XI Report

# Trends in Payment Instruments

In collaboration with





minsoit payments

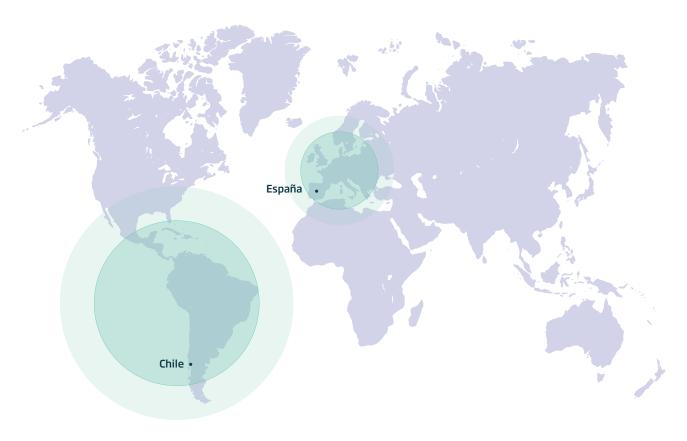
## Building a new vision around Payments

The irruption of new players in the financial markets is changing the traditional financial landscape. The new digital technologies are shaping a new scenario in which more and more companies merge the business experience with the payment experience.

At Minsait Payments, Minsait's payment method subsidiary, we collaborate with financial entities, fintech, retailers and large technology companies to create innovative use cases that boost the growth of their business.

Minsait Payments is the Latin American and European regional processor that is committed to the **modern issuance of cards** and the **cloud payments processing** through an apified platform with global coverage that solves the challenges of regionalization, accompanying the progressive growth of our clients business.

## Leaders in processing at LATAM and Europe



#### Our Figures:

+240

n cards globally Mill

+1.500

annual transactions Million API consumed by our clients

+5.000

+100

References in clients distributed in different regions

The capabilities of our platform and our cloud payment processing services allows us to cover the three business visions (credit, debit and prepaid) providing:

#### Flexibility

Processing service model highly parameterizable and configurable to the new use cases that the market and our clients demand.

#### Agility

Commercialization and implementation model supported by our own agile methodology that reduces the time-to-market to weeks, adapting it to the pace required by fintech companies.

#### Scalability

Global coverage while solving the challenges of regionalization accompanying the progressive growth of our clients business.

#### Innovation

Robust platform with wide functional coverage on which we create a value proposition around innovation businesses and alternative payment methods.

#### Our model

We are committed to a transverse payment processing model from fintech to large technology companies

Issuing Switch Acquiring

Traditional processor

Banking Insurance Retail Fintech Travel Industry

Agile and flexible processor

Our platform

Digital payments Data Seguridad Loyalty

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The payments ecosystem finds itself in 2021, surpassing a 2020 described a year ago as extraordinary, at a time of accelerated transition towards the development of full capabilities in the physical and digital worlds, both dimensions in which payments are increasingly faster, easier to use and more comfortable.

These hybrid capabilities are expected to be innate in all types of connected devices, that any solution is operable from the same channel and that it is capable of responding, without being noticed, to the particular context in which we find ourselves. This imposes challenges that today receive the utmost attention from the authorities and the industry, in the field of interoperability, immediacy, information privacy and the overcoming of political borders.



It is confirmed in 2021 that payments are no longer an exclusive business of banks, a fact that causes, in real time, important regulatory and business implications, also marked by the growing trend towards the consolidation of agents through mergers and acquisitions that year after year they break records in valuation and geographical scope. Mergers and acquisitions that also bring with them the deployment of new value-added services to mere payment, such as the one illustrated by the Buy Now Pay Later modality, to which space is dedicated for the first time in this Report.

The concern for environmental sustainability is beginning to be timidly present in the payment industry, and it is a trend that will undoubtedly become more visible over the years, although it is anticipated that it will not take many years for its consolidation.

As a result of the analyzes that have been carried out during the year to prepare this Report, it is evident that we are at the gates of a set of disruptions that will make the current payments ecosystem mutate to one more adapted to the needs and capacities that it demands. the 21st century: a network of immediate and universal payments. And all this before 2030.

#### Ecuador joins the Report

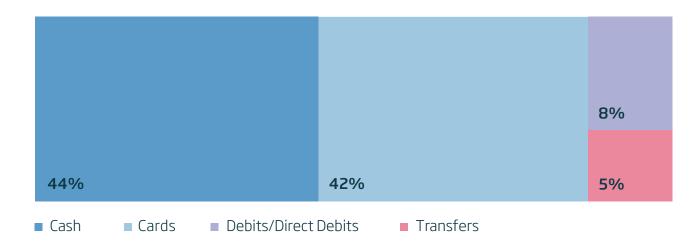
Year after year, this Report has tried to accommodate a greater number of countries, and in 2021 it is Ecuador that is leading the expansion of the geographical scope analyzed. Ecuador pioneered the issuance of central bank digital currencies, today one of the most disruptive issues in the payments industry, if not the most.

Ecuador illustrates the reality of a market with important challenges in terms of financial inclusion that complements that shown by the rest of the Latin American countries that have historically been part of the Report. It is the only dollarized country with a supervisory institutional framework that is comparatively more segmented than that of its Latin American counterparts, providing an additional illustrative view of the Report as a whole.

## The (lack of) universal acceptance conditions the use of cash

The collaborative exercise based on the responses provided to an ad-hoc questionnaire by 225 experts from the payments industry in Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, the Dominican Republic, Spain, Italy, Portugal and the United Kingdom make it possible to quantify and contrast year after year the perceptions of the most relevant trends in innovation in the field of digital payments.

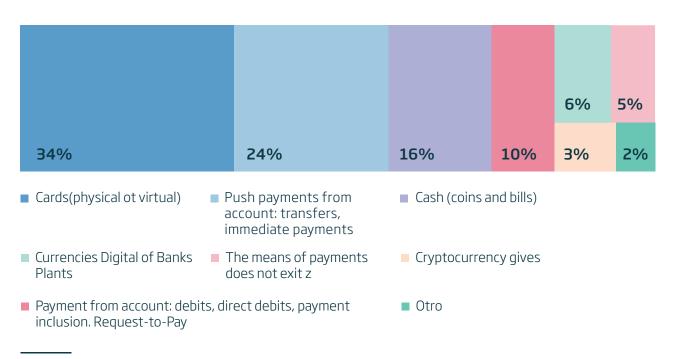
Some of them are highlighted in this executive summary. Others, such as the impact of SCA and/or 2FA, the presence and adoption of BNPL, the development of Open Banking or the future of digital money, can be found in Chapter 2. The Vision of the Sector.



