

Financial Inclusion Report

April 2023



BANCO CENTRAL
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Financial Inclusion Report

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About 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 ideas, feelings, ways of thinking, as well as principles and core values.

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

Foreword

The Charter of the Central Bank of Argentina (BCRA) establishes that *“the purpose of the Bank is to promote—within the framework of its powers and the policies set by the National Government— (...) economic development with social equality.”* It states that the Board is responsible for the following duties, among others: (i) authorizing the opening of branches and other types of offices with a view to expanding the geographical reach of the system; serving the needs of the least developed areas; and promoting widespread access to financial services by users; (ii) regulating the lending policy and steering it through differential minimum reserve requirements or any other appropriate means; (iii) setting differentiated policies aimed at small- and medium-sized enterprises and regional economies; and (iv) carrying out research work and promoting financial education and activities related to its purpose as set out in its Charter. These objectives and competences are included in the concept of financial inclusion.

Financial inclusion stands for the principle that all individuals can have access to and use first-rate financial services provided in a sustainable and responsible manner. Within this framework, the BCRA has adopted a policy to achieve greater financial inclusion by expanding and democratizing the scope of financial services so that all the segments of the population may contribute to, and benefit from, economic development.

The notion of “financial health” refers to the extent to which individuals, households, companies and communities can easily handle their current financial affairs and feel confident about their financial state in the future. The BCRA fosters the development of financial capability and habits that improve money management and decision making. Thus, the BCRA contributes towards a more inclusive and fairer society with better development opportunities for all productive units and individuals, especially for the most vulnerable sectors.

For the purpose of assessing financial inclusion, the BCRA monitors certain variables. These metrics are disaggregated by gender, age and location. This enables the BCRA to assess the progress and condition of financial inclusion before making policy decisions. The outcome and the measures adopted in this regard are released every six months in the Financial Inclusion Report (IIF). This report approaches, for the first time, the use of electronic channels of financial institutions (FIs), and makes a gender-based analysis of credit granted to natural persons (NPs) registered as micro-, small-, and medium-sized enterprises (MSMEs). It also examines the impact of technology on young people's financial inclusion. New data series have been added under the section of electronic means of payments, such as Transfers and Payments by Transfer (PCTs) made using the platform of the same payment service provider (PSP).

The next issue of the IIF will be published in October 2023.

Autonomous City of Buenos Aires, April 21, 2023.

Contents

Page 3	Foreword
Page 5	Executive Summary
Page 7	Table of Indicators
Page 8	Introduction
Page 11	1. Financial Infrastructure
Page 16	2. Account Holding
Page 20	3. Electronic Means of Payment and Savings and Investment Methods
Page 20	3.1. Electronic Means of Payment
Page 26	3.2. Savings and Investment Methods
Page 29	4. Credit
Page 29	4.1. Credit to Natural Persons
Page 34	4.2. Credit to Productive Units
Page 41	Exhibit 1 / An approach to the Use of the Electronic Channels of Financial Institutions
Page 45	Exhibit 2 / Gender Gaps in Financing to MSMEs
Page 49	Exhibit 3 / Young Persons and Financial Inclusion: Analyzing the Impact of Technology
Page 53	Note on Methodology
Page 56	Abbreviations and Acronyms

Executive Summary

- **Points of access to financial services (PDAs) rose by 4.8%** between December 2021 and December 2022, and maintained at 92.5% of the adult population living in municipalities with PDAs.
- **Bank and/or payment account coverage reached nearly the entire adult population (99.3%) by the end of 2022.** The number of natural personas (NPs) with at least one account stood at 35.1 million, as opposed to 34.6 million in June 2022 (98.5%). With figures above 95%, the northwestern (NOA), Cuyo and Patagonia regions recorded account holding levels close to full coverage, whereas the Center and northeastern (NEA) regions were already fully covered.
- **Several segments of the population reached record high levels in terms of holding both bank and payment accounts.** In December 2022, the holding of both types of accounts hit record high coverage levels—76%—in the 25-29 age group. However, the holdings of both types of accounts are relatively low in the 15-19 and 60-64 age groups.
- **Electronic means of payment (MPEs) continued reaching historical highs.** Each individual made an average of 17.8 monthly payments through MPEs in 2022, a record level that is virtually three times as high as the pre-pandemic figure. The MPEs that charge low or no fees, and offer immediate availability of funds (transfers and Payments with Transfer) stood out.
- **The use of mobile banking (MB) for transactional services at financial institutions (FIs) significantly grew between 2019 and 2021.** About 10% of NPs with a bank account made a transaction in the last quarter of 2019, rising to 31% in the same period of 2021. After the COVID-19 pandemic, a change in the usage of electronic channels was observed, with MB gaining ground over online banking (OB).
- **The average transaction with MPEs decreased for the second year in a row (19% year-on-year (y.o.y.) in real terms in 2022).** Against a backdrop of increased real amounts per adult, such performance reveals the advance of electronic wallets and MB in everyday payments, as they involve transactions for small amounts.
- **The rise in returns had a positive impact on savings and investment products.** In December 2022, NPs made 6.9 time deposits (TDs) in domestic currency every 100 bank accounts in the same currency. This represents a 53% y.o.y. increase. Compared to 2021, users shifted to short- and medium-term products (mutual funds (MFs) and TDs), while readily liquid account balances fell (account balances and money market funds (MMFs)).
- **As of December 2022, 54.5% of the adult population had obtained a credit product from the broad financial system (BFS).** After two years of steady growth, the number of NPs with financing from the BFS exhibited a net increase of 1.6 million during 2022, reaching 19.2 million in December. However, NPs' total stock of financing from the BFS in the same period dropped 13% in real terms, with the average stock per borrower following a downward trend.

- **The type of income had a significant influence on the average stock of debt of NPs.** As of December 2022, more than half of NPs with a credit product had a formal salary as employees or else received retirement pay for having reached the corresponding age. Employees' average stock per borrower is twice as high as borrowers who are self-employed.
- **The number of MSMEs with financing from the BFS** was 1.04 million as of December 2022, rising by about 216,000 businesses from the same month of 2021. The stock of financing fell 14% y.o.y. at constant prices on account of a decrease in the average debt stock.
- **The average stock of MSMEs' debts owned by women (MSMEs-W) was considerably lower than those owned by men (MSMEs-M).** As of December 2022, the average stock of NPs classified as MSMEs-W stood at 47.6% of the average stock of a MSME-M. This evidences a gender gap in borrowed amounts, which remained stable over the past two years. The difference in the average stock to the detriment of MSMEs-W was observed across all companies, regardless of their size (to a greater extent in the largest ones) and across all economic sectors.
- **Between 2019 and 2022 there was a higher level of financial inclusion of young people (aged 15-24).** The number of NPs with a bank and/or payment account increased by 27% between March 2019 and December 2022 (+7.6 million). The 15-24 age group contributed the most—9.6 percentage points (p.p.)—to such rise. Based on the data obtained by the end of 2022, the number of young people who opened an account for the first time at a FI or at PSP was similar. However, significant changes among FIs and non-financial credit providers (PNFCs) were seen in terms of access to a credit product. Greater inclusion of younger age groups is mostly explained by PNFCs.

Table of Indicators | Financial inclusion in Argentina

	Indicator	Latest data	2016	2017	2018	2019	2020	2021	2022
Infrastructure	PDA's	Dec-22 (1)	25.306	26.510	29.006	30.682	44.389	50.188	52.575
	PDA's every 10,000 adults	Dec-22 (1)	7,7	8,0	8,6	9,0	12,9	14,4	14,9
	Percentage of municipalities with at least one PDA	Dec-22 (1)	39,6	40,7	41,4	41,9	48,3	52,3	52,2
	Percentage of adults living in a municipality with at least one PDA	Dec-22 (1)	91,0	91,2	91,2	91,3	92,1	92,5	92,5
Accounts	Percentage of the adult population with at least one account	Dec-22	-	-	-	82,7	92,8	95,2	99,3
	Percentage of the adult population with at least one single banking code (CBU)	Dec-22	-	77,9	80,4	81,5	90,7	91,3	95,3
	Percentage of the adult population with at least one CBU (women)	Dec-22	-	-	80,7	85,2	90,9	91,7	95,7
	Percentage of the adult population with at least one CBU (men)	Dec-22	-	-	80,1	77,6	90,5	90,8	94,8
	Percentage of the adult population with at least one single virtual code (CVU)	Dec-22	-	-	-	6,8	24,1	46,7	55,9
	Percentage of the adult population with at least one CVU (women)	Dec-22	-	-	-	5,3	23,2	47,4	56,3
	Percentage of the adult population with at least one CVU (men)	Dec-22	-	-	-	8,4	25,1	45,9	55,4
Transactions	Number of payments on debit cards per adult	Dec-22 (2)	1,7	1,9	2,2	2,6	3,0	4,1	4,9
	Number of payments on credit cards per adult	Dec-22 (2)	2,0	2,1	2,4	2,7	2,4	2,7	2,8
	Number of transfers from CBUs per adult	Dec-22 (2)	0,2	0,2	0,3	0,4	0,8	1,3	2,6
	Number of transfers from CVUs per adult	Dec-22 (2)	-	-	-	-	0,1	0,6	1,1
	Number of cash withdrawals through ATMs per adult	Dec-22 (2)	2,3	2,6	2,7	2,9	2,7	2,7	2,7
Savings	Number of time deposits every 10,000 adults (in ARS/UVAs)	Dec-22	759	771	925	840	908	974	1.622
	Number of time deposits every 100 account holders (ARS/UVA/USD)	Dec-22	-	-	-	11,0	10,6	11,2	17,5
Credit	Percentage of adults with financing from FIs	Dec-22	36,0	37,3	37,9	37,0	35,4	35,2	37,1
	Percentage of women with financing from FIs	Dec-22	34,0	34,8	35,5	35,9	35,2	33,3	35,5
	Percentage of men with financing from FIs	Dec-22	39,3	39,6	40,2	39,8	38,7	37,1	38,3
	Percentage of adults with financing in the BFS	Dec-22	49,0	49,4	50,0	49,1	47,1	50,6	54,7
	Percentage of women with financing in the BFS	Dec-22	45,0	45,6	46,5	46,8	45,8	45,9	52,9
	Percentage of men with financing in the BFS	Dec-22	53,2	52,5	53,0	52,8	51,4	51,0	55,9

Note:

(1) Including FIs' PDAs (branches, mobile branches, automated teller machines (ATMs), self-service terminals (TASs) and supplementary agencies of financial services (ACSFs)) and non-FIs' ATMs.

(2) Monthly average for each year.

Introduction

Local context. In 2022, the financial inclusion process took place against the backdrop of improved economic activity and higher employment rate, widespread use of mobile devices and, within the framework of monetary policy, an upward trend in benchmark interest rates.

Economic activity continued rising in 2022 above the levels witnessed in 2021. The monthly economic activity estimator (EMAE) grew by 5.2% y.o.y. in 2022.¹ Private consumption also improved,² expanding 9% in 2022 compared to 2021.

As for the labor market, the employment rate in major urban agglomerations has historically been high, reaching its peak in the fourth quarter of 2022 (44.6%). It is the highest figure recorded since 2003, and agrees with that reported in the second quarter of 2022. The increased employment rate is marked by the growth in the activity and employment of women to a greater extent than that of men.³ Employees' real income declined nearly 3% in the second half of 2022 against the same period of 2021. However, differences were observed between formal and informal workers. Real income decreased to a greater extent among informal workers.⁴

In turn, benchmark lending and deposit rates showed an upward trend between June and September 2022, and then stabilized in the last quarter of the year. In the third quarter of 2022, the BCRA raised the monetary policy rate to positive values in real terms in order to preserve foreign exchange and financial stability. Between end-June and end-September 2022, the monetary policy rate climbed 23 p.p., whereas the one of TDs rose about 21 p.p. and the rate on unsecured promissory notes and on personal loans increased around 18 p.p. in the same period.

In the second half of 2022, FIs reported that the perceived demand for credit from small, medium and large enterprises continued to drop.⁵ Regarding credit demand from households, FIs reported that credit cards and other consumer loans remained stable. By contrast, the demand for pledge-backed loans was relatively low. At the same time, the BCRA continued offering incentives to credit access.

Access to digital infrastructure is of utmost importance for financial inclusion. Residential access to mobile internet expanded about 9% in the third quarter of 2022 to slightly over 32 million connections.⁶ As for mobile phone subscriptions every 100 inhabitants in the upper-middle income category, Argentina (130.5) was above the mean for Latin America and the Caribbean (108) and above that for countries in the same income category (123).⁷ The cost of fixed broadband subscriptions in Argentina in terms of the monthly gross national income per capita (GNlpc) was 14% above the average of a selection of Latin American countries, and is three to

¹ EMAE, seasonally-adjusted change.

² INDEC, [Quarterly Series of Global Supply and Demand: 2004-2022](#).

³ INDEC, [Labor Market. Socioeconomic Rates and Indicators \(EPH\)](#). Q1 2017-Q4 2022 and Argentine Ministry of Labor, [Labor Statistics Bulletin, Labor Market](#).

⁴ INDEC, [Salary Index](#).

⁵ BCRA, Survey on Credit Conditions (third and fourth quarter of 2022, BCRA).

⁶ [INDEC, Internet Access, Q3 2022](#).

⁷ [World Bank. International Telecommunication Union \(ITU\), World Telecommunication/ICT Indicators Database](#).

four times as high as the cost in developed countries such as Canada and the United States.⁸ By contrast, the cost of mobile broadband services in terms of the monthly GNIpc was 13% below the average for Latin America, and is twice as expensive as that charged in developed countries such as Canada and the United States. Users in Argentina spent on average 3.9 hours a day on their mobile phones, 8.3% more than the previous year.⁹ The download of mobile banking apps and electronic wallets grew by 16% in 2022, i.e. 42.8 million downloads.¹⁰

Current status. In this context, virtually the whole population holds accounts, especially bank accounts. Additionally, electronic channels have been preferred to a greater extent for conducting transactions (see Exhibit 1). The increase is reflected in the performance of electronic channels: lower average amount per transaction and higher frequency of use per adult. This reveals that digital payments have strongly penetrated everyday life. In the past two years, the performance of PNFCs as a source of credit for NPs stood out, followed by public banks, though to a lesser extent. Both providers accounted for the rise in NPs with financing, reaching a record high in the series by the end of 2022. As for MSMEs, the number of borrowing companies significantly increased in 2022, but real stock fell.

In the second half of 2022, the BCRA and the national Government implemented regulations to further financial inclusion. Related to MSMEs financing, the Credit Line for Productive Investment (LFIP) for MSMEs was extended until September 2023. In line with the initiatives to improve MSME financing and in order to generate information on the use of digital products, the BCRA: (1) established that MSME electronic credit invoices (FCEMs) that remain unpaid should appear in the Database of MSME Electronic Credit Invoices Not Paid Upon Maturity (CenFIV);¹¹ and (2) created the Registry of Platforms for MSME Financing, in which all legal persons offering tools, information systems and platforms for transactions with FCEMs should register.¹²

As regards household finance, the national Government included the purchase of domestically-made mobile phones in the “*Ahora 12*” Program, which provides for financing in 10 installments at a 48% annual percentage rate (APR). This measure has a positive effect on the use of digital financial services.

As a way of safeguarding depositors, the BCRA raised the upper limit subject to the Deposit Insurance Scheme's coverage to ARS6 million per person, account and deposit at a FI. TDs and savings account balances, among others, are covered by the said scheme. On the savings side, the implementation of an electronic certificate for time deposits and investments (CEDIP) was aimed at expanding the features of TDs and investments.¹³ This new instrument will improve

⁸ ITU. [ICT prices](#). The prices taken for calculation were those for “fixed-broadband basket (5GB)” and “data-only mobile-broadband basket (2GB)” for 2021 in terms of the GNIpc (2021, latest data available). The cost of fixed broadband connection in Bolivia amounted to 8.9% of the GNIpc; in Argentina, to 4.8%; and in United States, to 1%. In turn, mobile broadband connection had lower costs: 1.4% in Argentina; 1.9% in Colombia and 0.7% in the United States. It should be noted that the results for 2021 remained unchanged compared to 2019 and 2020. The sample of Latin American countries comprises Bolivia, Paraguay, Ecuador, Colombia, Peru, Mexico, Uruguay, Brazil and Chile.

⁹ [Data.ia Intelligence](#).

¹⁰ [Ibid.](#)

¹¹ [BCRA, news, November 1, 2022](#).

¹² [Communication A 7673](#).

¹³ [News. Communication A 7672](#).

liquidity as TDs may be transferred to settle an obligation, negotiated in the stock market, and even divided into certificates of a lower amount. It will also help to increase the average term of TDs, which lets FIs have more funds available for long-term lending.

Finally, technological advances, the increasing range of players in the financial system and their interconnections, along with the digital financial services' expansion led the BCRA to review the regulations on information technology and security risk with a view to strengthening cyber security, fraud prevention and cyber resilience,¹⁴ which are key to financial services.¹⁵

¹⁴ The Financial Stability Board (FSB) defines cyber resilience as “the ability of an organisation to continue to carry out its mission by anticipating and adapting to cyber threats and other relevant changes in the environment and by withstanding, containing and rapidly recovering from cyber incidents” (Cyber Lexicon, FSB, 2018).

¹⁵ [BCRA, news, March 9, 2023](#) and [Communication A 7724](#).

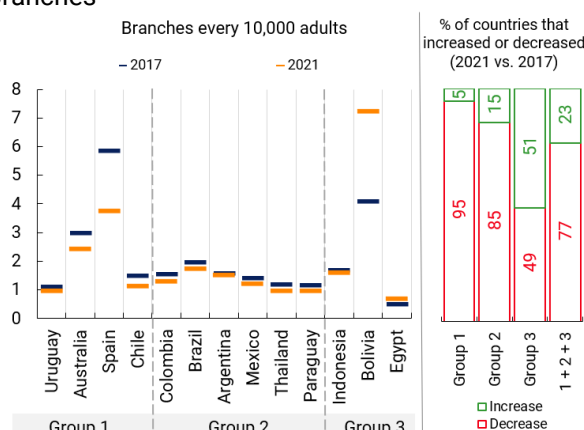
1. Financial Infrastructure

The post-pandemic time presents new challenges to financial services infrastructure. First, the growing uptake of digital channels turns digital infrastructure into a key factor to access financial services. In this context, physical infrastructure continues to offer in person services which complement digital channels, on account of the nature of the service or the population's preferences.

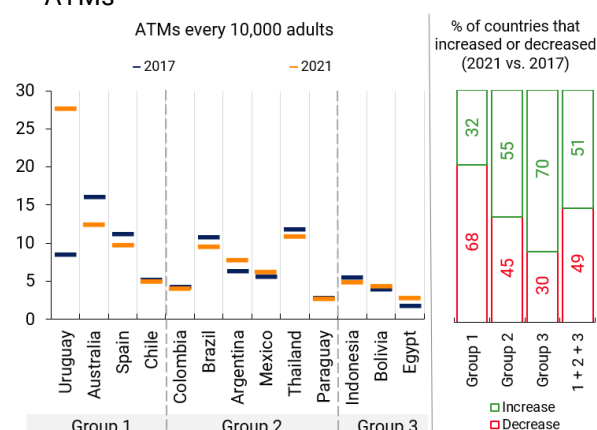
The physical infrastructure at a global level witnessed a decrease in the number of traditional PDAs in terms of the adult population. Branches are decreasing significantly in high- and upper-middle-income countries, whereas the number of ATMs exhibit the greatest reduction in high-income countries. In both cases, the decreased costs incurred by FIs and the advance of digitalization of financial services, in particular regarding payments, are some of the factors that lie behind this new setting.¹⁶

Chart 1 | Evolution of branches and ATMs

Branches



ATMs



Note | Countries are grouped based on their income level as classified by the World Bank. Argentina belongs to the group of upper-middle-income countries. Group 1: high-income countries; group 2: upper-middle-income countries; and group 3: lower-middle-income countries. "Increase" means that the metric every 10,000 adults rose between 2017 and 2021; and the other way around for "decrease". The data for 2020 was used for countries with no records for 2021.

Source | FAS, INDEC and BCRA.

