectedness between banks and OFIs, there are additional linkages such as through holding of financial instruments (such as the Financial Trusts - FFs) by the banks or by the OFIs (for example, holding of Corporate Bonds or banks' shares by the FCIs). There is also an indirect interconnectedness due, for example, to exposure to common factors.

48 New platforms, including online credit firms financed with own capital, P2P lending models and crowdfunding platforms.

49 In 2017, the FSB stated that the aspects of global non-bank financial intermediation that had contributed to the international financial crisis decreased and they no longer entailed a risk for financial stability. The FSB recommends to keep (and improve) monitoring at world level, to continue implementing its policy recommendations and to update the regulatory perimeter based on the observations made.

## Abbreviations and acronyms

€: Euro

a.: Annualized.

**AEIRR:** Annual Effective Internal Rate of Return.

**AFIP:** *Administración Federal de Ingresos Públicos*. Argentina's Federal Tax Authority.

**ANSES:** *Administración Nacional de Seguridad Social*. Social Security Administration.

**APR:** Annual Percentage Rate.

**ATM:** Automated teller machine.

**b.p.:** basis points.

**BADLAR:** Interest rate for time deposits over one million pesos between 30 and 35 days for the average of financial institutions.

**BCBA:** *Bolsa de Comercio de Buenos Aires*. Buenos Aires Stock Exchange.

**BCBS:** Basel Committee on Banking Supervision.

**BCRA:** *Banco Central de la República Argentina*. Central Bank of Argentina.

**BIS:** *Bank of International Settlements*.

**BoE:** Bank of England.

**Bonar:** *Bonos de la Nación Argentina*. Argentine National Bonds.

**CABA:** *Ciudad de Buenos Aires*. Autonomous city of Buenos Aires.

**CCP:** Central counterparty.

**CDS:** Credit Default Swaps.

**CEMBI:** Corporate Emerging Markets Bond Index

**CER:** *Coeficiente de Estabilización de Referencia*. Reference Stabilization Coefficient.

**CNV:** *Comisión Nacional de Valores*. National Securities Commission.

**CPI:** Consumer Price Index.

**CVS:** *Coeficiente de Variación Salarial*. Wage variation coefficient.

**D-SIBs:** Domestic systemically important banks.

**DEBIN:** *Débito Inmediato*. Immediate Debit.

**ECAI:** External Credit Assessment Institution.

**ECB:** European Central Bank.

**ECC:** *Encuesta de Condiciones Crediticias*. Lending standards survey.

**EMBI:** Emerging Markets Bond Index.

**EPH:** *Encuesta Permanente de Hogares*. Permanent Household Survey.

**EU:** European Union.

**Fed:** Federal Reserve of US.

**OB:** *Obligaciones Negociables*. Corporate bonds.

**OECD:** Organization for Economic Cooperation and Development.

**OPEP:** Organization of the Petroleum Exporting Countries.

**p.p.:** Percentage point.

**PEN:** *Poder ejecutivo Nacional*. Executive Branch.

**PGNME:** *Posición Global Neta de Moneda Extranjera*. Net Global Position in Foreign Currency.

**PPM:** *Plataforma de Pagos Móviles*. Mobile Payment Platform.

**q.o.q:** quarter-on-quarter.

**FGS:** *Fondo de Garantía de Sustentabilidad*. Sustainability Guaranty Fund.

**FSB:** Financial Stability Board.

**GDP:** Gross Domestic Product.

**IADB:** Inter-American Development Bank.

**IAMC:** *Instituto Argentino de Mercado de Capitales*. Argentine Capital Markets Institute.

**IBIF:** *Inversión Bruta Interna Fija*. Gross domestic fixed investment.

**IMF:** International Monetary Fund.

**INDEC:** *Instituto Nacional de Estadísticas y Censos*. National Institute of Statistics and Censuses.

**IPMP:** *Índice de Precios de las Materias Primas*. Central Bank Commodities Price Index.

**IPOM:** *Informe de Política Monetaria*. Monetary Policy Report.

**IRR:** Internal Rate of Return.

**LCR:** Liquidity Coverage Ratio.

**Lebac:** *Letras del Banco Central de la República Argentina*. BCRA Bills.

**LETES:** *Letras del Tesoro en dólares estadounidenses*. US\$ Treasury Bills.

**LIBOR:** London Interbank Offered Rate.

**LR:** Leverage Ratio.

**m.a.:** Moving average.

**MAE:** *Mercado Abierto Electrónico*. Electronic over-the-counter market.

**MEP:** *Medio Electrónico de Pagos*. Electronic Means of Payment.

**MERCOSUR:** *Mercado Común del Sur*. Southern Common Market.

**MERVAL:** *Mercado de Valores de Buenos Aires*. Executes, settles and guarantees security trades at the BCBA.

**MF:** Mutual Funds.

**MoF:** Ministry of Finance.

**MoT:** Ministry of Treasury.

**MSCI:** Morgan Stanley Capital International.

**MULC:** *Mercado Único y Libre de Cambios*. Single free exchange market.

**NA:** Netted assets.

**NBFI:** Non-Bank Financial.

**NPD:** National public debt.

**NFPS:** Non-financial national public sector's.

**NW:** Net worth.

**REM:** *Relevamiento de Expectativas de Mercado*. BCRA Market expectation survey.

**ROA:** Return on Assets.

**ROE:** Return on Equity.

**Rofex:** Rosario Futures Exchange.

**RPC:** *Responsabilidad Patrimonial Computable*. Adjusted stockholder's equity, calculated towards meeting capital regulations.

**RWAs:** Risk weighted assets.

**S&P:** Standard and Poors.

**s.a.:** Seasonally adjusted.

**SEFyC:** Superintendence of Financial and Exchange Institutions.

**SME:** Small and Medium Enterprises.

**TCR:** *Tipo de cambio real*. Real Exchange rate.

**TN:** *Tesoro Nacional*. National Treasury.

**US\$:** United States dollar.

**US:** United States of America.

**UTDT:** *Universidad Torcuato Di Tella*. Torcuato Di Tella University.

**UVA:** *Unidad de Valor Adquisitivo*. Acquisition Value Unit.

**UVI:** *Unidad de Vivienda*. Dwellings Unit.

**VAT:** Value added Tax.

**VIX:** S&P 500 volatility.

**WB:** World Bank.

**WPI:** Wholesale Price Index.

**y.o.y:** year-on-year.

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