**Figure 1** What do you consider to be the most common means of payment in your country (the one with the highest number of payments)?

It is found that despite the impact of the pandemic on changing habits and, in particular, towards the digitization of daily payments, cash is still perceived by the industry as the most common means of payment (**Figure 1**), that is, the one with the highest number of payments, leading the daily ranking among low-value means of payment available to the population.

This is the consideration shared by 45% of the responses. They are followed very closely by payment cards (41%), while payments from accounts (transfers and debits) are not perceived as such frequent and intense means of payment (14%).



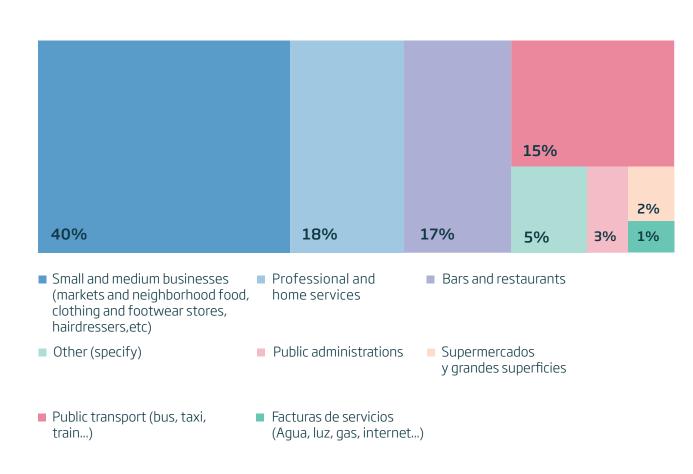
**Figure 2** What do you think will be the most widely used low value payment method in your country in 2030? (Mark the option you consider appropriate)

With a view to the end of the present decade (2030) **(Figure 2),** a technical tie is observed between payment cards (34%) and payments from accounts (33%) in their consideration of becoming the low-value means of payment of majority use among the population. Just a year ago, payments from accounts slightly exceeded those from cards in this forecast ten years ahead.

In this future context, push payments (transfers) more than double pull payments (debits) in terms of becoming the majority means of payment.

Regarding the perspective of cash, located in third position in the ranking, barely one in seven considers that it will be the majority means of payment in 2030, when a year ago one in five recognized it, so that the tendency to the decline consolidates.

The consideration that other means of payment (CBDC, cryptocurrencies, others) are the means of payment of majority use in 2030 is still residual.



**Figure 3** In what type of points of sale or payment do you consider that the use of cash is still majority (and even exclusive)?

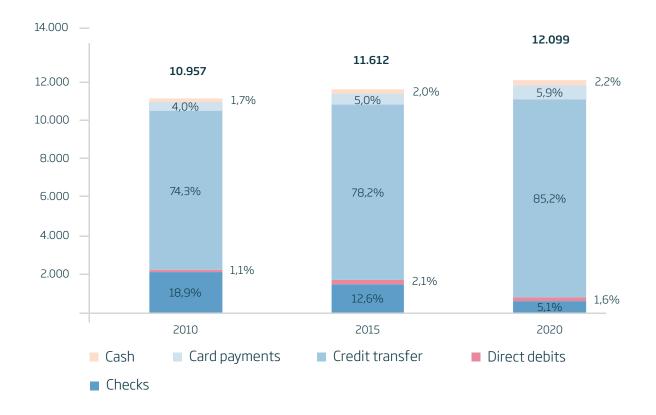
The high perception of the use of cash is explained, at least partially, by the degree of acceptance of alternative means of payment to cash (**Figure 3**). Indeed, four out of ten responses point out that small businesses are the point of sale that concentrates the majority use of cash, but it is not the only one. Professional and home services, bars and restaurants, and, to a similar order of magnitude, public transport is also relevant due to the presence of cash at the time of payment.

These four types of points of sale or payment are, therefore, likely to receive the attention of payment service providers and public administrations to advance in the digitization of daily payments and aspire to the legitimate universality of payment acceptance digital.

## Payments from account, many immediate, hatch in the pandemic

The richness of the official payment statistics that this Report has been monitoring for more than a decade allows us to observe trends and, where appropriate, changes in the same, in addition to acting as a point of contrast with what the industry and its managers observe (collected in Chapter 2), and with what the users (in their condition of banked adult Internetinternet users with bank account) perceive, have at their disposal and use (or do not use), as collected in Chapter 4.

The value paid from accounts in Latin America has gone from representing 74.3% of all payments made by electronic means in 2010 to 85.2% in 2020 (83.9% in 2019) (see Figure 4), expanding its undisputed leadership as leader payment method in terms of value. For their part, cards represented 5.9% of the value in 2020 compared to 3.7% a decade earlier, and for the first time they are the second means of payment in terms of value in the Latin American region. Checks yield one more year and fall for the first time to third position, concentrating 5.1% of the value paid in 2020 (7.0% 2019), when a decade ago they canalized one out of every five dollars paid by means other than cash in the region (19.2% of the total value). Direct debits hardly grew during the decade (from 1.1% in 2010 to 1.6% in 2020), and in some countries they are still not even enabled.