Comparing with the global trend and upper-middle-income countries, the branches in Argentina recorded a minor decrease, while the number of ATMs grew significantly (23% between December 2017 and December 2021). In the past few years, many regulations sought to expand the number and revamp the network of ATMs,¹⁷ and to assess the impact of branch closures before actual closure.¹⁸

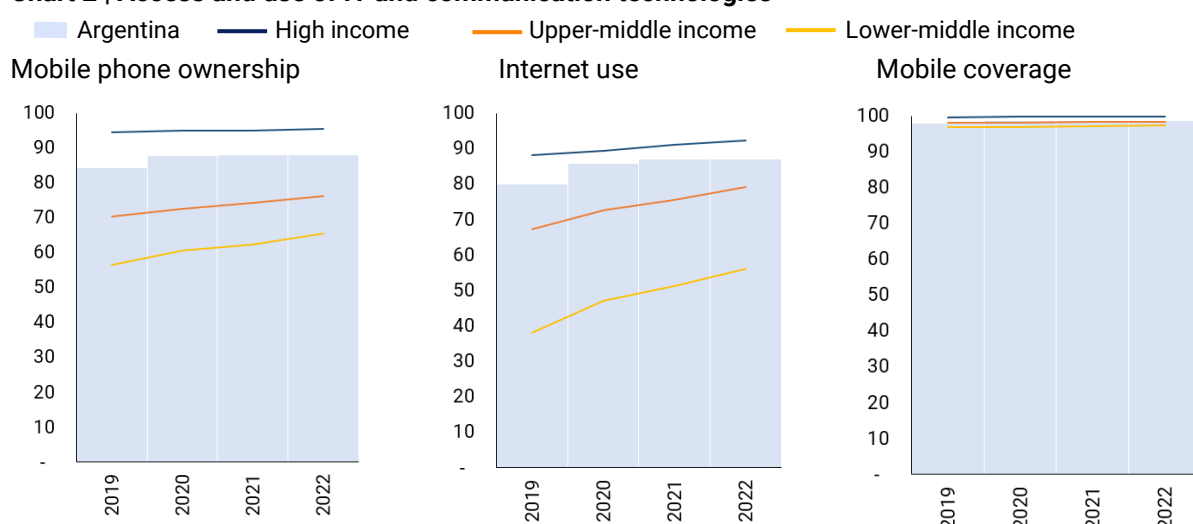
¹⁶ Financial Access Survey (FAS), 2022 Trends and Developments.

¹⁷ [Communication A 7208](#) mandated the installation of biometric readers in ATMs. [Communication A 7254](#) created incentives to improve distribution and operation of FIs' ATMs.

¹⁸ [Consolidated Text on Expansion of Financial Institutions](#), Section 11, temporary provisions. From October 2020 onwards, branch closure must be authorized in advance by the BCRA.

On another note, mobile phone ownership and internet use in Argentina are close to the average of high-income countries,¹⁹ whereas mobile coverage²⁰ is nearly complete.²¹ These figures reveal that the access to, and use of, information and communication technologies are widespread in our country, which is vital for having access to, and using, digital financial services. However, other factors, such as connection quality and technological capabilities, must be taken into account to benefit from and expand the potential of digital channels.

Chart 2 | Access and use of IT and communication technologies



Note | In all charts, data for 2022 for Argentina agree with that of 2021. The chart on mobile phone ownership presents the use of mobile phones in Argentina (in the absence of data on ownership). Mobile coverage: percentage of inhabitants within the range of mobile phone signal, regardless of whether they are users or not.

Source | INDEC and ITU.

Physical infrastructure. Physical PDAs rose by 4.8% from December 2021, with 92.5% of the adult population living in municipalities with PDAs. Additionally, the number of PDAs every 10,000 adults is similar to that of high-income countries, such as Japan and Spain. In those countries ATMs have the greatest share, while the contribution of ACSFs is minor. However, in Argentina the latter have greater relative weight, as in other countries of Latin America.

The growth pace of PDAs slowed down compared to the previous two years (13% in 2021 and 45% in 2020) because of a decline in growth of ACSFs and ATMs. This performance may be explained by:

- (i) ACSFs: these PDAs are mostly run in existing non-bank collection networks; most of these outlets are already authorized to operate as ACSFs. In 2022, ACSFs grew by 13%, but they fell by 5.9% between June and December 2022.²²

¹⁹ As of 2022, Argentina: 88%, mobile phone ownership; and 87%, internet use; high-income countries: 95% and 92%, respectively.

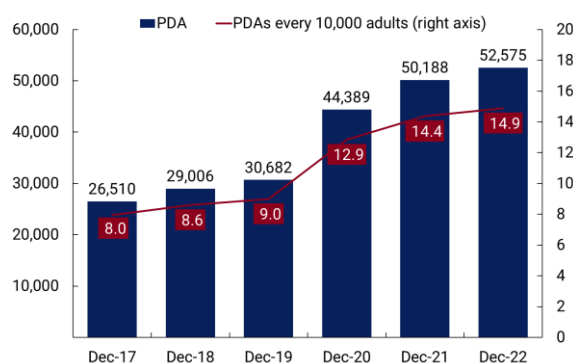
²⁰ The definition of "mobile coverage" can be found in Chart 2.

²¹ Data from the Permanent Household Survey (EPH), INDEC and ITU.

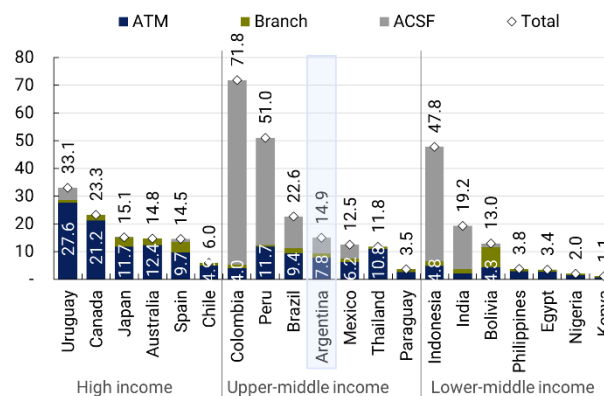
²² [Communication A 7566](#) set out that FIs may only commission ACSFs to make the following transactions: deposits and cash withdrawals; payment and collection; and payment of social security benefits. This restriction became effective in November 2022, which may have affected the number of authorized ACSFs.

(ii) ATMs: in general, some of the existing units were replaced for new ones entailing a renovation of devices but no expansion of the network. Replacements may have been driven by the fact that ATMs are now required to be fitted with biometric readers for user identification.²³ ATMs' growth slowed down from 4% in 2021 to 1% in 2022 against the backdrop of greater use of MPEs and increased alternatives to withdraw cash.

Chart 3 | PDAs
Number of PDAs



PDAs every 10,000 adults



Note | Graph on the right: data as of 2021 except for Argentina, which presents data as of 2022.
Source | BCRA, FAS, networks and INDEC.

Moreover, the rise in payment accounts demanded infrastructure for those account holders to withdraw and deposit cash. Stores that may be registered as ACSFs, as well as bank and non-bank ATMs may be used for that purpose. As a result, the physical infrastructure of financial services enlarges as technology and interoperability among different types of account expand.

Finally, the number of branches dropped 1.5% y.o.y. compared to December 2021, in line with the global trend, but more moderately.²⁴ These closures occurred in municipalities where there was at least another branch and other PDAs. Consequently, the population may still avail of PDAs with human interaction and electronic devices to access financial services.

Availability of infrastructure per municipality. The financial system renders services through different types of accounts: those holding accounts at FIs may use any kind of PDA, whereas those holding payment accounts mostly use bank and non-bank ATMs to withdraw cash.²⁵ Therefore, part of the physical infrastructure is shared by PSP and FI customers, while the rest is exclusively used by bank account holders. In turn, the telecommunications infrastructure allows both types of users to use digital financial services. A valid question may then be whether infrastructure promotes bank and payment account holding and usage.

²³ [Communication A 7208](#) mandated the installation of biometric readers in ATMs.

²⁴ Between 2017 and 2021, the number of branches every 10,000 adults fell by 5.5%. Seventy-seven percent of high, upper-middle and lower-middle-income countries in the FAS experienced a reduction in the number of branches, averaging a 16% drop in the same period. For upper-middle-income countries, a reduction was observed in 85% of the group (average -12%).

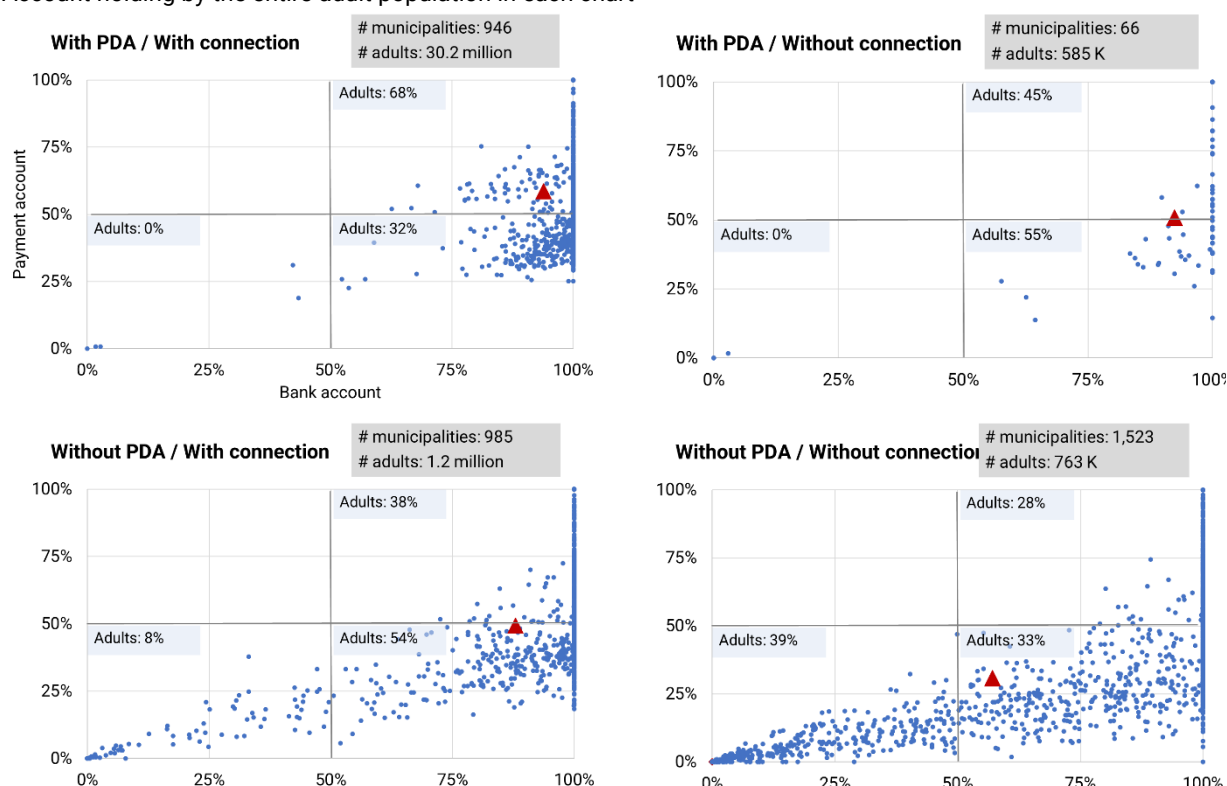
²⁵ PSPs offer various types of access points and schemes for withdrawing and depositing cash, which may entail charges for users. Some of them are bank and non-bank ATMs, non-bank collection networks (which use the same infrastructure as ACSFs) and other stores.

By combining the availability of physical and telecommunications infrastructures, it is possible to identify four subsets of municipalities in terms of bank and payment account holdings. As for the availability of physical infrastructure, municipalities with at least one branch and another type of PDA are counted as locations that render full in person financial services.²⁶ As for the availability of digital infrastructure, municipalities with both fixed and mobile internet connection are counted as locations where customers may use electronic channels from a computer or a mobile phone.

Municipalities with full range of in-person financial services and internet connection encompass 87% of the adult population and exhibit very high bank and payment account holding levels. The population of these municipalities enjoy favorable initial conditions for accessing financial services, both in terms of account holding and infrastructure. Moreover, these conditions foster merchants' acceptance of MPEs and the exchange of funds among people (positive synergies). The number of payment accounts is expected to grow in these municipalities given the availability of internet connection.

Chart 4 | PDA coverage, internet and account holding

▲ Account holding by the entire adult population in each chart



Note | PDA data as of Dec-2022, account data as of Sep-22 and connection as of Aug-22. With PDA: at least one branch and another type of PDA. With connection: fixed and mobile connection. Bank account: share of the adult population with at least one bank account. Payment account: share of the adult population with at least one payment account. Light-blue boxes indicate the share of adults living in the municipalities of each quadrant (over all the municipalities of the combination).

Source | BCRA, networks, National Communications Authority (ENACOM) and INDEC.

²⁶ See Table 2, [Financial Inclusion Report](#), first half of 2022.

On the other side, there is a considerable number of municipalities where in-person financial services are not fully rendered and do not have both fixed and mobile connection, though with smaller populations: 2% of total adults. This type of infrastructure exists in more municipalities with a smaller portion of the population with bank and payment accounts.

In addition, the chart shows the relationship between PDA coverage, regardless of internet connection, and the percentage of the adult population with a bank account. The scatter plot tends to vary across the entire range of bank accounts (0% to 100%) where municipalities have no PDAs. This ratio moves to higher percentages (above 80%) when municipalities have PDAs. As for internet connection, municipalities with fixed and mobile connection have a larger share of people with a payment account.

Although various factors may affect bank and payment account holdings (such as education and income, age, and associated charges), the availability of infrastructure is a necessary condition to access and use financial services. Municipalities with enhanced physical and telecommunications infrastructure record higher levels of account holdings.

2. Account Holding

Account coverage virtually reached almost the entire adult population. The number of natural persons (NPs) with at least one account stood at 35.1 million as of December 2022, that is, 99.3% of the adult population. With figures above 95%, the NOA, Cuyo and Patagonia regions recorded account holding levels close to full coverage, whereas the Center and NEA regions were already fully covered. This proves that the widespread access to accounts stands for federal coverage.

Table 1 | Bank and payment account holding

Data as of December 2022

Region	People with account	Y.o.y. chg. % (vs. Dec-21)	% adult population	Accounts per adult	Bank accounts (% share)	Payment accounts (% share)	Joint holding (% share)
Center	23,047,486	4.9	100	4.1	42	4	54
NEA	3,197,213	7.0	100	3.2	51	3	46
NOA	3,861,704	6.5	96.2	3.3	59	2	38
Cuyo	2,736,117	7.3	95.9	3.8	38	5	57
Patagonia	2,229,957	5.5	96.1	3.9	36	5	59
Country	35,072,477	5.5	99.3	4.0	44	4	52

Note | Bank accounts: people who only hold this type of account and do not hold payment accounts; payment accounts: people who only hold payment accounts; joint holding: people who hold both bank and payment accounts; accounts per adult: they involve accounts in pesos and in foreign currency; % adult population: the denominator comprises the projections of the adult population based on the 2010 national census. Estimated growth rates may differ from actual rates and lead to an overestimation of account holding.

Source | BCRA, based on Compensadora Electrónica S.A. (COELSA) and INDEC.

A commonly-used metric at global level for comparing account holding among countries is the number of accounts per adult. This methodology reveals that Argentina has been growing in the past 15 years, surpassing the average of high-income countries in the past few years.²⁷ In Argentina's economy, there are bi-monetary savings accounts (in pesos and in foreign currency). Those denominated in foreign currency contribute to an additional volume (about 0.6 accounts per adult) in the figure.

Since the outbreak of the COVID-19 pandemic, bank accounts have grown significantly. It is worth noting that the account/adult ratio was already high (2.4 accounts per adult²⁸). Likewise, the uptake of payment accounts (a product created back then) was outstanding among the adult population. More than half of the adult population simultaneously held a payment and a bank account.

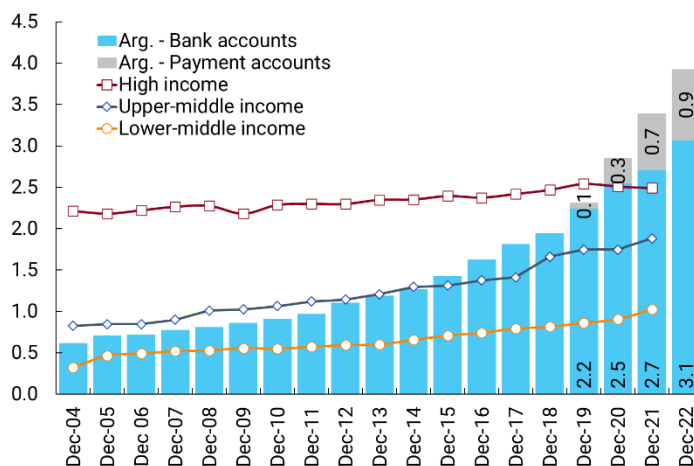
A payment account is usually opened (while also holding a bank account) to use certain services, for example to shop online, to use certain electronic means of payment (MPEs) offered by these accounts at stores, and to take advantage of a simpler user experience both for opening and for

²⁷ It should be noted that: (i) in high-income countries, there is significant variation in the account holding-to-adult population ratio. Sweden reported about 4.6 accounts per adult in 2021, while Italy reported 0.8; (ii) a larger number of financial institutions (FIs) in Argentina might be associated with the rise in this indicator above high-income countries. People may choose to open an account with more than one FI to take advantage of different credit or investment conditions. However, Spain, France, the United Kingdom and the United States, among other countries, have more commercial banks than Argentina (see International Monetary Fund (FMI), FAS for 2021).

²⁸ Data as of March 2020.

managing the account. A characteristic feature of payment accounts is that they are opened and used 100% online, using a computer or a mobile device.²⁹ This requires both internet connection and technological skills, as transactions of this kind cannot be carried out at in-person locations.

Chart 5 | International comparison of number of bank accounts per adult



Note | Argentina: between 2019 and 2022 data were extracted from COELSA; while between 2004 and 2018, from the FAS (IMF). Accounts in pesos and in foreign currency are considered. Other countries: only bank accounts are considered.
Source | World Bank, BCRA and FAS (IMF).

Characteristics of bank and payment account holders. Before the COVID-19 pandemic, 8.5% of the adult population had both a payment and a bank account. The share of individuals with both types of accounts significantly increased thereafter given the rise in the need of making remote transactions. It is currently above or near 50% of the adult population, both at a national and a regional level. Taking into account the magnitude of this phenomenon, below is a description of these users.

Age profile. The share of 20-29 and 30-54-year-old people holding both types of accounts was higher than the share of people who hold bank accounts only. In contrast, the share of people with both types of accounts was lower in younger (15-19) and older (55 or more) age groups. The holdings of both types of accounts decreased as age increased. Currently, account ownership levels are high. Older people probably prefer conducting in-person transactions in a setting where they may feel at ease, a service which is only offered by bank accounts.

The same happens with the use of mobile phones, computers and the internet, with high levels of use across all age groups, but declining as age increases. Estimations revealed that more than 90% of young and middle-aged people used the internet and mobile phones, whereas just 59% and 74% of people over 64 years used the internet and mobile phones, respectively.³⁰ Therefore, the gap of people of advanced age who used a mobile phone but did not access the internet was

²⁹ As mentioned in the Financial Infrastructure section, payment accounts allow users to withdraw and deposit cash at stores and non-bank withdrawal points, though these transactions may also be made with a card at any ATM (bank or non-bank).

³⁰ In the fourth quarter of 2021, the use of internet and mobile phones in the 18-29 age group reached 95% and 97.2%, respectively, while the 30-64 age group recorded 91.8% and 96.2%. Instead, in the 64+ age group, the use of internet and mobile phones stood at 59.1% and 74.7%. See report on [Access and Use of Information and Communication Technologies, EPH, Q4 2021](#), INDEC.

15 p.p.³¹ Technology thus clearly explains the difference observed in account holding among age groups, given that mobile phones with internet connection are essential to open and make transactions through a payment account.

