Financial Stability Report

June 2021

BANCO CENTRAL
DE LA REPÚBLICA ARGENTINA

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Preface

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 December 2021.

Autonomous City of Buenos Aires, June 17, 2021.

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ISSN 2525-0574 | Online edition
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For questions or comments, please contact: analisis.financiero@bcra.gob.ar
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About the use of inclusive language in the Spanish version of this report

The Central Bank of Argentina is committed to encouraging the use of a non-discriminatory language that promotes the acceptance of all gender identities. It should be noted that all those who have contributed to this report acknowledge that language influences on ideas, feelings, ways of thinking, as well as principles and core values.

Therefore, efforts have been made to avoid sexist and binary language.

Executive Summary

Since the release of the previous publication of the Financial Stability Report (IEF) (December 2020), the financial system has continued operating without any relevant stress episodes and managed to preserve some distinctive features of strength and protection against the main sources of vulnerability given its intrinsic exposures to risks. At this time policy measures were implemented to face the COVID-19 shock, measures that contributed to the consolidation of the domestic economic recovery in a context of financial stability.

As it is happening all over the world, the domestic economic outlook is still conditioned by the evolution of the pandemic. The focus is still on the pandemic health-related situation —which in recent months forced the authorities to reintroduce some restrictions to mobility, even though less stringent than one year ago—, and on the progress made in the vaccination campaign, which is showing positive results in line with the recent arrival of a higher number of vaccine doses. As a result of these achievements, it was possible to move forward in the focus on the policy measures that were implemented. In this context, and based on a prudential management, the BCRA continued supporting the regularization of economic activities, seeking to lessen a potential systemic impact of the shock on the private sector. Thus, the monetary authority kept the pillars of the prudential policy implemented in the first half of 2020, mainly intended to: i. invigorate loans to the private sector; ii. ease the financial situation of the private sector; iii. foster time deposits in pesos at banks; iv. sustain the high solvency levels of financial institutions; and v. keep and improve exchange regulations, preventing temporary supply and demand imbalances from impacting on the stock of international reserves.

In turn, in the financial markets, there were mixed changes in recent months, such as a reduction in exchange rate volatility resulting in the accumulation of reserves by the BCRA. The gradual rebuilding of domestic debt markets also stands out, which enabled the Treasury to issue debt by renewing maturity dates, while the private sector financing through the market grew in real terms.

In perspective, the situation continues to be challenging because of the potential risks ahead in the short term. On one hand, the external context is still characterized by a set of uncertainty factors and vulnerabilities. Regarding the former, the considerations about the evolution of the pandemic and the expectations on the effectiveness and sustainability of the stimulus policies in place in developed countries still prevail. With reference to vulnerability sources, there are still signs of excessive appreciation in several market segments, activity growth in investment funds with procyclical effects on the financial cycle worldwide and a leverage increase that creates doubts on debt sustainability, among other. In this context, an eventual deterioration of the outlook and an increased market volatility cannot be ruled out. At domestic level, the expectations are still conditioned by the health situation, added to factors such as the open negotiation with international organizations (IMF, Paris Club) and the electoral process to be held in Argentina this year, among other considerations. On the other hand, vis-à-vis an increase in the weight of the operational risk factors related to the rise of teleworking and a higher use of digital channels to make transactions (as it happens globally), some prevention and awareness measures are being developed to mitigate these risks, in addition to the regulatory framework and the supervision measures implemented by the BCRA on this matter. Even though the abovementioned risk factors might have some impact on the financial system, the sector is expected to keep an adequate level of resilience, as it has been observed so far.

The traditional financial intermediation, characterized by a low operating complexity and a high transactional component, continued to be the sector's main activity. In a context of relatively low credit depth in the economy, the financial system managed to preserve a high coverage in terms of liquidity, solvency and provisioning, in the aggregate, relative to both our recent history and other countries of the region. In the context of the effective prudential regulations, mismatches in the system's balance sheet (in both currencies and terms) were limited, and so was the balance sheet exposure to the public sector. The degree of direct interconnectedness of institutions between themselves and with their main institutional investors remained at relatively low levels, posting a decreasing path in the former and a gradual increase in the latter (role of mutual funds (FCIs)).

The balance between the financial system's potential vulnerabilities and its strength features posted some improvement on the margin (lower intensity in some vulnerabilities, in a context of higher risk coverage ratios). If compared to the information provided in the previous IEF, there are some positive signs in terms of credit risk at systemic level. In this period, there was a slight drop in the ensemble-of-institutions' exposure to the private sector, accompanied by some signs of improvement in the payment capacity of debtors. In this respect, measures were implemented by the BCRA together with the National Executive Branch (PEN) to mitigate the adverse effects of the pandemic, as from March 2020, and both households and companies were benefitted by a set of financial relief initiatives that started to acquire a deeper focus as from the second quarter of the current year. These initiatives contributed to reducing the deterioration of the private sector's financial situation, thus preventing a subsequent adverse impact on the solvency of the aggregate domestic financial institutions. Despite this improvement on the margin, episodes of stress in the payment capacity of debtors cannot be dismissed for the rest of 2021 if any of the abovementioned risk factors holds true —especially those related to the economic activity level; this potential source of systemic vulnerability is the most important in relative terms.

Another potential source of vulnerability for the system is an even weaker process of financial intermediation in the next months. If this scenario held true, then sources of income might be adversely affected —and eventually, solvency, even though starting from high levels. In this context, it is worth mentioning that the system has kept positive profitability levels in real terms, but with a declining trend. In the next few months, the evolution of financial intermediation will be conditioned by the economic activity performance, which will be surely impacted by the news about COVID-19 second wave, the public policies to address the new outbreak and the vaccination campaign in progress.

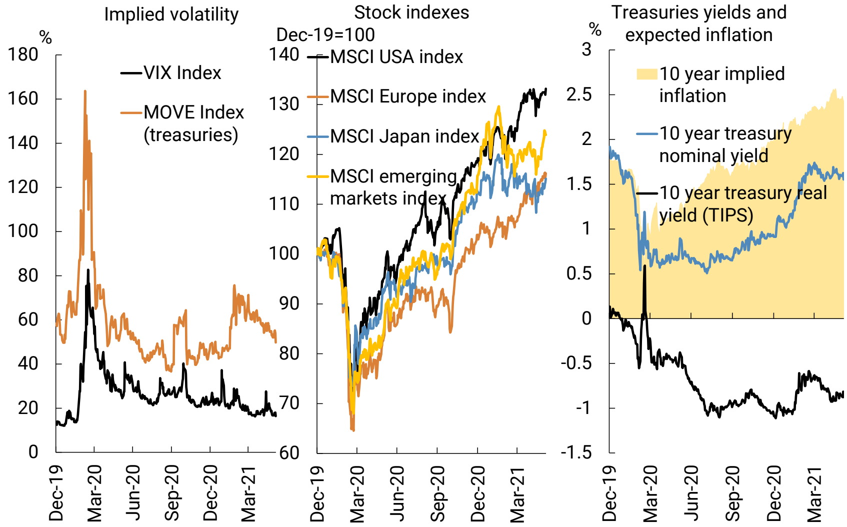
A last relevant source of potential vulnerability for the financial system lies in the dynamics and composition of funding sources. The stock of private sector deposits in pesos dropped in real terms if compared to the values stated in the previous IEF. This occurred in a context of a lower monetary issue by the BCRA on the basis of the focus on the assistance programs adopted by the PEN, the money growth smoothing policies given the abovementioned credit dynamics and the inflation levels, which stood above those of the previous six months. Beyond this performance on the margin, the total stock of private sector deposits in pesos recorded a year-on-year (y.o.y.) increase in real terms, with a marked rise of time deposits, which have also gone up so far in 2021. Vis-à-vis this potential source of vulnerability, the financial system coverage with liquidity margins has stood at high levels. In the short and medium term, faced with a hypothetical scenario of higher volatility in the financial markets or a less dynamic recovery of the economic activity than originally expected, these factors might impact to some extent on the demand for deposits (or on its composition), with eventual implications for the financial system's assets and liabilities management.

Looking forward, the context of uncertainty about the evolution of the pandemic-related scenario —mitigated by the recent acceleration of the vaccination campaign— continues to be a challenge for the appropriate operation of the economy in general and the financial system in particular. Against a backdrop where the financial system has been showing an important level of resilience, the BCRA will continue to monitor and assess this scenario —together with the National Executive Branch— and, if appropriate, it will make use of all the tools available in order to promote domestic conditions of financial stability.

1. International and Local Context

The evolution of the COVID-19 pandemic continues to condition the international economic and financial context, even though significant progress has been made against the situation observed one year ago. After the publication of the previous Financial Stability Report by late 2020, the focus has changed and is now on the second wave of contagion, the onset of new variants and the vaccination campaign pace globally. Although the activity level has been recovering worldwide (accompanied by an improvement in commodity prices),[1] such recovery is heterogeneous and still uncertain. In fact, there is a significant uncertainty about the economic perspectives, which are related to the continuity and effectiveness of the stimulus measures implemented by different countries.

Chart 1 | International financial markets – selected variables



Source: BCRA based on Bloomberg

So far this year, the international financial markets have shown a favorable performance (see Chart 1). However, due to the length of the pandemic and the continuity of low interest rates in international markets, this positive trend is accompanied by the deepening of a series of vulnerabilities that were stated in the latest issues of the IEF. There are signs of over-appreciation in different markets (such as in the stock markets of certain countries), with some level of decoupling between the financial assets and the pace of global economy. This situation leads to potential and sudden price corrections in view of changes in risk perception (such as an increased volatility in the US stock market by early 2021, an episode that eventually had limited effects).[2] In turn, against a post-pandemic backdrop of economic recovery and rising inflation expectations in some developed nations, markets would now focus on the regularization process of the monetary policy and its impact on international interest rates. The first clues were seen in

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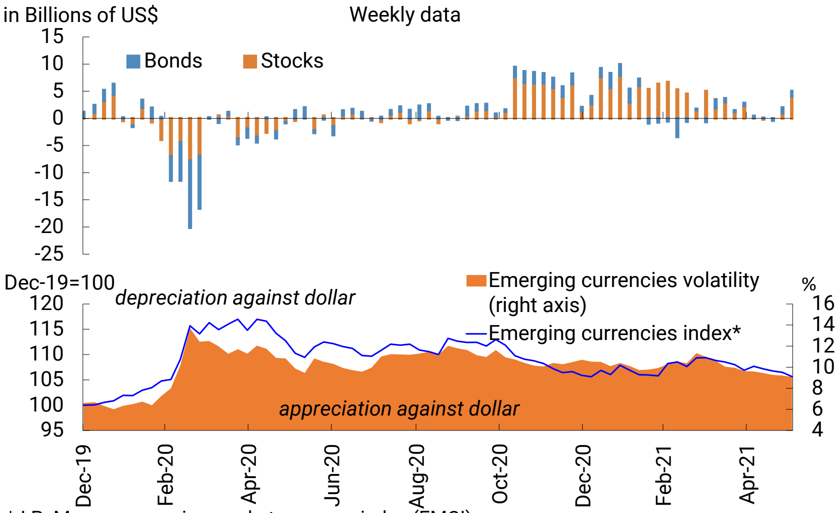
1 For further information about the recent evolution of the economic activity at global and local level, see the Monetary Policy Report.
2 The VIX Index (expected volatility for S&P 500, on the basis of options) went from averaging 24% in the first fortnight of January to almost 40% in the last days of the month, after recording sharp hikes in specific instruments of companies with low capitalization (operations related to the retail segment on the basis of the recommendations in social networks).

February and March, after the rise of yields on the 10-year US Treasury notes.[3] More recently, at the mid-June meeting of the FED, the forecasts of the Federal Open Market Committee (FOMC) members suggested, for the first time, the beginning of a rise in the monetary policy rates (for the median) in 2023. A change of expectations towards a quicker-than-expected increase of interest rates in developed economies may have negative effects at global level, within a context characterized by over-appreciated assets, global leverage hike (and increased possibilities of downgrading or defaults) and an increase of non-banking financing intermediation. Even though, so far this year, inflows were recorded to investment funds specialized in emerging markets[4] (see Chart 2), upon the onset of the COVID-19 shock in 2020, a strong pro-cyclical behavior has been observed within a context of flight to liquidity that keeps financial markets on the alert — particularly equity funds exclusively specialized in Latin American Markets exhibiting net outflows from that moment onwards.[5]

Chart 2 | Flows towards investment funds specialized in emerging market assets



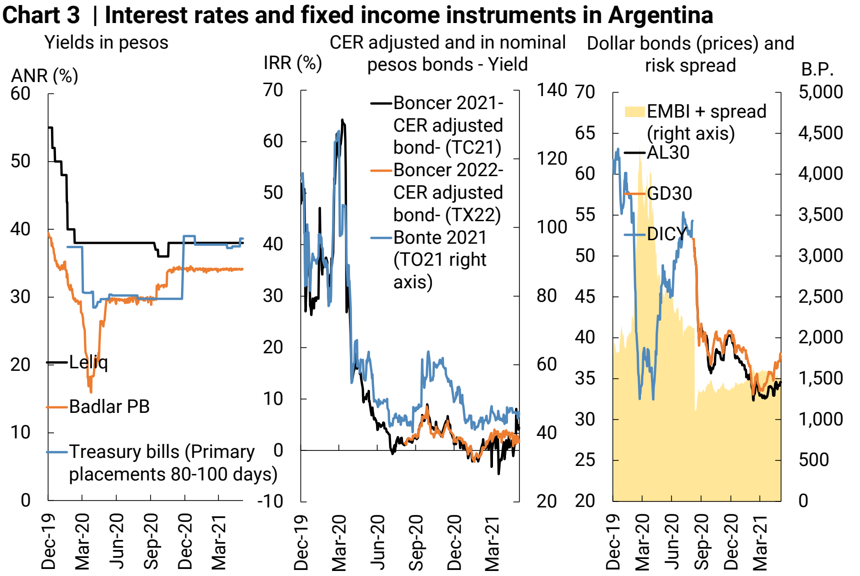
*J.P. Morgan emerging market currency index (EMCI)
**J.P. Morgan emerging market volatility index.

Since the publication of the previous IEF, the economic and employment recovery process continued consolidating in Argentina but with a dissimilar performance among sectors. The

3 The yields of 10-year US Treasury notes went from close to 1.1% (average of the first fortnight of January) to 1.7 by late March and early April (even though they dropped slightly later on). During the same period, the yields of 10-year US Treasury inflation-protected securities went from -1% to -0.7%.
4 Even though at a slower pace than in the last quarter of 2020. These inflows to emerging countries' funds were accompanied by dynamic debt placements in international markets by emerging economies.
5 See Exhibit "Investment funds and financial stability at a global level" in the previous IEF. In terms of investment funds in general, it is worth mentioning that, in March, there was a problematic episode with a family office (Archegos Capital Management) with significant exposures in derivatives, which could not meet the requirements of margin calls. Although this episode did not have systemic consequences, it raised concern about the segment of family offices which are not regulated or monitored like other funds (such as mutual funds). These family offices exhibit considerable vulnerabilities (lack of transparency, high leverage due to the use of derivatives, direct interconnectedness concentrated in few counterparts, indirect interconnectedness via common positions with other agents –like brokers– that may generate contagion effects), which in some cases are shared with hedge funds.

current context resulted from the evolution of the epidemiological situation[6] and the set of policies applied to respond to COVID-19 shock (including unprecedented fiscal and monetary stimulus and, more recently, the progress made in terms of vaccination). In fact, the improvements resulted in a deeper focus of policies on the critical sectors of the economy. In this sense, it is worth mentioning that the Productive Recovery Program II (REPRO II) was launched by the National Government by late 2020 to sustain the employment level in the productive sectors still struggling with economic difficulties. This initiative was accompanied by the BCRA, which maintained financial relief measures for the companies eligible for this Program. Even though domestic growth expectations for 2021 have improved on the margin, as well in international terms, there are still sources of uncertainty largely related to the evolution of the pandemic, including the evolution in the number of cases, the changes introduced to health-related measures and the progress made in terms of vaccination, among other factors. Another issue is the transition inherent in the policies applied to solve the pre-pandemic macroeconomic imbalances, making progress in terms of the fiscal, external and monetary situation.[7] In this sense, the BCRA continues contributing to the regularization of the economy, in coordination with the National Government's fiscal strategy, so as to lay the macroeconomic foundations for an economic development path with social equity.[8] As it will be shown in the following sections of this report, within this domestic context, the financial system is expected to continue showing an adequate degree of resilience in line with the observations so far.

Chart 3 | Interest rates and fixed income instruments in Argentina



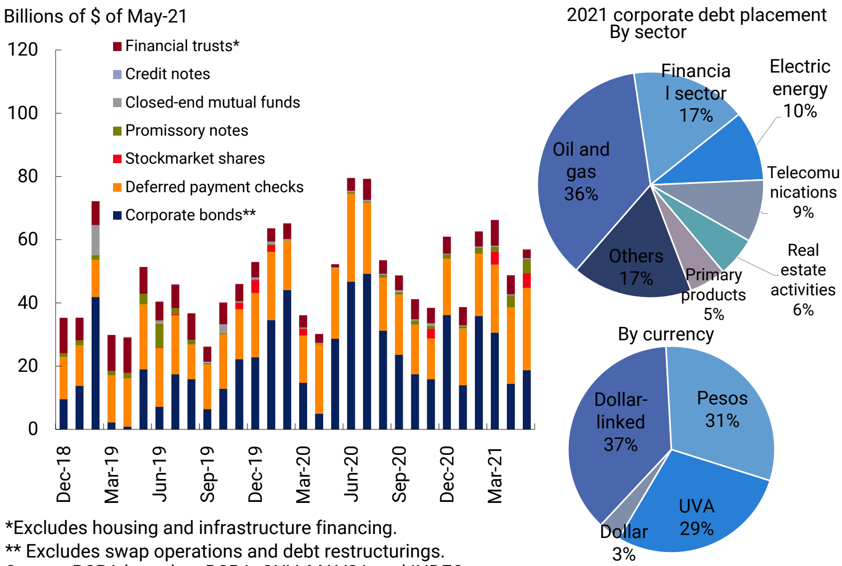
Source: BCRA based on Bloomberg

So far this year, the different variables related to the domestic financial markets exhibited a mixed performance. After the tensions observed during the second half of 2020, which resulted in a

6 Since March 2021 and due to the rise in the number of COVID-19 cases, new restrictions to mobility were implemented, even though they are less restrictive than they were a year ago and more focused.
7 For further detail, see the last issues of the Monetary Policy Report.
8 See Objectives and Plans of the BCRA for 2021.

series of measures to better manage foreign currency and prevent temporary imbalances, volatility has been contained in the foreign exchange market. As a result, so far this year, the BCRA could keep a growing trend in the stock of international reserves. Nevertheless, within a context of open negations with the IMF and the Paris Club, the prices of sovereign bonds in dollars have fallen since the issue of the previous IEF, even though in May a certain level of recovery on the margin was observed (see Chart 3). In year-to-date terms, in the domestic markets, the prices of sovereign bonds in pesos have improved in their different segments vis-á-vis a context where the Treasury continued renewing domestic debt maturity with amounts awarded above the needs of each month, through different types of instruments (a higher weight of CER-adjusted instruments was observed, especially for longer terms). In order to continue regularizing and seeking more liquidity in the sovereign bond market (thus promoting the domestic currency capital market), in May, the BCRA established that financial institutions would have the option of complying with the regulatory liquidity requirements that are currently under the form of BCRA's Liquidity Bills (LELIQs) using Treasury Bonds.[9]

Chart 4 | Financing to the private sector through the domestic capital market local



*Excludes housing and infrastructure financing.
** Excludes swap operations and debt restructurings.
Source: BCRA based on BCBA, CNV, MAVSA and INDEC.