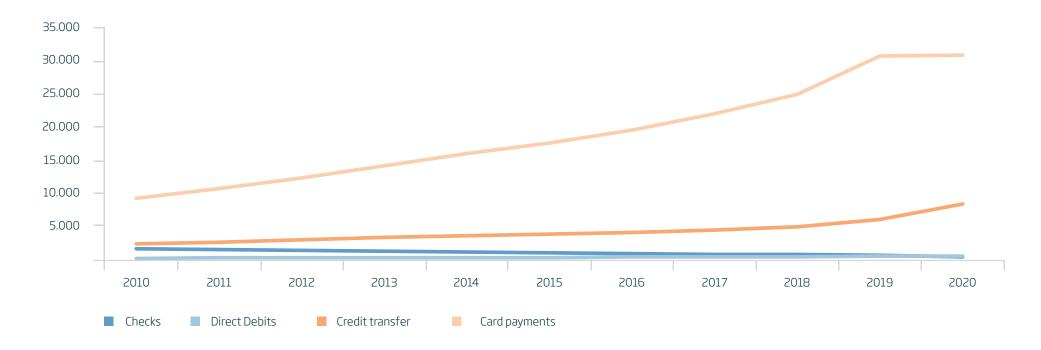


**Figure 4** Value of payment transactions in Latin America in 2010, 2015 and 2020, by instrument, billion USD

Source: Afi, based on central banks and bank superintendencies. Exchange rate of the corresponding year

In terms of volume (or number of operations, see **Figure 5**), card payments in 2020 concentrated in the Latin American region almost eight out of every ten payments made by digital means (76.7%), while in 2010 they represented almost seven out of every ten (66.5%), reducing its share compared to 2019. In absolute numbers, the 10.7 billion card payments registered in the region in 2010 have become more than 30.7 billion in 2020, tripling in the last decade.

The effect of the pandemic on the intensity of card transactions is very significant, since the global number of operations has remained almost unchanged compared to 2019, when in the 2010s the registered year-on-year growth has been uninterruptedly positive and two digits in the middle.



**Figure 5** Number of payment operations in Latin America, 2010-2020, millions

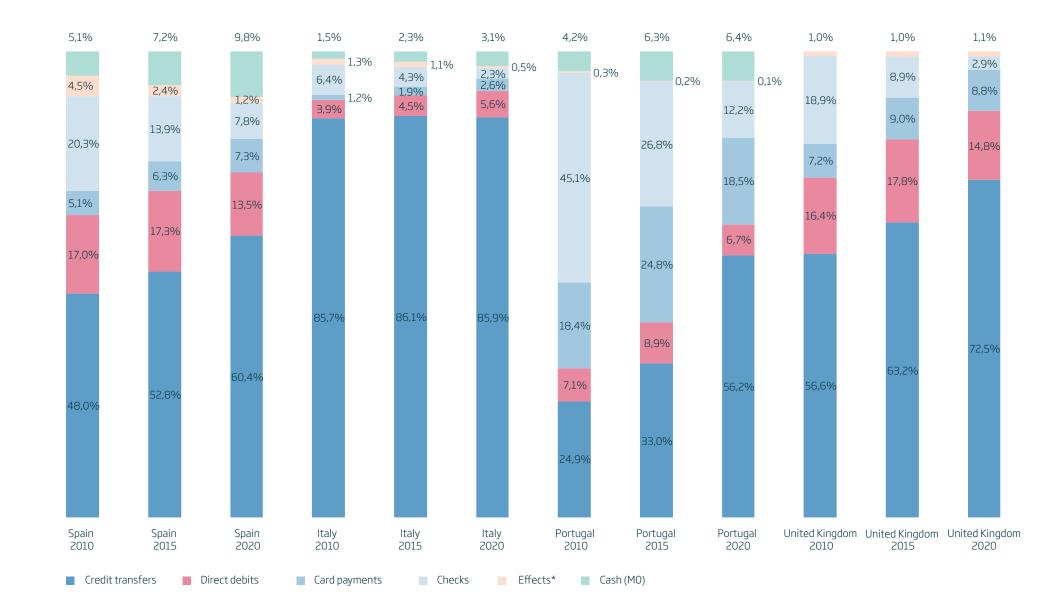
Source: central banks and bank superintendencies.

In terms compared to Latin America, Europe has registered less pronounced changes in the last decade (**Figure 6**). In all countries, transfers are the means of payment that channel the greatest value, as in Latin America, although with different intensities: while in Italy more than 8 out of every 10 euros paid by digital means are paid by transfer, in Spain they are 6 out of 10 and in the United Kingdom 7 out of 10.

Transfers are, together with cash, the only means of payment that gain prominence in terms of value in 2020, and that do not register negative year-on-year fees compared to 2019.

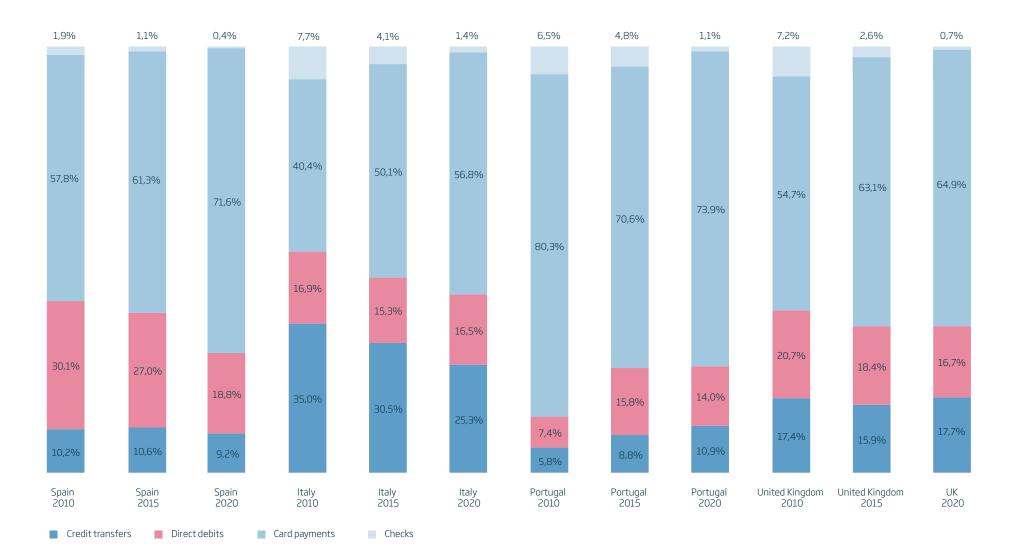
The pattern of participation of the different means of payment in the value of operations in Spain and the United Kingdom is very similar. Italy is the European country where the least pattern changes have been observed in the last decade, and it is also the European leader in account payments, which account for 91.5% of the value of registered payments. It is followed by the United Kingdom with 87.2% of the value and far behind are Spain (73.9%) and Portugal (62.9%).

Card payments represent 18.5% of the value of payment transactions in Portugal in 2020, ahead of the United Kingdom (8.8%), Spain (7.3%) and Italy, where they barely represent 2, 6%.