Table 2 | People holding both account types over the adult population
Stated as a % of the population of each age group

Age group	Dec-19	Jun-20	Dec-20	Jun-21	Dec-21	Jun-22	Dec-22
15 - 19	1.9	6.4	7.4	10.2	12.5	21.8	25.6
20 - 24	8.6	24.0	34.9	48.8	59.3	68.2	73.0
25 - 29	9.4	24.7	37.4	52.7	64.0	70.7	76.0
30 - 34	9.8	23.7	36.4	52.4	64.8	69.6	75.4
35 - 39	8.7	20.8	31.9	47.9	60.5	64.7	70.5
40 - 44	7.4	17.8	27.9	43.2	56.0	60.4	66.5
45 - 49	5.8	14.4	23.1	36.0	48.2	51.4	58.1
50 - 54	4.3	11.2	18.4	30.6	42.5	45.4	51.8
55 - 59	3.1	8.3	13.8	24.1	34.4	36.5	41.9
60 - 64	2.2	5.6	9.6	18.0	27.5	28.1	33.2

Note | The shades of green in cells are based on the minimum and maximum values of the table.

The age range is stated in years.

Source | BCRA, COELSA and INDEC.

The analysis of age segments divided into five-year groups reveals three aspects regarding joint account holding: (i) along the period under analysis, significant increases were seen across all groups. The COVID-19 pandemic has changed how people use financial services across all population groups; (ii) people aged 25-34 clearly prefer to hold both account types, as this allows them to derive benefit from their interoperability. Then, as age increases, such preference weakens and, from age 55, people prefer to hold bank accounts only, though it is not as clear as earlier; and iii) the change in age groups between December 2019 and December 2022 was not uniform. Age groups below 30 grew similarly in 2020 and 2021, whereas older age groups grew less in the first year of the pandemic and more thereafter.³² This means that young people adopted digital financial services more rapidly in relative terms.

Geographical profile. The rise in joint account holdings was observed across all municipalities, regardless of population density. Although it was especially significant in urban areas (more than 50 thousand adults)—where the population holding both account types was more than 50% of NPs with an account—municipalities with lower population density rose significantly, sharing from 30% to 40% in the population. Percent differences between urban areas and less populated municipalities declined over time.

Between December 2019 and December 2022, the share of people with both account types in municipalities with fewer than 10,000 adults rose from about 3.5% to around 40%. The improvement in the telecommunications infrastructure might have contributed to the said

³¹ People may access the internet using a mobile phone but also a computer, a portable device or a tablet. Consequently, this gap may be greater than 15 p.p.

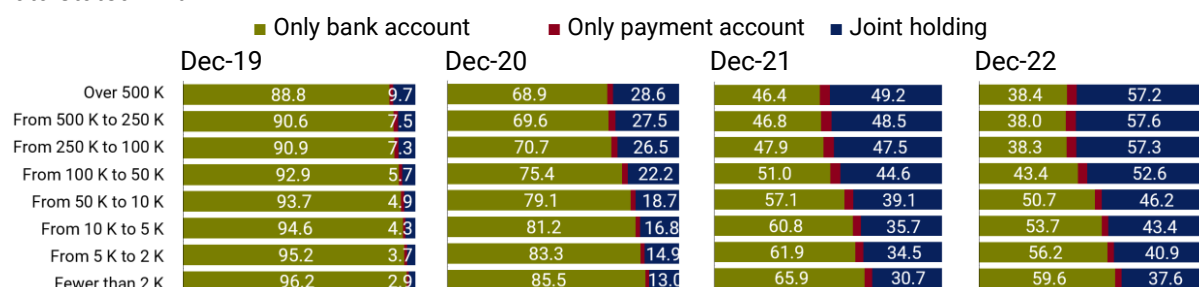
³² The analysis of the evolution of a set of age ranges over time reveals that there is certain relationship between the indicators of two contiguous age ranges. For example, the people who belonged to an age group (e.g., "n") and, as time goes by, became part of the next upper group ("n+1") continued to operate in the same way as they did in the younger age group.

increase, but it does not explain the differences found among municipalities with higher and lower population density. This is so because internet access in municipalities of fewer than 10,000 adults is widely available.³³

Also, as mentioned in the Financial Infrastructure section, mobile phone ownership, internet usage and mobile coverage in Argentina is high, close to full coverage of the population. In this regard, access to technology might be covered both in municipalities with low and high population density.

Chart 6 | Distribution of account holders based on municipality size

Data stated in %



Source | BCRA, COELSA and INDEC.

However, other factors related to a municipality itself, such as internet connection quality and the level of financial development, might affect a person's decision to open a payment account. As for quality, municipalities with lower population density reported on average lower download speed for fixed internet than municipalities with higher density.³⁴ Moreover, as population density decreases, financial development weakens.³⁵ This might be due to a lower average income, which hinders the population from paying monthly expenses, such as the telecommunications service that is required for digital financial services. Both characteristics of municipalities discourage the use of digital financial services (and, therefore, the opening of payment accounts). In this case, people may instead operate through PDAs, such as branches or ATMs.

³³ Table 1 | PDAs and connection by province. IIF, first half of 2022, and Chart 3 | Coverage of PDAs and connection in municipalities with fewer than 10,000 adults. IIF, first half of 2021.

³⁴ [Connections to fixed internet by download speed and municipality](#), ENACOM.

³⁵ Each category has specific economic and financial development indices sorted out in descending order. Category 1 comprises municipalities with the best economic and financial indices in Argentina, while category 6 comprises municipalities with the lowest relative figures. [Categories of Municipalities for Financial Institutions](#). See Note on Methodology for more details.

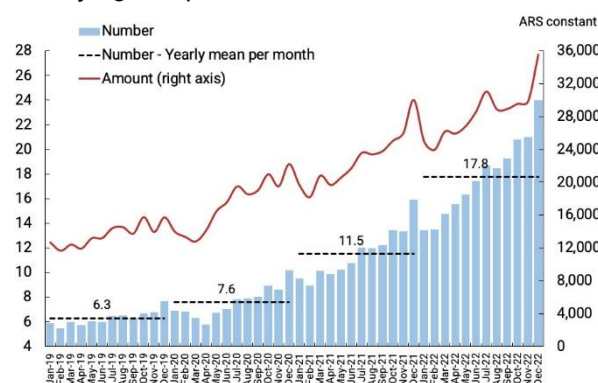
3. Electronic Means of Payment, and Savings and Investment Methods

3.1. Electronic Means of Payment

The use of electronic means of payments (MPEs) helps to improve financial inclusion. MPEs enable users to meet different payment needs and may indirectly give them the chance to access new, attainable financial services, such as savings and financing products.³⁶ With this in mind, the BCRA has laid down regulations governing new payment methods, the uptake of technology, lower fees and shorter period for crediting the funds to the merchant's account.

Volume and value. Under this framework, the value of transactions conducted using MPEs gained share in gross domestic product (GDP), from 54% in 2021 to 66% in 2022.³⁷ Natural persons (NPs') use of MPEs³⁸ increased in the second half of 2022, especially MPEs with no or reduced fees and with immediate availability of funds for payees (transfers and payments by transfer -PCT-).

Chart 7 | Transactions through MPEs
Monthly figures per adult



Yearly value

Instruments	Metric	2019	2020	2021	2022
Cards	Number per adult	65	66	86	97
	Amount per adult	75,809	77,477	90,566	95,602
	Avg. transaction	1,174	1,167	1,056	983
Transfers	Number per adult	5	13	29	65
	Amount per adult	66,919	104,602	147,842	194,819
	Avg. transaction	13,662	7,883	5,091	3,019
PCTs	Number per adult	3	8	20	42
	Amount per adult	5,572	12,061	17,673	27,610
	Avg. transaction	1,700	1,453	896	660
Debit	Number per adult	3	3	4	10
	Amount per adult	14,907	14,009	16,534	22,419
	Avg. transaction	5,373	4,460	4,188	2,344
MPEs	Number per adult	76	91	138	213
	Amount per adult	163,206	208,150	272,616	340,450
	Avg. transaction	2,161	2,285	1,969	1,597

Note | "Avg. transaction" means the value-to-volume of transactions ratio. In the "PCT" category, card-initiated transactions are included. Amounts at constant prices of January 2019 (CPI January 2019 = 100).

Source | BCRA and INDEC.

In 2022, the volume of transactions per adult grew by 54%, whereas the value per adult rose by 25% in real terms. Each individual made an average of 17.8 monthly payments through MPEs, a new record that is virtually three times as high as the pre-pandemic figure.³⁹ The downward trend of the average transaction—which fell 19% in 2022—in a context in which the value per adult increased shows that digitalization in NPs' everyday payments has expanded, as they usually involve relatively smaller amounts. This momentum is also reflected in the growing relationship

³⁶ See, e.g., "[Payment aspects of financial inclusion in the fintech era](#)" (Bank for International Settlements (BIS) and World Bank, 2020).

³⁷ The ratio is the sum of current amounts of monthly transactions through MPEs in 2022 over GDP at current prices of that year.

³⁸ Amounts are expressed at constant prices of January 2019 (CPI, INDEC, January 2019 = 100).

³⁹ Thanks to the progress made in data collection in the past few months, it has been possible to include an analysis of the following transactions: (1) intra-PSP transfers: instant transfers in which the payer's payment account and the payee's payment account belong to the same PSP; (2) intra-PSP PCTs (within the "PCTs" group): payment transactions made between clients of the same PSP against funds deposited in payment accounts either initiated online or by reading a quick response (QR) code; (3) direct debits: companies may receive payment for their invoices through debit transactions against their customers' bank accounts; (4) instant debit (DEBIN): an online transfer mechanism initiated by the payee, in which the payer only needs to accept the transaction.

between MPEs and cash withdrawals. In 2022, ARS5.1 through MPE were recorded for every ARS1 of cash withdrawals, as opposed to a ARS3.5-to-ARS1 ratio a year earlier.⁴⁰

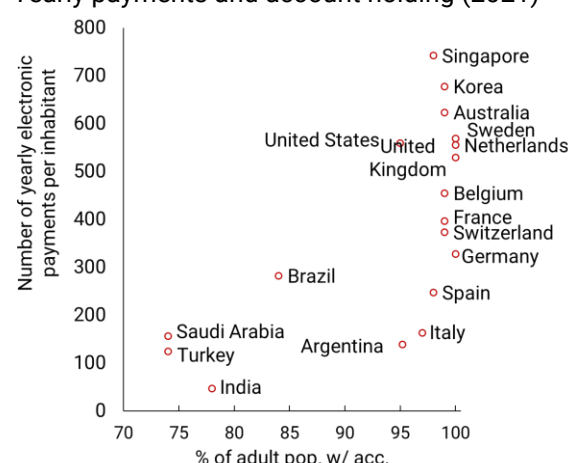
International comparison. On an international level, payment digitalization's increasing trend, which was boosted by the COVID-19 pandemic, is not linked to a country's income level: both high-income economies and middle-income ones have witnessed a higher level of transactions in terms of population.

Chart 8 | International comparison of retail electronic payments

Chg. in transactions per inhab. (17 vs. 21)

	Transfers	Direct Debits	Debit cards	E-money	Credit cards
Australia	18	-11	125	3	11
Belgium	35	6	78	3	1
Canada	-5	3	-21	0	-136
France	14	13	61	0	-16
Germany	10	19	39	0	1
Hong Kong	0	0	5	123	40
Italy	6	6	33	17	9
Japan	1	0	4	42	0
Netherlands	55	21	21	0	0
Saudi Arabia	2	0	125	0	5
Singapore	35	0	69	-187	53
Spain	9	-6	58	1	0
Sweden	55	12	9	0	0
Switzerland	15	0	58	4	20
United Kingdom	27	4	93	0	2
USA	14	13	69	9	36
Korea	58	26	29	3	64
India	32	1	1	2	1
Indonesia	10	0	1	16	0
Argentina	36	1	20	3	3
Brazil	58	6	25	19	28
China	85	-1	0	0	0
Mexico	11	0	14	0	2
Turkey	14	0	19	5	21
South Africa	7	-3	0	0	0

Yearly payments and account holding (2021)



Note | The source of data on Argentina is the BCRA. Metric per adult. The source of data on the remaining countries is the BIS and Global Findex (left and right charts, respectively). The following series published by the BIS are considered for the retail payments set: transfers, direct debits, debit and credit cards, and e-money payments. Table on the left: the color of each row depends on the minimum and maximum value involved.

Source | BCRA, BIS (Committee on Payments and Market Infrastructures) and World Bank (Global Findex 2021).

Compared to other countries with similar account coverage (bank and/or payment), Argentina made fewer MPE transactions per adult on a yearly basis. This reveals that MPEs have room for domestic growth. However, significant variation is observed among countries with high levels of account coverage. On the other hand, the use of MPEs grew significantly in Argentina between 2017 and 2021 in an international comparison.⁴¹

High-income countries (from Australia to Korea, included, in the table in Chart 8) tended to expand the use of debit cards between 2017 and 2021, whereas upper-middle and low-income countries witnessed a higher use of transfers. As for cards, increased use might be associated with contactless payments, while instant or fast payments contributed to the rise in transfers.⁴² Payments using contactless cards need no signature or personal identification number at point-of-sale (POS) terminals when the transaction is under a certain amount. Transactions are thus

⁴⁰ According to [Khiaonarong and Humphrey \(2022\)](#), the value of cash withdrawals is a proxy for the use of cash as a means of payment.

⁴¹ The analysis involved 19 countries. Between 2017 and 2021, these countries reported the mean number of MPE transactions per inhabitant (BIS, Payments and financial market infrastructures). All the countries, except five, recorded yearly growth in MPE during the first year of the pandemic (2020). The use of MPEs in Argentina increased the most between 2017 and 2021, after Saudi Arabia and India.

⁴² [BIS \(2023\). Digital payments make gains but cash remains, CPI Brief No 1.](#)

simpler and faster. In turn, instant payment systems may be used at any time and are less costly than other means of payment, and funds are readily available to the payee.⁴³

Physical infrastructure for payments. The number of POS⁴⁴ and mobile point-of-sale (mPOS) devices continued increasing in 2022. There were 4.4 million mPOS devices, a record high in the series, rising 17% year-on-year (y.o.y.). There was a monthly average of 840,000 POS devices in 2022, 5,000 more than 2021. Although the total number of POS devices did not significantly change since 2019, the indicator of operating devices improved to an average of 60% in 2022, compared to 57%, 53%⁴⁵ and 58% in 2019, 2020 and 2021, respectively. The significant expansion in the number of mPOS devices might be due to a low cost of acquisition and maintenance, and ease of movement and use as well.

Card purchases were used to a larger extent on POS devices (both in value and volume per terminal). In turn, there was a modest increase in the number of mPOS transactions per device and a reduction in the average amount.⁴⁶ A structural aspect that should be underscored in the historical series of payments processed through each of the terminals is that the average purchase on an mPOS terminal was systematically smaller than that made on a POS.⁴⁷

Table 3 | Stock, volume and value of transactions through POS and mPOS terminals

Year	# devices every 100 adults		# transactions per device		Amount per device		Mean purchase	
	POS	mPOS	POS	mPOS	POS	mPOS	POS	mPOS
2020	1.3	6.3	177	5.4	150,528	3,662	868	683
2021	1.4	9.5	210	5.7	169,076	3,287	804	580
2022	1.4	12	261	5.9	189,942	3,030	702	515

Note | Transactions through devices: monthly average of transactions per device for each year. Payments on debit cards through a POS terminal and payments on all cards on an mPOS device. Amount per device: monthly average of the amount in real terms, per device, each year.

Source | BCRA and INDEC.

The number and amount of transactions channeled through these devices in terms of the population may contribute to present the profile of merchants or entrepreneurs that use POSs or mPOSs. Small merchants might use mPOS more frequently than a POS terminal. This type of merchants have a smaller structure: a substantial part of their sales might be paid in cash and other sales might be channeled through these economical devices. This may explain the low rate of transactions per terminal. Anyway, users that historically used cash for all their transactions have now the chance to make electronic payments through an mPOS. By contrast, POS transactions are expected to be conducted by larger stores, which channel a large portion of their sales through these terminals.

⁴³ Ibid.

⁴⁴ Reported by Prisma and Fiserv.

⁴⁵ As a result of movement restrictions in April and May 2020.

⁴⁶ Payments on debit cards through a POS terminal and payments on all cards on an mPOS device.

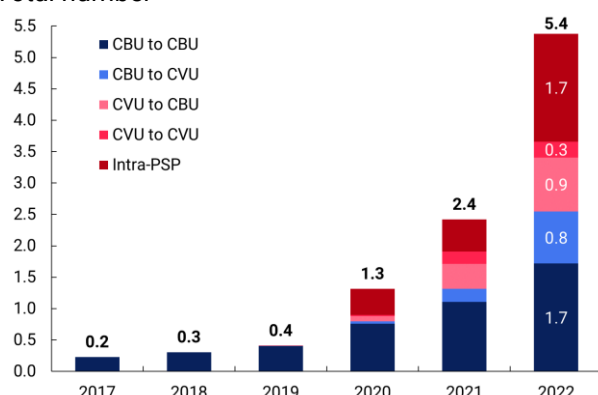
⁴⁷ In 2022 the average value of a POS transaction was 40% higher than mPOS.

Electronic transfers. In 2022, each adult made 5.4 transfers per month on average, more than twice as many as those in 2021.⁴⁸ Transfers initiated with a mobile device (from a payment account and bank transfers made through mobile banking) significantly contributed to the y.o.y. change in total transfers.⁴⁹ Therefore, 2 out of 3 transfers per adult were initiated with a mobile device. This can be seen in the reduction in transfers through ATMs in the past two years, which might indicate that this channel was replaced by the others.⁵⁰

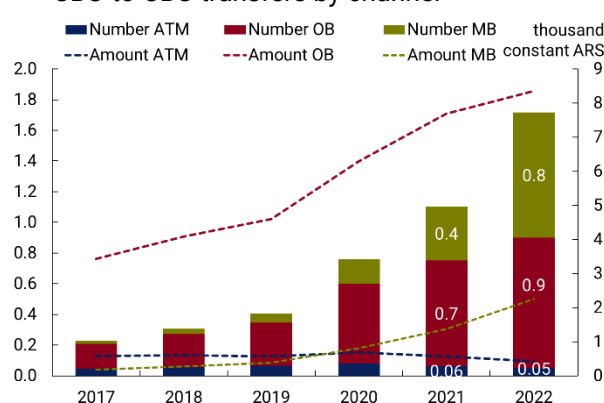
As for transfers among FIs (CBU to CBU), mobile banking (MB) posted the highest y.o.y. growth rates for the sixth year in a row (3 digits in the past 3 years⁵¹). There was an upward trend of transactions made through mobile devices, but they just share 39% in the total amount transferred per adult in the period. This might show people's increasing preference for making everyday transactions for relatively small amounts from a mobile phone. This goes hand in hand with the more extensive use of mobile phones (88.1% of the population)⁵² and the rise in MB for transactions (see Exhibit 1).

Chart 9 | Transfers per adult

Total number



CBU-to-CBU transfers by channel



Note | Monthly average for each year.

Source | BCRA and INDEC.

CBU-to-CBU transfers made through OB continued to record the largest amounts. This means that people prefer OB for transferring larger amounts. Unlike mobile phones, personal computers are used by 42.3%⁵³ of the population. The lesser use of computers might be challenging where transfers involve larger sums of money.

⁴⁸ This figure includes intra-PSP transfers into the series analyzed in previous IIFs. Based on data availability, it does not include intra-bank transfers. Therefore, the total figure is underestimated.

⁴⁹ 90.6 p.p. out of 122.2%. This figure might be underestimated due to lack of data broken down into the channels used in transfers from a bank account to a payment account.

⁵⁰ Enrolling new accounts for making transfers entails strong security features to minimize fraud. ATMs contain security features and have thus historically been appropriate channels for a first transfer. Recently, the use of double authentication factors (such as tokens) and electronic wallets might have led people to replace ATMs with MB or OB usage.

⁵¹ 2020: 178%; 2021: 123%; and 2022: 131%.

⁵² Population aged 4 and over, total 31 urban agglomerations. [Access and Use of Information and Communication Technologies, EPH, Q4 2021, INDEC.](#)

⁵³ [Ibid.](#)

On another note, the development of transfers between bank and payment accounts revealed the importance of interoperable systems. In 2022 the number of “cross transfers” per adult increased virtually three-fold, with amounts per adult also shooting up, though to a lesser extent.