The issues of private sector instruments in the domestic capital market[10] went up 10% year-on-year (y.o.y.) in real terms (January-May period, see Chart 4), while the issuance cost did not exhibit considerable changes against the information included when the previous IEF was released. If the analysis is broken down per instrument, Corporate Bonds (ON) were less dynamic,

9 Before this implementation, financial institutions could satisfy the minimum reserve requirements through deposits in current account, Leliqs and Bonte 2022, subject to the different compliance limits. In May, the decision of the BCRA's Board of Directors was that Treasury bonds in pesos (minimum term of 180 days) could be used as part of the percentage of regulatory liquidity requirements compliance in Leliqs. Moreover, a specific mechanism was defined whereby banks may sell to the BCRA the bonds purchased to satisfy these requirements.
10 It includes issues (gross amounts) of corporate bonds, financial trusts, deferred-payment checks, marketable promissory notes, credit invoices, shares and closed funds. Only real financing is considered and no swap-related transactions are included.

a situation that was offset by more transactions with deferred-payment checks (with a growing share of E-CHEQs) and an improvement in the transactions with marketable promissory notes and in financial trusts. Among Corporate Bonds, the issue of ONs from the oil and gas sector, financial sector, electrical power and telecommunications segments stood out. In terms of currency of issue, for Corporate Bonds, there was a contraction in the weight of pesos and dollar-linked transactions (with an average term between 13 and 35 months, respectively) while UVA instruments gained ground (with average terms close to 43 months). In line with the restructuring transactions made by the public sector (both at national and provincial level[11]) and the guidelines set by BCRA regulations (Communication "A" 7106, as amended) for the purpose of preventing temporary imbalances in the foreign exchange market and prudentially managing international reserves, sovereign bond swaps in foreign currency continued to be transacted.[12] So far this year, the transactions made by the oil and gas sector stood out (with a higher weight in the current stock of ONs) after the transactions observed in 2020 in sectors such as electric energy, banks, real estate activities and agribusinesses.

2. Main Strengths of the Financial System Given Current Risks

So far in 2021, the aggregate financial system continued operating without stress episodes and keeping high hedging against the intrinsic risks assumed. The context where the financial system is operating had shown signs of economic activity recovery until early 2021, mainly favored by the stimulus measures of the National Government together with the BCRA as well as the beginning of the vaccination campaign to fight COVID-19. Subsequently, this recovery pace slowed down particularly due to the worsening of the health-related situation as from the end of the first quarter of the year.[13]

As it was pointed out in the last publication of the IEF (by late 2020), the ensemble of financial institutions kept high margins of liquidity, solvency and provisioning (see Table 1). The sector continues developing traditional financial intermediation transactions (of low operating complexity) with a predominant transactional bias, keeping a low direct interconnectedness among institutions and a reduced expansion of total credit in the economy. Balance sheet mismatches (of currency and terms) assumed by the financial system in general and the balance sheet exposure to the public sector stood at low levels, in line with the current prudential regulations. It is worth stating that the activity of the sector was subject to the regulation and supervision scheme in force, which is in line with the best practices recommended by international standards. Below, there is a description of the financial system's main strengths in view of the risks faced, which will be analyzed in detail in the following sections.

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11 So far this year, the provinces of Córdoba, Salta, Entre Ríos and Jujuy reached restructuring agreements for their debt in foreign currency under the international legislation (and, thus, joined the provinces of Mendoza, Chubut, Neuquén and Río Negro that closed their negotiation by late 2020). Since there was a preliminary agreement with bondholders ad hoc group to restructure its debt, Chaco announced a bid in June. Conversely, the provinces of Buenos Aires, La Rioja and Tierra del Fuego are still negotiating their debt restructuring.
12 The renegotiation recorded during the fourth quarter of 2020 (of around 40 companies) resulted in fewer net purchases in the foreign exchange market for around US$ 500 million against the original maturities for the same period. See "Private Sector External Debt Report".
13 For further information, see Monetary Policy Report (May 2021).

Table 1 | Main indicators of financial system soundness

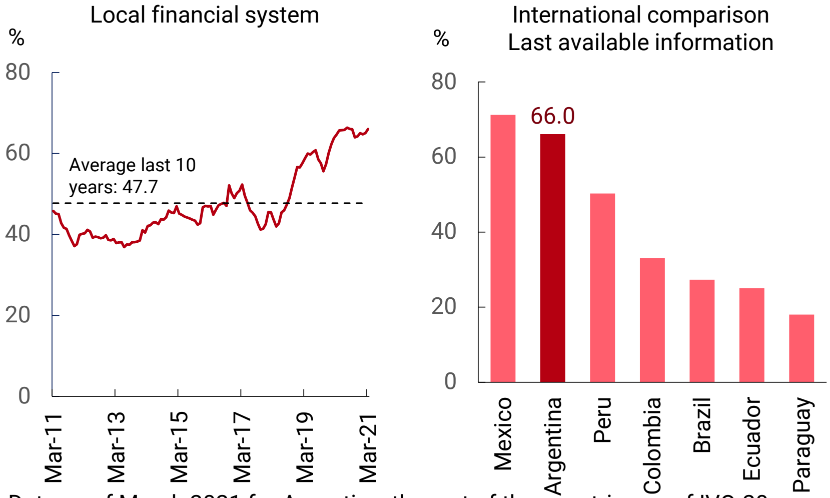
	Financial system			State-owned banks			Domestic private banks			Foreign private banks			Non-Banking financial institutions		
	Mar-20	Sep-20	Mar-21	Mar-20	Sep-20	Mar-21	Mar-20	Sep-20	Mar-21	Mar-20	Sep-20	Mar-21	Mar-20	Sep-20	Mar-21
Liquidity															
Liquidity Coverage Ratio*	2.2	2.1	2.3	1.9	1.9	2.1	2.3	1.9	2.2	2.3	2.4	2.7	-	-	-
Net Stable Funding Ratio* (1)	1.8	1.9	1.8	1.6	1.8	1.8	1.9	1.9	1.8	2.0	2.0	1.9	-	-	-
Broad liquidity / Deposits (%)	64.6	66.0	66.0	51.6	56.5	57.4	72.7	70.9	71.8	74.6	74.4	72.9	71.1	42.5	38.8
In $	62.0	61.6	61.5	50.1	54.6	55.2	70.4	64.9	66.0	72.5	69.2	67.4	39.9	28.2	29.4
In US$	73.0	84.2	84.6	58.1	65.8	68.8	80.0	98.3	98.2	79.8	90.4	89.0	660.8	254.6	210.0
Solvency															
Regulatory capital / RWA (%)	21.8	23.8	25.3	18.7	19.7	21.9	25.7	27.9	29.8	21.4	24.2	24.7	17.7	18.7	19.5
Regulatory capital Tier 1 / RWA (%)	19.8	21.7	23.3	17.8	18.8	21.2	22.3	24.4	26.3	19.5	22.4	23.0	16.0	17.0	17.7
Leverage ratio (%)	11.9	11.8	12.9	9.7	9.3	10.0	14.0	13.3	15.0	12.0	13.0	14.2	23.0	25.5	29.8
Capital conservation buffer (% verification)	100	100	100	100	100	100	100	100	100	100	100	100	89	88	99
Domestic systemically important banks buffers* (% verification)	100	100	100	100	100	100	100	100	100	100	100	100	-	-	-
Regulatory capital / Credit to private sector net of provisions (%)	37	40.3	45.8	31	32.0	38.2	43	48.1	55.3	39	43.8	47.9	17.6	18.8	18.7
(Regulatory capital - Regulatory requirement) / Credit to private sector net of provisions (%)	22	25.8	30.6	15	17.1	23.5	29	34.0	39.7	25	29.0	32.0	9.5	10.1	9.7
Profitability															
ROE in homogeneous currency (quarterly %a.)	14.3	14.5	1.3	7.6	22.7	0.1	16.7	12.0	1.0	18.9	10.6	3.7	1.0	-10.5	-18.7
ROA in homogeneous currency (quarterly %a.)	2.2	2.1	0.2	1.0	2.8	0.0	2.9	1.9	0.2	3.0	1.7	0.6	0.2	-1.9	-3.4
Private sector credit															
Private sector exposure / Assets (%)	36.2	33.1	32.0	33.5	30.9	29.9	37.4	32.5	30.8	36.3	34.5	33.8	78.2	80.8	82.3
Non-performing loan ratio (%)	5.3	4.5	3.9	7.7	7.5	6.6	4.1	3.3	2.4	3.6	2.3	2.2	6.8	5.6	3.7
Provisions / Credit to private sector (%)	5.3	5.7	5.7	6.1	6.6	7.0	4.6	5.2	5.2	5.3	5.3	5.0	4.7	4.6	4.0
Public sector credit															
Exposure / Assets (2)	9.2	10.9	11.8	18.5	18.0	18.2	4.2	9.2	9.6	3.6	4.5	6.3	0.1	0.3	0.4
Net exposure / Assets (%) (3)	-1.8	-2.0	-1.4	-4.9	-7.3	-7.5	-2.1	-1.0	0.0	2.0	3.4	5.0	0.1	0.3	0.4
Balance Sheet in Foreign Currency															
(Assets - Liabilities + Net undelivered purchases in foreign currency) / Regulatory capital (%)	10.8	10.1	9.6	26.8	28.0	29.4	3.9	2.8	2.1	4.9	3.4	-0.2	8.3	14.9	19.4
Deposits in US$ / Total deposits - Private sector (%)	25	21	21	20	17	16	25	20	20	30	25	26	5	6	5
Loans in US$ / Total loans - Private sector (%)	21	15	14	20	16	14	20	12	11	24	16	16	118	25	24

(1) December 2020 last available data. (2) Position in government securities (not including BCRA securities) + Loans to the public sector.
(3) Position in government securities (not including BCRA securities) + Loans to the public sector - Deposits from public sector.
RWA: Risk weighted assets.
* Corresponds to financial entities covered by BCRA regulations, as applicable.
Source: BCRA

i. High levels of liquidity for the ensemble of financial institutions. Since the publication of the previous IEF, the financial system as a whole continued keeping high liquidity margins. By the end of the third quarter of 2021, the broad liquidity[14] of the sector stood at 66% of total deposits, remaining virtually unchanged against the previous IEF and standing slightly above the record of the first quarter of 2020. This level exceeds the average of the last 10 years and the figures recorded in other countries of the region (see Chart 5). Liquidity margins according to the currency of liabilities are also at relatively high levels and have remained virtually unchanged against the records of six months ago (see Table 1).

14 Considering the stock of liquid assets, concepts included in liquidity requirements and BCRA instruments, both in domestic and foreign currency items.

Chart 5 | Financial system liquidity
In % of deposits



Data as of March 2021 for Argentina, the rest of the countries as of IVQ-20 (except Ecuador as of IVQ-19). Source: BCRA and FSI (IMF)

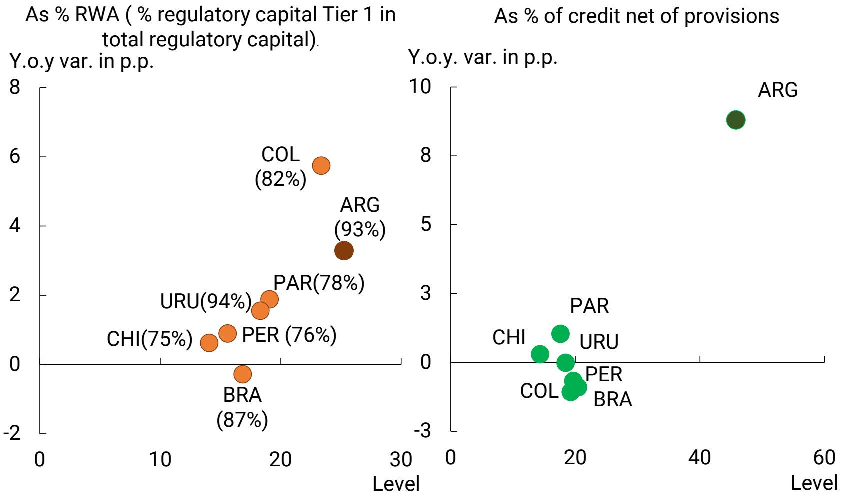
Additionally, the liquidity ratios resulting from internationally recommended standards stood at high levels, above the minimum amount required by local regulations and the figures recorded in other countries of the region. In particular, the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR) [15] totaled 2.3 and 1.8 —for Group A financial institutions, with data as of March 2021 and December 2020, respectively—, almost doubling the minimum levels required by the regulations.[16]

ii. High and growing provisioning and solvency levels of the financial system. During the last six months, the aggregate of financial institutions continued increasing their provisioning within a context of sizable and growing solvency levels. The accounting provisions of the financial system totaled 148% of the non-performing stock of loans to the private sector in March 2021, up 21.1 p.p. against the level recorded in September 2020. In turn, the provisioning level relative to total funding to the private sector (both performing and non-performing) accounted for 5.7%, without exhibiting significant changes against last September but increasing slightly in year-on-year terms. The year-on-year increase of this ratio on the margin was boosted by state-owned and domestic private financial institutions while, in the case of foreign private institutions and the non-banking financial institutions (EFNBs), the ratio contracted.

15 The Liquidity Coverage Ratio (LCR) assesses the liquidity available to face a potential outflow of funds in a severe short-term stress scenario. The Net Stable Funding Ratio (NSFR) assesses the availability of financial institutions' stable funding structure —in line with their line of business— to mitigate the risk of future stress situations arising from their funding.
16 Considering the Bank for International Settlements (BIS)'s latest review with information as of December 2019 on the liquidity standards recommended at international level (*Basel III Monitoring Report- December 2020*), the level of ratios (LCR and NSFR) for the ensemble of domestic institutions required to comply exceeded the levels observed in other economies. Particularly, the median for the LCR and NSFR for such period stood at 2.6 and 1.8, respectively, for the domestic financial system while, at international level, larger banks (defined as those with a tier 1 capital above €3 billion) evidenced levels close to 1.4 (1.8 for the other institutions) in terms of LCR and 1.2 (same record for the other institutions) in terms of NSFR during the same period of time.

In terms of solvency, during the last six months, the Regulatory Capital (RC) of the aggregate financial system increased in terms of risk-weighted assets (RWA) to a total of 25.3% in March (+1.5 p.p. against September 2020 and +3.3 p.p. y.o.y.). Tier 1 capital —with the greatest capacity to face eventual losses— accounted for almost 93% of RC. These levels are above those of other economies of the region (see Chart 6). The capital adequacy (RC net of the minimum regulatory requirement) of the ensemble of financial institutions stood at 202% of the regulatory requirement, up almost 23 p.p. against last September. The sector continued to show a high level of compliance with additional capital buffers. Additionally, the leverage ratio of the ensemble of financial institutions (in terms of the international standards recommended by Basel Committee) reached 12.9% in March, far exceeding the regulatory minimum threshold of 3% and standing above the figures of September and March 2020. The sector managed to keep a high solvency ratio in view of a context where the macroprudential policy ordered the suspension of the distribution of financial institutions' profits due to the shock of the pandemic; there were also positive results —contracting on the margin— in the ensemble of institutions while the performance of the financial intermediation segment slowed down.

Chart 6 | Solvency and provisioning indicators – Regulatory capital - Financial system comparison in LATAM



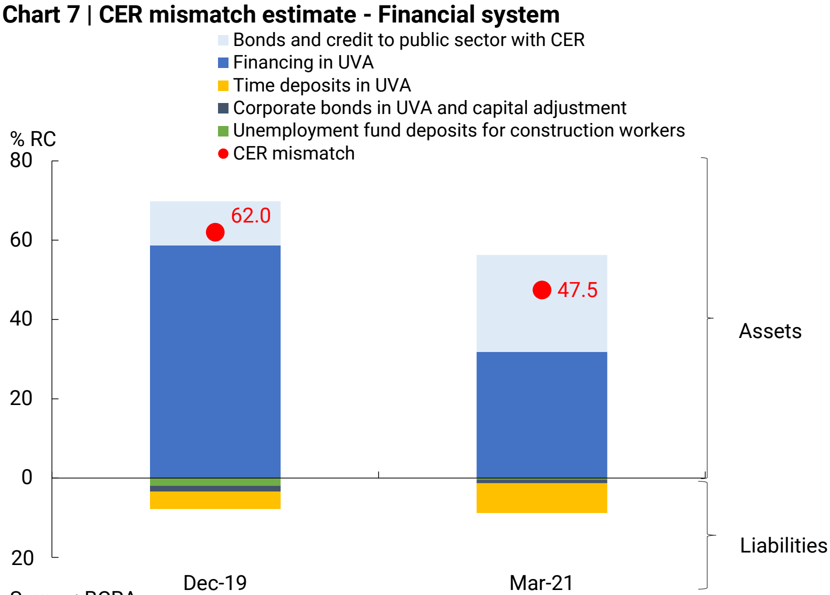
Note: ARG: Argentina, PAR: Paraguay, CHI: Chile, URU: Uruguay, PER: Peru, BRA: Brazil, COL: Colombia. Data as of March 2021 for Argentina, the rest of the countries as of IVQ-20 (except Uruguay and Chile as of IIIQ-20). Source: BCRA y FSI (IMF)

In order to assess the level of resilience of the financial system upon an eventual materialization of the credit risk from a historical and international perspective (decoupling the effect of the temporary measures adopted by the BCRA to mitigate the financial burden of debtors within the pandemic context), it is useful to study the link between the regulatory capital and the credit to the private sector net of provisions. At domestic level, this ratio stood at 45.8% at aggregate level in March, reaching the maximum level of the last 15 years and exceeding the records of other economies of the region.[17] This value reflects the relatively low credit exposure and the high levels of capital and provisioning of the aggregate domestic financial system.

iii. Reduced exposure of the balance sheet to items in foreign currency and limited foreign currency mismatch. The weight of assets & liabilities in foreign currency in the balance sheet of the aggregate financial system continued to stand at low levels from a historical perspective. Assets in foreign currency of the ensemble of financial institutions accounted for 19.2% of total assets in March, going down in year-on-year terms and standing 0.7 p.p. below the average of the last 10 years. In turn, liabilities in foreign currency totaled 17.4% of total funding (liabilities and net worth), below the level recorded one year ago and down 1.2 p.p. against the average of the last 10 years. If forward purchase and sale transactions in foreign currency classified as out-of-balance are included, the difference between assets and liabilities in foreign currency accounted for 9.6% of the regulatory capital by the end of the first quarter of 2021, a level that has been well below the average of the last ten years within regulatory limits to be complied with by institutions.

iv. Limited mismatch in items adjusted by CER (Reference Stabilization Coefficient) in the financial system balance sheets. The aggregate of institutions continued exhibiting a moderate mismatch of items adjusted by CER during the last six months. Considering total CER-adjusted assets and liabilities (including UVA-adjustment), the aggregate financial system's long position in this segment (assets in excess of liabilities) was estimated at of 47.5% of total regulatory capital by early 2021, down 15 p.p. against the levels of late 2019 (see Chart 7).