**Figure 6** Value of payment transactions in Spain, Portugal, the United Kingdom and Italy in 2010 and 2020, by instrument, billion USD

Source: Afi, based on superintendencies and central banks



**Figure 7** Number of payment transactions in Spain, Portugal, the United Kingdom and Italy, 2010, 2015 and 2020, millions

Source: Afi, based on central banks and bank superintendencies. Note: The data for the United Kingdom refer to the year 2013 because it is the first year with complete information available.

For the first time in this Report, a visualization of the data on retail payments offered by the financial authorities is included, but in per capita terms.

On average **(Table 1)**, each inhabitant in Spain made 101 card payments in 2020, 13 credit transfers (4 of which were immediate), 27 direct debits and issued 0.6 checks. In terms of value, each inhabitant in Spain spent an average of 3,921 dollars with cards, in line with what was registered in Italy. The United Kingdom leads in this indicator (13,269 dollars paid by card per inhabitant in 2020, in a total of 259 payments), followed by Portugal (6,595 dollars and 118 payments) and Chile (5,258 dollars and 120 payments). Ecuador, with three card payments per inhabitant and 236 dollars spent, is the country that is in last position.

From the average amount of ordered transfers **(Table 2)**, the different use of this means of payment in each country can be inferred depending on whether the payer is predominantly a natural person (individual) or legal bank, ranging between 109,252 dollars paid per inhabitant in United Kingdom or the 62,690 in Ecuador, and the 1,779 in Peru.

	Card payments	Direct debits	Credit transfers	Checks	B.Quickly transfers
Argentina	46	7,1	9	1,2	7,1
Brazil	100	-	27	1,3	-
Chile	120	-	11	2,9	-
Colombia	13	3,3	4	0,1	-
Costa Rica	72	0,1	16	0,9	10,8
Ecuador	3	-	5	1,0	-
México	27	0,4	13	0,3	8,3
Perú	14	-	2	0,1	0,4
Dominican Republic	14	0,6	3	1,9	0,7
Spain	101	27	13	0,6	4,1
Italy	59	17	26	1,4	-
Portugal	118	22	18	1,8	0,5
United Kingdom	259	66	71	2,8	42,0

**Table 1** Number of transactions per inhabitant, 2020

Source: Afi, based on central banks and bank superintendencies.

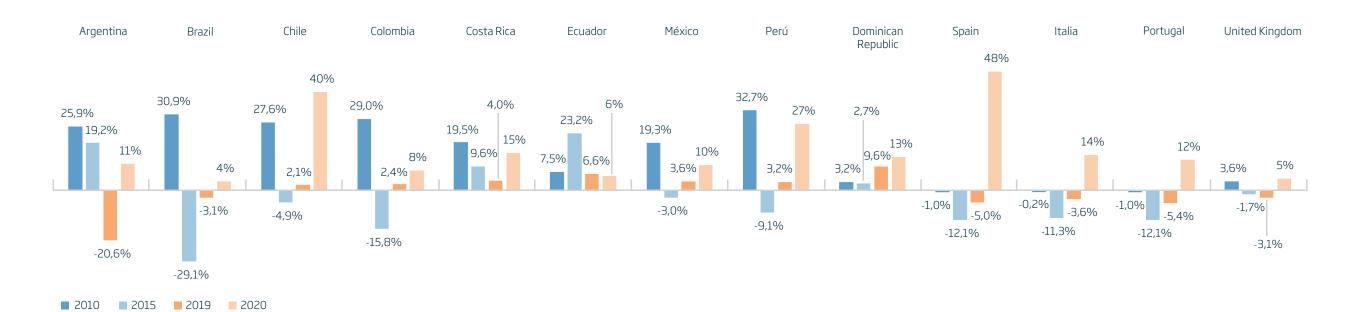
	Card payments	Direct debits	Credit transfers	Checks	B.Quickly transfers
Argentina	1.362	3.665	3.317	1.990	2.413
Brazil	1.767	-	23.978	579	-
Chile	5.258	-	10.165	9.840	-
Colombia	556	438	8.525	752	-
Costa Rica	2.302	199	24.834	2.165	18.193
Ecuador	236	-	62.690	1.982	-
México	797	63	31.757	578	4.125
Perú	630	-	1.779	578	151
Dominican Republic	541	172	4.278	3.228	2.025
Spain	3.921	7.265	32.412	4.181	1.339
Italy	3.756	8.089	26.212	3.264	-
Portugal	6.595	3.740	31.243	6.774	683
United Kingdom	13.269	22.259	109.252	4.369	39.686

**Table 2** Value transactions per inhabitant, 2020, USD

Source: Afi, based on central banks and bank superintendencies.

#### COVID causes a cash hoarding effect

After a decade of continued declines in the volume of cash in circulation in practically all countries, all of them recorded notable growth in 2020, with particular intensity in Spain (where cash in circulation grew by 48% compared to 2019) and Chile (40%). At the opposite extreme, but also with a positive sign, are Brazil (3.5%), the United Kingdom (4.8%) and Ecuador (5.9%).



**Figure 8** Cash in circulation, year-over-year growth, 2010-2020 Source: Afi, based on superintendencies and central banks.

#### Global pre-eminence of the debit card...

In the set of thirteen countries included in the Report, there were more than 1,500 million payment cards in circulation at the end of 2020, of which two out of three are debit cards and almost half correspond to the Brazilian market and, considering only the of credit, this country concentrates more than half.

Mexico, Peru and Italy stand out for being predominantly debit countries (more than 80% of the cards in circulation are of this modality), while on the opposite spectrum are Argentina (49% of the card park is debit), Spain (57%) and the United Kingdom (59%).

#### ...but not yet in use at POS vs. ATM

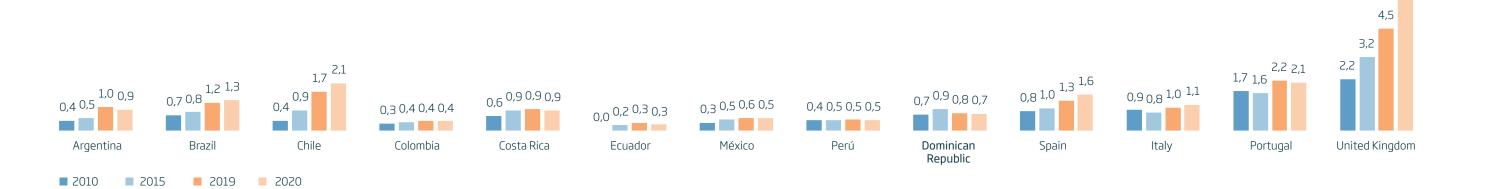
Regarding the use of cards, the value of payment operations at POS exceeds the value of card withdrawals at ATMs in all European countries -with special intensity in the United Kingdom, where payments in 2020 represent nine times the value of withdrawals, double that in the pre-pandemic year, Portugal (2.1), Spain (1.6) and Italy (1.1) (**Figure 9**).