Payments by transfers (PCTs).⁵⁴ In 2022, every adult made on average 3.5 monthly PCTs, which represents a 123% y.o.y. rise, and accounted for 2 out of 10 electronic payments a month. The amount per adult climbed 63% at constant prices, and the use of this electronic channel increased to a greater extent, causing the average amount at constant prices to decrease (-27%). The evolution of these indicators might explain that the greater momentum of PCTs derives from intra-PSP transactions. These transactions occur among clients of the same PSP with funds available at payment accounts, and are initiated through a QR code or a payment button.

Table 4 | Payments by transfers

Payments by transfer	Number per adult			Amount per adult		
	2021	2022	Contribution to y.o.y. Δ (%)	2021	2022	Contribution to y.o.y. Δ (%)
Interoperable (1)	0.4	0.7	16.5	614	704	6.4
Intra-PSP (2)	1.2	2.8	106.2	798	1,597	56.6
(1 + 2) TOTAL	1.6	3.5	122.7	1,411	2,301	63.0

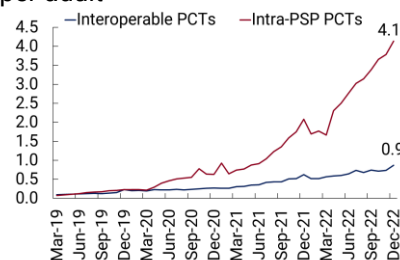
Note | The contribution of interoperable PCTs to the y.o.y. change is defined as the change between 2021 and 2022 in interoperable PCTs, divided by total PCTs in 2021. The contribution of intra-PSP PCTs to the y.o.y. change is defined similarly.

Source | BCRA.

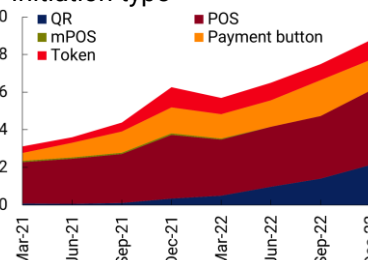
“Interoperable PCTs”⁵⁵ rose 64% y.o.y. in terms of number per adult, mostly driven by transactions initiated through QR codes, which accounted for 24 p.p. of the change. Transactions so initiated exhibited great momentum, increasing ten-fold and accounting for 16% of total “interoperable PCTs.” The amounts paid per adult through “interoperable PCTs” changed moderately (+15%), but the average value of each transaction fell, which shows a more widespread use for everyday transactions.

Chart 10 | Interoperable and intra-PSP PCTs

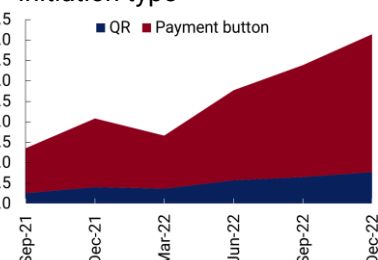
Number of transactions per adult



Interoperable PCTs by initiation type



Intra-PSP PCTs by initiation type



Source | BCRA and INDEC.

⁵⁴ PCTs are instant transfers used to pay for goods and/or services as agreed with a PCT acquirer involved. The PCT acquirer provides tools for merchants to receive PCTs, which are governed by commercial rules different from those applicable to instant transfers (Report on Retail Payments, BCRA).

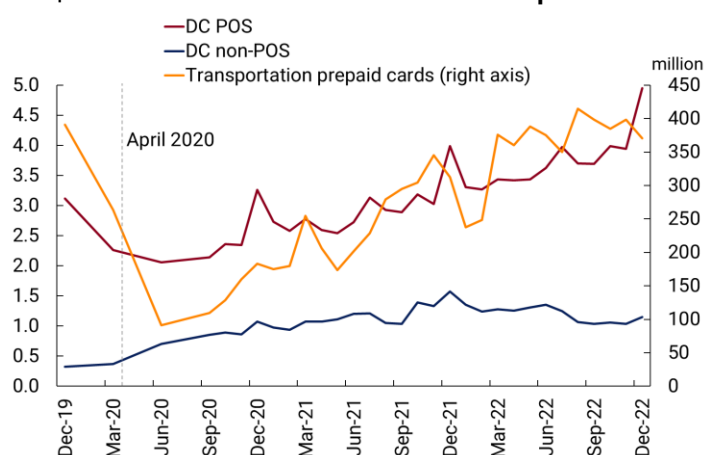
⁵⁵ Interoperable PCTs are made among different PSPs/FIs, and include those initiated with interoperable QR codes, with POS using card credentials, tokens and payment buttons.

In turn, intra-PSP PCTs continued growing at high rates (143% y.o.y.), though slowing down a bit. In this case, those initiated with payment buttons, which are associated with e-commerce, accounted for 80% of the total. The amount of intra-PSP PCTs significantly increased as well.

Debit card. In 2022, payments on debit cards continued growing in terms of number per adult (+21%). Out of the total for monthly electronic payments, each person made, on average, 1 out of 4 debit card transactions. The change in amounts per adult was more moderate (+8%), which entails a new fall in the average value of each transaction (-10%). This happened with the use of most MPEs and, as mentioned in the previous IIF (Financial Inclusion Reports), this would indicate higher use of debit cards for everyday transactions. In this sense, the share of debit cards in supermarket sales rose 2 p.p. in 2022 compared to 2021, while their share in sales at wholesale supermarkets grew 1 p.p. in the average for 2022.⁵⁶

The growth of payments on debit cards was driven by transactions made through POS terminals. In 2022, these payments increased (27.5%) over those carried out through the other channels (mPOS, QR codes and remote payments; 3%). In the case of amounts per adult, the figures showed a steeper rise because there was a fall in the amount transacted per adult through mPOS terminals, and QR codes as well as that of remote transactions.

Chart 11 | Number of transactions on debit cards per adult



Note | DC: debit card. POS: point-of-sale terminal. Non-POS: including debit card transactions through mPOS devices, QR codes and remote transactions.

Source | BCRA and INDEC.

This change, after two years of lower relative growth in POS payments compared to other methods, might be associated with the resumption of in-person activities. Particularly, there is a positive relationship between the use of transportation prepaid cards (an indicator used as a proxy for in-person activity) and the payments made on debit cards through POS terminals. Thus, 76% of debit card payments were made through these terminals in 2022, 4 p.p. more than a year earlier. Said performance was not related to a significant increase in the stock of POS devices, as the change in the average number of terminals that processed at least one transaction in the month was 4% in 2022 (see Physical infrastructure for payments).

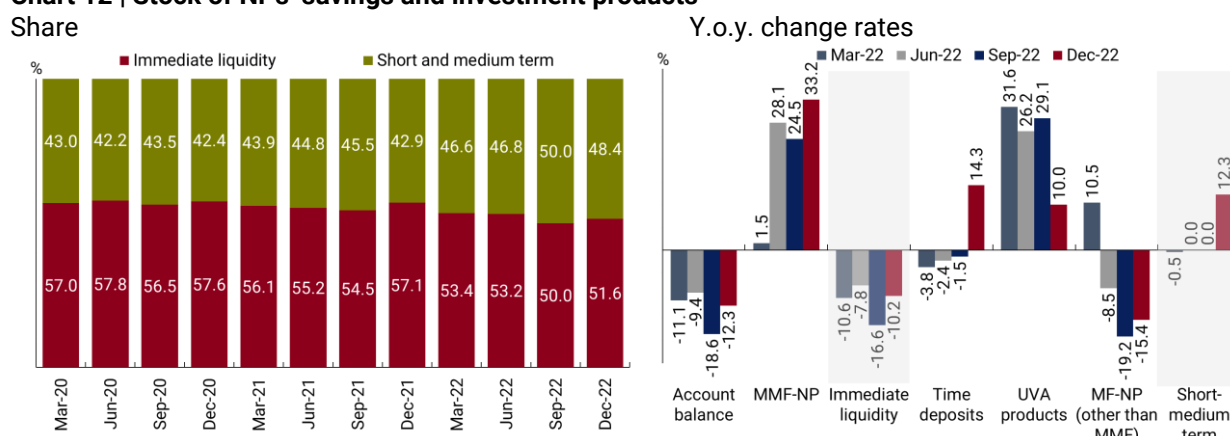
⁵⁶ [INDEC, National Survey at Shopping Malls and Survey at Retail and Wholesale Supermarkets.](#)

3.2. Savings and Investment Methods

Natural persons (NPs) may opt for allocating money to different savings and investment products, according to their liquidity goals, terms and risk/return ratio.⁵⁷ Considering products offered by FIs and PSPs, in December 2022 the stock of savings and investment of NPs stood at 8.7% of gross domestic product (GDP) for 2022. In the past three years, readily liquid products (account and money market funds -MMF- balances) showed a significant, though falling, share in total savings and investment stocks. As of December 2022, short- and medium-term products shared 48.4% in total savings and investment stocks. This is the second highest figure recorded since the outbreak of the pandemic, which may be connected with people's decision to keep the purchasing power of the money they save and invest.

In the past year (Dec-21 vs. Dec-22), NPs' real savings and investment stocks dropped 0.6%, which was partly explained by a decline of 10.2% in readily liquid stocks. The decrease was partially offset by a y.o.y. increase of 12.3% in short- and medium-term products. The performance of each instrument was different. The stock of traditional and UVA-adjusted time deposits (TDs) rose 14.3% and 10%, respectively, while mutual fund balances (non-MMF MFs) fell 15.4%.

Chart 12 | Stock of NPs' savings and investment products



Note | NPs' savings and investment stocks in domestic and foreign currency are considered. Balances at constant prices of January 2019 (CPI January 2019 = 100).

Source | BCRA and Argentine Chamber of Mutual Funds (CAFCI).

As far as financial inclusion is concerned, it is worth examining whether the increase of real stocks in UVA-adjusted products, traditional TDs and MMFs was hand in hand with a rise in NPs' savings and investment products. For the purpose of this analysis traditional and UVA-adjusted TDs with no early-termination option (the "TDs") are considered as one set, and MMF investments made from payment accounts as another.

As of December 2022, there were 6.9 TDs every 100 bank accounts made by NPs,⁵⁸ reaching a high compared to the past 4 years. In 2022 this metric rose 53% due to a significant increase—close to 70%—in the number of TDs. The rise in the monthly real interest rate of TDs towards positive values in the last quarter of 2022, might be associated with the increase in volume. As

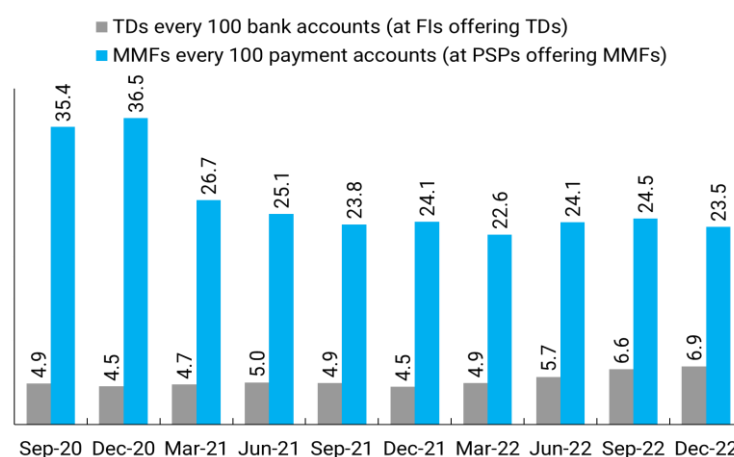
⁵⁷ Amounts are expressed at constant prices of January 2019 (CPI, INDEC, January 2019 = 100).

⁵⁸ Only accounts in pesos are considered.

observed in Chart 13, the development of this metric shows increased use of this savings product in terms of bank accounts, which might indicate a higher share of NPs in this product.

In turn, NPs' accounts at PSPs with MMF balances rose from 3.7 million in December 2021 to 5.6 million in December 2022 (+36%). This growing uptake is reflected in the fact that 23.5% of payment accounts recorded MMF balances as of December 2022. It should be noted that, as of December 2022, 19 million NPs held payment accounts, posting a net increase of 3.4 million against December 2021.

Chart 13 | NPs. Number of TDs and MMFs at PSPs over the number of accounts



Note | The number of TDs includes time deposits in pesos and adjusted based on UVA with no early-termination option. Bank and payment accounts include those denominated in pesos and held by NPs at FIs and PSPs offering TDs and MMFs, respectively.

Source | COELSA and BCRA.

Short- and medium-term products. In 2022, the stock of MMFs and UVA-adjusted products exhibited steady growth at a rate close to 35% and 10%, respectively, but the stock of each of these products still represented a small share of the volume of traditional TDs (MMFs, 8%; UVA-adjusted products, 9%, in December 2022). In turn, the stock of traditional TDs started to grow once again in the fourth quarter of 2022.

The raise of the minimum interest rate on TDs in pesos made by NPs had a positive impact on retail depositors in 2022, as it made certain savings and investment options offer better returns.⁵⁹ In particular, the rise in the stock of traditional TDs, MMFs in pesos and UVA-adjusted TDs with an early-termination option might be due to the increased return on these investment instruments.

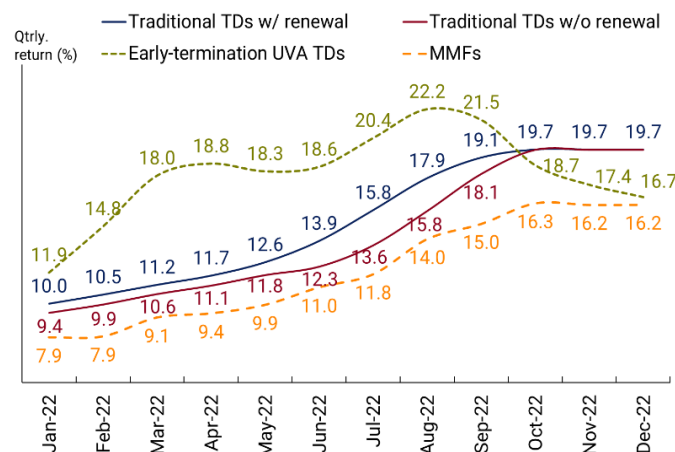
Assuming that a depositor makes a deposit or an investment in the first day of every month, and withdraws or redeems it after 90 consecutive days, the quarterly return is calculated on the basis of 4 savings and investment options:

- (i) Traditional TDs in pesos that are auto-renewed every 30 days, for 90 days;

⁵⁹ The annual percentage rate (APR) rose from 37% at the beginning of 2022 to 75% by year-end. See Regulatory Annex in [IIF, second half of 2021](#) and [IIF, first half of 2022](#).

- (ii) Traditional TDs in pesos for 90 days, with no renewal;
- (iii) UVA-adjusted TDs in pesos for 90 days, with an early-termination option;
- (iv) MMFs.

Chart 14 | Quarterly returns on savings and investment products



Note | The return on TDs in pesos was calculated on a 30/365 basis.⁶⁰ For more details, see Note on Methodology.

Source | BCRA, CAFCI and National Securities Commission (CNV).

UVA-adjusted TDs with an early-termination option were the most profitable products in the first three quarters of 2022, which was reflected in an increase in the stock of UVA-adjusted products. Thus, less flexibility and liquidity in UVA-adjusted products are more than offset by a higher return, making this saving instrument more attractive. Traditional TDs (renewable) are in second place: successive increases in the minimum interest rate made a client making a deposit for 30 days and renewing it upon expiration get a higher return than anyone having made a deposit for the total period without renewing it every time.

However, as from October 2022, traditional TDs in pesos were the most profitable products. As the interest rate did not increase in the last quarter of 2022, the renewal option did not affect the return on these instruments. Moreover, the return on MMFs increased, but their high liquidity⁶¹ entails a lower return than TDs (both in pesos and UVA-adjusted). This prevents MMFs from having a significant share in individuals' savings and investment products. In the last quarter of 2022, there was some substitution of UVA-adjusted products by traditional TDs (see Chart 12 on the right).

⁶⁰ The return on time deposits in pesos is determined by the quarterly effective rate.

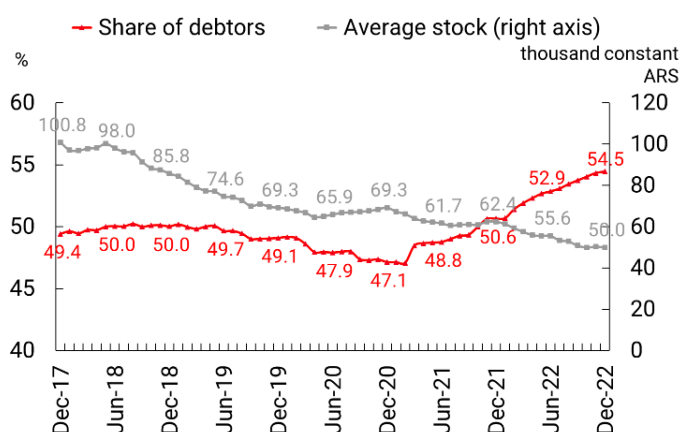
⁶¹ MMFs may be redeemed immediately or after 24 hours, depending on the fund.

4. Credit

4.1. Credit to Natural Persons

The number of NPs with financing from the BFS reached 19.3 million in December 2022, which means that 54.5% of the adult population had at least one credit product. Therefore, this group recorded a net increase of 1.6 million persons (3.8 p.p.) against the figure observed in December 2021, showing a two years' steady growth. However, the total stock of NPs' financing from the BFS dropped 13% in real terms between December 2021 and December 2022.⁶² Consequently, the average stock per debtor in real terms still follows a downward trend.

Chart 15 | Financing to natural persons from the BFS



Note | Stock in thousand constant pesos (CPI base 100 = Jan 2019).

Source | BCRA and INDEC.

The emergence of new players leveraging on technology to offer credit is leading to an increasing number of NPs with financing from the BFS.⁶³ In addition, the number of NPs with an income—a wage, a retirement pay, or a freelancer payment—improved in the period under analysis. Formal income is a determining factor for allowing people to have access to a credit product, and this exerts an effect on both credit demand and credit supply. Credit providers analyze a series of variables such as income level, labor condition, expenses, and credit history with a view to determining the applicant's eligibility, the amount of the loan and the interest rate. Having a regular income allows users to repay their debts and reduces risks for credit providers.

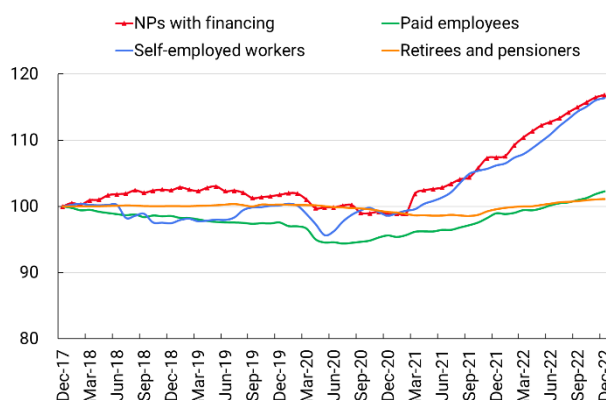
The reduction in the average stock of financing—though slightly interrupted during the COVID-19 pandemic due to countercyclical policies—is remarkable, going hand in hand with the average remuneration of the economy and the increase in the cost of financing during the second half of 2022. Moreover, the inclusion of new users—who had previously been excluded and had relatively lower income—had an impact on the average amount financed.

⁶² Amounts are expressed at constant prices of January 2019 (CPI, INDEC, January 2019 = 100).

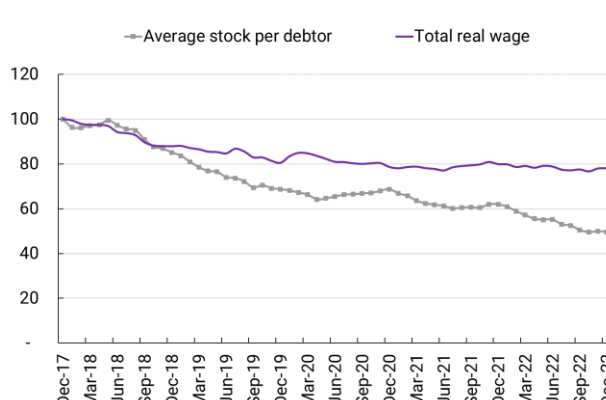
⁶³ IIF, first half of 2022.