Chart 7 | CER mismatch estimate - Financial system



Source: BCRA

17 The regulatory capital position (regulatory capital - regulatory requirement) in terms of lending to the private sector net of provisions stood at 30.6% at aggregate level in March, up 17 p.p. against the average of the last 15 years.

v. Reduced exposure of the ensemble of financial institutions to the public sector. By the end of March 2021, lending to the public sector accounted for 11.8% of total assets, slightly above the figure recorded in recent months. The limited exposure to the public sector occurs in the context of current macroprudential regulations in force. The aggregate financial system keeps a net debt position against the public sector (at all levels), if deposits of this sector are considered.

vi. Regulatory framework in line with international standards. The current micro and macro prudential regulations applicable to the Argentine financial system focus on the special features of the local context, without leaving aside international best practices. Within this framework, the BCRA has recently made progress to replace in the domestic regulations the references to the London Interbank Offered Rate (LIBOR) with references to internationally recommended rates (see Exhibit 1). This decision was made after advising institutions, last year, about the legal, operating and financial risks related to LIBOR-linked transactions extending beyond the end of 2021, when LIBOR drafting and spreading will no longer be mandatory in the United Kingdom.

Based on the aforementioned strengths, the financial system would sustain the current level of soundness, keeping its resilience configuration in view of a still challenging context. In this sense, within the stability framework analysis, the main exogenous risk factors that the financial system might eventually face in the next months are:

i. Eventual deterioration of the external context due to several sources of uncertainty and vulnerabilities at global level. The appearance of vaccines and the progress made in their administration (even though at different paces) give rise to more favorable expectations at global level against the situation reported in the previous IEF. Nevertheless, in the short-term, the pandemic is still a source of uncertainty. Eventual complications may impact on the global activity level, international trade and commodity prices, with effects on emerging economies, including Argentina. Likewise, several vulnerability factors have deepened in international financial markets due to the maintenance of interest rates at historically low levels.[18] On the other hand, there are also factors that may trigger a widespread contraction of risk appetite, including —for example— a change in expectations in terms of the pandemic or the stimulus policies of developed nations (early withdrawal of support measures), or increasing uncertainty due to an eventual and widespread rise of downgrading or defaults of governments and/or companies. For the next months, an eventual scenario of sudden changes in prices and short-term capital flows should not be disregarded, and this situation would affect emerging markets in general. In the medium-term, a regularization context (higher level) of interest rates in international markets might also be a challenge for emerging markets. As regards domestic transmission channels in view of the different types of shocks mentioned above, any shock related to the real channel would have a direct impact on the local economic activity and, in turn, on households' and companies' repayment

18 As it was mentioned in Context, these factors include: market segments with over-appreciation signs, growth of non-banking financial intermediation (thus increasing pro-cyclicality of the global financial cycle) and widespread increase of leverage (with persistent concern about debt sustainability). See Exhibits "COVID-19 and challenges to global financial stability" and "COVID-19 and risks to financial stability in emerging economies" in the two previous issues of IEF.

capacity. In turn, any shock related to the financial channel might create more volatility on the exchange rate and interest rates, thus impacting on financial intermediation transactions.

ii. Possibility of a less-dynamic-than-expected economic recovery or higher volatility in domestic financial markets. Although the activity level is expected to improve in the rest of 2021and inflation rates are expected to go down gradually, the situation is dynamic and volatile within a context of uncertainty. The evolution of the COVID-19 second wave (and the health-related measures) might condition the economic activity to some extent, thus affecting both the context where financial intermediation operates and the debtors' payment capacity. On the other hand, the possibility of a more volatile context in the domestic financial markets should not be disregarded, due to factors such as the open negotiations with the IMF and the Paris Club, the dynamics of the electoral process foreseen for this year or seasonal aspects of the exchange market (in which variables such as harvest settlement and international commodity prices have great incidence). Higher volatility in financial conditions —including interest rates and/or the exchange rate— might affect the context of financial intermediation activities.

iii. Operational risks derived from a higher dependence on technological resources due to the pandemic. As a result of the social distancing measures, as from 2020 teleworking has been widely utilized and the use of digital channels was encouraged for financial transactions, which implies an increasing exposure to operational risks, a situation observed at global level (including, for instance, fraud or cyber-security attacks or the disruption in the provision of payment and intermediation services). So far, no disruptive event has occurred in the domestic market. In this context, the BCRA has published cyber-security response and recovery guidelines, in addition to implementing an awareness campaign about fraud and designing preventive regulations on this issue (see Exhibit 2). While the exposure to this risk increased due to more stringent and preventive restrictions in view of the second wave of the disease, this exposure is expected to drop in the following months if the activities regularize in the short term.

Another relevant risk factor is related to the impact of climate change (associated with global warming) on the economic and financial context, an issue that is increasingly gaining international awareness (see Exhibit 3). In the medium-term, apart from the already mentioned challenge to be faced by emerging economies with reference to the unwinding of monetary stimulus policies by developed economies (in a context of higher public and private indebtedness), the post-pandemic world is expected to witness changes in business models of the corporate sector in general (given the effects on the consumption patterns and on the production and marketing chains) and the financial sector in particular (for example, regulatory changes), with impacts both on banks and on non-banking financial intermediation.

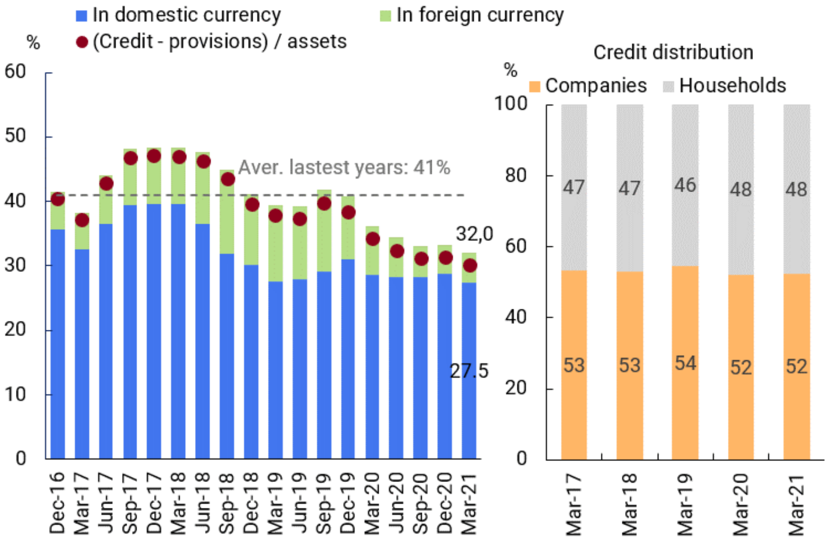
The financial stability analysis continues in the next section with a study of the sources of vulnerability identified for the Argentine financial system, given their balance sheets' exposure to the aforementioned risk factors. These vulnerabilities will be set against the strengths of the financial system in order to assess if the system is in a position to deal with any eventual materialization of these risks.

3. Sources of Vulnerability and Specific Resilience Factors of the Financial System

3.1. Credit Risk to the Private Sector. Exposure, Materialization, and Hedging

The financial system continued exhibiting a reduced exposure to the private sector at the end of first quarter of 2021, standing below that recorded at the time of publication of the previous Financial Stability Report (IEF). The stock of credit to private sector stood at 32% of assets of the ensemble of financial institutions in March (27.5% for the domestic currency segment), down 1.1 p.p. against September 2020 (see Chart 8). Financing to the private sector net of provisions in terms of financial system assets also fell over the period under analysis, amounting to 30.1%.

Chart 8 | | Gross exposure to Non-Financial Private Sector - Financing to the private sector in % of assets – Financial System

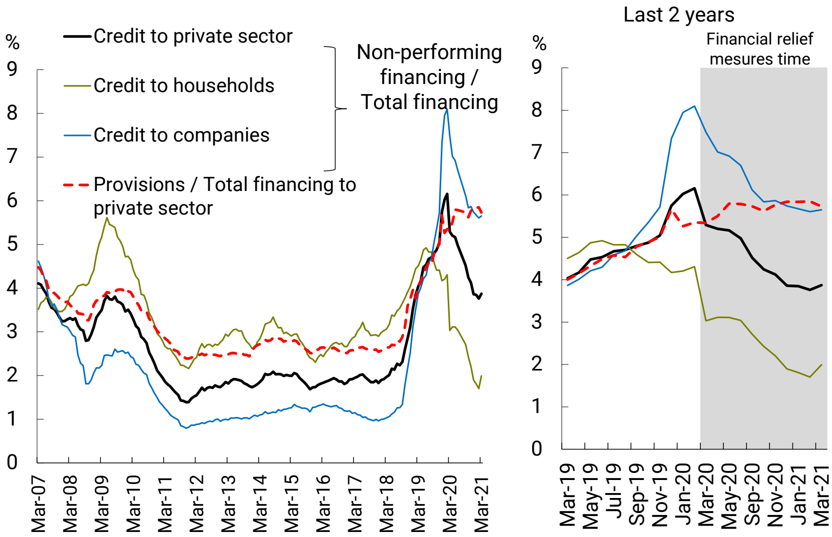


Source: BCRA

As part of the policies implemented by the BCRA together with the National Executive Branch aimed at mitigating the negative effects for the private sector in the context of the pandemic, both households and companies have been benefited by a set of financial relief measures since March 2020. The measures were pursued to reduce potential episodes of financial tension to be faced by households and companies; considering their debts with the financial system, payment conditions were eased to limit the impact on the system, which also exhibits low levels of exposure to the private sector. However, given the persistence of uncertainty factors linked to the pandemic and the need to reinforce lockdown measures —with their subsequent impact on activity level— stress situations in the payment capacity of households and companies cannot be ruled out in the coming months, causing a potential spillover on the domestic financial system.

A temporary amendment of the parameters to classify debtors in the financial system was enforced as of March 2021 together with the possibility to transfer their unpaid installments to the end of the lifetime of the loan, thereby facing only the compensatory interest agreed upon. With respect to parameters to classify debtors, the BCRA set up a schedule of gradual transition between April and May 2021, coming back to the parameters in force before the pandemic as from June. Simultaneously and in order to mitigate the effect of the domestic context arising from the second wave of the pandemic, while focusing efforts on the most vulnerable sectors, the BCRA has recently allowed institutions to incorporate the unpaid installments of aid granted to employers falling within the framework of the Productive Recovery Program II (REPRO II) at the end of the lifetime of the loan only considering the accrual of compensatory interest.

Chart 9 | Financing to the private sector. Non-performance and provisioning Financial System



Source: BCRA

In this context, the non-performance ratio of financing to the private sector stood at 3.9% in March 2021, down 0.6 p.p. against the value recorded in September 2020 (-1.4 p.p. y.o.y.) (see Chart 9), even though it increased slightly at the end of the first quarter of the year. When making a credit segment breakdown, the delinquency indicator of loans granted to households fell 0.7 p.p. in the last 6 months totaling 2% (-1 p.p. y.o.y.), mainly due to the performance of personal and pledge-backed loans.[19] In turn, delinquency in loans granted to companies stood at 5.6%, evidencing a 0.5 p.p. drop against September 2020 (-1.8 p.p. y.o.y.). The non-performance of pledge-backed and mortgage loans exhibited the greatest relative fall in this sector. As mentioned in the previous Financial Stability Report, it should be pointed out that the level and change of these indicators—usually used to have a picture of the materialization of credit risk—should be construed within the framework of the provisions mentioned before and related to relief measures (see Box. Resilience in the Financial System in the COVID-19 Context: Exposure to and Hedging of Debt estimated to be at a Relatively More Vulnerable Situation).

19 For further information, see the latest editions of the Report on Banks.

Box. Resilience in the Financial System in the COVID-19 Context: Exposure to and Hedging of Debt Estimated to be at a Relatively More Vulnerable Situation

As mentioned in the last two issues of the Financial Stability Report, the BCRA together with the National Executive Branch have started to implement financial aid relief measures since the start of the pandemic in order to mitigate the effects of a significantly negative context on companies and households. Particularly, the parameters to classify debtors of the financial system (converging with the parameters in force before the pandemic as from next June) were modified, allowing for the transfer of unpaid installments to the end of the lifetime of a loan (a tool that was implemented up to the end of the first quarter of 2021), and for the freezing of installments of mortgage and pledge-backed loans adjusted by the Acquisition Value Unit (UVA), among other measures.[20] Thus, the so-called non-performance ratio[21] began to evidence some weakness to assess the current evolution of the financial system credit portfolio quality. Within this framework, and based on available information, the BCRA has prepared and monitored some supplementary indicators on the degree of exposure of the financial system to financing granted to debtors that, under certain criteria, are considered in a situation of higher relative vulnerability in this context. Next, having this information, it is possible to make additional estimates of the degree of resilience of the aggregate sector (relative impact on solvency) in view of a potential materialization of credit risk.

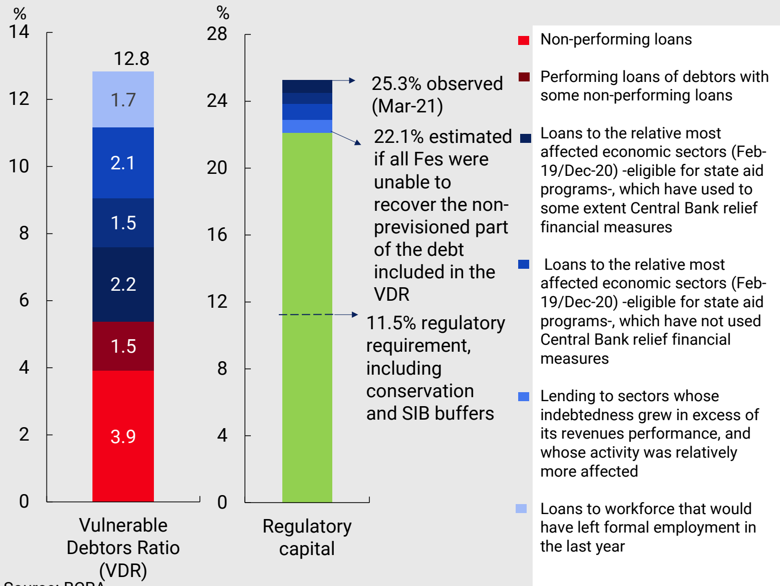
Particularly, here is an estimate of a supplementary indicator called Vulnerable Debtors Ratio and, for its preparation, the following additional criteria were used to characterize debtors in terms of their payment capacity: a) the activity to which they belong, b) whether they had the possibility to receive subsidized loans within the framework of the Emergency Assistance Program for Work and Production (ATP), c) whether they used the relief measures promoted by the BCRA together with the National Executive (either refinancing of debts or freezing of installments of UVA mortgage and pledge-backed loans), d) whether they exhibited a relatively high increase of their debts against the average change of income of their economic sector, and e) their potential exit from the universe of formal jobs in the last year (in the case of natural persons).

In this regard, the first part of the exercise consists in starting from the ratio observed in non-performance loans and then adding different blocks of credit to the numerator based on the categories mentioned before of vulnerable debtors, who will not necessarily become debtors with real problems to pay their debts. Then, the starting point is a 3.9% non-performance level recorded at the end of the first quarter of the year for the entire financial system, which is extended to 5.4% if the regular balance of debtors with some non-performing loans is added (see left panel, Chart 10). By adding the balance of debtors eligible for the ATP program (and that of their employees, should they have any), belonging to economic activities that performed relatively worse between February 2019 and December 2020, and that have taken some relief measure from the financial system, the vulnerability ratio of debtors would amount to 7.6%. If the same is done also including debtors eligible for the ATP program who have not taken relief measures (and their employees), the ratio

20 For further information, see Regulatory Annex, as well as those corresponding to the last two issues of the Financial Stability Report.
21 Defined as the ratio between non-performing loan and total lending (performing plus non-performing).

would reach 9.1%. If from these activities with a relatively more deteriorated performance, we also add those debtors whose debt increases more than the average income of the economic sector —above percentile 90— (be it the sector GDP for legal persons and the Wage Variation Coefficient (CVS) for natural persons), the abovementioned indicator reaches a level of 11.2%. Finally, if the debt of individuals who had formal wages in March 2020 and ceased to have them in February 2021 regardless of the reason, a 12.8% ratio of vulnerable debtors is reached. It is worth mentioning that this percentage refers to credit granted to debtors that, due to the characteristics mentioned, could be exhibiting a relatively lower repayment capacity, even though this does not necessarily mean an effective default on their liabilities to face the service of their debt.

Chart 10 | Vulnerable Debtors Ratio (RDV) and impact on Capital as of March 2021



Source: BCRA

As already mentioned, after calculating this set of debts that could, potentially, be in a situation of relative higher vulnerability, an analysis is performed of the degree of the system's resilience —given its current high levels of regulatory capital and provisioning— in view of a potential stress scenario. In this regard, if a hypothetical exercise is assumed (extreme, with low probability of occurrence) considering the non- payment of the total debt herein analyzed (which is not a projection), the system's capital adequacy would fall slightly (see right panel, Chart 10), keeping a significant capital surplus regarding the minimum regulatory requirement and thereby building a situation of significant soundness of the financial system at an aggregate level.

Following the peak of the first COVID-19 wave, by late 2020 onwards, and as the level of economic activity and households' income gradually recovered (with some heterogeneity among economic sectors), the degree of use of the abovementioned financial relief measures started to moderate. Within this framework, the BCRA promoted several programs focused on the most affected sectors by the pandemic context. It is estimated that the scenario for the first quarter of

2021 would have evidenced fewer relative difficulties for debtors compared to the second and third quarters of 2020, mitigating to some extent the credit risk faced by institutions.

Although a slight fall in the exposure of the financial system to the private sector was observed in the last six months, accompanied by some hints of an improvement in the payment capacity of debtors, this potential source of vulnerability of the financial system would remain as the most relatively important source (within the ensemble of exposures to risks of the financial system) for the rest of 2021. Its evolution will depend on the potential degree of materialization of the risk factors mentioned in Section 2, particularly on the possibility of a less-dynamic-than-expected economic recovery.

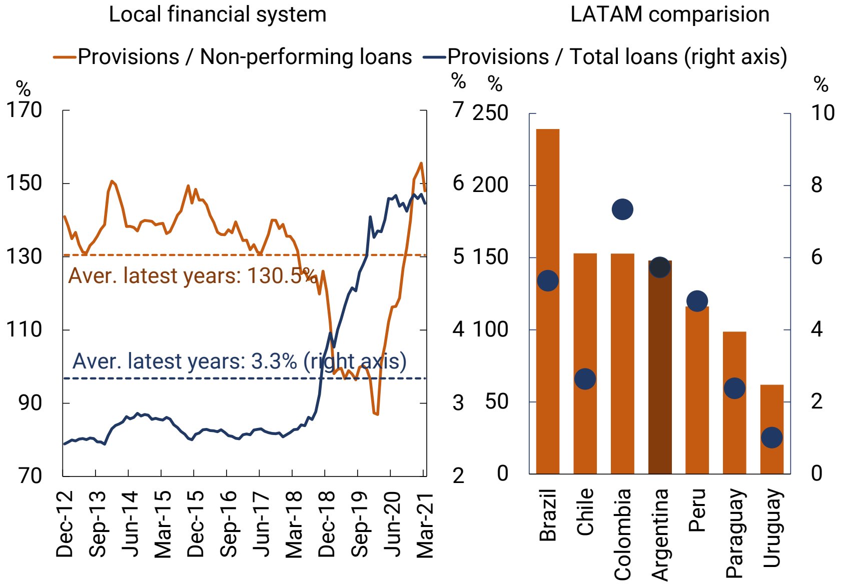
3.1.1 Resilience Elements and Mitigating Measures:

High levels of provisions and regulatory capital relative to credit exposure. In March, accounting provisions of the ensemble of financial institutions totaled 148% of the non-performing portfolio and 5.7% of the total stock of lending to the private sector, exceeding the figures recorded a year ago.[22] The year-on-year rise was mainly accounted for by the largest institutions (belonging to Group A) in line with the requirements in force that oblige institutions to build up provisions based on expected loss models (within the framework of adoption of the criteria included in the International Financial Reporting Standards —IFRS—). These levels are high compared to those of the last 10 years and slightly exceed the regional average (see Chart 11).