In Latin America, the record of Chile (2.1) is noteworthy, second only to Brazil (1.3) and setbacks are observed in Argentina, Mexico and the Dominican Republic and stagnation in Peru, Colombia and Ecuador, where ATM withdrawals are higher that double the value of card payments at the POS.

	Charge cards	Credit cards	Total
Argentina	56.719.419	59.287.804	116.007.223
Brazil	453.542.416	281.075.738	734.618.154
Chile	21.712.213	13.993.720	35.705.933
Colombia	36.387.824	14.676.302	51.064.126
Costa Rica	6.045.921	2.446.768	8.564.381
Ecuador	8.150.126	3.392.684	11.542.810
México	157.782.610	27.679.900	185.462.510
Perú	26.889.060	6.315.235	33.204.295
Dominican Republic	5.576.300	2.450.340	8.026.640
Spain	49.040.000	37.140.000	86.180.000
Italy	59.418.000	14.290.000	73.708.000
Portugal	24.728.000	8.650.000	33.378.000
United Kingdom	92.172.000	62.948.000	155.120.000

**Table 3** Number of debit and credit cards in circulation ,2020

Source: Afi, based on central banks and bank superintendencies.

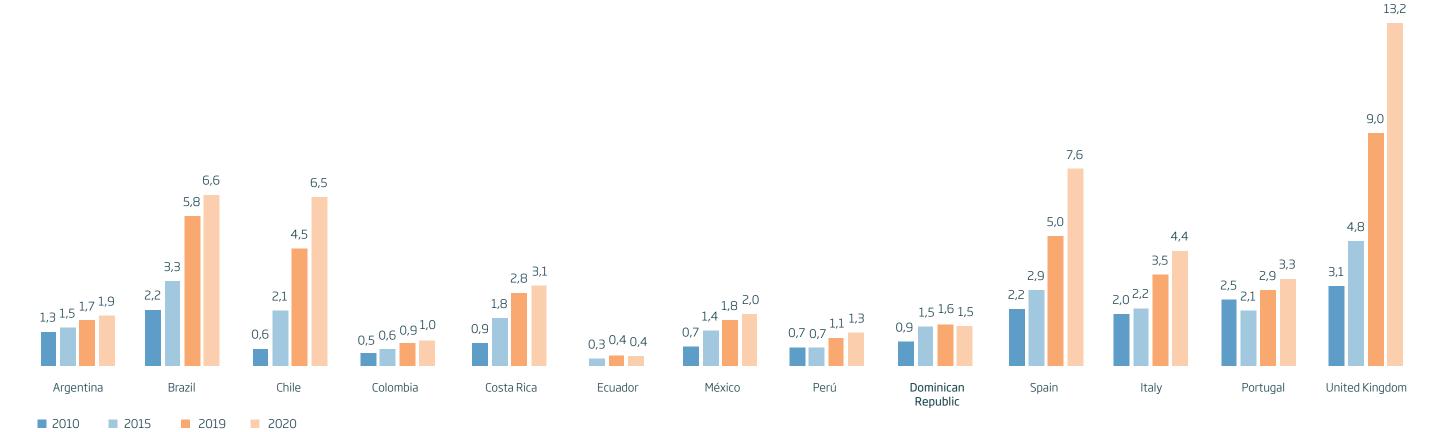


**Figure 9** Value ratio of card payments at POS vs ATM cash withdrawals, 2010 and 2020

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Source: Afi, based on central banks and bank superintendencies.
\*Due to the absence of data, the first year observed for Costa Rica is 2012, while for Argentina it is 2011.



**Figure 10** Value ratio of card payments at POS vs ATM cash withdrawals, 2010 and 2020

Source: Afi, based on central banks and bank superintendencies.

\* Due to the absence of data, the first year observed for Costa Rica is 2012, while for Argentina and Peru it is 2011.

In terms of intensity of use **(Figure 10**), POS in the United Kingdom receive thirteen times the number of operations received by ATMs in said country; Spain is in second position with 7.6 POS payments for each ATM cash withdrawal. They lead in intensity in Latin America Brazil and Chile with a ratio of 6.6 and 6.5 times respectively. All the countries except Colombia and Ecuador register a higher transaction rate in POS than in ATM and the highest growth in relative transaction rate in POS in the year of the pandemic corresponds to Spain (where the ratio grows by 52%), the United Kingdom (46%) and Chile (4%).

**Figure 11** is evidenced by the undisputed leadership of Italy and Brazil in terms of POS coverage per capita, with both countries around 60,000 POS per million inhabitants. Between 40,000 and 60,000 are the United Kingdom (48,700) and Spain (44,400). In a next step of coverage are Portugal (34,800) and Costa Rica (37,500). Below 10,000 per million are Ecuador, Peru and the Dominican Republic.