Chart 16 | Evolution of financing from the BFS to NPs and macroeconomic variables

Quantity variables



Stock and price variables



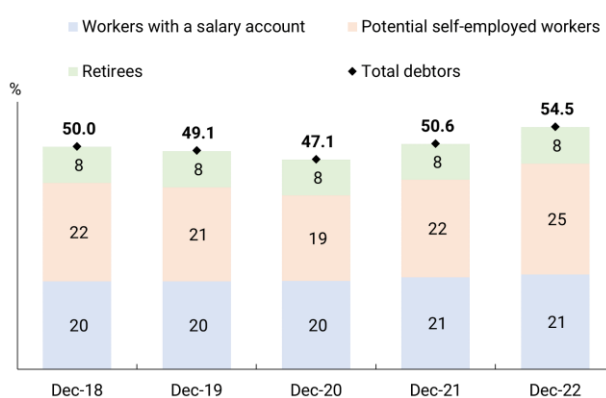
Note | Base 100 in December 2017. Amounts in constant pesos (CPI base 100 = Jan 2019).

Source | BCRA, INDEC and Ministry of Labor.

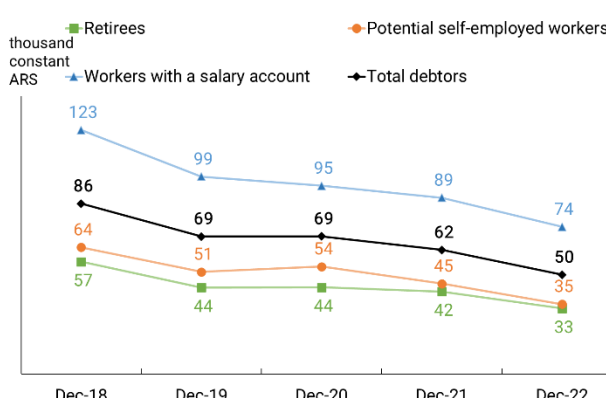
According to the data available, more than half of NPs with a credit product have a formal salary as employees or else receive retirement pay.⁶⁴ The rest of NPs with financing, most of whom are working age, earn some kind of income from a self-employed job (such as a business activity) to face the repayment of their debts.

Chart 17 | Share of the adult population with financing and average stock per debtor

Share of adults with financing



Average stock per debtor



Note | Workers with a salary account means all debtors who collect their wages through salary accounts. Potential self-employed workers refers to debtors between 15 and 64 years of age with no salary accounts. Retirees refers to debtors aged 65 and over with no salary accounts.

Source | BCRA and INDEC.

The analysis of the stocks of financing shows that the type of income (and, accordingly, the amount) significantly affects the average stock of the debt. Salaried NPs' (i.e., those with a salary account) average stock per debtor is twice as high as that of borrowers who are self-employed (i.e., those with no salary account). Even though NPs with no formal work have access to financing, the amounts borrowed are markedly lower. Also, the evolution of the number of persons with financing in the three groups shows that the reduction of the stock of financing is

⁶⁴ Persons aged 65 and over are understood to collect a retirement pay.

explained by a drop in the debts owed by all types of persons who have an income but not by one type of person in particular.

Credit providers. As of December 2022, 37 out of 100 adults had financing from FIs, and 28 out of 100 were granted loans by PNFCs. These figures involve a growth of 1.9% and 3.6%, respectively, compared to December 2021; and 1.6% and 8.1%, against December 2020. Even though both types of providers are under BCRA regulations, such regulations involve different implications for users. Some of the variables that distinguish FIs from PNFCs are submission of documentation, types of products, financing cost and amount, ways of managing credit (face-to-face, through a mobile phone or computer) and business models.

The average stock of FIs' debtors is 4.3 times the average stock of PNFCs' debtors, showing clear differences in the amounts borrowed by each group. The gap in the stocks of both groups is partly explained by the type of financing offered. PNFCs provide their clients with personal loans and credit card assistance, whereas FIs offer a wider variety of products, such as overdrafts, pledge-backed loans and mortgage-backed loans. Particularly, pledge-backed loans and mortgage-backed loans involve high amounts, with a bearing on the average stock per debtor. Moreover, the amounts lent are calculated on the basis of the borrowers' characteristics, such as age and whether they have a formal job.

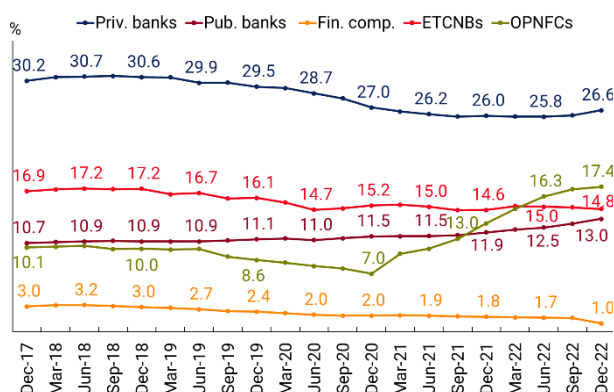
Private banks are the lenders with most debtors in the financial system (9.4 million). During 2022, this group of banks recorded a rise in the number of persons to whom they offer assistance, bringing a three-year period of falls to an end. As regards the total stock financed by this group, it dropped 13%, which resulted in a 16% fall of the average amount per debtor (vs. 4% the previous year). In turn, public banks accelerated the inclusion of new debtors and increased their growth rate three times compared to the previous year, reaching 4.8 million adults with financing. In terms of stocks, the total amount financed by this group declined 13%, and the average stock per debtor fell by 24% (vs. 7% in 2021).

As for non-bank credit card issuers (ETCNBs), the number of persons with financing increased slightly, reversing the falling trend of debtors observed over the last three years. However, during 2022, the total financed stock was reduced by 8% and the average stock per debtor, by 10%. The other non-financial credit providers (OPNFCs) continued attracting new debtors and reached 6.2 million adult persons, surpassing ETCNBs (5.2 million). OPNFCs are consolidating a clear trend towards the inclusion of persons with financing, mainly driven by granting low-amount and online personal loans. Yet, in 2022, the total stock financed by this group fell by 3% which, together with the growth in the number of borrowers, resulted in a 28% decline of the average stock per debtor.

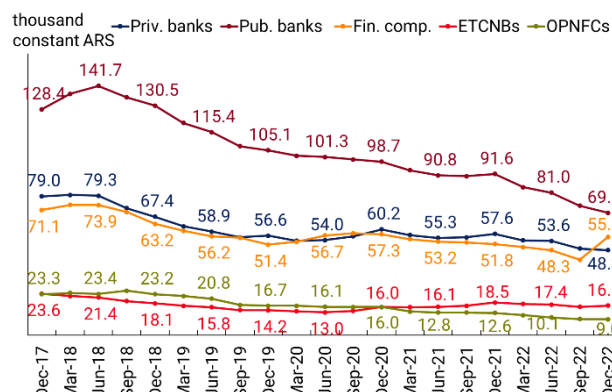
Throughout 2022, all institutional groups (except for finance companies) increased the number of NPs with financing, involving a lower average financed stock to each debtor. On the contrary, public banks and OPNFCs' portfolios of NPs with financing exceeded those existing in the pre-pandemic periods.

Chart 18 | Share of the adult population with financing and average stock per debtor

Share of adults with financing



Average stock per debtor



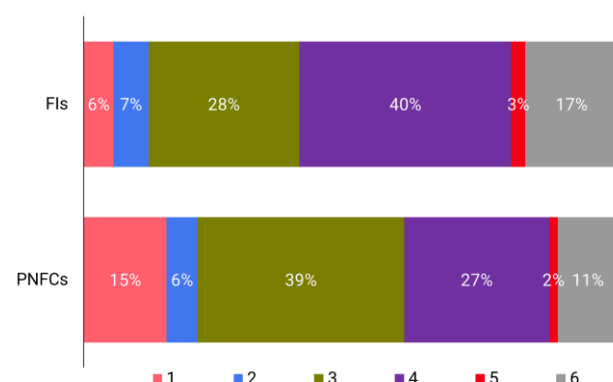
Source | BCRA and INDEC.

Characteristics of debtors by group. Within PNFCs, young adults (from 15 to 29 years old) stand for 21% of total persons with financing, while this age group accounts for 12% of the total within FIs. The emergence of PNFCs that operate solely online can explain, at least in part, the higher share of young debtors in this group, since they tend to operate in digital environments.

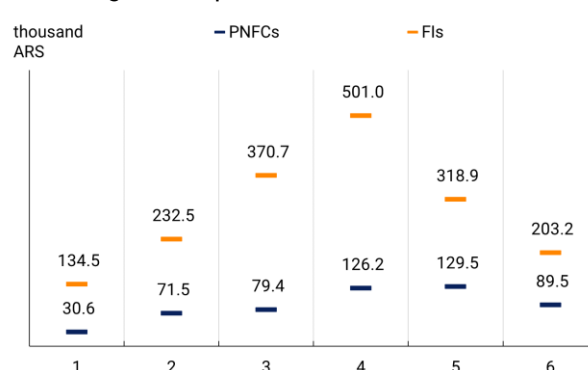
Regarding the type of income of persons with financing, potential self-employed workers account for 54% of total debtors within PNFCs and 34% within FIs. OPNFCs that offer credit and services such as payments and e-commerce draw on alternative information to create their users' profile and a credit scoring mechanism. This allows persons with no formal work (but with other income) to have access to formal financing, though the amounts borrowed are significantly lower than those of persons with a salary account and at higher interest rates.

Chart 19 | NPs with financing by institutional group

Number of debtors



Average stock per debtor



1 = 15 to 29 years old - Potential self-employed workers
 2 = 15 to 29 years old - Workers with a salary account
 3 = 30 to 64 years old - Potential self-employed workers

4 = 30 to 64 years old - Workers with a salary account
 5 = 65 years old or older - Workers with a salary account
 6 = 65 years old or older - Retirees and pensioners

Note | Data as of December 2022. Chart on the right: stock in thousand current pesos.

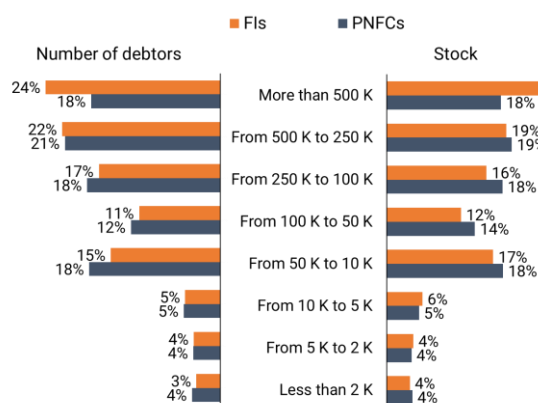
Source | BCRA.

In terms of age, the average stock per debtor replicates the reverse “U” performance of the evolution of income, with lower average stocks for young adults and older adults.⁶⁵ Likewise, salary account holding (which indicates formal employment) has a positive effect on the stock financed by both FIs and PNFCs. All in all, persons aged 30-64 who have a formal salary as employees borrow the highest amounts.

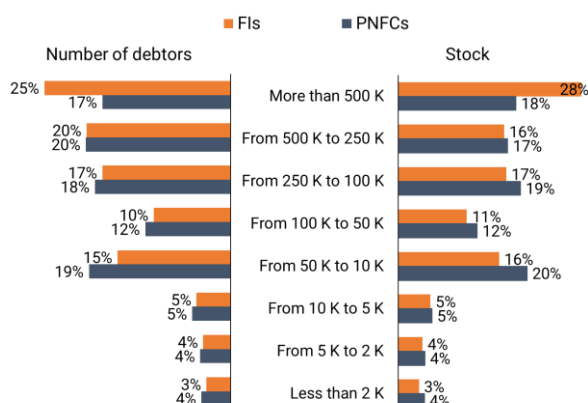
On the other hand, in comparison with PNFCs, debtors in FIs post a higher share in municipalities with a greater number of inhabitants. This fact is also exhibited in the stock of financing, indicating that FIs assign more resources to bigger municipalities.⁶⁶ These municipalities have better physical infrastructure, so users can order credit products not only online but also face-to-face. PNFCs, in turn, record a higher share of persons with financing and stock of debt in medium-sized municipalities, mainly in those having from 10 thousand to 50 thousand adult inhabitants. This performance of both providers deepens over time regarding both the number of persons with financing and the stock of financing.

Chart 20 | Share of financing to NPs

December 2017



December 2022



Note | The boroughs of the Autonomous City of Buenos Aires (CABA) are grouped in a single unit that totals more than 500 thousand adults.
Source | BCRA.

4.2. Credit to Productive Units

MSMEs are a key asset of a country’s productive scheme. Their importance lies both in the total number of companies in the economy and in their contribution to create employment.⁶⁷ Consequently, MSMEs are key players in the economic development. Hence, the availability of funds for these companies is significant to finance productive processes and investment in

⁶⁵ Persons aged 65 or older.

⁶⁶ The size of a municipality is determined according to the number of inhabitants living there.

⁶⁷ According to the Social Security Report (AFIP, 2022), between January and November 2022, the average number of employers reached around 526,000 companies. Out of that total, 98% of employers hired from 1 to 100 employees. Also, the number of employees working in companies with up to 100 employees accounted for 41% of the average of over 8 million as uploaded in the Integrated Argentine Social Security System (SIPA). Even though these figures refer to a subset of total employees in Argentina—considering its size and involving formal work—, they flag the importance of this kind of companies.

equipment.^{68,69} In this sense, this section aims at making visible two external sources of the MSMEs' financing structure: Fls' financing and PNFCs' financing.⁷⁰ In particular, the section analyses the most used credit products and the MSMEs' lifespan.

Over the last few years, the BCRA implemented different regulatory initiatives to improve the access of MSMEs to financing from Fls. These measures aimed at facing the temporary effect of the COVID-19 pandemic, and reducing the access barriers to financing on a more permanent basis.⁷¹ The following information is to be highlighted:

- a. Incentives for reducing the financing cost for MSMEs by reducing minimum cash requirements:
 - i. On the basis of the share of financings to MSMEs in total financings to the non-financial private sector (SPNF).
 - ii. For granting credit to MSMEs with no financing from Fls.
- b. LFIP.

From 2020 onwards, Fls had to allocate to the LFIP at least 7.5% of their deposits in pesos, made by the SPNF and subject to minimum reserve requirements. The interest rate on these allocated funds was capped.

Within this framework, the number of MSMEs with financing in the BFS reached 1.04 million as of December 2022, approaching 63% of companies with a MSME certificate.⁷² Thus, the number of companies with such financing recorded a net increase of 215,542 units compared to December 2021, with micro companies contributing almost entirely to the 26% y.o.y. rise. Moreover, the MSMEs' stock of financing within the BFS improved to reach ARS3.8 trillion at current values in December 2022. However, this stock fell by 14% y.o.y. at constant values,⁷³ exhibiting a performance comparable to credit to the SPNF, which declined 15% in the same period.⁷⁴

As mentioned before, the LFIP and the incentives to reduce minimum cash requirements for credit to MSMEs contributed to granting financing to these companies at a lower cost than the average

⁶⁸ Many research works are concerned with the financing structure that companies choose depending on the economic sector to which they belong, their size, and whether financing is aimed at working capital or fixed assets (see, for instance, [Villar, L. \(2020\) Companies' Financing Structure in Argentina: Influence of the Company Size and the Sector it Belongs to, LV AAEP Meeting](#)). Among the conclusions drawn from this work (which was based on 991 cases for Argentina found in [Enterprise Surveys](#), World Bank (2017-2018)), retained earnings are the main source of financing for companies (regardless of their size), whereas suppliers' credit and/or clients' advances are drawn from financing for working capital, and Fls' credit is the main source for fixed assets.

⁶⁹ In general, the sources of financing are divided into: (i) internal: retained earnings; and (ii) external: suppliers' credit, clients' advances, issuance of securities and shares, debt owed to Fls and PNFCs.

⁷⁰ MSMEs with financing only from PNFCs are excluded. That is, MSMEs with financing within the BFS are the ones which are granted credit exclusively from Fls, as well as those with financing from both Fls and PNFCs.

⁷¹ In Argentina, 21% of small companies (from 5 to 19 employees) and 43% of medium ones (from 20 to 99 employees) used bank credit to finance working capital, whereas the share reached 54% for big ones (+100 employees). In general, 35%, 53% and 64% of small, medium, and big companies, respectively, used bank credit. In spite of these indicators, it is noteworthy that 47% of small companies reported not being in need of loans, against 31% of medium and 28% of big companies. [Enterprise Surveys, World Bank, 2017](#) (991 surveyed companies).

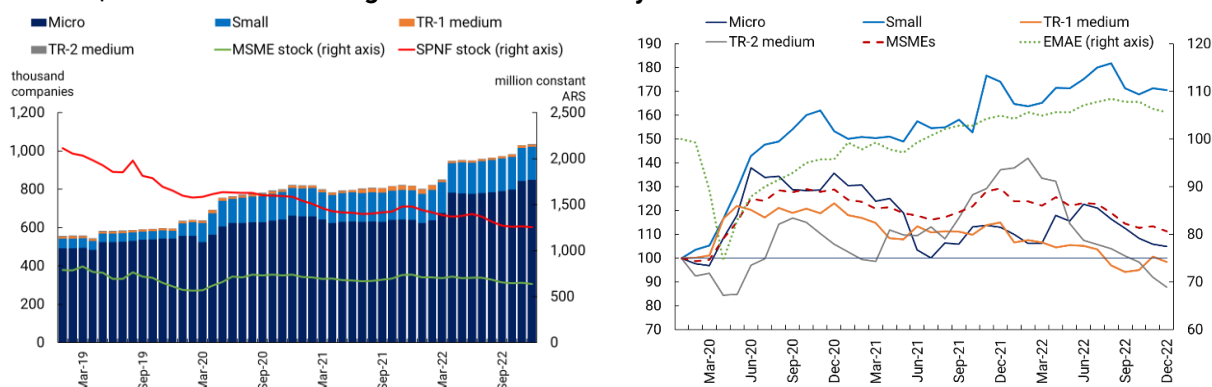
⁷² Latest available data: December 2021, 1,633,341 MSMEs. Secretariat of Small- and Medium-Sized Enterprises and Entrepreneurs (SEPYME), [Argentina.gob.ar](#). The rise in the total number of MSMEs in May 2020 and 2022 may be due to some of these reasons: (i) the assignment of new certificates and/or (ii) the time in which Fls require information from MSMEs about their own status.

⁷³ Amounts are expressed at constant prices of January 2019 (CPI, INDEC, January 2019 = 100).

⁷⁴ [BCRA - Loans and Deposits from SPNF](#). It considers financings from the SPNF and Fls.

cost existing in the market.⁷⁵ From its implementation in October 2020 to December 2022, the LFIP accrued disbursements for ARS4.2 trillion to the benefit of more than 371,280 companies.⁷⁶

Chart 21 | MSMEs with financing and economic activity



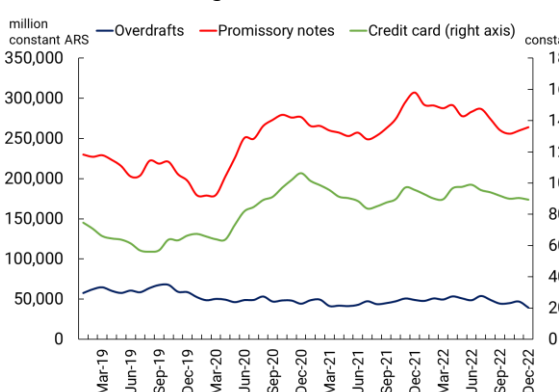
Note | It includes financing in domestic and foreign currency. Chart on the right: base 100 = January 2020.

Source | BCRA.