The resilience level of the ensemble of financial institutions in view of credit risk may be illustrated —among other ways—[23] by the ratio between the regulatory capital position (regulatory capital – regulatory requirement) and the credit granted to the private sector net of provisions. This ratio stood at 30.6% at an aggregate level in March 2021 (45.8% when considering regulatory capital rather than the position), reaching the highest level on record in the last 15 years (see Chart 12) and exceeding the records of other economies in the region. This indicator shows a first approach (extreme, hypothetically speaking) of how much should the deterioration in the quality of the credit portfolio to the private sector be (without recovery)[24] to use up the capital surplus of the financial system as a whole. The historically high levels of these indicators show a high degree of resilience of the aggregate financial system in view of a potential materialization of credit risk. This result shows the effects of a limited exposure to the private sector and high relative levels of capital and provisioning.

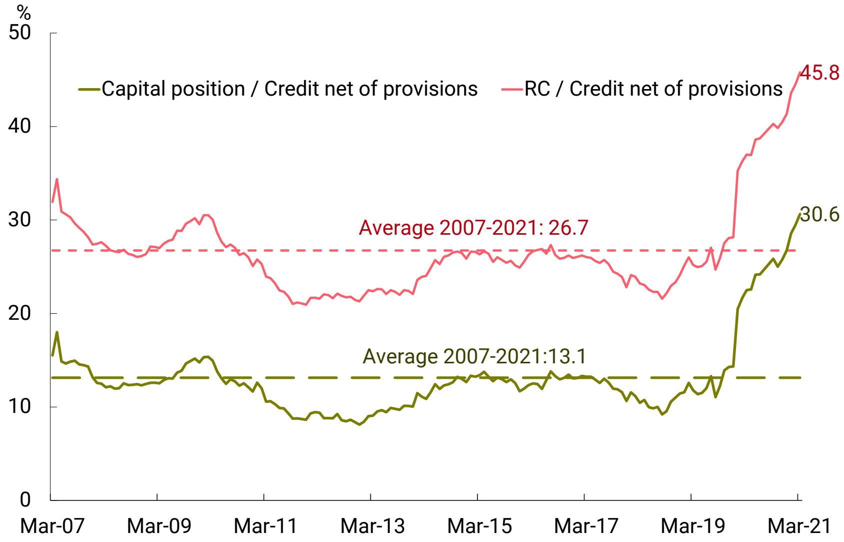
22 The stock of regulatory provisions attributed to the non-performing portfolio accounted for 122% of such portfolio at the end of the first quarter of 2021.
23 Given that the traditional indicators, such as the non-performing ratio, are influenced by the impact of financial relief measures, they lose their reporting content in terms of characterizing credit quality. In this context, alternative indicators are suggested which aim at isolating such effects, thereby allowing a homogeneous comparison over time and relative to other economies in the region.
24 The indicator mentioned is built before considering the recovery of loans through the guarantees constituted (lines of credit with guarantee, such as mortgage and pledge-backed loans, are included in the total stock of total lending to the private sector).

Chart 11 | Provisioning of the financial system



Data as of March 2021 for Argentina, the rest of the countries as of IVQ-20 (except Uruguay and Chile as of IIIQ-20). Source: BCRA y FSI (IMF)

Chart 12 | Regulatory Capital (ASE) and capital position (ASE – Requirement), in terms of stock of credit to the private sector net of provisions. Financial system

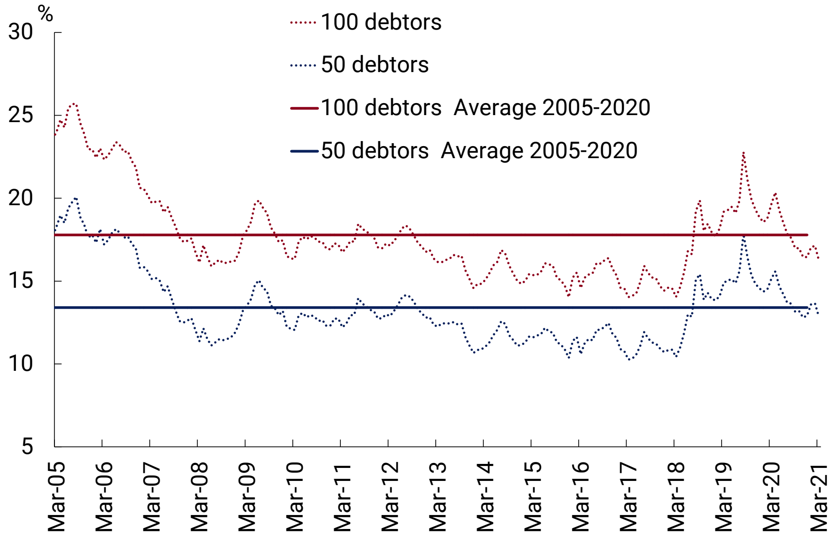


Source: BCRA

The credit origination standards have not shown relevant changes over the past years. According to recent studies of the Survey on Credit Conditions (ECC),[25] participating financial institutions as a whole would not have eased credit standards linked to loans to companies —overall companies— since late 2020. With respect to loans to households, the latest survey showed a heterogeneous behavior based on credit aid: a moderate flexibilization of standards associated to other loans for consumption purposes, neutrality for pledge-backed loans and mortgage loans, and a slight restriction for credit cards.

Moderate and decreasing concentration of the private sector debtors in the financial system. Within the prudential regulation framework in force, the share of the main debtors (natural and legal persons) in the total lending portfolio of the ensemble of financial institutions remained limited at the start of 2021 (see Chart 13), exhibiting some downward trend on the margin. Particularly, the main 100 and 50 private sector debtors of the aggregate financial system accounted for 16.2% and 12.8% of the total stock of credit by the end of the first quarter of 2021, 3.4 p.p. and 2.3 p.p. below the levels observed one year ago. A higher diversification of the portfolio of debtors contributes, to some extent, to mitigating the credit risk taken.

Chart 13 | Share of the main debtors in the total stock of credit to private sector - Financial system

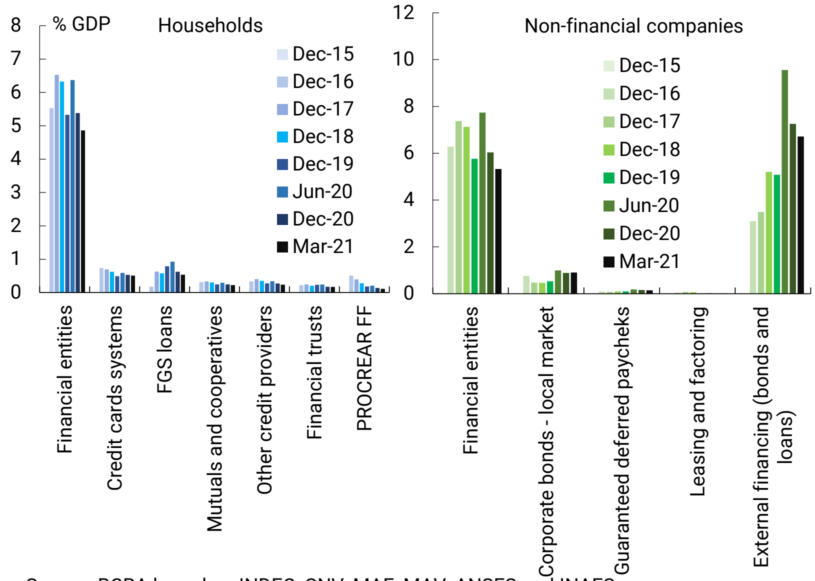


The stock of private debt fell in real terms and against GDP in the first quarter, standing at limited relative levels. The estimated stock of broad financing amounted to 6.7% of GDP for households and 13.1% for companies as of March 2021 (see Chart 14)[26]; these levels are still significantly limited —on an international comparison, for example— and particularly against the levels recorded in other emerging countries. These indebtedness aggregate indicators evidence a decline against late 2020, mainly explained by GDP rebuilding, even though debt stocks have fallen in real terms. Households' debts in the first quarter of 2021 have decreased in real terms —

25 For further information, see the survey corresponding to first quarter of 2021 of the Survey on Credit Conditions (ECC).
26 Stocks as of March in estimated GDP percentage, seasonally-adjusted, corresponding to the first quarter of 2021.

and at a similar rate— in terms of both the stock of financial institutions' loans —the main component of their debt— and the stocks linked to non-bank funding.[27] Regarding companies (whose debt is mainly accounted for by two components: banks' loans and funding from abroad), all components fell in real terms over the quarter except for the stock of Corporate Bonds in the domestic market (due to the combined effect of net issues and the restatement of stocks in pesos).[28], [29] Within the framework of evolution of financial stability conditions, the BCRA periodically monitors the channels of interconnectedness between the main providers of credit of the economy (see Exhibit 4).

Chart 14 Broad financing to households and companies



Source. BCRA based on INDEC, CNV, MAE, MAV, ANSES and INAES

27 Loans granted by financial institutions to households fell 6% in real terms over the quarter, evidencing a similar pace to that of the aggregate estimated financing for households (addition of credit cards, financial trusts, mutuals and cooperatives, financing from the Sustainability Guarantee Fund –loans and the PROCREAR trust fund— and other credit providers that supply information to the BCRA). In this context, bank loans keep their weight (73%) over the total debt estimated for households in this monitoring. Regarding non-bank sources, the dynamics of two segments should be underscored over the quarter: financial trusts and non-bank cards, which exhibited growth rates amounting to 2% and 0.3% in real terms, respectively.
28 As of the time this information was updated, the foreign debt (financing from abroad through bonds and loans, excluding commercial debt) information available went back to December 2020. To calculate the value for March, this stock was stated in dollars at the exchange rate in force in March.
29 In the case of the domestic Corporate Bonds pertaining to the corporate sector (excluding financial institutions), the stock consists of 46% in dollar-linked instruments, 27% in dollars, and 11% in Acquisition Value Units (UVAs) (only 16% is in nominal pesos). More than half of dollar-linked Corporate Bonds correspond to the oil and gas sector, while the rest is accounted for by other sectors with lower weight (electric energy, agriculture and livestock, primary products, real estate activities, chemical activities, etc.) Corporate bonds in dollars are mainly from oil and gas companies (36% of the stock of domestic Corporate Bonds in dollars), agriculture and livestock (27%), electric energy (16%), and real estate activities (13%).

Box. Financial Situation of Publicly-Traded Companies – 2020

The monitoring of the non-financial corporate sector based on the analysis of publicly-traded companies[30] showed mixed changes in the main indicators in 2020 against 2019. It is noteworthy that some negative trend had already been observed in 2019 on account of the domestic recession prior to the initial impact of COVID-19 and of the measures adopted to mitigate its effects on public health. Considering the median (see Table 2), the liquidity indicator and, to a lesser extent, the indicator on interest coverage using earnings, weakened in 2020, while profitability (measured by the Return on Equity, "ROE") increased and the leverage declined slightly.[31] Although indicators decreased generally in the first six months of the year, they tended to recover later hand in hand with economic activity. It must be noted that, despite the initial fall during the first half of 2020, there were relatively few cases with difficulties to pay the service or capital of bonds, which accounted for a minimum part of the stock of outstanding Corporate Bonds of non-financial companies (0.35% of the stock of Corporate Bonds in late 2019, before the initial shock of COVID-19).[32]

Table 2 | Publicly-traded companies – Main indicators evolution

	Quarter									Year***	
Main indicators (median):	**IV-18**	**I-19**	**II-19**	**III-19**	**IV-19**	**I-20**	**II-20**	**III-20**	**IV-20**	**2019**	**2020**
Profitability (ROE) (%) - annualized	14.0	5.8	6.6	0.4	14.4	(1.0)	3.3	6.6	12.3	3.8	8.1
Interest coverage: EBIT* / interests paid (times)	2.58	2.16	1.56	1.79	1.61	0.95	1.07	1.65	1.87	1.66	1.59
Leverage: Liabilities / assets (%)	60.0	57.0	58.0	57.0	57.8	57.1	57.9	57.1	57.6	57.8	57.3
Current liquidity: Current assets / current liabilities (%)	118.0	122.0	116.0	113.0	116.9	113.3	109.7	113.8	108.6	119.8	110.1
Acid test: (current assets - inventory) / current liabilities (%)	94.0	91.0	79.0	76.0	83.0	82.7	82.8	84.7	86.3	81.6	77.1
Short term debt / total debt (%)	53.0	52.0	51.0	50.0	49.4	48.3	47.3	54.4	46.8	55.8	54.7
Currency mismatch - companies that have debt in dollars: (foreign currency liabilities less foreign currency assets) / total assets**	26.9	23.7	26.3	28.7	26.2	22.5	24.1	22.7	27.8	22.4	23.9

* EBIT: earnings before interest and taxes. . (**) Foreign currency liabilities less foreign currency assets expressed in pesos using the prevailing exchange rate at each time, divided by total assets (in pesos). *** Median of annual average by company.

Source: BCRA based on CNV/BCBA.

The evolution of the main financial indicators implied a slight rise in the number of publicly-traded companies in a relatively vulnerable position; these companies are herein defined as those firms evidencing vulnerability in, at least, two out of the three more relevant financial ratios (interest coverage, leverage, and acid-test ratio).[33] Based on this simple methodology, 19 companies were

30 For further detail on coverage and methodology, see the sections on "Financial Situation of the Corporate Sector" in the IEF I17, "Publicly-Traded Companies and Currency Mismatch" in the IEF I-18 and "Financial Situation of Publicly-Traded Companies" in IEF I-20 and II-20.
31 Both ROE (return on equity) and leverage evidenced greater dispersion in 2020. In the case of ROE, while the median increased in 2020, the simple average by company fell.
32 Out of 12 publicly-traded companies (non-financial sector) that struggled to pay bonds, six are SMEs. In most cases, debts were rescheduled or their payments were regularized. Regarding the SMEs segment, payments in several cases were made by a guarantor.
33 See "Financial Situation of Publicly-Traded Companies", for more information on the methodology in the IEF I-19.

counted to be in a relatively vulnerable situation in late 2020: 3 more than a year before. These companies' indebtedness (market and financial institutions' financing) accounts for 21% of total indebtedness of publicly-traded companies[34], up 10 p.p. against late 2019. In terms of the financial system credit exposure to companies in a relatively more vulnerable situation, even though it has increased, it has remained at relatively low levels: going from 1% to 4% of total lending to companies from late 2019 to late 2020. Regarding the capital market, the Corporate Bonds from the relatively most vulnerable companies went from accounting for 8% of the total stock (late 2019) to 14% (late 2020). Maturities of Corporate Bonds in dollars in a more vulnerable position explain only 9% of flows to be paid in dollars for total Corporate Bonds corresponding to the non-financial sector over the second half of 2021 and all of 2022.[35]

Moderate burden of households and companies' debt service. It has been estimated that the aggregate household sector kept evidencing a limited ratio between the financial services of their debt with the financial system and their income since the publication of the previous issue of the Financial Stability Report, showing some rise over the past few months. The burden of households' debt service accounted for about 14.1% in terms of the wage bill at the beginning of 2021, 0.5 p.p. above the level recorded in September 2020. Within the framework of stimulus policies for lending to companies —especially to micro, small, and medium-sized enterprises (MSMEs) under favorable financial conditions— and of low aggregate indebtedness levels, it has been estimated that the burden of debt services corresponding to the companies' sector has also remained at limited levels.

Limited share of foreign currency financing in the aggregate financial system and limited foreign currency mismatch of debtors. The stock of lending to the private sector in foreign currency accounted for only 14% of the total stock of loans to this sector in March, down 0.7 p.p. against the value recorded in September 2020 and 7.2 p.p. in y.o.y. terms. In other words, the exposure of the aggregate balance sheet of financial institutions to credit risk derived from potential exchange fluctuations has continued to be relatively low. Furthermore, according to the current macroprudential regulations, the stock of lending in foreign currency has been mainly granted to debtors whose income is in foreign currency —due to their export activity— or who are positively related to the exchange rate evolution, thereby reducing the likelihood of materialization of credit risk situations stemming from fluctuations in the exchange rate.

Limited link between potentially vulnerable publicly-traded companies and the financial system. Even though publicly-traded companies' balance sheets evidenced the impact resulting from the Covid-19 shock (which impacted on the number of companies in potentially vulnerable situations) in 2020, the link between potentially vulnerable companies within this universe of enterprises and the financial system is still limited (see the Box "Financial Situation of Publicly-Traded Companies – 2020").

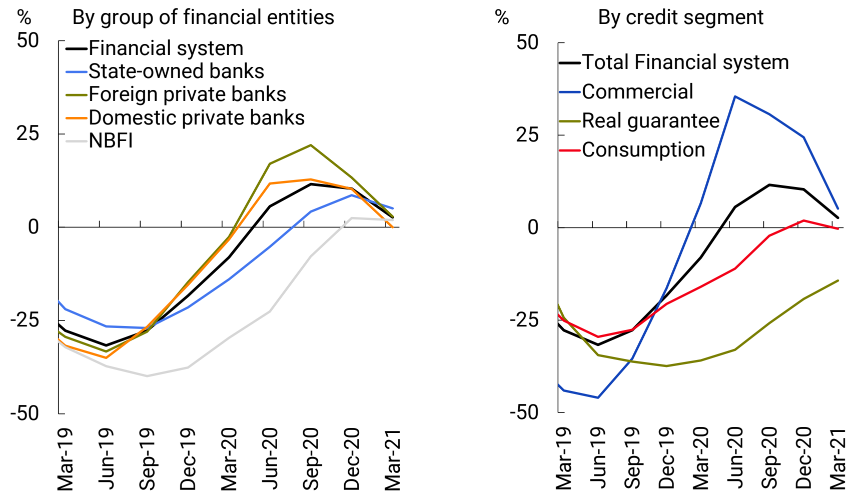
34 With respect to the total Argentine corporate sector, this weight would be much more limited (only publicly-traded companies are analyzed herein).
35 The estimations mentioned above could change based on any new restructuring within the framework of the provisions in Communication "A" 7106 issued by the BCRA.

Moderate exposure of the financial system to the public sector within the framework of the current macroprudential measures. The financial system lending to the public sector amounted to 11.8% of total assets in March, going up slightly over the past few months event though it continued to be low from a historical perspective. Upon analyzing public sector deposits, the ensemble of financial institutions has continued to evidence a net debt position against the public sector.

3.2. Weak Performance of Financial Intermediation Activity

The financial system's fund intermediation activity with the private sector decreased since the last publication of the Financial Stability Report. The stock of lending and deposits in domestic currency of such sector fell in real terms over the period, even though they continued to stand above the figures recorded one year ago. This took place in a context where the change rate of headline inflation in the economy increased and where the recovery of economic activity — favored by the measures adopted by the National Government and the BCRA in view of the pandemic health-related emergency— slowed down as from March due to the worsening of the epidemiological situation and of the public health measures to contain the second wave of COVID.[36] Meanwhile, financial intermediation in foreign currency declined slightly over the period under study.