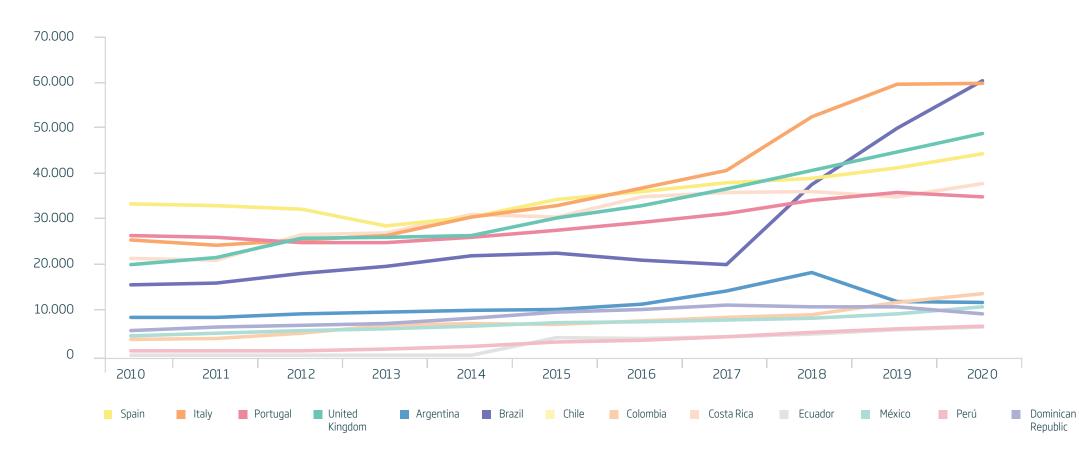


Figure 11 Number of POS per million inhabitants, 2010-2020

Source: Afi, based on central banks and bank superintendencies. Data not available for Chile. The data for the United Kingdom have been estimated taking into account the data for the previous period.

## Credit card financing continues to be a pattern that is more Latin American than European

The ease of consumer financing with a credit card persists in the greater dynamism that it has historically shown in Latin America in relation to Europe, even considering the unique case of the United Kingdom.

In fact, the weight of consumer financing with a credit card has a significant weight with respect to domestic GDP in Colombia (6.0%), Chile (4.0%) and Brazil (3.9%), with Costa Rica (3.2%), Argentina (2.4%) and Ecuador (2.3%) in intermediate positions, but all above the weight represented by this method of financing purchases in Europe, except in the case of the aforementioned United Kingdom (2.3%).

#### E-commerce only clicks in Italy

Retail e-commerce in Latin America (**Figure 12**) has multiplied by almost seven in the period 2010-2020, reaching a global figure of 107 billion dollars in 2020. Brazil concentrates 45% of the value of registered sales, followed by Mexico with 29% and Argentina, which occupies the third position with 12%. Colombia and Chile represent 9%, respectively, of the region's total.

In Europe (**Figure 13**) the behavior and dimension of e-commerce in the United Kingdom, one of the largest markets for online sales at a global level, stands out by far. Not in vain, the value of e-commerce transactions paid with cards exceeds 225 billion euros, a spectacular increase of 20% during 2020. In number of online sales, there are more than 2,700 million transactions, 4.5% higher than in 2019.

Portugal registered in e-commerce transactions worth more than 7,400 million euros, noting a significant interannual growth of 20%. Spain has seen its turnover multiply by seven since 2010, registering in 2020 more than 1,000 million e-commerce transactions, 20% more than in 2019, which represented a turnover of close to 52 billion euros, a 6 % more than the pre-pandemic year.

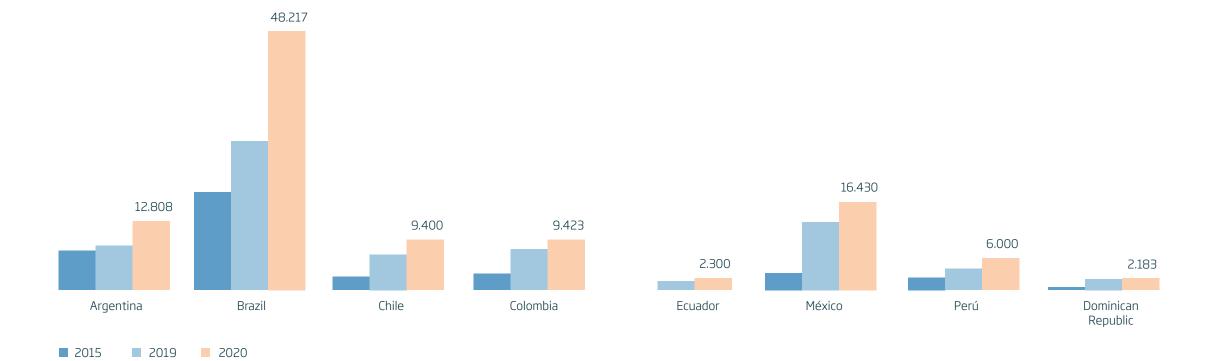
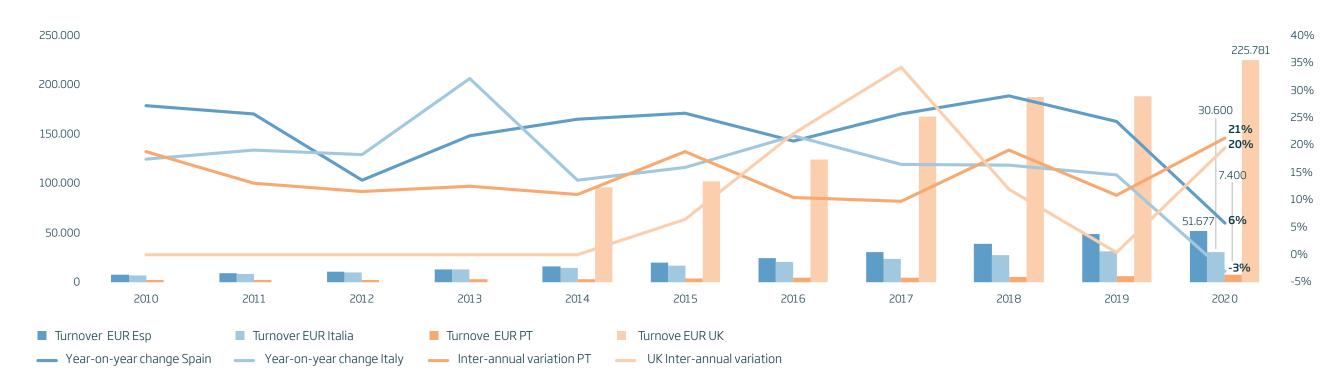


Figure 12 E-commerce in Latin America, 2020, million USD

Source: Afi, based on national e-commerce chambers and associations and specialized reports.



**Figure 13** E-commerce in Spain, Italy, Portugal and the United Kingdom, 2010-2020, million EUR Source: Afi, based on the National Markets and Competition Commission, Banco de Portugal, The UK Cards Association and UK Finance. No data available prior to 2014 for the UK.

## Faithful to a demand that must be heard and read

The demand study included in Chapter 4 of the Report shows that after the worst months of the pandemic, each available means of payment finds its utility in an already diversified market.