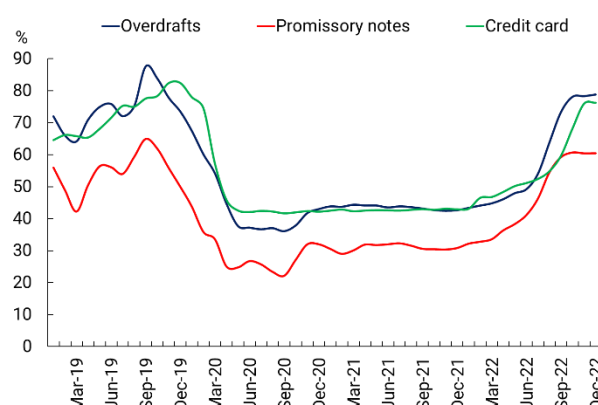
As regards the types of assistance mostly resorted to by MSMEs from the COVID-19 pandemic onwards, promissory notes stood out. They include both unsecured promissory notes, as well as discounted and purchased notes (the “promissory notes”). Credit card assistance and pledge-backed loans come in the second place. On the contrary, foreign trade assistance and overdrafts contracted.

Chart 22 | Stock and interest rates by type of financing

Stock of financing



Interest rates



Note | Chart on the right: the interest rate on promissory notes is the average of the interest rate on unsecured promissory notes, discounted notes and purchased notes weighted by the monthly traded amounts in each type of assistance. These are interest rates and amounts traded by small- and medium-sized enterprises led by legal persons (SME-LP). The interest rate on credit cards corresponds to that charged to NPs.

Source | BCRA.

The performance of the different types of assistance depends on different factors. First, the LFIP created favorable conditions for the supply of certain credit lines such as discounted documents.

⁷⁵ [Consolidated Text on Credit Line for Productive Investment for MSMEs](#) and [Consolidated Text on Minimum Cash Requirements \(paragraph 1.5.4\)](#).

⁷⁶ [Report on Banks](#), December 2022.

Also, a lower interest rate on promissory notes compared to the rate on overdrafts may have contributed to a greater use of the former.⁷⁷ As for financing on credit cards, the dramatic reduction of the interest rate in the first quarter of 2020, the caps on such interest rate determined on the basis of the fixed interest rate,⁷⁸ and the fact that they are revolving loans may be related to their noticeable performance. Over the last few months of 2022, financing on credit cards exhibited a decline, posting an upward trend in the second half of the year.

In spite of the consolidation of the economic activity recovery, the financing levels of MSMEs—as recorded in 2022—followed a downward trend; yet, they remained above the levels observed before the pandemic. The analysis in terms of the size of the companies shows that only small enterprises performed positively due to the development of the economic activity, while the stock of financing in micro and medium enterprises declined.

What credit products from the BFS do MSMEs use? The importance of credit products, both in terms of stock and number of companies, changes according to the size of MSMEs. The choice of the type of financing depends on different factors: the financing purpose, submission of documentation, interest rate, loan amount, and repayment term. In terms of financial inclusion, the availability of credit products that meet the needs of MSMEs improves the companies' possibilities of growth, and eases the cycle of production of goods and services.

In terms of stock, micro and small companies obtain financing mainly from credit cards and promissory notes, whereas medium companies obtain it particularly from promissory notes and overdrafts.⁷⁹ Then, the use of promissory notes is the main channel for MSMEs to obtain financing, which consists in using their own or third parties' promissory notes in consideration of the loan granted by the FIs. Over the last 24 months, such credit product ranged from 37% to 41% of MSMEs' stock of financing and stood for a significant share of funds obtained for the working capital of small and medium enterprises (68% to 78%). It is worth mentioning that loans for working capital are one of the credit lines that may be granted under the LFIP through unsecured promissory notes, among other alternatives.⁸⁰

In terms of the number of participating companies, credit cards keep their relative share within each group classified by company size, though their importance decreases as the size of companies increases and, therefore, the share of LPs increases as well. Moreover, as MSMEs

⁷⁷ The lower interest rate on promissory notes compared to the interest rate on overdrafts may be due to, at least, two factors. On the one hand, the average terms for operating with discounted documents are lower than those for overdrafts (61 days vs. 95 days). On the other hand, the borrower of overdrafts is an MSME, whereas the borrower of discounted notes can belong to a big enterprise with better credit rating. This may lead to lower loan loss and, consequently, to lower interest rate—below that charged for overdrafts.

⁷⁸ Before 2020, interest rates also had a cap based on the interest rate that FIs charged on unsecured personal loans. As from February 2020, the interest rate started to be regulated according to the fixed nominal value (see latest versions of the Consolidated Text on Lending Interest Rates, paragraph 2.1.1).

⁷⁹ Micro- and small-sized enterprises have a majority share of NPs, so financing is associated with the entrepreneurs' personal consumption which is not possible to tell from productive financing. For this reason, "Credit card" assistance bears significant importance.

⁸⁰ The greatest rise in absolute values and at constant prices concerns this type of assistance and, to a lesser extent, pledge-backed loans, according to the average quarterly stocks of 2020 and 2022. Both credit lines grew in a context in which 2022 total average stocks were lower than those of 2020 and 2021.

grow in size, the share of NPs obtaining credit products such as overdrafts, promissory notes and secured loans goes down. Accordingly, the share of LPs improves.

Table 5 | MSMEs' financing by assistance group and size

Data as of December 2022

Size	Micro		Small		TR-1 medium		TR-2 medium		TOTAL	
	Stock	#	Stock	#	Stock	#	Stock	#	Stock	#
Overdrafts	35,358	169	69,520	36	87,318	5.9	45,226	1.3	237,423	212
Personal loans	91,937	203	14,884	27	1,200	0.2	233	0.1	108,255	230
Credit card	318,969	763	129,864	155	59,950	9.3	26,825	2.0	535,608	929
Promissory notes	230,778	68	468,574	27	604,691	6.5	275,554	1.5	1,579,597	103
Discounted documents	0	0.004	114	0.01	269	0.01	20	0.0	404	0.03
Pledge-backed loans	108,172	39	138,722	13	92,798	2.7	29,618	0.8	369,311	56
Mortgage-backed loans	122,412	17	70,080	4.4	88,307	1.0	61,684	0.5	342,483	23
Foreign trade	3,381	0.2	25,865	0.5	56,199	0.3	29,045	0.1	114,490	1.1
FIs' securities and ON	9,723	0.01	12,462	0.02	7,603	0.1	7,982	0.02	37,770	0.1
Other	83,833	136	130,603	51	197,074	6.8	84,303	1.5	495,813	195
TOTAL	1,004,563	832.6	1,060,689	173.1	1,195,411	10.6	560,490	2.2	3,821,153	1,019
Working capital	677,042	821	682,956	166	753,429	10.8	347,858	2.2	2,461,286	1,000
Secured loans	230,585	55	208,802	16.8	181,106	3.3	91,302	1.0	711,793	76
Advanced loans	13,103	0.19	38,328	0.6	63,802	0.4	37,027	0.1	152,260	1
Other	83,833	136	130,603	51	197,074	6.8	84,303	1.5	495,813	195

Note | "Stock" in million current ARS. Number of companies expressed in thousand. The figures appearing in the cells shaded in green are calculated on the basis of the minimum and maximum values of each metric (stock and number) for each group classified by company size.

Source | BCRA.

As regards financing by type of provider, i.e., FIs and PNFCs,⁸¹ MSMEs—regardless of the company size—mainly obtain financing from FIs.⁸² On the other side, these companies' financing from PNFCs is growing, though at a much lower rate than financing from FIs.⁸³ The appearance of new credit providers widened the credit supply for MSMEs. These providers take advantage of the state-of-the-art technology for credit assessment and management, and use their own funds and/or capital market financing.

As of December 2019, the ratio between financing from FIs and from PNFCs was 50 to 1 (i.e., for each ARS1 of financing from PNFCs, MSMEs were granted ARS50 from FIs); such ratio changed to 37 to 1 in December 2022. In this period, MSMEs' stock of financing in PNFCs rose by 50%.⁸⁴ Also, financing granted by PNFCs was mainly channeled to smaller-sized companies, whereas financing from FIs was distributed in a fairer way, with certain prevalence of small and TR-1 medium companies.

⁸¹ PNFCs mainly offer personal loans and credit card assistance to MSMEs, while FIs offer a wider range of credit products. PNFCs offer shorter terms for relatively lower amount credits.

⁸² MSMEs stocks of financing from PNFCs might be underestimated because the data available is only concerned with companies with a MSME certificate that have financing from FIs.

⁸³ Between December 2019 and December 2022, financing from PNFCs accounted for 1.6% to 2.7% of the total stock of financing to MSMEs.

⁸⁴ See footnotes 68 and 69.

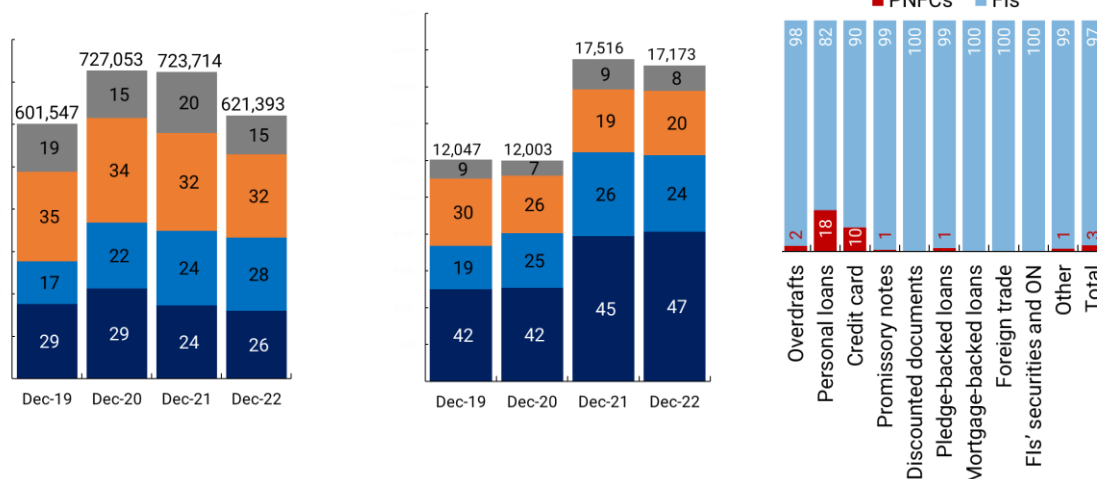
Chart 23 | MSMEs' stock of financing by group of suppliers and size

FIs (% in columns)

PNFCs (% in columns)

Distribution of the stock of financing by credit product (in %, Dec-22)

■ Micro ■ Small ■ TR-1 Medium ■ TR-2 Medium



Note | Stock in million constant pesos (CPI base Jan-19 = 100).

Source | BCRA.

What is the lifespan of MSMEs with financing?⁸⁵ The distribution of financing in accordance with the lifespan of a productive unit is relevant for the financial inclusion of young MSMEs. On the one hand, young companies require resources in the early stages of development⁸⁶ but, on the other, their economic history is brief, which makes credit assessment difficult. In addition, small companies tend to reinvest their own returns—if any—, which means they can replace external sources by internal sources of financing.⁸⁷

In the case of MSME-LP, three quarters of productive units—mainly micro and small companies—have existed for up to 20 years, and have a share of less than 50% of the stock of financing. Even though young companies have an important share of the stock of financing, the average stock is very low, which evidences that small companies use other sources of financing. Likewise, the course of time seemed to influence the level of financing of companies of all sizes, though the effect tended to reverse in part for longer-lifespan companies.

⁸⁵ The lifespan of an MSME-LP (MSME led by an LP) is determined by the beginning of the business activity (date of incorporation), while the lifespan of an MSME-NP (MSME led by an NP) is determined by the persons' date of birth. In the latter case, the analysis is related to the age of the person but not to the time they have been exercising the business activity.

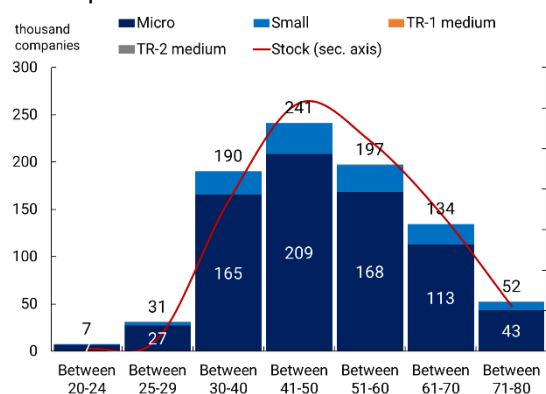
⁸⁶ Companies classified as MSMEs must comply with certain administrative requirements, which means that they have already had projects before obtaining financing from the BFS.

⁸⁷ Villar, L. (2020) states that retained earnings are the main source of financing for companies (including big ones), whereas suppliers' credits and/or clients' advances are the main source for financing working capital, and FIs' credits are the main source for fixed assets.

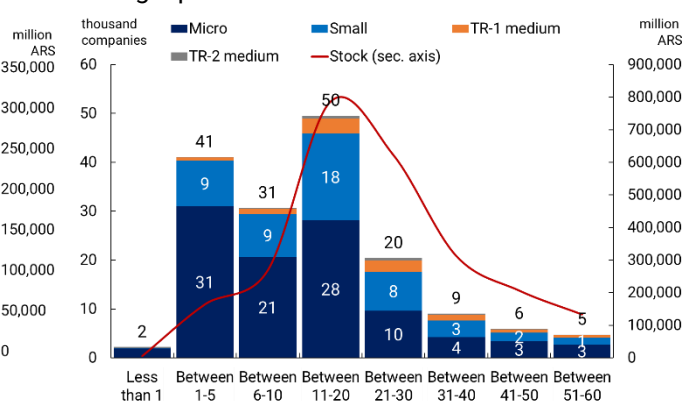
Chart 24 | Number and stock of financing by type of person and lifespan

Data as of December 2022

Natural persons



Legal persons



Note | Stock in current ARS. The "x" axis shows age segments.

Source | BCRA.

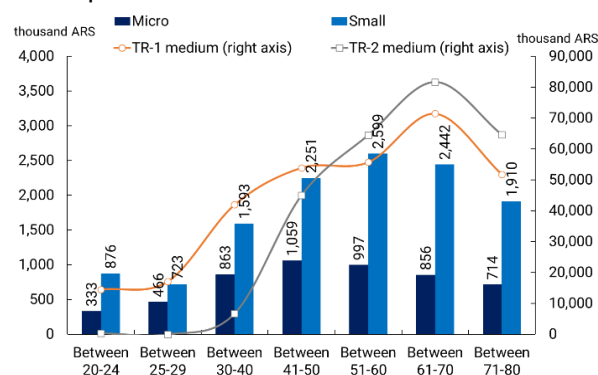
As for MSME-NP, micro-sized companies prevail in all age groups. Also, as the person becomes older, the share of small companies grows, which could be related to their experience in the business. Hence, persons older than 50 centralize 50% of the stock of financing. As far as the average financed stock is concerned, it is similar to that of younger persons.

Similarly to MSME-LP, the age of older persons seems to have a bearing on the level of financing, regardless of the size of the MSME. It should be noted that the number of medium-sized MSME-NP accounts for a very small share of total MSME-NP (less than 1%) since the invoicing amount required for such size is very high for a business activity organized by an NP.

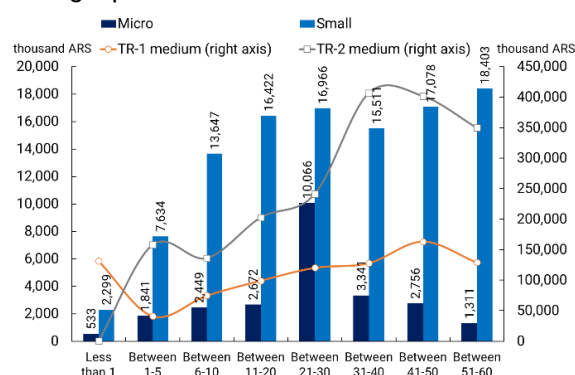
Chart 25 | Average current stock of financing by lifespan

Data as of December 2022

Natural persons



Legal persons



Note | Stock in current ARS. The "x" axis shows age segments.

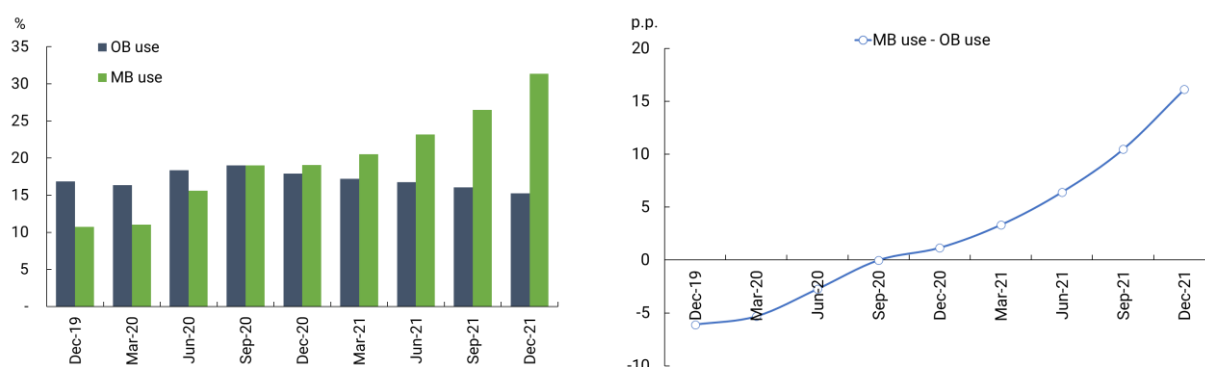
Source | BCRA.

Exhibit 1 / An Approach to the Use of the Electronic Channels of Financial Institutions

In view of the rapid expansion of digitalization, measuring the use of electronic channels is a key aspect to assess the degree of financial inclusion. In spite of the fact that aggregate variables—such as electronic payments (see Section 3.1)—show the growth of electronic channels, the available data on the users' performance in the different electronic channels is still scarce.

In a first approach, a survey was carried out on the use of electronic channels by NPs to make transactions involving movements of funds. It was a voluntary FI-oriented survey and was concerned with historic data about users and their OB and MB activities, and use of bank electronic wallets as well.⁸⁸ The analysis presented in this exhibit includes 10 FIs with a share of 49% of bank account holdings in December 2021.⁸⁹

Chart A.1.1. | Use of OB and MB to make transactions



Note | "Use" refers to the percentage of account holders who made, at least, one transaction during the quarter. In the same period, persons will be counted as many times as the number of accounts they have within the sample of the 10 surveyed FIs. This applies for both the number of account holders and persons who make one transaction.

Source | BCRA.

In general, the use of MB or bank electronic wallets to make transactions increased significantly. After the COVID-19 pandemic, a change in the use of electronic channels was observed, with OB losing ground over MB.

Account holders' growing preference for MB lies in the greater use of mobile devices and greater supply of bank apps with services and products that meet the individuals' different needs. Moreover, the mobile phone includes new persons to the electronic channels, in particular, population groups with a certain degree of vulnerability.⁹⁰

⁸⁸ The survey was sent by mid-2022, and required data from the last quarter of 2019 to the last quarter of 2021. Sixteen FIs sent their answers back (Banco Itaú Argentina, Banco de la Provincia de Buenos Aires, Banco de Corrientes, Banco Santander Río, Banco de Formosa, Banco Patagonia, Industrial and Commercial Bank of China, Banco de la Ciudad de Buenos Aires, Banco de la Nación Argentina, Banco Credicoop, Banco Macro, Banco Industrial, Banco de la Provincia de Córdoba, Banco Hipotecario, Banco Comafi and Banco Galicia). The final sample decreased to 10 surveyed FIs (6 private banks and 4 public ones) for two reasons: (i) lack of some data and (ii) difficulties to disaggregate the metrics required in different channels.

⁸⁹ For further details about the survey and the methodology used, see the Note on Methodology.

⁹⁰ In the fourth quarter of 2021, only 42.3% of the population used a computer, while 88.1% used cell phones. This 45.8 p.p. difference, which was a bit lower in 2019, deepens to the detriment of the elderly (65 years or older) and of persons aged 18 or older who have either no education or have not completed secondary school (INDEC, [Information and Communication Technologies](#)).

Financial institution outcomes. Nine out of ten FIs in the survey reported an increase in the number of account holders who used MB at least once to make a transaction between the last quarter of 2019 and the same period in 2021. These nine FIs accounted for 48% of the accounts in the financial system in pesos as of the last quarter of 2021.