Chart 15 | Stock of lending in pesos to the private sector - % y.o.y. change in real terms*



*Not seasonally adjusted. Note: Commercial includes overdrafts, documents and leasing. Real guarantee: mortgages and pledge-backed. Consumption: Personal and credit cards. NBFI: Non-Banking Financial Institutions. Source: BCRA

The stock of lending in real terms to the private sector in domestic currency by the end of the first quarter of 2021 went down by 6.2% if compared to the figure observed by the end of the third quarter of 2020. This evolution was mainly accounted for by the performance of lines linked to

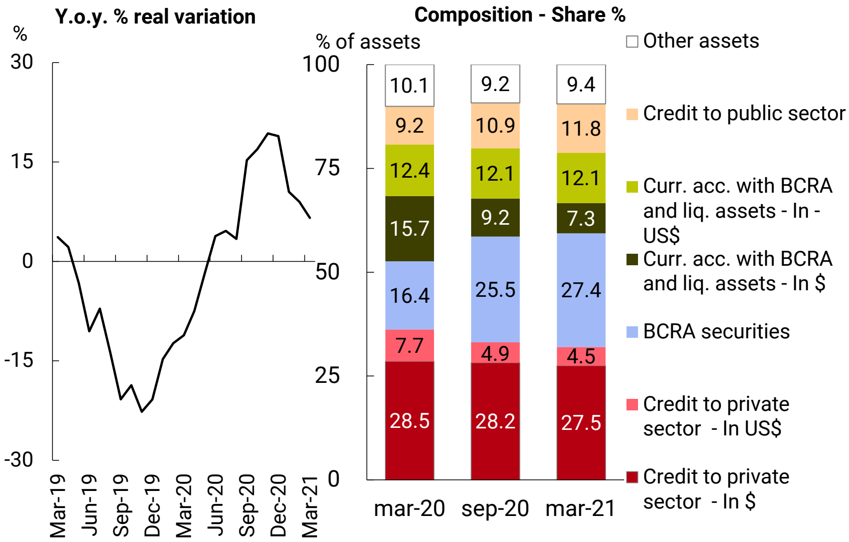
36 For further information, see the Monetary Policy Report, May 2021.

companies (commercial) while the segment of lending to households (primarily for consumption purposes) remained without real significant changes over the last six months. Nevertheless, as a result of the effects derived from the credit stimulus programs boosted by the National Government and the BCRA, the year-on-year financing in pesos to the private sector increased 2.7% in real terms, exceeding the changes observed during the same month in previous years (see Chart 15). In turn, loans in foreign currency decreased 8% —in currency of origin— when comparing March 2021 and September 2020 (37.7% y.o.y. drop); however, they have been recovering in the past few months.

In the context of the economic recovery recorded since mid-2020 and the abovementioned performance of the financial intermediation —as described in the previous Section— the ratio between total lending to the private sector from the financial system and the economy GDP decreased over the last six months. This indicator stood at 9.8% in March (8.5% in the case of the segment in domestic currency), almost 2 p.p. below the level recorded in September 2020 (-1.4 p.p. in pesos), standing below the levels recorded in the country in previous years as well as in other economies in the region.

In the context of the evolution of the intermediation activity, total assets belonging to the ensemble of financial institutions posted some decrease from September 2020 to March 2021, even though they have evidenced a 6.6% y.o.y. rise in real terms (see Chart 16). Regarding their composition, there was an expansion in the relative weight in total assets of the BCRA instrument holding (LELIQs and repos) and, to a lesser extent, of lending to the public sector. As compensation, financing (both in domestic and foreign currency) to the private sector and the remaining liquid assets (mainly, financial institutions' current accounts in domestic currency with the BCRA) reduced their relative weight in total assets. This took place in a scenario where there was a limited change of monetary expansion factors —sterilizing any liquidity surplus— and a progressive targeting of government efforts regarding credit aid towards the sectors that have been hit hardest by the pandemic.

Chart 16 | Financial system assets



Source: BCRA

News about the evolution of COVID-19 second wave and about public policies to face this situation —with their subsequent effect on the financial sector activity— will gain relevance in the coming months. The National Government has recently implemented restrictions to mobility to reduce the speed of contagion and, simultaneously, it intended to focus its aid programs on the hardest-hit sectors to mitigate the economic and social impact while progressing with the vaccination schedule. Looking ahead, should part of the risk factors mentioned in Section 2 in terms of economic activity development held true, the financial intermediation process could be affected (especially the performance of lending granted to both companies and households). This situation could potentially impact on the sector's sources of income, in a context where lower profitability levels were observed on the margin.

3.2.1 Specific Elements of Resilience

Although the profitability of the aggregate financial system is falling, it has remained at positive levels. The ensemble of financial institutions continued exhibiting positive profitability indicators —considering the total comprehensive income in constant currency —at the end of 2020 and the beginning of 2021 (see Table 3). In the first quarter of 2021, the income accounted for 0.2% annualized (a.) of assets (ROA) and 1.3%a. of equity (ROE), standing below the amounts recorded in 2019 and 2020. The lower levels of profitability indicators recorded in early 2021, compared to the aggregate of 2020, are evidencing the effects of the dynamics of items that show adjustments linked to the evolution of headline inflation, higher expenses for interest (in a context of increase in the share of these deposits in the financial system funding and of minimum interest rates for time deposits), and a drop in the income from securities. These effects were mitigated by a decline in loan loss provisions and operating costs.

Table 3 | Financial system profitability – In homogeneous currency*

Annualized (a.) - In %a. of netted assets	IT-20	IIT-20	IIIT-20	IVT-20	IT-21	2020**	2021**
Financial margin	**12.2**	**11.3**	**10.4**	**13.2**	**11.8**	**11.8**	**11.7**
Interest income	10.3	8.2	7.7	8.0	8.1	8.5	8.0
CER and CVS adjustments	1.8	1.2	1.0	1.6	1.7	1.4	1.4
Foreign exchange price adjustments	0.7	0.7	0.9	0.9	0.8	0.8	0.8
Gains on securities	9.3	7.4	8.5	10.2	8.8	8.8	8.7
Returns on repo	0.9	1.0	1.4	2.9	3.3	1.6	2.2
Interest expense	-10.3	-7.0	-8.7	-10.1	-10.9	-9.0	-9.2
Other financial income	-0.4	-0.2	-0.4	-0.3	0.1	-0.3	-0.2
Service income margin	**2.0**	**1.9**	**1.8**	**1.8**	**2.0**	**1.9**	**1.8**
Loan loss provisions	**-1.6**	**-2.1**	**-1.1**	**-1.6**	**-0.8**	**-1.6**	**-1.4**
Operating costs	**-7.0**	**-6.5**	**-6.4**	**-6.6**	**-6.3**	**-6.6**	**-6.5**
Net Monetary Position	**-0.2**	**-0.1**	**0.3**	**-6.6**	**-3.9**	**-1.7**	**-2.6**
Tax charges	**-2.0**	**-2.1**	**-1.6**	**-1.6**	**-2.2**	**-1.8**	**-1.7**
Results	**3.5**	**2.4**	**3.4**	**-1.4**	**0.5**	**1.9**	**1.2**
Other Comprehensive Income (OCI)	**-1.4**	**0.8**	**-1.3**	**3.6**	**-0.3**	**0.4**	**0.7**
Return on assets (ROA)	**2.2**	**3.2**	**2.1**	**2.1**	**0.2**	**2.4**	**1.9**
Return on equity (ROE)	**14.3**	**22.1**	**14.5**	**14.2**	**1.3**	**16.2**	**12.8**

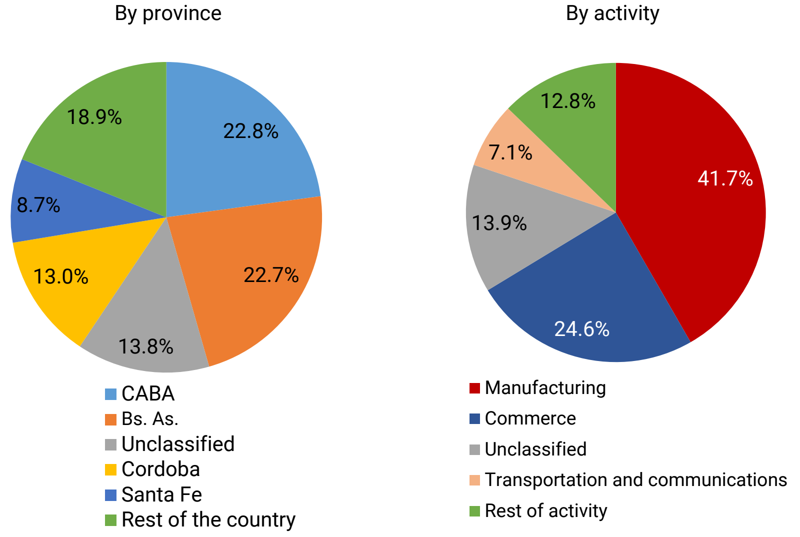
*In accordance with Com. "A" 7211, as from 2021 the adjustments related to the effect of price changes are fully reflected in the monetary results. The aforementioned adjustments had an impact on different income statement accounts in the 2020 quarters.** Accumulated 12 months. Source: BCRA

Supervision by the Superintendence of Financial and Foreign Exchange Institutions (SEFyC) targeted to risk. The Superintendence of Financial and Foreign Exchange Institutions (SEFyC) continue monitoring the performance of financial institutions by identifying their individual risks and the development of proper supervision plans. It should be noted that domestic systemically important institutions continue to post relatively high levels for their soundness indicators (see Section 3).

Credit aid to small and medium-sized enterprises. The BCRA continued boosting measures targeted to the sectors that were affected the most by the pandemic over the last six months.[37] In order to continue expanding access to credit by micro, small, and medium-sized enterprises (MSMEs) and contribute to economic reactivation, the BCRA set a new quota for the Credit Line for Productive Investment (LFIP) in March 2021, under financial conditions similar to those governing such quota in 2020.[38] Over the first month of enforcement of the 2021 quota, the ensemble of financial institutions that have to reach this quota[39] made disbursements for a total amount of $101.64 billion (13% aimed at investment projects), benefiting over 22,100 companies. Loans that totaled an average stock of almost $400 billion were granted by virtue of the 2020 quota from mid-October 2020 to late March 2021[40]. It has been estimated that the Credit Line for Productive Investment (LFIP) had a positive impact on several regions of the country: 22.8% of the average stock corresponding to the 2020 quota was channeled to companies having their domicile for tax purposes in the Autonomous City of Buenos Aires (CABA), followed by Buenos Aires (22.7%), Córdoba (13%), and Santa Fe (8.7%) (see Chart 17). The LFIP was granted to several branches of activity[41]: according to calculations, almost 42% of the stock would have been mainly allocated to industrial companies and 24.6% to companies related to commercial activities.

37 For further information, see the latest issues of the Report on Banks.
38 For further information, see the Regulatory Annex.
39 Financial institutions that have to reach this quota are those included in Group "A" as of April 1, 2021, and those—not included in such group—that operate as financial agents of the National, provincial, and/or municipal governments, and that of the Autonomous City of Buenos Aires.
40 Amount $411.68 billion if the accumulated disbursement between mid-November and late March is considered.
41 The main activity of debtors according to the register of the AFIP is taken into account.

Chart 17 | Credit Line for Productive Investment - 2020 Quota – Average of accumulated daily stocks



Moderate long position of items adjusted by the Reference Stabilization Coefficient (CER). The CER mismatch of the ensemble of financial institutions remained at limited values, standing at around 47.5% of the Regulatory Capital (RC) (23% oRC when considering UVA-denominated items only) at the end of first quarter of 2021 (for further information, see Section 2). When breaking down financial institutions per group, it may be seen that this mismatch was mainly accounted for by the ensemble of state-owned institutions and, to a lesser extent, that of non-banking financial institutions.

3.3 Financial System Funding and Liquidity Performance

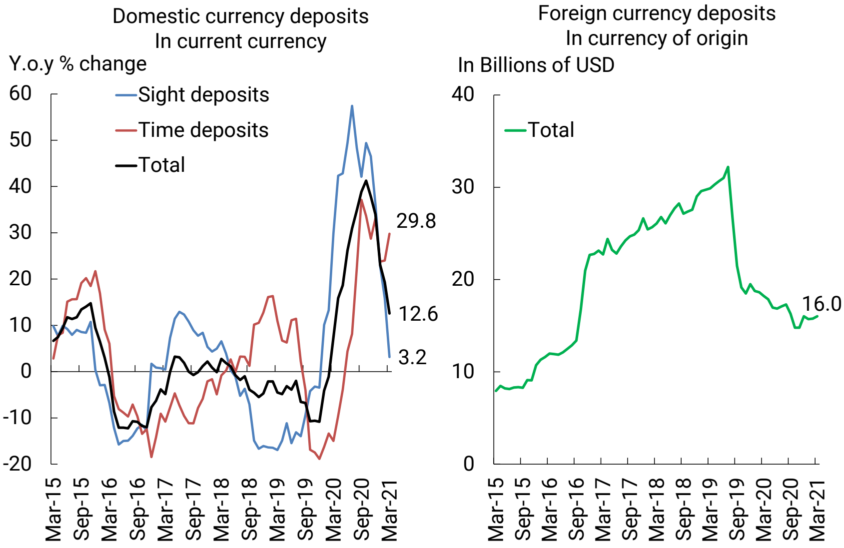
Following the expansion of the financial system's funding via private sector deposits in pesos recorded in the first part of 2020,[42] the stock of these deposits fell in real terms in last quarter of 2020 and the first quarter of 2021. This performance took place in a context of a reduced monetary issue by the BCRA because of the deeper focus on aid programs of the National Government and the money growth smoothing process given the evolution of credit (see Section 1). Private sector deposits in pesos fell 4.7% in real terms over the last six months up to March; this change was mainly accounted for by households' deposits, and it is mostly observed in sight accounts. Private sector time deposits in pesos exhibited a better relative performance over the period, especially from late 2020 (-2.3% in real terms over the six-month period, and +6% in real terms in the first quarter of the current year). UVA time deposits evidenced a significant relative rise over the past few months even though they still showed a limited weight in line with the different saving instruments launched by the BCRA with inflation hedge.

42 At the start of the pandemic, the National Government and the BCRA implemented a set of extraordinary measures to provide aid to the private sector; for further information on the measures implemented throughout the first part of the year, see the IEF II-20 and the issues of the Report on Banks over the same period.

Regardless of the evolution on the margin, the total stock of private sector deposits in pesos increased 12.6% y.o.y. in real terms by the end of first quarter of 2021, revealing a significant momentum in the time deposits segment (29.8% y.o.y.) (see Chart 18). Public sector deposits in pesos also went up (+32.8% y.o.y. in real terms). In this context, and breaking down data in terms of amount, higher-amount deposits in pesos (exceeding $20 million) posted a greater relative rise over the past year,[43] as evidenced by some rise in certain deposit concentration indicators.[44]

Private sector deposits in foreign currency evidenced an incipient recovery over the past few months, leaving behind the minimum recorded by late October 2020 (see Chart 18) as a result of an episode of certain financial volatility.

Chart 18 | Stock of private sector deposits - Financial System

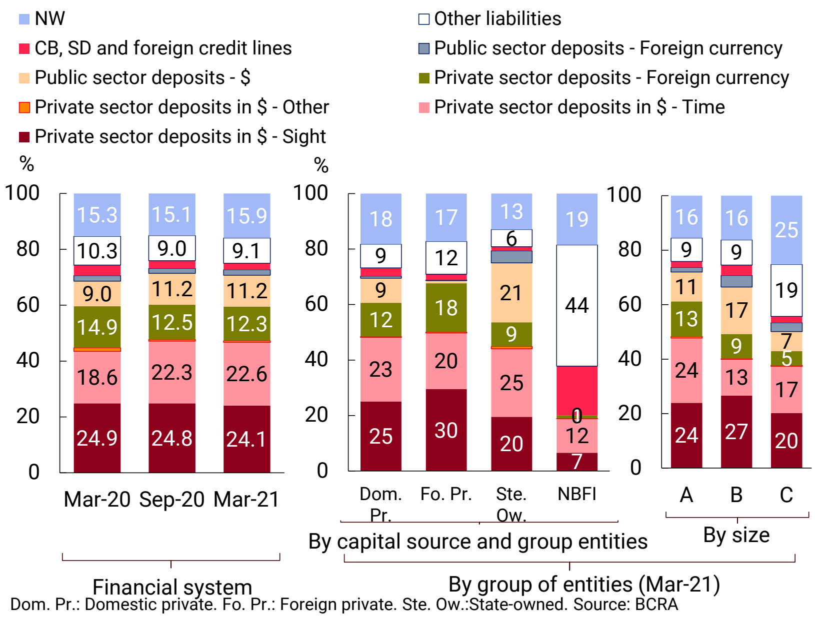


Source: BCRA

43 Mainly due to the performance of the deposits corresponding to mutual funds (FCI) and companies of a larger relative size.
44 Particularly, the median of the indicator of concentration of financial institutions deposits (built, for each institution, as the deposit stock of the main 160 clients relative to the total of their deposits) increased throughout 2020 (based on the latest information available corresponding to December 2020). In the case of institutions pertaining to Group A (which account for over 90% of deposits in the financial system), the median of such indicator stood at 46.3% at the end of 2020, going up against the end of 2019, and standing 9.2 p.p. above the average of the last 15 years.

Despite the reduction observed in real stocks against the last issue of the Financial Stability Report, private sector deposits in domestic currency continued to be the main source of funding of the financial system (liabilities and net worth), accounting for about 47% of the total (see Chart 19). Within these liabilities, the relative share of private sector time deposits rose slightly over the past six months totaling 22.6% at a system level; meanwhile, the share of sight accounts went down slightly, amounting to 24.1% of total funding. Public sector deposits in pesos accounted for around 11.2% of the total; as a result, total deposits in pesos accounted for nearly 58.5% of the system's total funding in March.

Chart 19 | Funding structure by financial institution group



Dom. Pr.: Domestic private. Fo. Pr.: Foreign private. Ste. Ow.:State-owned. Source: BCRA

The remaining funding of the financial system (41.5%) consists mainly of net worth (15.9%), private sector deposits in foreign currency (12.3%), and other liabilities such as Corporate Bonds, subordinated debts, foreign credit lines and other liabilities. The relative rise observed in net worth (see Chart 19) stood out among these items over the last six months, partly being impacted by the macroprudential measure that ordered the suspension of the distribution of financial institutions' profits; such measure was implemented by the BCRA to mitigate the potential economic and financial impacts derived from the pandemic.

Looking ahead, the level and structure of funding sources may be affected should any of the risk factors indicated in Section 2) held true. Particularly, higher volatility in financial markets as well as a less-dynamic-than-expected economic activity recovery could impact, to some extent, on the demand for deposits (or their structure) by households and companies —as observed in previous years— with potential effects in terms of assets & liabilities management for the financial system.

3.3.1 Specific Elements of Resilience and Mitigating Measures

Broad coverage against liquidity risk. The financial system has broad liquid assets that, as of March 2021, accounted for 66% of total deposits, evidencing practically the same level as recorded in the previous issue of the Financial Stability Report. The liquidity ratio amounted to 61.5% for items in pesos and 84.6% for the foreign currency segment at the end of first quarter of 2021, exhibiting records similar to those of September 2020 and higher than the average of the last 15 years (41% in domestic currency and 78.4% in foreign currency). In this context of high liquidity levels, the BCRA recently established that, as from June 2021, financial institutions will have the option to satisfy part of the regulatory liquidity requirement in pesos with Treasury bonds with a 180-day minimum term, which would replace part of the compliance with LELIQs —derived from the regulatory requirement for time deposits.[45] This measure —the purpose of which is to deepen the liquidity of the market of sovereign bonds in pesos by promoting the development of the domestic capital market— is supplemented with the implementation of a specific mechanism so that institutions, if necessary, can sell such financial assets to the BCRA. In addition, it should be borne in mind that the financial system exposure to the public sector is currently standing at limited levels (see Section 2), and that the aggregate of financial institutions has recorded a net debt position against the public sector upon considering its deposits—for all governmental levels. It should be noted as well that this new regulation is specifically targeted to transactions in pesos.