The online banking adult population has a diverse portfolio of means of payment, a heterogeneity of means of payment that they use based on their preferences, but also conditioned by the collection alternatives offered by establishments or points of sale. So much so, that the gap between what customers want to use and what is accepted in establishments makes it necessary to have more means of payment and not to give up any.

#### Banks give ground

Traditional banks are beginning to give way to new companies operating in the financial and payments field, especially the neobanks. In this way, although the bank continues to be the bank with which it operates the most, other types of entities are increasing their presence (**Figure 14**), especially in Latin America, where telecommunications companies (through personal loans) or the presence of Neobanks are generating a new financial paradigm.

However, although the ABI population is beginning to operate with these new entities, when it comes to establishing a preference or identifying the type of main entity, the bank continues to be the protagonist (**Figure 15**). Two countries do stand out in this regard, Brazil and Colombia, where just over 26% of the ABI population indicate a neobank as their main bank, a circumstance that is explained not only by the large presence of this type of entity, but also by the age, since it is the younger groups in these two countries that operate with these entities to a greater extent and identify them as the main ones.

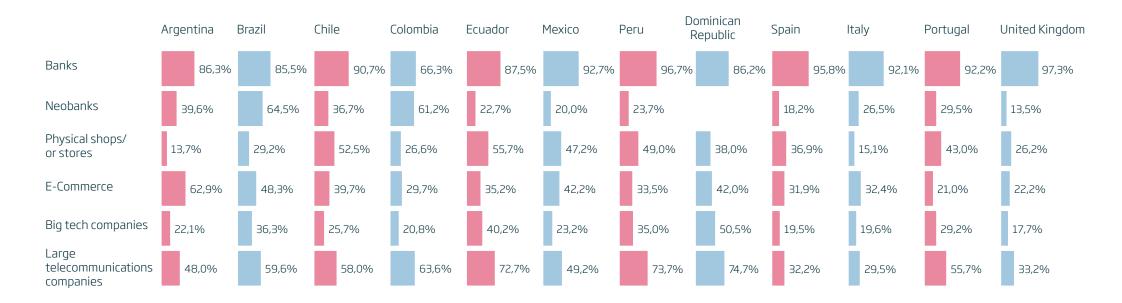


Figure 14 Banks or other providers with which the ABI population operates <sup>1</sup>

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the question "How many banks or other providers do you currently operate with or have you contracted some type of financial or payment/collection service or product?"

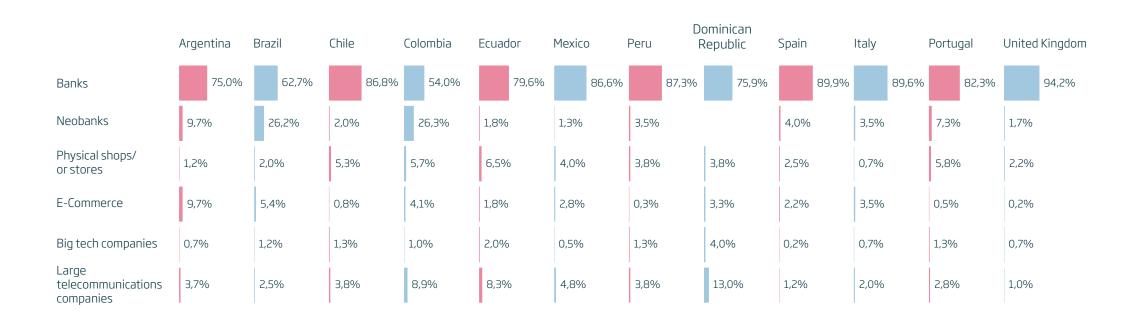


Figure 15 Bank or main operator

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the question "which do you consider the main one?"

1 In the Dominican Republic, for the question "With how many banks or other providers do you currently operate or have you contracted some type of financial or payment/collection service or product?" The "neobanks" option was not specified due to its scarce presence".

## Revealed Preferences vs Stated Preferences

In 2021, the growth in the number of means of payment used by the population continues, with a greater role for digital media, despite the fact that cash is still far from disappearing. Thus, after the slight decrease in the ABI population that had used cash in 2020, in 2021 percentages of use are recovered that are more similar to prepandemic data from 2019, with more than 75% of the ABI population of all countries reporting having used cash during the last month, with the sole exception of the United Kingdom, which stands at 68%.

It is also verified that payment with mobile devices, wallets or aggregators and payment apps between individuals have experienced a general growth compared to 2020.

As the main means of payment, however, cash does lose prominence in all countries except for Portugal and the United Kingdom (**Figure 17**), which have experienced a small increase in 2021. The card is consolidated as the main means of payment for the majority of the ABI population in all countries except Ecuador. And within this growth, it is worth highlighting that experienced during the year 2021 in Peru and Chile in Latin America, and Spain in Europe.

The more digital options, wallets or aggregators or payment apps between individuals, although their use has increased very prominently as noted, are still not meant as the main means of payment, with the exception of payment apps between individuals in Brazil, Colombia, Peru and Portugal.



Figure 16 Means of payment <sup>2</sup> used in the last month (evolutionary 2020 - 2021) <sup>3</sup>

Population analyzed: Total ABI population (400 cases per country)
Source: Own elaboration based on the results of the question "Of the following means of payment, which of them have you used in the last month?"

- The following means of payment have been defined in the questionnaire: The cash option / The "cards" option includes debit, credit and prepaid / The "payments from account" option includes transfers, direct credit and direct debits / The "virtual card" option includes virtual account or prepaid card services (these are digital services, usually for smartphones, in which you can top up money and use it for payments) / The option "wallets or card/account aggregators (these are applications for smartphones or smartwatches with which you can pay with your usual cards or bank accounts, allowing you to choose which method to pay with at all times)" / The option of payment apps between individuals via mobile)"
- For visual clarity, this figure does not indicate the data obtained for the options "other paper-based payment methods (checks or promissory notes)" or "payment with cryptocurrencies" because the percentages of use in both cases in all countries are less than 9%. No data is shown on "virtual prepaid account or card services in Ecuador, because there is no presence of this means of payment in that country.

In addition, the main means of payment, the one used for most payments, as a novelty this edition has investigated the preferred or favorite means of payment, that is, the one with which the ABI population would like to make the most part of the payments, if possible.