Chart A.1.2. | Use of electronic channels to make transactions



Note | "Use" refers to the percentage of account holders who made, at least, one transaction during the quarter. The number on the "x" axis refers to the 10 FIs included in the final survey. They are arranged in descending order in terms of the change in the use of MB between Q4 2019 and Q4 2021.

Source | BCRA.

Moreover, MB became the main channel for most FIs (7 out of 10 vs. 1 out of 10 in the last quarters of 2021 vs. 2019). As for users, the new digital behavior is in line with greater use of MB: each person's exposure to mobile phones exceeded 3 hours per day on average in 2021. Also, MB, electronic wallet and digital payment app downloads turned from 5 million to 9.9 million in the period under analysis.⁹¹

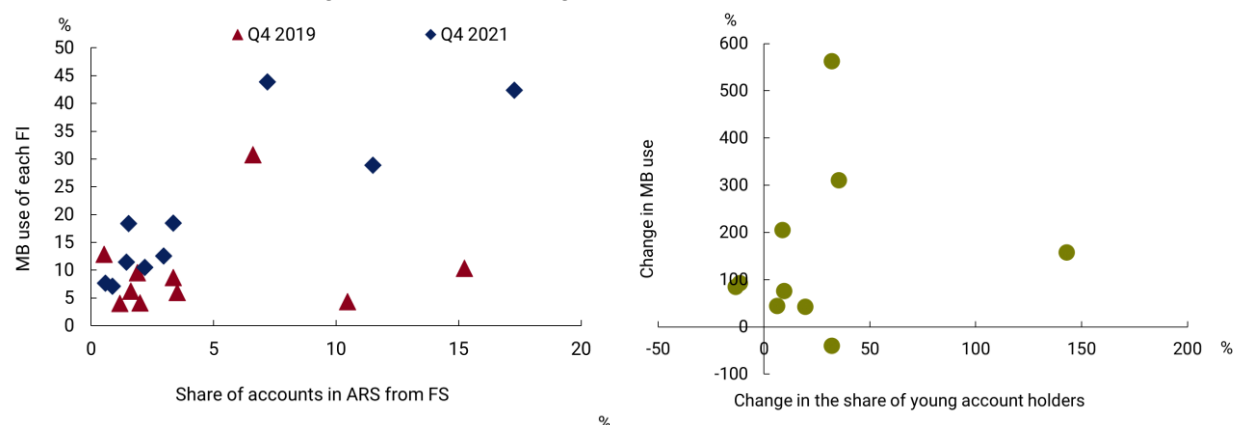
In turn, the use of OB also rose, though to a lesser extent than MB, involving a lower number of FIs (5 out of 10). In addition to the greater use of mobile devices, the expansion of OB would be limited due to some of its features: (i) low computer use and ownership, and (ii) the features of devices that do not permit making certain transactions (such as QR payments or other face-to-face electronic payments). The behavior of account holders would also limit the use of OB. The information available suggests that account holders prefer using OB to make transfers for high amounts but less frequently (see Section 3. Electronic Means of Payment).

Thus, FIs exhibited: on the one hand, increases in the use of MB and falls in the use of OB (4 out of 10) at the same time and, on the other, rises in the use of both channels (5 out of 10). This means there are new MB users, which does not correlate with a significant loss of OB users.

Features of FIs. In the framework of this process, certain features of FIs—such as their size and the age structure of account holders—may have contributed towards the use of MB.

⁹¹ Data.ia Intelligence. [State of Mobile 2023](#).

Chart A.1.3 | Account holdings, use of MB and age structure



Note | Q4: 4th quarter. FS: Financial system. "Change in MB use" and "Change in the share of young account holders": change between the last quarters of 2019 and 2021. Young (15 to 29 years old).

Source | BCRA.

- *Size of FIs.* The size of FIs, together with the availability of resources, could have favored the creation of MB and/or bank electronic wallet apps and the rapid acceptance by users, giving rise to the inclusion of new users in a short time. The three FIs with the greatest share of accounts in the financial system (FS) recorded the highest MB use ratios in the last quarter of 2021.
- *Age structure.* Young persons belong to the age group⁹² that use the mobile phone the most (95.9% in the fourth quarter of 2019, and 97.2% in the same period of 2021). The share of young persons in total account holders rose in most FIs in the period under analysis, reaching an average share of 21%. This way, the share of young persons in the total number of clients in each FI shows that MB use is lower. In most FIs (7 out of 10), MB use increased as the share of young account holders rose.

In spite of the improvement, MB use exceeded the ratio of 1 over 5 account holders only in three of the surveyed FIs, which indicates that the number of users may be growing.

To conclude, the digitalization process that deepened due to the COVID-19 pandemic became noticeable in the increasing rise of the use of FIs' electronic channels, with a clear preference of account holders for the use of mobile phones. This may be explained by the increased use of mobile devices across all segments of the population, the development of bank apps and FIs' younger generations of clients.

However, the latest data shows that there is still room for the expansion of both electronic channels.

⁹² The definition of young persons used by the INDEC (18 to 29 years old) differs slightly from the one used by the BCRA: 15 to 29 years old.

Exhibit 2 / Gender Gaps in Financing to MSMEs

MSMEs play a key role in the growth of the economies and in the creation of jobs. At a global level, MSMEs account for 90% of companies and 50% of employment, while they contribute to the GDP by 40% in emerging economies.⁹³ MSMEs led by women represent about one third of the MSMEs global total and are subject to additional challenges compared to those run by men. One of those challenges faced by women who run MSMEs over the world is access to financing.⁹⁴ Their financial restrictions are related to the features of the companies they run, i.e., they are usually small-sized and operate in the service industry or informal sectors. Likewise, the cost of their financing is higher since they are considered to be less qualified than men.⁹⁵

As for financing to MSMEs, the gender gap study poses a first challenge in terms of availability of data to determine the set of productive units led by men and by women, and what that stands for. MSMEs can be created by NPs (women-led or men-led MSMEs) or by LPs. For the latter, in order to tell whether a company is led by a woman, one or both of the following criteria must be met: (a) at least part of the shareholding structure in the hands of women, (b) share of women in the board of directors. The Debtors' Database (CENDEU) of the BCRA has information on the MSMEs created by NPs and by LPs regarding their access to financing in the financial system, and also on the gender of MSMEs created by NPs, which will be the focus of this Exhibit.

Argentina made progress on the mapping of MSMEs led by women, created both by NPs and LPs, and with at least one employee. In 2020, it was estimated that 33% (about 180,000) of total MSMEs (541,000) were led by women (31% of MSMEs created by NPs).⁹⁶ However, this set only includes MSMEs with at least one registered employee. It is not possible to compare this information with the data provided by the CENDEU since the latter includes all the productive units that report their status of MSMEs whether they have employees or not.⁹⁷ In this sense, this exhibit focuses on the analysis of gender in terms of access to financing by MSME-NP and the average stock by company.⁹⁸ The total number of women's MSME-NP with financing grew from 155 thousand in March 2019 to 323 thousand in December 2022, up 108%. In turn, men's MSME-NP with financing increased from 282 thousand to 542 thousand in the same period (up 92%).

The average stock of MSME-W is considerably lower than MSME-M. As of December 2022, the average stock of a MSME-W accounted for 47.6% of the average stock of a MSME-M. This evidences a gender gap in borrowed amounts, which stayed at levels similar to those of the past two years.

⁹³ [Small and Medium Enterprises \(SMEs\) Finance](#), World Bank.

⁹⁴ According to the Enterprise Surveys (World Bank, 2017), 15% of MSME-W had bank financing aimed at working capital while 31% of MSME-M got of such financing. Likewise, 76% of MSME-W used internal sources of financing to finance investments against 60% of MSME-M.

⁹⁵ AFI, 2022. Policy catalogue: women-led MSME access to financing and International Finance Corporation, 2014. [Woman Owned SMEs: A Business Opportunity for Financial Institutions](#).

⁹⁶ Rojo, S.; Benitez, N.; Schteingart, D.; and Laham, S. (March 2022). [Mipymes lideradas por mujeres](#). Research Online Series, document No 3., Center for Production Studies (CEP XXI), Secretariat of Small- and Medium-Sized Enterprises and Entrepreneurs, Gender Office - Argentine Ministry of Productive Development.

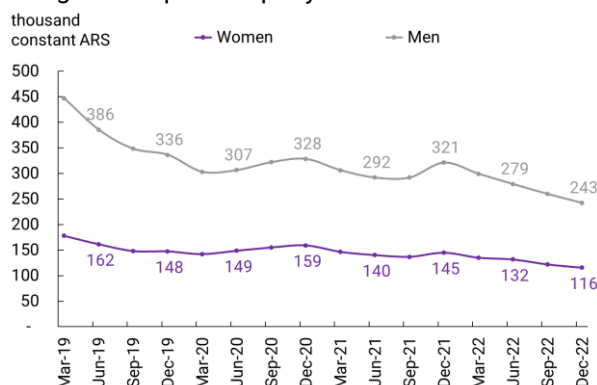
⁹⁷ As of December 2022, 1 million MSMEs with financing were reported, out of which 865 thousand were created by NPs and, out of 865 thousand, 323 thousand were led by women.

⁹⁸ Amounts are expressed at constant prices of January 2019 (CPI, INDEC, January 2019 = 100).

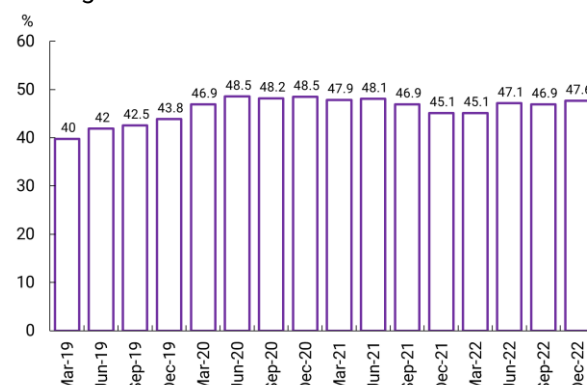
Size of the companies. The size of the companies could probably be one of the reasons. The international literature suggests that financing is related to the size of the company, and that companies led by women are generally smaller.⁹⁹ This may be explained by different factors, one of which being that women have less time available for professional activities as they devote more time to care tasks.

Chart A.2.1 | Financing to MSME-NP by gender

Average stock per company



Average stock of MSME-W / MSME-M



Source | BCRA.

In Argentina, MSME-W and MSME-M grouped by company size posted a similar share in access to financing over the last two years, with 86% of micro companies, about 13%/14% of small companies and 1% of medium companies.¹⁰⁰ The different average stock to the detriment of MSME-W was seen across all company sizes and to a greater extent in larger ones. For the set of small companies, the average stock of companies owned by women reaches around one third of the average stock of companies owned by men. Additionally, micro companies owned by men have greater average stock than small companies owned by women,¹⁰¹ even when the small companies' invoicing amounts are between 3 and 7 times higher than amounts in micro companies.¹⁰²

⁹⁹ Klapper, L. F. and S. Parker. 2010. Gender and the business environment for new firm creation. Bardasi, E., S. Sabarwal and K. Terrell. 2009. How do female entrepreneurs perform? Evidence from three developing regions.

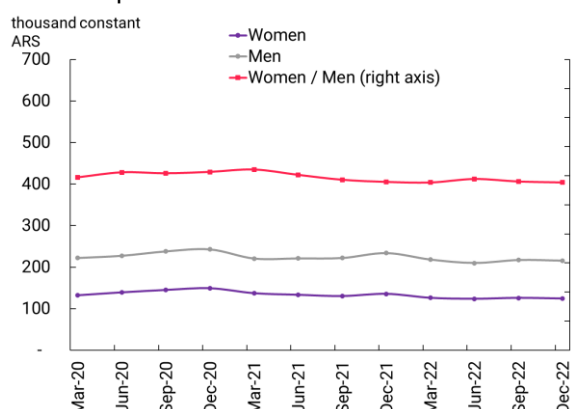
¹⁰⁰ The low number of medium companies with financing could involve a failure to produce the average stock per company. Consequently, the analysis does not show size gaps and economic sector gaps.

¹⁰¹ As of December 2022, the stock of financing of women's small companies reached 919 thousand current pesos vs. ARS1.1 million for men's micro companies.

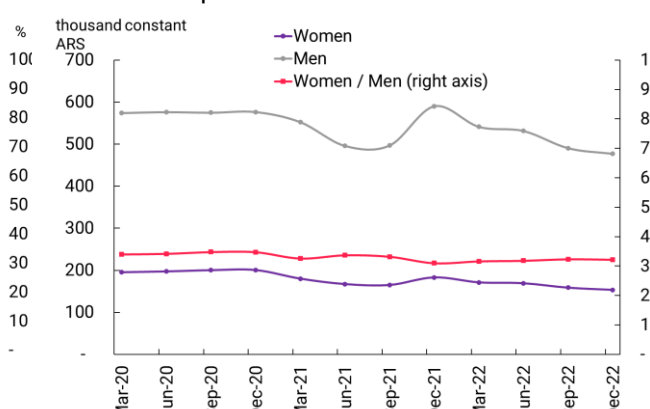
¹⁰² Resolution 220/2019 and Resolution 23/2022 and Resolution 121/2023. The size of a MSME is determined on the basis of the economic activity it develops and the amount of total annual sales involved and, in some cases, the staff number or the level of assets expressed in pesos.

Chart A.2.2 | Average stock by size

Micro companies



Small companies



Source | BCRA.

Economic sector. A second hypothesis about the difference in the average stock is based on the company activities that include a higher share of women-owned companies. The international literature suggests that companies led by women operate in the service and business sectors, to a greater extent, whereas companies led by men mostly operate in the industrial or manufacturing sector.

Table A.2.1 | Number of MSME-NP with financing by size, sector and gender

Data as of December 2022

Sector	Construction		Services		Commerce		Industry and Mining		Agricultural		Total	
Size/Gender	W	M	W	M	W	M	W	M	W	M	W	M
Micro #	4,807	18,586	187,603	268,497	53,754	78,223	27,429	69,586	6,021	28,670	279,614	463,562
Small #	153	1,213	30,880	49,124	9,951	14,628	1,037	3,442	1,585	9,138	43,606	77,545
Medium #	2	20	87	258	23	134	7	30	22	565	141	1,007
Total #	4,962	19,819	218,570	317,879	63,728	92,985	28,473	73,058	7,628	38,373	323,361	542,114
Micro %	97%	94%	86%	84%	84%	84%	96%	95%	79%	75%	86%	86%
Small %	3%	6%	14%	15%	16%	16%	4%	5%	21%	24%	13%	14%
Medium %	0.0%	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.3%	1.5%	0.0%	0.2%
Total %	2%	4%	68%	59%	20%	17%	9%	13%	2%	7%	100%	100%

Note | Percentages of micro and small companies are calculated on the basis of the total number of companies by gender and sector (total #). The percentages of "Total %" are calculated on the basis of total MSME-NP by gender. W: women, M: men.

Source | BCRA.

The companies in the business or service sectors usually have fewer fixed assets involving title deeds (land, offices, production plants, etc.), which are positively assessed by financial institutions when requesting collateral. The collateral is important to define the risk profile of a company and assess financial soundness, and is usually a determining factor for having access to credit or, at least, for agreeing on the financing conditions.

Among MSME-NP with financing, women run a higher share of companies in the service or business sectors compared to men (88% and 76%, respectively), while the opposite occurs in the industry and mining sectors (9% for women and 13% for men) as suggested in the literature gathered in this field. Even though there are differences in the average stock per company to the detriment of women, the gap observed in the industry and mining sectors is narrower than the gap recorded in

the service (-4 p.p.) and business (-8 p.p.) sectors. This gap revisits in each category (size and sector) but to different extents; however, micro companies post the smallest gap.

Table A.2.2. | Average stock by women's company / average stock by men's company

Data as of December 2022

Size/Sector	Construction	Services	Commerce	Industry and Mining	Agricultural	Total
Micro	85%	65%	67%	69%	60%	60%
Small	53%	52%	40%	60%	53%	32%
Total	69%	62%	58%	66%	45%	48%

Note | "Total" considers medium companies. For further details, see footnote 100.

Source | BCRA.

The difference in the stock of financing among companies led by men and those led by women may also be driven by MSME-W's own features, such as more aversion to risk. In general, the evidence suggests that women are on average, more risk-averse, regarding the financial system and that it replicates in business.¹⁰³ Women's higher risk aversion would lower the demand for bank loans for women-led companies since they choose lower capital debt ratios and, hence, they have a lesser preference for external financing. Also, the analysis shows that women-led companies have a more limited leverage than men-led companies.¹⁰⁴

Even though the demand-related factors could explain the differences in terms of moderate financing, supply may adapt to MSME-W's differences.

¹⁰³ Breuer, W., M. Riesener and A. J. Salzmann. 2014. Risk Aversion vs. Individualism: What Drives Risk Taking in Household Finance?

¹⁰⁴ Faccio M., M. T. Marchica, R. Mura. 2016. CEO gender, corporate risk-taking, and the efficiency of capital allocation.

Exhibit 3 / Young Persons and Financial Inclusion: Analyzing the Impact of Technology

Young persons' financial inclusion contributes to their well-being. Financial inclusion provides them with tools to manage resources independently, allowing them to monitor their financial issues according to their needs and stages in life (OECD, 2020¹⁰⁵). The objective of this exhibit is to explore the recent evidence on financial inclusion among young persons, focusing on two financial products: account holdings (bank and payment accounts) and access to credit from FIs and from PNFCs.¹⁰⁶

A first step is to define the term "young persons". According to the definition provided by the United Nations, young persons are those persons aged from 15 to 24.¹⁰⁷ In turn, in the IIF, a broader criterion is adopted and young persons are those aged from 15 to 29. However, this exhibit divides the adult population in age groups every 5 years, analyzing their financial inclusion with more flexibility. Young persons account for over 30% of the adult population,¹⁰⁸ which proves to be meaningful in terms of demand for financial services.¹⁰⁹

Technology plays a key role in this process, given by the conjunction of two trends. On the one hand, the present young generations have used electronic devices to play games since a very early age. On the other hand, the supply of financial services made significant progress by streamlining their transactions through electronic devices, such as MB and electronic wallets. For this reason, the younger age groups have the basic necessary skills from very early times to adopt these services more quickly.¹¹⁰

The regulation, recognizing the benefits of financial inclusion for young people, considered the possibility of allowing authorized underage persons to make use of savings account services.¹¹¹ In the past few years, the inclusion of new players in the regulation of the financial system—in particular, those technology-based financial service providers—allowed delving into the analysis of the impact on financial inclusion.¹¹²

Account holding. The number of persons with bank accounts and/or payment accounts rose from 27.8 million in March 2019 to 35.4 million in December 2022, up 27%. The 15-19 age group contributed the most to this rise (6 p.p.), followed by the 20-24 age group that showed an improvement of nearly 4 p.p. In turn, the 25-29 and the 30-34 age groups increased by nearly 3 p.p. each. Moreover, between 2019 and 2022, the number of persons with both types of accounts

¹⁰⁵ OECD (2020), [Advancing the Digital Financial Inclusion of Youth](#).

¹⁰⁶ The analysis focuses on these two products because the data available allows quantifying young persons' access to them.

¹⁰⁷ See [United Nations](#).

¹⁰⁸ Population aged 15 or older.

¹⁰⁹ 2010 CNPHV, INDEC.

¹¹⁰ For an analysis on the adoption of digital financial services by young persons, see OECD (2020), [Advancing the Digital Financial Inclusion of Youth](#).

¹¹¹ [Communication A 6103](#).