Within this context, the domestic financial system continued exhibiting high liquidity margins, well above international standards. The liquidity coverage ratio (LCR)[46] stood at 2.3 in March 2021 in the case of the ensemble of institutions subject to its verification (Group A), easily exceeding the minimum established that equals "1". This indicator increased slightly against the value recorded in the previous edition of the Financial Stability Report and stood above the average of the past six years (see Chart 20). This was mainly due to the growing impact that monetary regulation instruments and institutions' current account balances have on the ratio numerator (Stock of High-Quality Liquid Assets –FALAC-) in a context where the denominator (Total Net Cash Outflows) of such ratio posted relatively minor changes.

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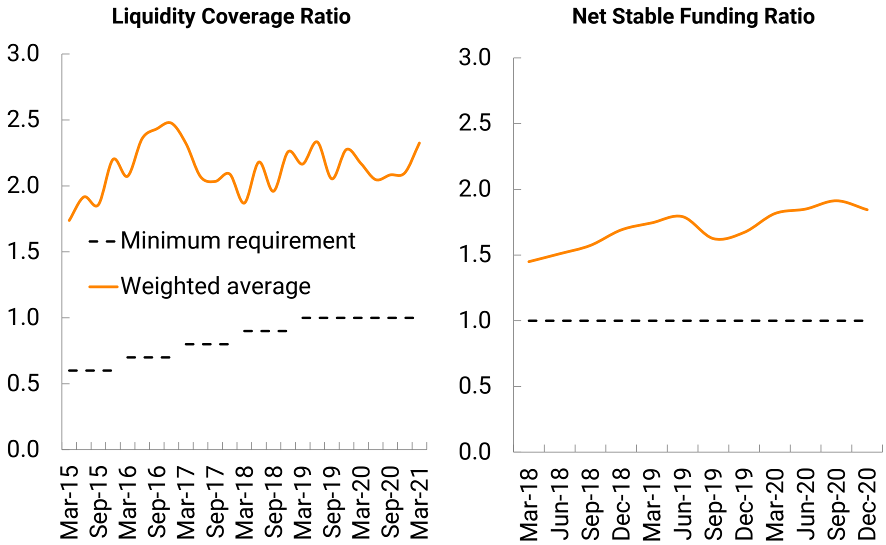
45 By means of Communication "A" 7290 (see Press Release), the BCRA ordered that, for the percentage of minimum reserve requirements to be satisfied with LELIQs, it will be possible to use bonds from the Treasury in pesos with a 180-day minimum term and a 450-day maximum term. For the purposes of ensuring that the requirements satisfied are liquid at all times, a specific mechanism was set whereby institutions may sell to the BCRA the bonds they may have purchased to satisfy the minimum reserve requirements to the BCRA (Communication "A" 7291).
46 The LCR considers the liquidity available to face any potential outflow of funds within a stress scenario in the short term. See Consolidated Text on "Liquidity Coverage Ratio".

Chart 20 | Basel liquidity ratios
Group A of financial institutions



*institutions subject to its verification are from group A (Communication "A" 7169) and represent 88% of the assets at Mar-21. Source: BCRA

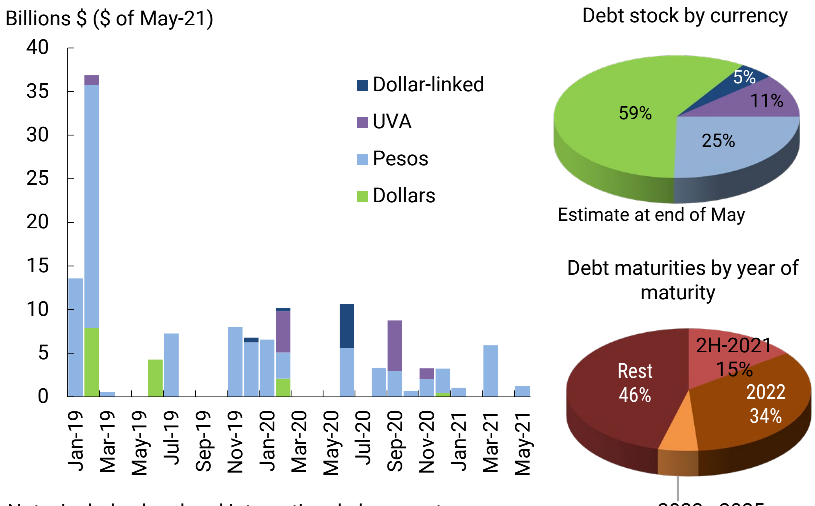
The Net Stable Funding Ratio (NSFR)[47] totaled 1.8 in late 2020 (latest information available) for Group A financial institutions, exceeding the minimum requirement set at 1 and the average of the last 3 years (see Chart 20). The high relative level of this indicator mirrors the relevance of more stable deposits and of regulatory capital (they account for most available funds —numerator), while the share of assets with a more restricted availability over a period exceeding one year remains moderate (they make up the main item of funds required —denominator).

Limited maturity mismatch. The financial system activity continues to exhibit low complexity, with a preponderance of transaction items and a scarce change in maturities. Even though time deposits performed better if compared to sight accounts during the past few months, the maturity of liabilities did not show significant changes over the last year. Given the performance mentioned in terms of credit and liquidity (see Section 3), the average maturity of assets shortened slightly over the last year in a context of greater share of the stock of sovereign bonds and monetary regulation instruments in institutions' balance sheet —with a term shorter than that of the remaining assets. Consequently, the exposure of the ensemble of institutions to the maturity mismatch taken fell slightly over the period, remaining at moderate levels.

47 The NSFR considers the availability of institutions' stable funding in line with the terms of businesses to which it is applied. See Consolidated Text on "Net Stable Funding Ratio".

Financial system funding through the capital market remains at limited levels with moderate amortizations in the coming months. At present, financing via capital market is a relatively small part of financial institutions' total funding. In the case of the aggregate of financial institutions, outstanding Corporate Bonds account for 0.7% of liabilities plus net worth as of March 2021 (1.7% if only institutions funded through Corporate Bonds are considered in aggregate terms).[48] In turn, these Corporate Bonds imply, for the second half of 2021, maturities accounting for 15% of the outstanding stock of these bonds of the financial system (the greatest weight of maturities agreed upon takes place as from 2023). In terms of currency, almost half of the maturities agreed upon for 2021 are in pesos (including payments of Corporate Bonds in pesos, in UVAs, and dollar-linked) while the remaining maturities are in dollars. Financial institutions made issues in the domestic market from January to May 2021—excluding swaps— for about $7.8 billion (see Chart 21), resulting in a 53% y.o.y. drop in real terms. These issues made in 2021 were in nominal pesos and at a term ranging from 12 to 15 months.[49] On the other hand, there has been only one repurchase transaction of Corporate Bonds by financial institutions so far this year.

Chart 21 | Financial system corporate bond issues and stock characteristics



Note: includes local and international placements..
Excludes swap operations.
Source: BCRA based on CNV y BCBA.

4. Other Matters of the Financial System Stability

4.1 Domestic Systemically Important Banks (DSIBS)

The monitoring and differential approach to the financial institutions identified as systemically important at domestic level (commonly called DSIBS) seeks to prevent stress episodes in an individual financial institution —with specific characteristics— that may give rise to adverse

48 The figure amounts to 1.4% of assets excluding subordinated debts (3.1% if only institutions the funding of which is via Corporate Bonds and Subordinated Debt are considered).
49 With a 13-month weighted average for transactions in nominal pesos against 15 months of issues from August to December 2020.

systemic effects. A hypothetical scenario of these characteristics might impact on the economy as a whole and deteriorate the situation of households and companies.

As from 2016, this type of institutions are subject to a special supervision and regulatory treatment in Argentina[50] —in line with what happens in other countries and according to international recommendations and standards on the matter[51]—, since they may become systemically important due to their size, level of interconnectedness, degree of complexity and substitutability, which are the dimensions regularly considered when their performance is monitored.

As of March 2021, the solvency and liquidity ratios of the ensemble of domestic DSIBS (which account for approximately half the assets of the ensemble of all financial institutions) were similar to those of the aggregate financial system and higher than those stated in the previous issue of the IEF, with full compliance of the capital conservation buffer[52] (see Table 4). In line with the lower profitability in real terms being observed in the sector in the last quarters, the ROE of DSIBS also went down if compared to 2020. The credit risk indicators were in line with those recorded by the entire system, with an increase of provisioning on the margin and high coverage with regulatory capital of the loan principal net of provisions. The exposure to the public sector and the foreign currency mismatch of these institutions posted levels above the average of the sector and slightly higher than those posted six months ago.

Table 4 | Main indicators of DSIBS soundness

	Mar-20	Sep-20	Mar-21
Liquidity			
Broad liquidity (%)	55.7	56.7	57.5
In $	51.8	51.2	51.5
In US$	67.6	78.9	80.7
Solvency			
Regulatory capital / RWA (%)	21.6	23.3	24.7
Regulatory capital / Loans net provisions (%)	35.9	38.0	43.7
Excess regulatory capital / Loans net provisions (%)	22.5	25.0	29.6
Profitability			
ROE in homogeneous currency (quarterly %a.)	12.8	18.4	2.2
Private sector credit			
Exposure / Assets	37.0	35.4	35.0
Non-performing loan ratio (%)	5.0	4.3	3.9
Provisions / Loans to the private sector (%)	5.0	5.3	6.0
Public sector credit			
Exposure / Assets	13.9	15.5	16.0
Foreign currency position			
(Assets - Liabilities + Net undelivered purchases in foreign currency) / Regulatory capital (%)	17.4	15.1	17.3

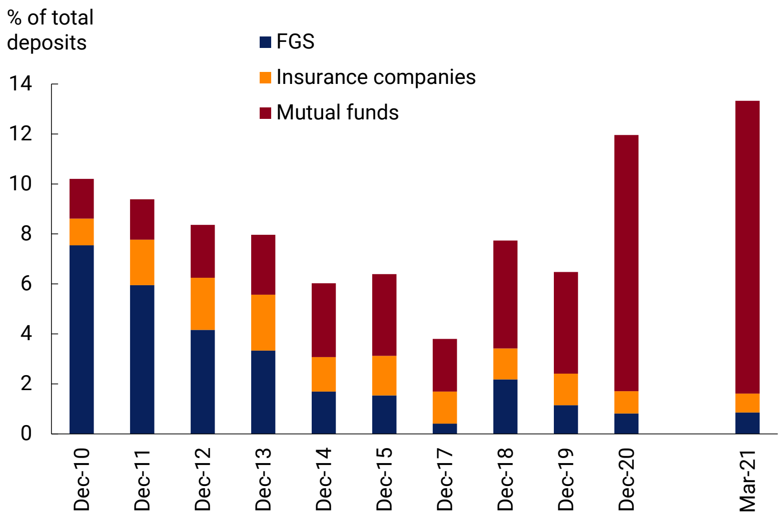
(1) Position in government securities (not including BCRA securities) + Loans to the public sector.
RWA: Risk-Weighted Asset.
Source: BCRA

50 As from the beginning of 2016, the BCRA established additional capital buffers for the DSIBS identified in the Argentine market (including state-owned banks as well as private domestic and foreign banks). For further detail about the methodology used, please click here.
51 For further detail, see "A framework for dealing with domestic systemically important banks", BIS, 2012.
52 Equivalent to 3.5% of risk-weighted assets (RWA) (1 p.p. above the capital conservation buffer to which financial institutions not classified as DSIBS are subject).

4.2 Interconnectedness in the Financial System

The main source of direct interconnectedness between institutional investors and the financial system (ensemble of institutions regulated by the BCRA) lies in time deposits and investments made by the former in the latter, with a special emphasis on the placements made by Mutual Funds (FCI) (see Chart 22).[53] In recent months, there has been a new increase in the relevance of funding from institutional investors' deposits for the entire financial system up to the current share of 13.3% of the total. This weight exceeds by 3 p.p. the value observed 10 years ago and by 6 p.p. the average of such period.

Chart 22 | Institutional investors' deposits expressed as % of total deposits of the financial system



Note: for mutual funds and insurance companies, deposits data published by BCRA are used. Source: BCRA y FGS.

In particular, the increase in the interconnectedness via deposits is largely due to the performance of Mutual Funds (FCIs), with a portfolio that continued growing in the first months of 2021, even though at a slower pace than in the second half of 2020 (see Exhibit 5). This evolution is led by the new underwritings in money market FCIs (see Chart 23), which currently account for half the portfolio of the FCIs.

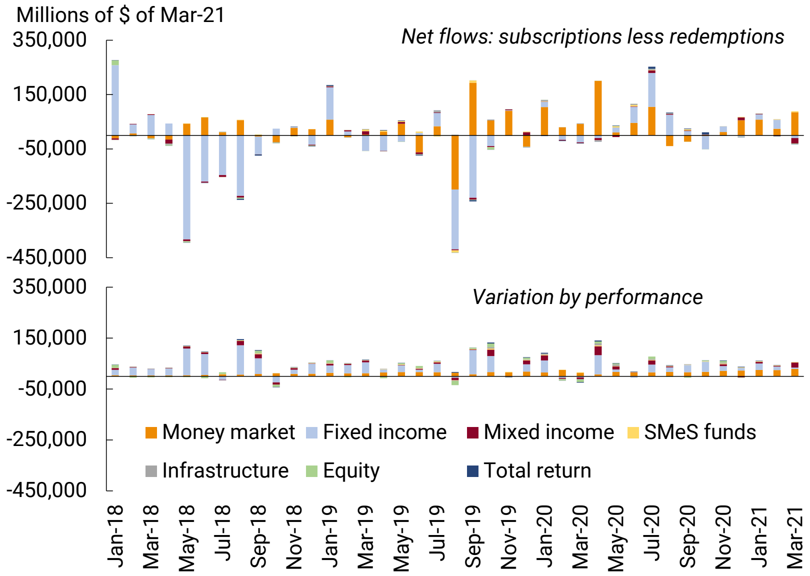
In terms of direct interconnectedness within the financial system, the recent performance of the unsecured inter-financial loans market (call money)[54] should be especially noted. The intensity of

53 In terms of the volume of assets under management, the most important investor at domestic level is still the Sustainability Guarantee Fund (FGS) –with a portfolio equivalent to 12.2% of GDP—, followed by Mutual Funds (FCI) –with a portfolio managed equivalent to 7.4% of GDP— and by insurance companies —with a portfolio equivalent to 4.7% of GDP. However, in terms of deposits, the main agents are the FCIs. For the FGS and the FCIs, the information provided is as of March 2021 and, for insurance companies, the information provided corresponds to investments and liquid assets as of December 2020 (latest information available).

54 This market is small. The average daily volume traded is below 1% against the stock of private sector deposits. However, in relative terms, is one of the main sources of direct interconnectedness between financial institutions. Via this market, the institutions manage their liquidity and there appear signs of prices (rates) based on these unsecured transactions.

this type of interconnectedness tended to decrease in recent months due to the reduction in the volumes traded in real terms. This was accompanied by a rise in the rates arranged in nominal terms, with a resulting decrease in the spread with other reference rates such as the BADLAR rate. The indicators of the network analysis methodology also show a drop in the degree of interconnectedness in recent months against longer-term values.[55] [56]

Chart 23 | Evolution of net underwritings and yield of FCIs



Source: BCRA based on CAFCI.

5. Main Macroprudential Policy Measures

The BCRA prudential management continued to be mainly focused on mitigating the systemic impact of the shock caused by the pandemic to the private sector of the economy, within a context where the epidemiological situation continued to be a challenge in recent months (see Section 1). By 2020 year-end and first half 2021, the BCRA kept the pillars of the prudential policy implemented in the first half of 2020, in line with the initiatives undertaken by developed economies and other emerging countries to face the effects of the pandemic health-related situation. In this respect, last April, the Financial Stability Board released a survey stating that, vis-á-vis a still challenging and uncertain scenario about global macroeconomic perspectives, a large proportion of countries were still keeping the measures adopted to face the pandemic context.[57]

In the current macrofinancial context, the BCRA has kept its approach in order to:

55 There was a drop in the average degree (weighted) and in the density of the network, together with an increase in the average distance.
56 See Exhibit 3 of IEF II-18 for a definition of average degree, density and the terminology used in network analysis and IEF I-19 for a definition of assortativity.
57 "COVID-19 support measures: Extending, amending and ending", FSB, 2021.

i. Promote credit to the private sector, especially via the Credit Line for Productive Investment (LFIP) for micro, small and medium-sized enterprises (MSMEs), by extending the quota available for 2021 and fostering, in this way, favorable financial conditions for these enterprises. This initiative has become the BCRA's main tool to boost loans. More recently, other measures were added such as the implementation of regulatory incentives in terms of the regulatory liquidity requirement for the institutions granting loans to people not appearing in the Debtors' Database.[58]

ii. Mitigate the financial situation of households and companies. Until the end of the first quarter of 2021, there was a temporary modification in effect about the parameters for classification of debtors, added to the possibility of transferring unpaid installments to the end of the lifetime of the loan (accruing only compensatory interest). Regarding the first measure, the BCRA decided to establish a gradual transition between April and May to eventually return to the parameters in force and effect prior to the commencement of the pandemic, as from mid-2021. In terms of the possibility of transferring unpaid installments to the end of the lifetime of the loan, in the face of the second wave of the pandemic, the BCRA decided to focus its efforts on the hardest-hit sectors, and allowed for the use of this tool by employers subject to the Productive Recovery Program II (REPRO II), accruing only compensatory interest.

iii. Give support to measures that promote bank saving in time deposits in pesos, especially in terms of the availability of UVA deposits with an early cancellation option that contribute to protecting the claims of depositors against any changes in the general level of goods and services prices (even providing an additional return on top of the evolution of inflation).

iv. Sustain the current solvency surplus position of the financial institutions by temporarily extending the suspension of the possibility of distributing profits. The idea is to protect the soundness of the system and its capacity of resilience in the face of eventual stress episodes (potential materialization of the private sector credit risk, see Section 3), and also to prevent conditions that might reinforce the procyclical behavior of credit.

v. Keep and enhance exchange regulations, preventing any temporary imbalances between demand and supply that might affect the international reserves position of our economy.

Lastly, it should be mentioned that the BCRA has recently released an alert, together with the National Securities Commission (CNV), to inform the public about the risk of operating with cryptoassets.

58 For further detail, see the Regulatory Annex.

Exhibit 1 / Global Transition towards New Benchmark Interest Rates

A wide range of financial instruments available in markets at global level use the so-called reference (or benchmark) interest rates. The use of these rates to determine the price of financial contracts contributes to reducing their complexity and, at the same time, facilitates their standardization. In turn, this helps reduce transactional costs and improve liquidity conditions.

In 2007, a series of events about manipulation of benchmark interest rates revealed to the public,[59] especially with the London Interbank Offered Rate (LIBOR), unleashed a process of deteriorated confidence in these rates. Firstly, in what turned out to be a design flaw, the LIBOR rate was constructed on a survey to a small set of banks reporting non-binding prices rather than real prices of arranged transactions. This created ample scope[60] for banks to manipulate LIBOR. Secondly, the shortage of liquidity in the unsecured interbank lending markets after the 2007-08 international financial crisis adversely affected their depth and soundness due to the lack of underlying transactions, a situation that has deepened over time.

In 2014, the publication by the FSB of a document called Reforming Major Interest Rate Benchmarks and related to the need for reforming these rates (Interbank Offered Rates - IBORs[61]) and especially the LIBOR rate, stated the need for counting on sounder benchmark interest rates that, among other dimensions, may comply with the best practices and principles advocated by the International Organization of Securities Commissions (IOSCO). To this effect, the FSB founded the high-level Official Sector Steering Group (OSSG), made up by regulators and central banks of the jurisdictions involved.[62] The result of this initiative was the creation of the new benchmark interest rates, which adopted the Principles for Financial Benchmarks (IOSCO 2013).

As a result, in 2017, the Financial Conduct Authority (FCA) of the United Kingdom —regulator of the LIBOR rate— agreed with the banks participating in the panel that the obligation to submit LIBOR estimates would only be effective until the end of 2021. In this framework, they all agreed that the selection of a Risk Free Rate (RFR)[63] had to come from overnight transactions in unsecured markets, such as the Overnight Index Swaps (OIS), or in secured markets such as the Repurchase Agreements (REPOs). The rates selected were:

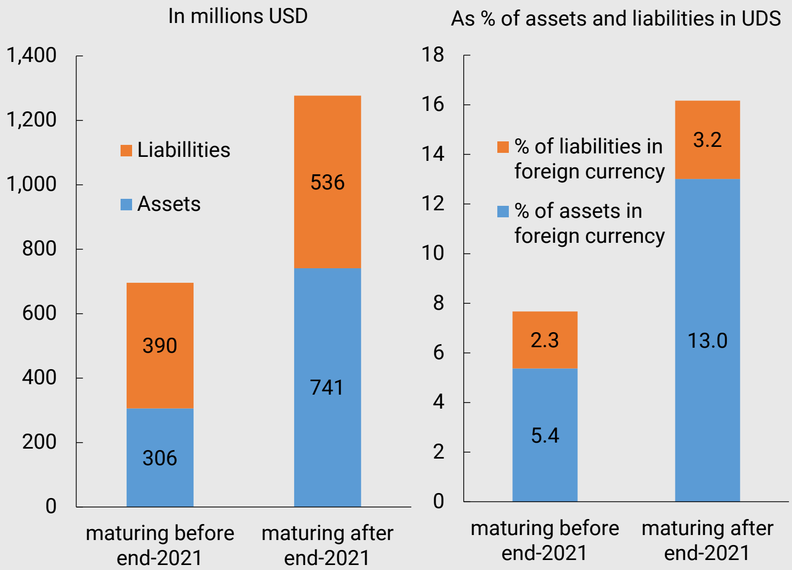
- SOFR (Secured Overnight Financing Rate) calculated as from 2018 by the US FED from the transactions made in the REPO overnight market with Treasury bonds;

59 The investigations held by regulators from the United States and other countries found an explicit manipulation by the banks to influence the determination of rates, in order to give the impression that they were financially more creditworthy than they were and thus benefit their own commercial positions. From June 2012 to February 2013, the US Commodity Futures Trading Commission (CFTC) and the Financial Services Authority (FSA) of the United Kingdom fined three banks in total for over US$ 2.6 billion. See LIBOR: Origins, Economics, Crisis, Scandal, and Reform.
60 As mentioned in BIS Quarterly Review, March 2019
61 Inter Bank Offered Rates: LIBOR, EURIBOR, HIBOR, MIBOR, SIBOR, TIBOR.
62 LIBOR rate is used with five currencies (US Dollar, Euro, Pound Sterling, Yen and Swiss Franc).
63 It is worth stating that, although the credit risk of these rates is almost nonexistent, it is above zero. As a result, even though they are usually called RFR, strictly speaking they are nearly risk free rates. Additionally, some of them (SOFR and SARON) are secured since they result from REPO transactions, which act as an additional credit risk mitigating element.

- SONIA (Sterling Overnight Index Average) is a rate calculated on the Overnight Indexed Swaps (OIS) market, introduced in 1997. The Bank of England manages this rate as from 2017 and, in 2018, some changes were introduced for its calculation;
- TONAR (Tokyo Overnight Average Rate) is a rate calculated by the Bank of Japan on the basis of unsecured overnight transactions using information provided by money market brokers;
- SARON (Swiss Average Rate Overnight) is a rate calculated on the basis of the REPO market. It was introduced in 2009 by the Swiss National Bank in cooperation with the SIX Swiss Exchange;
- ESTER (Euro Short-Term Rate) is a rate published by the European Central Bank as from 2019. This rate reflects the funding costs of the Euro Zone banks in the wholesale unsecured overnight market.

Nevertheless, there are some differences between the LIBOR and the RFRs. In this respect, the LIBOR consists of several components: (1) an RFR (theoretical rate of a loan with a probability of default tending to zero), (2) a specific term (expectations about changes in the rate during the period), and (3) credit risk. Instead, the alternative benchmark interest rates consist only of the RFR component. Therefore, the expression "alternative benchmark interest rate" should not be interpreted as a replacement rate for the contracts in force extending beyond 2021, which might give rise to legal consequences if the transition were not agreed or renegotiated in due time.

Chart A.1.1 | Exposure to Libor – Total financial system



Source: BCRA

In this context, in early 2020, the BCRA warned financial institutions about the legal, operational and financial risks associated with LIBOR-related transactions extending beyond the end of 2021 by means of Communication "B" 11933 and Communication "B" 11972. Likewise, it also requested the financial institutions information about these exposures (see Chart A.1.1) and about the measures adopted for a transition that does not endanger financial stability.

In its Supervisory issues associated with benchmark transition report to the G20, the FSB states that: “from a system-wide perspective, the uncertainty about the future of LIBOR as we get closer to the end-2021 could increase macroprudential risks from heightened volatility or disorderly markets as users are unable, unaware or unwilling to move to the new benchmarks”. In this context, in line with the information confirmed by the United Kingdom regulator about the date for the end of the LIBOR,[64] the BCRA, by means of Communication “A” 7278, replaced the LIBOR in the Consolidated Text for Time Deposits and Investments with the five alternative benchmark interest rates.

There are still some challenges ahead, such as the construction of a time structure of interest rates through the development of forward contracts.[65] While the LIBOR rate operates at different terms (for example, 1-month, 3-month, etc., LIBOR), the new RFRs are overnight rates; no derivatives market that is sufficiently liquid in all terms has been developed so far, in order to have a time structure of interest rates to which to resort on a sustained basis and in the five currencies involved (US dollar, Euro, Pound Sterling, Yen and Swiss Franc) so as to prevent problems in the application of the contracts in force. At present, the FSB, the various organizations that issue regulatory standards and the central banks continue working on this issue.

64 Immediately after December 31, 2021, in the case of all adjustments in pound sterlings, euros, Swiss francs and yens, and in the adjustments of the US dollar to 1 week and 2 months. Immediately after June 30, 2023, in the case of the remaining dollar adjustments. https://www.bankofengland.co.uk/news/2021/march/announcements-on-the-end-of-libor
65 Forward looking term rate, commonly called forward rate curve.

Exhibit 2 / Guidelines for Institutions Intended to Strengthen the Cyber Resilience of the Financial System

Since the beginning of the pandemic, when various restrictions to the mobility of people were implemented in order to control the epidemiological situation, domestic financial institutions started to introduce initiatives to adjust their activities to a context of intensified remote work. As a result, the new scenario favored the acceleration of the digitalization process of financial services (supply) and simultaneously encouraged a greater use of this method by the population. Among other features, the higher dependence on digital services highlighted the need for adjusting procedures to respond to potential cyber incidents, i.e. the response to events[66] that might impact on the technological infrastructure (including persons, processes and information systems) and endanger the cybersecurity framework.

In order to improve the number of tools available to face these increasing challenges, in April 2021 the BCRA released a set of guidelines for the response to, and recovery from, cyber incidents[67], addressed both to domestic financial institutions and Payment System Providers (PSPs) and also to Financial Market Infrastructures (FMIs).[68] This initiative was based on the work performed by the Financial Stability Board (FSB)[69] on effective practices for cyber incidents response and recovery, in which the BCRA has participated.

It is worth mentioning that these practices are required to adopt a proactive approach in order to mitigate the impact of cyber incidents, that have a low probability of occurrence but have a great impact. Guidelines are based on the planning of stages, specify responsibilities from the governing body down to the operating levels and include in their components the best practices for the analysis, mitigation, recovery, communication and coordination in the face of cyberattacks. Consequently, at operational level, the purpose is to address and solve cyber incidents and their root cause, as well as foster their investigation to prevent recurrences and gather evidence for potential judicial interventions (by identifying responsibilities). At the same time, these guidelines contribute to preventing these incidents from becoming serious risk factors for the aggregate financial system via a better communication and coordination (overview).

The implementation of the abovementioned guidelines supplements previous efforts made by the BCRA to tackle technological and security risks —including those related to electronic channels—, for the purpose of providing security to the users of financial services. The domestic regulations

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66 They may result from a malicious activity or not (phishing, denial of service or fraud are examples of cyber incidents).
67 Communication "A" 7266.
68 The guidelines for response to cyber incidents were introduced by means of virtual meetings held with the different banking associations, PSPs and FMIs in order to let them know about the purpose and general structure and provide a space for eventual consultation.
69 "Effective Practices for Cyber Incident Response and Recovery", FSB, 2020.

effective for over 10 years establish minimum requirements of mandatory compliance for financial institutions in the various processes intended for[70]:

- Awareness and training of internal and external clients by means of the acquisition and delivery of information and knowledge about security practices, their spreading, training and education, in order to prevent, detect and correct security incidents in electronic channels.
- Assessment, development and implementation of security measures for identity protection, authentication mechanisms, segregation of duties and functions and other access characteristics of internal and external users to Electronic Channels.
- Use of control measures for the integrity and recording of data and transactions, as well as the handling of sensitive information in the Electronic Channels and the techniques providing traceability and allowing for verification.
- Monitoring and control of transactions, behavior patterns of financial users, failures, unavailability, intrusions and other situations that may affect clients and the services offered by the electronic channels that will help the institution notice and act preventively in the face of suspicious situations by means of event collection, analysis and control.
- Management of security incidents in electronic channels, i.e. the implementation of measures for their detection, assessment, containment and response, as well as escalation and correction activities in the technical and operational environment.

Lastly, in order to provide full information to the community, the BCRA has recently introduced to its web site the main publications prepared and implemented in cybersecurity matters, including the regulations required and recommended, as well as guidelines on the topic.[71]

70 Consolidated text about "Minimum Requirements for the Management, Implementation and Control of Risks related to Information Technology, Information Systems and Associated Resources for Financial Institutions" (Section 6 on Electronic Channels).
71 http://www.bcra.gov.ar/SistemasFinancierosYdePagos/Ciberseguridad.asp

Exhibit 3 / Risks faced by the financial system linked to climate change

Given the increasing international commitment to face the challenges posed by Climate Change (CC)[72] [73] in a coordinated manner, there were several international forums,[74] Central Banks and Regulation/Supervision Authorities as well as market participants that, in recent years, have made progress in the analysis of its potential financial implications and have outlined some alternatives to approach them. As a result, challenges and financial risks posed by CC for the financial sector's participants have gradually began to be internalized, since these risks might endanger the normal operation of these participants in their respective jurisdictions and even at a global scale.[75]

There is consensus at international level —as revealed by the specialized literature on the matter and the approach given to the issue in the various forums— about two main types of risks related to Climate Change that might impact on the financial systems: physical risks and transition risks.[76] [77] The physical risks consist in financial losses directly caused by the increasing severity and frequency of extreme climate events, such as the rising number and intensity of rainfalls, floods, draughts, extreme cold or heat waves, among other drivers that may endanger any specific productive activity to which the financial institution may be exposed —either directly or indirectly—, such as reduction in harvests, damage to productive facilities, etc. The physical risks also include the impacts of a gradual rise in average temperatures that may turn productive zones with frequent access to bank financing into zones unfit for cultivation (for example, due to a change in the temperature of the oceans resulting in alterations of their level and circulation).

In turn, the so-called transition risks are related to the financial impact of migration towards an economy with a higher proportion and a better depth of less polluting activities in the short/medium term.[78] This migration may be driven by the sentiment of consumers and investors who are more socially responsible and more environmentally aware, and then act accordingly in their consumption and investment decisions, and also by the effect of public and regulatory policies (for example, the provisions stated in several international agreements and commitments related to pollution).

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72 According to the Ministry of Environment and Sustainable Development, climate change entails a significant variation in climate components when long periods are compared, and these periods may be decades or even more. In particular, it is stated that the climate of the Earth changed on several occasions along its history, due to natural changes such as volcanic eruptions, changes in the translation orbit of the Earth and variations in the composition of the atmosphere, among other. However, as from the last years of the 19th century, the average temperature of the Earth has increased over 0.6ºC (or higher) as part of the industrialization process started more than one century ago, specially related to the combustion of increasingly higher amounts of oil and coal, deforestation and some agricultural exploitation methods. As a result, Greenhouse Gases (GHG) generated by human activity intensify the natural greenhouse effect of the Planet, and generate a temperature rise on its surface.
73 International commitment with very important milestones such as the execution of the Paris Agreement of 2015 and the creation, also in 2015, of the 2030 Agenda for Sustainable Development (United Nations).
74 Including the G20, United Nations, Basel Committee on Banking Supervision (BCBS), Financial Stability Board (FSB) and the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), among other.
75 Even though this is not the central topic of this Exhibit, the following considerations must be made: 1. In general, the international approach includes wider considerations that go beyond CC considerations, such as those related to the environment (biodiversity protection, for example), added to attention to social aspects, among other; and 2. This new scenario also offers new business opportunities for financial institutions such as, for example, the approach to initiatives related to less polluting sources of energy.
76 Part of the specialized literature also identifies another group of risks, such as legal matters, among other.
77 For further detail, see, among other: "The implications of climate change for financial stability", FSB, 2020; "The Green Swan. Central Banking and Financial Stability in the Age of Climate Change", Bolton et al., BIS, 2020; "Climate-related risk drivers and their transmission channels", BCBS, 2021.
78 This means, with lower emissions of GHG.

Even though with dissimilar intensity among types of economy, the abovementioned risk drivers related to Climate Change may impact on the normal development of the institutions in the various jurisdictions and even at global scale. The main channels of balance sheet impact on financial institutions include: i. a potential deterioration in the payment capacity of financial institutions' debtors whose income is severely and adversely affected by climate events (credit risk), or by changes in consumers' sentiment or in the state policies on pollution; ii. the eventual loss of value of loan collaterals, such as the case of properties that lose value because they are located in climatically exposed areas —among other— (credit risk); iii. potential deterioration of the prices of investments in securities (market risk), such as shareholding of companies exposed to CC effects or of highly polluting firms; iv. the reputational risk faced by institutions that have devoted resources to unfit activities from an environmental standpoint; v. legal risks in the face of judicial complaints due to the pollution generated; vi. operational risks related to potential damage to the infrastructure required to provide financial services (electronic or onsite), among other. In this context, there has been an increasing consensus in recent years to involve Central Banks and Regulation/Supervision Authorities because, among their responsibilities, they have to promote an adequate operation of the financial system, ensuring financial stability conditions for the economies.

In this framework, among other initiatives[79], several Central Banks have started to: i. assess the degree of consideration/internalization of the various financial market players in terms of climate-related financial risks (and how they perform this duty);[80] ii. analyze the capacity of the financial institutions to monitor and manage such risks, as well as the instruments and information available to them for such purpose; iii. encourage institutions to make progress in the identification and management of risks related to Climate Change, by designing recommendations on good practices; iv. make progress in the development of metrics and instruments (of various degrees of complexity), as well as the use of data as input to be able to assess and monitor climate-related financial risks from the financial stability viewpoint. In general, the abovementioned initiatives follow a gradual implementation path and have configurations that are intrinsically associated with the characteristics of each country and region (considering their economic structure and financial market structure, as well as their development level).[81]

Argentina is part of this international trend. Since 1994, it has participated in the United Nations Framework Convention on Climate Change, and signed the Paris Agreement in 2015. In 2019, the National Climate Change Cabinet[82] was created to coordinate, together with the different areas of the government and the civil society, the design of strategic public policies to reduce GHG

79 See Exhibit 2 "The challenge of Central Banks in the Age of Climate Change", IPOM May 2021, for a discussion about the effects of climate change on monetary stability.
80 See, among other, "Stocktake of Financial Authorities' Experience in Including Physical and Transition Climate Risks as Part of Their Financial Stability Monitoring", FSB, 2020.
81 In this respect, several international forums such as G20, BCBS, FSB, NGFS, IMF, among other, currently have working groups devoted to analyze and study the various dimensions and financial effects related to Climate Change, and several of them have a wider perspective (and consider environmental aspects such as biodiversity, social aspects and corporate governance).
82 Created by Law No 27520 on "Minimum Standards for Global Climate Change Adaptation and Mitigation".

emissions. This adds up to a set of initiatives of the National Securities Commission (CNV), other state players and the private sector as well.[83]

The BCRA has been participating in international forums on the matter —especially in the FSB and the G20—, as well as in domestic initiatives transversally made up by state agencies working on sustainable finance and risks related to Climate Change. In this respect, the purpose of the BCRA —together with other areas of the state— is to strengthen the efforts tending to assess and mitigate the climate-related risk drivers for the Argentine financial system. The main guidelines of this initiative seek to prepare a diagnosis about the situation of the sector (degree of awareness/internalization of the financial risks related to Climate Change), create awareness among the market players about the relevance of the issue, make progress in the identification and assessment of the system's exposure to the physical and transition risks assumed, continue to develop assessment tools for these risk drivers from a systemic perspective and, eventually, design policy measures to adopt a prudential approach.

These initiatives will be consolidated by the contributions received by this Institution from other state areas, the civil society and international players with a longer track record in this matter.

83 Sustainable Finance Protocol of Argentina signed in 2019 by a group of domestic financial institutions.

Exhibit 4 / Some Interconnectedness Channels between Financial Institutions and Non-Financial Credit Providers

As mentioned in Section 3, the ensemble of financial institutions (ef) that make up the Argentine financial system[84] provide the largest proportion of loans to households and companies. The private sector get funds from other domestic sources, such as the non-financial credit providers (NFCPs), a segment that is mainly made up by mutuals, cooperatives, credit and/or purchase cards issuing companies, the so-called Fintech firms, as well as other legal persons that offer credit to the public in general.[85] [86] In the framework of the macroprudential monitoring regularly performed by the BCRA, it is relevant to assess the various aspects related to the non-financial credit providers, such as the interconnectedness channels with the financial system, in order to have a better diagnosis about their potential vulnerability sources.

This Exhibit analyzes some of the interconnectedness channels between the financial institutions and the NFCPs. The purpose is, on the one hand, to measure the interconnectedness between both sectors via the credit provided by financial institutions to the non-financial credit providers, an interconnectedness called "via funding" in our country. On the other, we seek to identify the debtors that receive funds from the FEs and from the NFCPs (common to both segments), an interconnectedness that is called "via debtors in common (DC)". In the latter case, the objective is to know the representativeness of these DCs —for each block— and some of their characteristics such as the delinquency level.

The number of NFCPs registered with the BCRA, according to the regulatory requirements, exceeded 350 as of the date of this analysis.[87] In turn, according to the data available at the Debtors' Database,[88] as of March 2021, the stock of loans to the private sector provided by the NFCPs accounted for 7.1% of the total credit to the private sector granted jointly by all the FEs and all the NFCPs (265) that provide data to such source.[89] This indicator did not show significant changes in a year-on-year comparison.