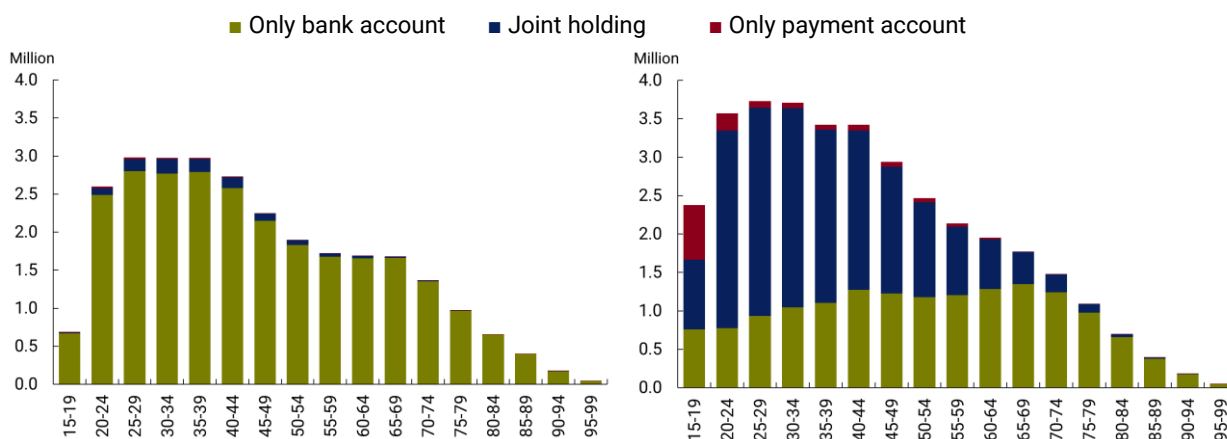
¹¹² In March 2020, the Reporting Regime for Payment Service Providers was established ([Comm. A 6929](#)) and, in October 2020, the scope of the regulation on OPNFCs was extended to include, among other aspects, the obligation to record and report their debtors' portfolio, whether credits would be granted face-to-face and/or through remote or electronic means.

(bank and payment) grew in almost all age groups, though in the first age group (15 to 19 years old) the three cases coexist in similar shares. So, this may indicate that financial inclusion in very young persons starts with the holding of either type of account in more recent periods.

Chart A.3.1 | Number of NPs according to their account holdings

March 2019

December 2022



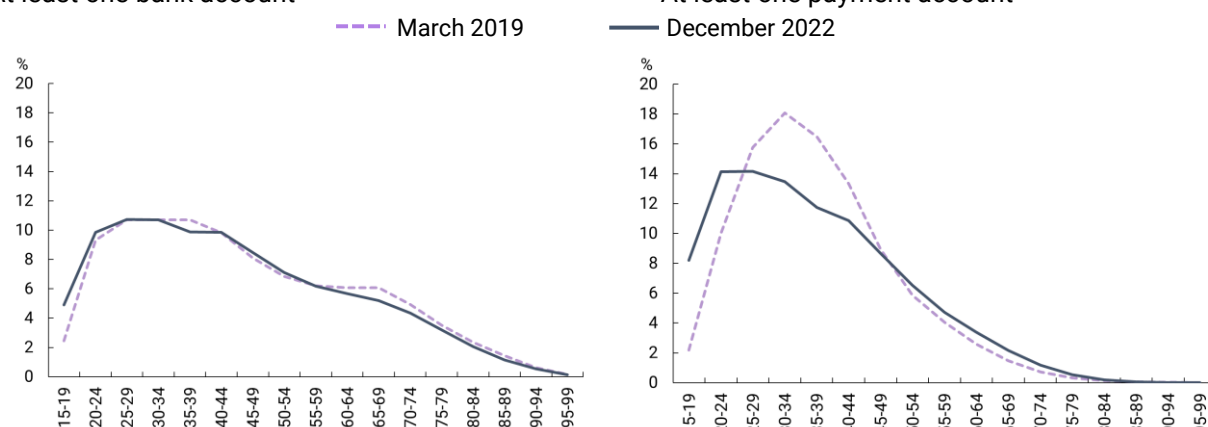
Source | BCRA, based on COELSA.

As for the age share in each type of provider, the clients' portfolio of FIs and PSPs differ significantly. The share of clients in FIs is virtually even in the 20-44 age groups and, from the beginning of 2019 to end-2022, shows a bias towards the age group of young persons. Regarding PSPs, the clients' portfolio is, at present, mainly concentrated in the 20-34-year-old persons. In relative terms, the age group in the portfolio of clients in PSPs is younger against FIs' portfolio (charts have the same minimum and maximum values in the axis to make comparisons of charts easier).

Chart A.3.2 | Share of accounts by age group

At least one bank account

At least one payment account



Note | Number of NPs with bank accounts, March 2019: 27.7 million; and December 2022: 34 million / Number of NPs with payment accounts, March 2019: 1.1 million; and December 2022: 19.8 million.

Source | BCRA.

Also, the empirical evidence suggests that the 15-24 age group adopted PSPs later than the 25-39 age group. This is seen in the change of users' composition of payment accounts between 2019

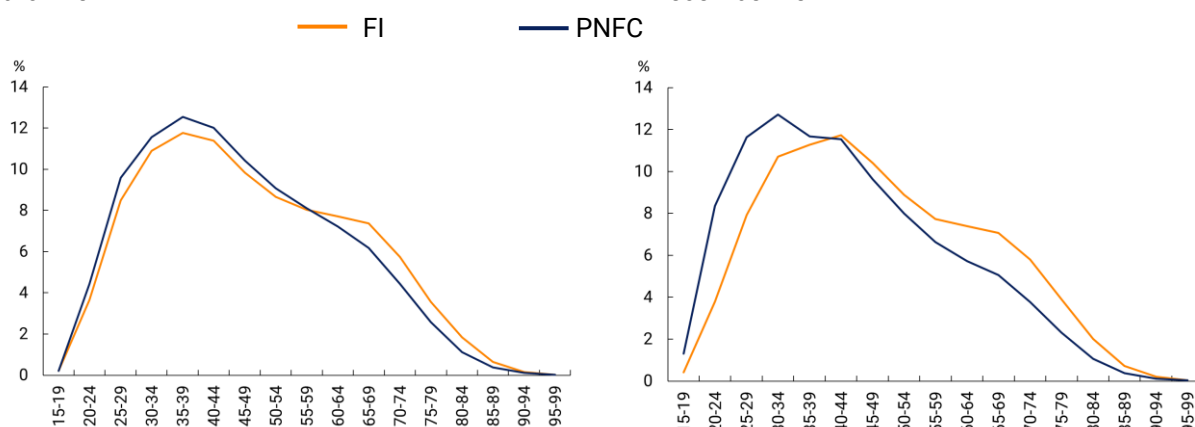
and 2022. In 2019, the 25-39 age groups exceeded the share of the 15-24 age groups. However, by the end of 2022, the two youngest age groups gained share over the 25-39 age groups.

Access to financing. The share of clients in FIs and in PNFCs between 2019 and 2022 shows that the differences in users' profiles in both groups widened. At the beginning of 2019, the PNFCs had, in relation to the FIs, a portfolio of clients where the share of people economically active were more relevant¹¹³. Instead, in the case of older age groups, the share of FIs financing was greater than the PNFCs.

Chart A.3.3 | Age share of NPs with financing in each institutional group

March 2019

December 2022



Note | Number of NPs with financing in March 2019: FIs 12.7 million and PNFCs 7.8 million. Number of NPs with financing in December 2022: FIs 13 million and PNFCs 9.9 million.

Source | BCRA.

In 2022, the youngest age groups gained share in PNFCs, as shown in the curve for PNFCs' users, to the detriment of older age groups. This could be explained by technology-based financial service providers (fintechs), in particular, those that offer payment and financial services. Access to a payment account is usually the starting point for the use of other financial services,¹¹⁴ such as investment products, credits or insurance.

Broadly, between 2019 and 2022, a deeper financial inclusion was observed among young people (aged 15-24). As regards accounts, the data obtained indicates that the number of young persons who open an account for the first time at a FI or at a PSP is similar. However, significant changes in access to a credit product among FIs and PNFCs were seen. The greater inclusion of younger age groups is mostly explained by PNFCs (except for the 15-19 age group which includes persons younger than the age required to obtain a loan).

¹¹³ According to labor statistics, the rate of employment was between 75% and 83% in persons from 25 to 59 years old, it was 24% in persons aged 59 or over, and 42% in persons from 18 to 24 years old (Ministry of Labor, Labor Statistics Bulletin, Q3 2022).

¹¹⁴ See, for instance, BIS (2020). [Payment aspects of financial inclusion in the fintech era](#).

Note on Methodology

Data on Population

This Financial Inclusion Report presents indicators that are disaggregated by demographic and geographic variables. At the time of publication of this edition, the definite results of the 2022 National Census of Population and Housing (CNPHV) have not been issued. For that reason, the data on population used here is based on the 2010 CNPHV.

Given that the INDEC does not release a series that simultaneously contains all the disaggregations used in this Financial Inclusion Report (IIF) (gender, age group, and geographical location for each province, district and municipality), different series were used according to the definition of each indicator:

- In the case of national and provincial indicators, the series known as “Population by Sex and 5-Year Age Groups across the Country and Provinces. Years 2010-2040” was used.
- District-level indicators were based on the series known as “Population Estimated as of July 1 of each Calendar Year by Sex at District Level”.
- Finally, as the INDEC does not publish a projection on the number of inhabitants of each municipality over time, it was necessary to build the series for the indicator based on the results of the 2010 National Census (CNPHV).

The indicators in this IIF on the adult population were based on the 2010 CNPHV, and must be taken as provisional data since they are subject to change as under the 2022 CNPHV.

Last, in this IIF, an “adult” is any person aged 15 and over, following the standard used by the World Bank for its financial inclusion indicators.

Regionalization

This IIF follows the regionalization criterion proposed by the Ministry of Economy and Public Finance (today Ministry of Economy) that sets out five regions, namely:

- NOA region: Salta, Jujuy, Tucumán, Catamarca and Santiago del Estero.
- NEA region: Formosa, Chaco, Misiones and Corrientes.
- New Cuyo: Mendoza, San Juan, San Luis and La Rioja.
- Patagonia: La Pampa, Neuquén, Río Negro, Chubut, Santa Cruz and Tierra del Fuego.
- Center and Buenos Aires: Córdoba, Santa Fe, Entre Ríos, Buenos Aires and the Autonomous City of Buenos Aires.

In this Report, “New Cuyo” is referred to as Cuyo, and “Center and Buenos Aires” as Center.

Analysis of Bank Accounts and Credit by Municipality

With a view to analyzing the distribution of adults’ account holdings and credit throughout Argentina, we gave each person a municipality code according to the municipality’s name, zip code, and province as recorded in the Federal Administration of Public Revenue (AFIP) database.

This way, the database used an eight-digit code for municipalities and a ten-digit code for the population. The 15 boroughs of CABA make just one agglomeration, whereas six municipalities are arranged into two. Thus, this analysis totals 3,520 municipalities instead of 3,538 on which the rest of the analysis is based.

In order to estimate the number of adults in each municipality, we have made our own projection of the adult population per municipality, according to the Data on Population section in this Note on Methodology. This may give way to a deviation from the estimates of account holdings as the population projection by municipality was carried out on the basis of the 2010 National Census, and estimated growth rates may differ from actual rates.

Payment Accounts in Payment Service Providers

As for PSPs operating in COELSA, some of them are recorded in the Registry of Payment Service Providers at the BCRA unlike other providers that have not been registered.¹¹⁵ In this report, only payment accounts of providers registered as PSPs that offer payment accounts are counted.

MSMEs' Credit

We adopted the MSME criteria proposed by the Ministry of Industry and Productive Development,¹¹⁶ according to which a MSME is a micro-, small-, or medium-sized enterprise whose economic activity is grouped in any of the following sectors in Argentina: service, commercial, industrial, agricultural, construction or mining sector. The size of a MSME is determined on the basis of the economic activity and the amount of total annual sales involved (in some cases, the staff number or the level of assets). FIs are to report to the debtors' database of the financial system (CENDEU) the information required in the field "code_sme"¹¹⁷ where so set out by the BCRA's regulations. The field comprises 2 digits: one for the size and the other for the economic sector. We used the "code_sme" corresponding to the largest amount of credit assistance in each of the periods under analysis since, in some cases, the same company is assigned different "code_sme" for the same period. The first stock may be equal to the second one; in that case, the highest "code_sme" is considered. We used the domicile for tax-related purposes registered in the AFIP database to allocate a province to each MSME.

Natural persons' (NPs) Stocks of Savings and Investment Products

NPs' savings and investment stocks are classified as follows:

1. Stocks of immediate liquidity, which include: (i) balances in current and savings accounts denominated in domestic and foreign currency, (ii) balances in payment accounts and (iii) estimated value of equity of money market funds (MMFs) subscribed by NPs.
2. Stocks of short- and medium-term products, which include: (i) balances in time deposits (TDs) denominated in domestic and foreign currency, (ii) stocks of UVA products and (iii) estimated value of equity of mutual funds (MFs) other than MMFs subscribed by NPs.

¹¹⁵ [Consolidated Text on Payment Service Providers.](#)

¹¹⁶ [What is an MSME?](#)

¹¹⁷ [Determination of the Condition of MSME. Paragraph 1, BCRA.](#)

The estimated value of the NW of MMFs subscribed by NPs was calculated by adding up: MMFs subscribed through PSPs, exclusive NPs' MMFs in FIs and, for MMFs that may be subscribed by both NPs and legal persons (LPs) in FIs, those corresponding to NPs' MFs were computed on the basis of weights. The calculation on the share of NPs' MFs in total MFs (NP + LP) was used to obtain the weights. The exclusive status was consulted in a website survey and in the regulations on MMF management.

On the other hand, to estimate the equity of MFs other than MMFs, the difference was calculated between the value of equity of MFs subscribed by NPs (using the "MFs subscribed by NPs" series, published monthly by the Argentine Chamber of Mutual Funds -CAFCI-) and the value of equity of MMFs subscribed by NPs.

Returns on Savings and Investment Products

In order to calculate returns, the following interest rates were applied:

- TDs in pesos: minimum annual percentage rate (APR) established by the BCRA ([website](#)). The APR was changed for the equivalent quarterly effective rate.
- UVA-adjusted TDs with an early-termination option: change of the UVA value a day before the maturity of the TD against the UVA value a day before making the TD. A 90-day period was considered, taking the date on which the TD was made as a benchmark of the first day of the month. The quarterly effective rate equal to an APR of 1% was added to this rate.
- MMF: monthly change of the value of quota-shares of each MMF. An average was calculated with these values, weighted by the shares of all active MMFs. The average monthly return on MMFs industry was thus obtained. The quarterly return for each period was estimated as the proceeds from the monthly compound capitalization of ARS1 over the 90-day period after making the term deposit. One (1) was deducted to the value obtained. In mathematical terms, the quarterly return for a 90-day investment in month "t" equals $(1+R_t) \times (1+R_{t+1}) \times (1+R_{t+2}) - 1$, where R_t is the return between month "t" and month "t+1".

Use of the Electronic Channels of Financial Institutions

In July 2022, the BCRA conducted a voluntary survey among all FIs, which was sent through the associations that represent them. The survey focused on compiling information about the users of these channels: online banking (OB), mobile banking or bank electronic wallet (MB), and both channels. Financial institutions were requested to provide information for the period between the last quarter of 2019 and 2021.

It was structured in three sections for each channel: (a) registry of clients, (b) access of clients, and (c) clients' transactions. In the last case, the metrics are based on the number of NPs who hold a bank account (as unique holders), regardless of its type, in Argentine pesos and made at least one transaction through that electronic channel during the quarter. Transactions involve fund movements started by any of the account holders (for instance, to pay for a service, deliver money, etc.).

Sixteen FIs submitted their answers. The final sample decreased to 10 surveyed FIs (6 private banks and 4 public ones) for two reasons: (i) lack of some data and (ii) difficulties to disaggregate the metrics required in different channels. This way, the data used in the exhibit considers: (1) 10 FIs, (2) transactions and (3) OB and MB individually. Last, the usage ratios of OB and MB were calculated on the basis of data on transactions and the number of NP account holders in each FI.

Abbreviations and Acronyms

ACSF	<i>Agencia complementaria de servicios financieros</i> (supplementary agency of financial services)
AFI	Alliance for Financial Inclusion
AFIP	<i>Administración Federal de Ingresos Públicos</i> (Federal Administration of Public Revenue)
APR	Annual percentage rate
ARS	Argentine peso
ATM	Automated teller machine
BCRA	<i>Banco Central de la República Argentina</i> (Central Bank of Argentina)
BFS	Broad financial system
BIS	Bank for International Settlements
CABA	<i>Ciudad Autónoma de Buenos Aires</i> (Autonomous City of Buenos Aires)
CAFCI	<i>Cámara Argentina de Fondos Comunes de Inversión</i> (Argentine Chamber of Mutual Funds)
CBU	<i>Clave bancaria uniforme</i> (single banking code)
CEDIP	<i>Certificado electrónico para depósitos e inversiones a plazo</i> (electronic certificate for time deposits and investments)
CENDEU	<i>Central de deudores del sistema financiero</i> (debtors' database of the financial system)
CenFIV	<i>Central de facturas electrónicas MiPyME impagas al vencimiento</i> (Database of MSME electronic invoices not paid upon maturity)
CNV	<i>Comisión Nacional de Valores</i> (National Securities Commission)
COELSA	<i>Cámara Compensadora Electrónica</i> (Electronic Clearinghouse)
CPI	Consumer price index
CPMI	Committee on Payments and Market Infrastructures
DC	Debit card
EMAE	<i>Estimador mensual de actividad económica</i> (monthly economic activity estimator)
ENACOM	<i>Ente Nacional de Comunicaciones</i> (national communications authority)
EPH	<i>Encuesta Permanente de Hogares</i> (permanent household survey)
ETCNB	<i>Emisora de tarjetas de crédito no bancarias</i> (non-bank credit card issuer)
FAS	Financial Access Survey
FCEM	<i>Factura de crédito electrónica MiPymes</i> (electronic credit invoice for MSMEs)
FF	<i>Fideicomiso financiero</i> (financial trust)
FI	Financial institution
FS	Financial system
FSB	Financial Stability Board
GDP	Gross domestic product
GNlpc	Gross national income per capita
IIF	<i>Informe de Inclusión Financiera</i> (Financial Inclusion Report)
IMF	International Monetary Fund
INDEC	<i>Instituto Nacional de Estadística y Censos</i> (National Institute of Statistics and Censuses)
ITU	International Telecommunication Union
LFIP	<i>Línea de Financiamiento para la Inversión Productiva</i> (Credit Line for Productive Investment)
LP	Legal person
m	Million
MB	Mobile banking
MF	Mutual fund
MF-NP	Natural persons' mutual fund
MMF	Money market fund
MMF-NP	Natural persons' money market fund
MPE	Electronic means of payment
MPOS	Mobile device at point of sale
MSME	Micro-, small- and medium-sized enterprise
MSME-LP	Micro-, small- and medium-sized enterprise led by a legal person
MSME-M	Micro-, small- and medium-sized enterprise led by a man
MSME-NP	Micro-, small- and medium-sized enterprise led by a natural person
MSME-W	Micro-, small- and medium-sized enterprise led by a woman
NEA	<i>Noreste argentino</i> (northeastern region)
NOA	<i>Noroeste argentino</i> (northwestern region)
NP	Natural person
OB	Online banking

ON	<i>Obligación negociable</i> (corporate bond)
OPNFC	<i>Otro proveedor no financiero de crédito</i> (other non-financial credit provider)
PCT	<i>Pago con transferencia</i> (payment by transfer)
PDA	<i>Punto de acceso</i> (access point)
PNFC	<i>Proveedor no financiero de crédito</i> (non-financial credit provider)
POP	Population
POS	Device at point of sale
PSP	Payment service provider
Q	Quarter
QR	Quick response code
RI-DSF	<i>Régimen Informativo de Deudores del Sistema Financiero</i> (reporting system of debtors of the financial system)
SEPyME	<i>Secretaría de la Pequeña y Mediana Empresa y los Emprendedores</i> (Secretariat of Small- and Medium-Sized Enterprises and Entrepreneurs)
SIPA	<i>Sistema Integrado Previsional Argentino</i> (Integrated Argentine Social Security System)
SISCEN	<i>Sistema Centralizado de Requerimientos Informativos</i> (centralized reporting requirement system)
SPNF	<i>Sector privado no financiero</i> (non-financial private sector)
TAS	<i>Terminal de autoservicio</i> (self-service terminal)
TD	Time deposit
TIC	<i>Tecnología de la información y la comunicación</i> (information and communication technology)
UVA	<i>Unidad de valor adquisitivo</i> (unit of purchasing power)
y.o.y.	Year-on-year