In terms of the abovementioned interconnectedness, it has been observed:

I. Interconnectedness via funding

- As of March 2021, 53 financial institutions (FEs) were providing funds to 317 non-financial credit providers (NFCPs) (see Chart A.4.1), reaching a stock equivalent to 2.8%[90] (+0.3 p.p. y.o.y.) of loans to the private sector generated by this group of FEs (2.7% of the entire financial

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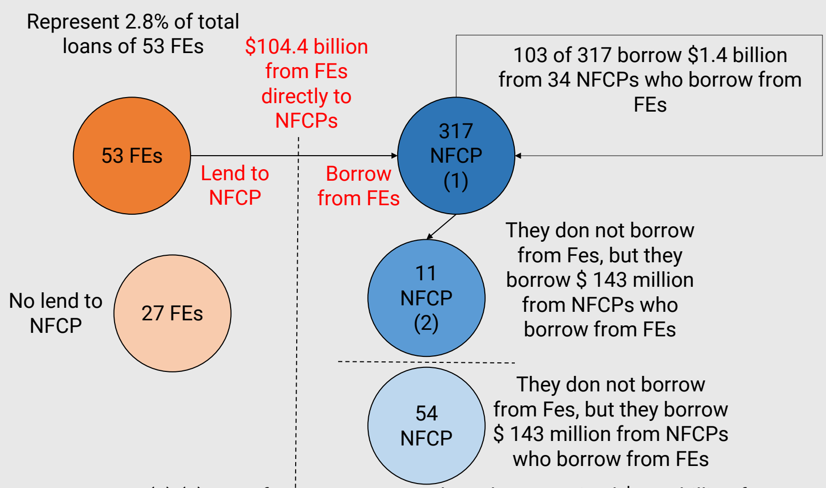
84 Ensemble of financial institutions subject to Law on Financial Institutions.
85 For further detail, see Consolidated Text of "Non-Financial Credit Providers" as well as the Report on Other Credit Providers.
86 Even though, at domestic level, there are other credit providers of a certain size (see Section 3), this Exhibit focuses the analysis on the providers reporting granular information (microdata) by debtors (segment of financial institutions and non-financial credit providers).
87 See the second footnote of this Exhibit.
88 It is worth pointing out that the information available at the Debtors' Database of the BCRA does not necessarily reflect the entire universe of non-financial credit providers operating at domestic level. This situation is consistent with the reporting requirements stated in the regulations in force (for further detail, see the Consolidated Text of "Non-Financial Credit Providers").
89 Out of this percentage, 4.7 p.p. is explained by credit and/or purchase card issuing companies and 2.4 p.p. by other NFCPs. It is worth stating that we have taken all the unconsolidated balances by the funding that the NFCPs receive from the FEs.
90 65% of this stock is granted to credit and/or purchase card issuing companies and the rest to other NFCPs.

system's credit). The non-performance ratio of such funding stood at 1.7% as of such date, below the 3.9% observed in the loans provided to the private sector of the financial system as a whole. Eight FEs accounted for more than 76% of the funds provided to the NFCPs.[91]

- From the standpoint of the NFCPs that received resources from the FEs, there is a group of 205 providers reporting data to the Debtors' Database. On this sample of 205 providers, the funding received from the FEs accounted for 29.2% (-0.9 p.p. y.o.y.) of the stock of credit of these NFCPs outstanding as of March this year.[92]
- In addition: i. Out of these 205 NFCPs, 34 granted credit to 103 NFCPs; ii. 11 NFCPs did not receive funds directly from an FE but borrowed funds from another NFCP that had received funds from an FE; and iii. 54 NFCPs did not borrow funds from an FE (and reported data to the Debtors' Database).[93]

Chart A.4.1 | Interconnectedness between FEs and NFCPs via funding received by these providers from the FEs – March 2021



Source: BCRA. (1) (1) 205 of 317 report to Cendeu. These received $84.5 billion from 51 Fes, which represents 29.2% of your loans granted. (2) 6 of 11 report to Cendeu.

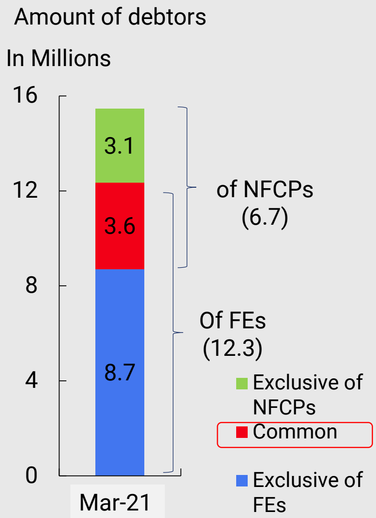
II. Interconnectedness via debtors in common

- By the end of the first quarter of 2021, there were 15.5 million debtors in the universe of financial institutions and non-financial credit providers. Out of this total: i. 23.5% obtained funds from both segments (FEs and NFCPs)[94], i.e. there were 3.6 million of debtors in common (DC) (see Chart A.4.2); ii. 56.3% only got funds from FEs; and iii. 20.1% only received funds from NFCPs.
- Natural persons accounted for 99.5% of the debtors in common (DC).

91 Institutions belonging to Group A.
92 67% was granted by credit and/or purchase card issuing companies and the rest by other NFCPs.
93 It is worth noting that the Debtors' Database of the BCRA has information about NFCPs with active loans in the time periods under analysis.
94 From the standpoint of NFCPs, DCs accounted for 54% of their total debtors.

- As of March 2021, DCs' stock of debt accounted for 41.2% of the total stock of credit of FEs and NFCPs[95] (-6.3 p.p. y.o.y.).

Gráfico A.4.2 | Interconexion between FEs and NFCPs through debtors in common



Classification (Mar-21)		Amount of debtors (thousands)		Non-performing loans ratio on debt balance in...	Debt balance ($ Billions) in...	% of people with formal remuneration about the group
Common	Human	3.6	FEs	3.1	616	48.1
			NFCPs	11.9	178	
	Legal	0.02	FEs	4.3	908	0.0
			NFCPs	5.8	22	
Exclusive of NFCPs	Human	3.1	FEs		0	24.0
			NFCPs	29.1	90	
	Legal	0.004	FEs		0	0.0
			NFCPs	10.5	5	
Exclusive of FEs	Human	8.5	FEs	1.9	1,526	45.2
			NFCPs		0	
	Legal	0.16	FEs	7.9	841	0.0
			NFCPs		0	
Debtors of NFCPs	Human	6.7	FEs	3.1	616	37.0
			NFCPs	17.6	268	
	Legal	0.02	FEs	4.3	908	0.0
			NFCPs	6.7	27	
Debtors of FEs	Human	12.2	FEs	2.2	2,142	46.1
			NFCPs	11.9	178	
	Legal	0.18	FEs	6.0	1,749	0.0
			NFCPs	5.8	22	
Total	Human	15.3	FEs	2.2	2.142	41.6
			NFCPs	17.6	268	
	Legal	0.18	FEs	6.0	1,749	0.0
			NFCPs	6.7	27	

Source: BCRA

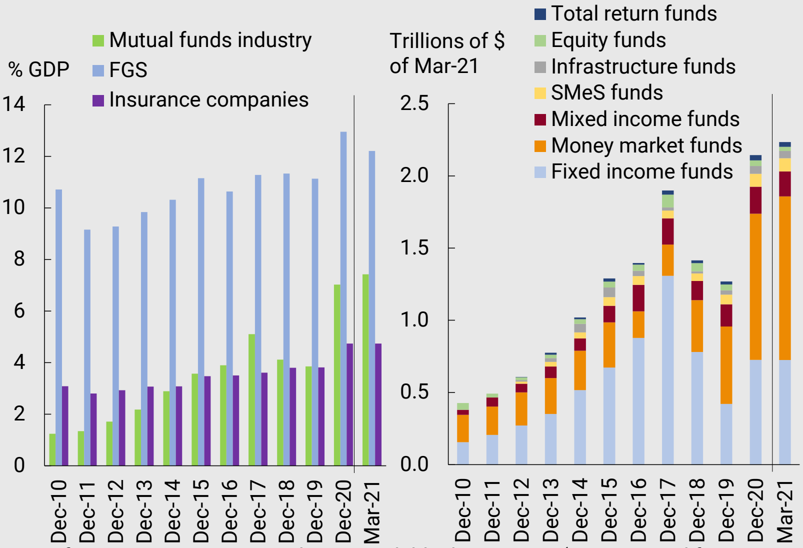
- In terms of the indicators related to the materialization of the credit risk, the non-performance ratio of loans channeled via the NFCPs is usually higher than that of funding provided by the FEs. This would be consistent with the relative bias in terms of the average credit profile of each group's ensemble of debtors, in particular with reference to debtors not in common (with relatively lower levels of income in the case of NFCPs' clients). Within the universe of debtors in common, it has also been observed that the non-performance ratio for the financial institutions is relatively lower than that recorded for non-financial credit providers. As of March, the delinquency ratio of loans provided by the NFCPs stood at 16.6% (-8.6 p.p. y.o.y.) (17.6% for natural persons, -9.4 p.p. y.o.y.).
- If we consider only the group of DCs (natural persons), we can see that:
  1. Its credit-related delinquency ratio amounted to 3.1% in the FEs as of March 2021 (see Chart A.4.2). This value is higher than the amount corresponding to the group of debtors receiving funds exclusively via these institutions (1.9%; with an average of 2.2% for all natural persons that are debtors of the FEs).
  2. Its credit-related delinquency ratio amounted to 11.9% in the NFCPs. Even though this level is relatively high, it is still standing below the non-performance of natural persons that are exclusive debtors of the NFCPs (29.1%; with an average non-performance of 17.6% for this group of institutions).
  3. In general, it can be observed that there is a higher proportion of natural persons with formal income among debtors in common (48% of the total) than in the ensemble of exclusive debtors of NFCPs (24%), a situation that might be related, at least in part, to the differential credit performance.

95 For the NFCPs, the stock of DCs accounted for 68% of the total stock of credit they reported to the Debtor's Database.

Exhibit 5 / Evolution of the Mutual Funds (FCI) Industry and its Interconnectedness with the Financial System

As of May 2021, the Mutual Funds (FCIs) managed a portfolio of $2.4 trillion, equivalent to 7.1% of GDP and they are the main domestic institutional investors, second only to the Sustainability Guarantee Fund (FGS) (see Chart A.5.1, left panel). Even though fixed income and mixed income funds are more in number —316 and 108 funds, respectively—, the money market funds —43 in total— have the highest weight in the total portfolio managed by the Mutual Funds industry, accounting for nearly 50% (see Chart A.5.1, right panel). The money market mutual funds, with a shorter term investment horizon and lower volatility in the value of the unit share, are frequently used for liquidity management.[96] The investments of money market FCIs largely include term transactions (time deposits, securities-guaranteed loans and repo transactions) and liquid assets (sight deposits). They may also invest in debt securities, collective investment vehicles (FCIs and financial trusts) and other.[97]

Chart A.5.1 | Portfolio of Argentina's main institutional investors



Note: for insurance companies latest available data Dec-20 (it is repeated for Mar-21). Source: BCRA based on FGS, SSN y CAFCI.

It is worth considering that the total portfolio of FCIs recorded drops in 2018 and 2019 (26% and 10% in real terms, respectively), mainly due to the volatility of markets in general and the

96 The fixed income and mixed income mutual funds (FCIs) account for 32% and 8% of total open-end FCIs, respectively. There are other types of funds (total return, infrastructure, equities and SMEs) with a lower weight in the total, and also closed-end mutual funds (not included in this Exhibit).

97 Due to regulations, they may have up to a 30% of the portfolio in assets valued upon accrual (time deposits, repos and securities-guaranteed loans) (a) on which there is a mandatory liquidity margin of at least 80% on sight deposits. In time deposits with an early cancellation option (b) they may have up to 20% of the portfolio, at market value (when not in the early cancellation period they are considered assets valued upon accrual). Debt securities must be valued at market prices and have a term shorter than one year. The addition of investments (a) and (b) cannot exceed 50% of the total portfolio. Term transactions also included repo transactions with the BCRA when they were available as instrument (second half of 2019 to February 2020).

reprofiling of Treasury instruments[98] (a situation that translated into sharp drops in the prices of sovereign bonds, which accounted for most of FCIs investments, and a higher demand for liquidity). By the end of 2019, the sector started to recover and, in 2020, mutual funds' portfolio increased almost uninterruptedly, month after month, in nominal terms, accumulating a 69% y.o.y rise in real terms as of December 2020. This evolution continued in 2021 even though at a slower pace (estimated growth of 2%, in real terms, accumulated as of May).

Considering that investors have prioritized shorter terms and lesser volatility in returns, in recent years there has been an increase in the positions in money market funds to the detriment of fixed income funds, which ceased to be the main class of investment in this industry. In 2020, and so far in 2021, money market FCIs grew the most in relative terms and they largely explain the performance of this sector, while their share in the total has also increased from 42% by late 2019 to 47% by late 2020). This growth is due to new underwritings and, to a lesser extent, to the return of investment.

In this context and given the growth of money market funds as from 2019 and the composition of their portfolios, there has been an increase in the direct interconnectedness of the FCIs industry and the financial institutions (regulated by the BCRA).[99] For the aggregate of the FCIs, deposits in the financial system (in sight accounts and time deposits) stood at 49% of the industry's total portfolio as of March 2021, equivalent to 12% of the financial system's total deposits (largely concentrated —94%— by money market funds). As of December 2019, FCIs deposits accounted for 28% of the FCIs' total portfolio and were equivalent to less than 5% of the financial system's total deposits.[100]

Based on granular information at funds level and using network analysis, among other indicators, it can be observed that there has also been an increase in the direct interconnectedness between financial institutions and FCIs, grouping by deposits of each FCI's Management Company (SG) (see Table A.5.1).[101],[102] For example, from December 2019 to March 2021, there was an increase in the observed-to-expected links ratio (+10 p.p. to 29% in March 2021) and the average amount of the link doubled in real terms. As of March 2021, there has been a rise in the weight of deposits

98 On that occasion, the BCRA decided to make temporary auctions of repos and purchases of Treasury Bills held in the portfolio of the FCIs. For further detail, see Exhibit 3 "BCRA's Response to the Impact of Financial Volatility on Mutual Funds", IPOM - October 2019.

99 Regarding the direct interconnectedness between FCIs and other institutional investors, such interconnectedness is low in the case of FGS and is significant between FCIs and insurance companies. The investment in FCIs unit shares accounted for 1.1% of the FGS's portfolio (2% of the FCIs' total portfolio) as of December 2020. In the case of insurance companies, FCIs' unit-share holding accounted for 30.9% of total investments and liquid assets of those institutional investors as of December 2020 (22.5% of the FCIs total portfolio as of such date). It is also pointed out that, in addition to direct interconnectedness, on which this Exhibit focuses, there is an indirect interconnectedness related, for example, to the existence of overlapping portfolios and exposure to common factors.

100 However, as mentioned in Section 4, considering the main three institutional investors all together, the current weight of deposits shows an increase on the margin in recent months but if compared to the historical values of December 2010, for example, the increase is less marked.

101 Deposits are considered links without any distinction between sight accounts and time deposits. There are other investments such as Corporate Bonds holding by the FCIs, the issuers of which are the FEs, or shareholding of the FEs that are not included in this analysis.

102 In terms of network analysis, the interconnectedness between deposits of the FCIs (or their grouping at the level of each SG) and the financial institutions is presented as a two-path network on a qualitative basis. In a two-path type of network, there are two nodes that are disjoint or independent between them. The relationship between one node of one set and one node of the other set is given by a link.

of the main 10 Management Companies and, at the level of each SG, an increase is observed in the number of Financial Institutions (FEs) with which it operates (the median goes from 6 to 10). From the standpoint of each EF, there has been a rise in the weight of FCIs deposits (grouped by SGs) in its funding. Considering each individual link between SG and EF (relative to total private sector deposits of each institution), an increase has also been observed in March 2021, a situation that may also be visually appreciated in a higher density of the network in March 2021 (see Chart A.5.2). It is worth considering that from the prudential perspective of financial institutions, the increase in SGs deposits occurred simultaneously with a significant rise in top-quality liquid funds of the institutions, which reflects an improvement in the Liquidity Coverage Ratio -LCR- (Basel III) of the financial system in recent months (see Section 3).

Table A.5.1 | Indicators of Direct Interconnectedness between FCIs deposits grouped by SG and the financial institutions regulated by the BCRA

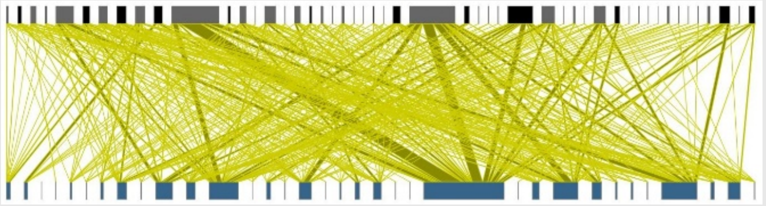
Amounts in trillion $ ($ of Mar-21)

Indicator	Dec-19	Mar-21
Weighing of deposits over total balance of mutual funds	28%	49%
Quantity of financial entities with deposits of at least one fund management company (a)	35	36
Quantity of fund management companies (b)	49	49
Total observed links (higher than $100 thousand) (c)	320	504
Observed links/ possible (c)/((a)*(b))	19%	29%
Total deposits of fund management companies / total deposits financial sector	5%	12%
Total deposits of fund management companies / total deposits non-financial private sector	6%	15%
Average deposit amount (link)	$ 1.09	$ 2.17
% top 10 fund management companies over total	70%	76%
Quantity of financial entities for each fund management company, median	6.0	10.0
Total deposits of fund management companies / deposits of non-financial private sector for each financial entity, median	9%	18%
Size of each link / deposits of non-financial private sector for each financial entity, median	0.3%	0.7%

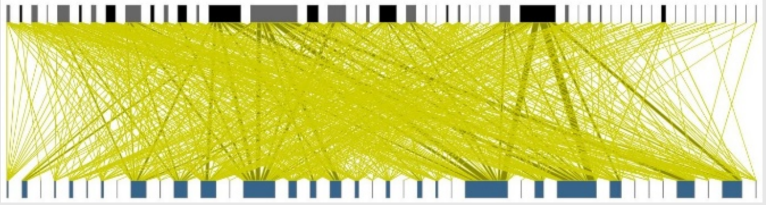
Source: BCRA based on CAFCI and INDEC.

Chart A.5.2 | Two-Path Network between FCIs deposits grouped by SG and the financial institutions regulated by the BCRA
Links weighted by amount
Upper axis SG, lower axis EF

Dec-19



Mar-21



Source: BCRA based on CAFCI.

Abreviations 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.: basics 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 Autónoma 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.
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.
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.
MoT: Ministry of Treasury.
MSCI: Morgan Stanley Capital International.
MULC: *Mercado Único y Libre de Cambios*. Single free exchange market.
NBFI: Non-Bank Financial.
NPD: National public debt.
NFPS: Non-financial national public sector's.
NW: Net worth.
OB: *Obligaciones Negociables*. Corporate bonds.
OECD: Organization for Economic Cooperation and Development.
OPEP: Organization of the Petroleum Exporting Countries.
PEN: *Poder Ejecutivo Nacional*. Executive Branch.
PGNME: *Posición Global Neta de Moneda Extranjera*. Net Global Position in Foreign Currency.
p.p.: Percentage point.
PPM: *Plataforma de Pagos Móviles*. Mobile Payment Platform.
REM: *Relevamiento de Expectativas de Mercado*. BCRA Market expectation survey.
ROA: Return on Assets.
ROE: Return on Equity.
Rofex: Rosario Futures Exchange.
RC: Regulatory capital
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.
WB: World Bank.
WPI: Wholesale Price Index.y.o.y.: year-on-year.