In line with the main means of payment, the card is also the preferred means of payment for all countries except Colombia, where it is cash. Among the geographical areas that select the card as their favorite means of payment, Spain and Chile lead the ranking, followed by Italy and the United Kingdom.

Brazil, Colombia, Peru and Portugal are not only the countries with the highest growth in users of payment apps between individuals or those with the largest ABI population indicating said payment as the main one, but they are also the countries where the highest proportion of the ABI population indicates it as favourite: between 15% and 25% of the population would always use this means of payment if possible. Argentina, for its part, stands out as the country that presents a greater preference for payment through wallets or card aggregators to pay in physical and digital stores. Cash continues to have strength in some countries such as Ecuador, Mexico and the aforementioned case of Colombia.

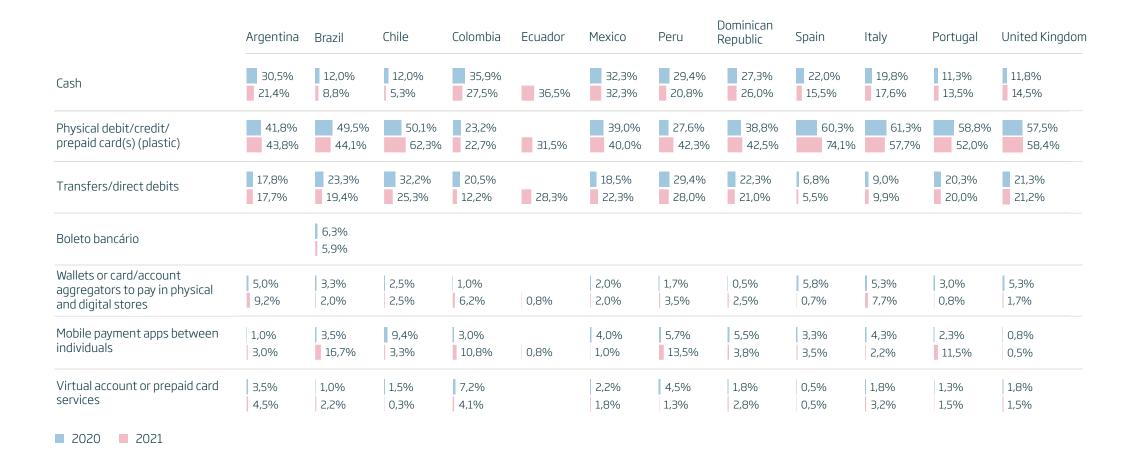


Figure 17 Main means<sup>4</sup> of payment (evolutionary 2020 - 2021)<sup>5</sup>

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the question "And what do you consider to be your main medium, that is, the one with which you make the majority of your expenses?

4 The "cards" option includes debit, credit and prepaid / The "payments from account" option includes transfers, direct credit and direct debits / The "virtual card" option includes virtual account or prepaid card services (these are digital services, usually for smartphones, in which you can top up money and use for payments). The "wallets and card/account aggregators" option are applications for smartphones or smartwatches with which you can pay with your usual cards or bank accounts, allowing you to choose which method of payment you use at any time.
5 Similar to the means of payment used during the last month, in Colombia, 15.6% of the ABI population indicates that their main means of payment are payment initiators.

But the preferences of users are not always satisfied: not all points of sale accompany the consumer in the digital transformation of their payments, that is, in the acceptance of forms of payment alternative to cash with which the population finds itself equipped.

In general terms, the obligation to use cash at the different points of sale (because it is the only one accepted) is greater in Latin America than in Europe, but all countries share two types of establishments as the most restrictive with respect to means of payment accepted: small and medium-sized businesses (markets and food court, clothing and footwear stores, hairdressers) and public transport (buses, taxis, trains).

In Europe, despite the fact that the options of means of payment for the different points of sale seem broader, there are also limitations or obstacles to payment with means other than cash in the payment of professional services of the home, bars and restaurants, the public transport and, especially, small businesses. This is especially relevant in Spain, Italy and Portugal.

	Argentina	Brazil	Chile	Colombia	Ecuador	Mexico	Peru	Dominican Republic	Spain	Italy	Portugal	United Kingdom
	16,4%	10,5%	7,3%	23,2%	30,8%	25,0%	18,5%	21,3%	19,5%	19,3%	11,8%	21,4%
Cash												
	38,1%	35,3%	59,5%	19,9%	32,5%	38,5%	29,3%	37,8%	66,3%	53,0%	45,8%	51,9%
Card												
Payments from account	16,9%	19,6%	22,0%	11,2%	30,5%	26,8%	20,3%	28,5%	4,2%	8,7%	16,5%	17,7%
r dyments from decount									•			
Boleto Bancário		4,7%										
	5,7%	2,5%	2,0%	4,1%		2,8%	2,3%	2,8%	0,5%	4,0%	1,0%	2,2%
Virtual card		•	•	•		•	•	•	•		•	•
Wallets or card	19,2%	2,0%	4,3%	4,1%	2,0%	5,0%	6,3%	2,8%	0,5%	10,1%	0,5%	3,5%
aggregators		•		•	•			•	•		•	•
Payment apps between	3,5%	24,0%	3,5%	15,8%	1,5%	1,3%	22,5%	5,0%	8,0%	4,0%	23,8%	1,0%
individuals	•		•		•	•				•		•

#### Figure 18 Figure Favorite payment method <sup>6</sup>

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the question "And what do you consider to be your favorite medium?

**6** In the questionnaire, the favorite payment method is defined as 'payment method with which you like or would like to pay always if possible'.

	Argentina	Brazil	Chile	Colombia	Ecuador	México	Perú	Dominican Republic	Spainl	taly	Portugal	United Kingdom
Public administrations (fines, fees, taxes)	14,7%1	8,8%	8,4%	16,8%	27,0%	19,8%	31,3%	29,4%	9,3%	12,8%	5,5%	4,4%
Utlity bills (water, electricity, gas, internet)	9,5%	14,4%4	,3%	26,4%	26,7%	25,5%	23,3%	21,1%3	,3%8	,5%3	,5%4	,2%
Publi transport (buses, taxi, train)	34,9%	35,1%	53,9%	67,9%	75,3%	65,0%	74,5%	76,4%	31,0%	27,5%	19,1%	10,7%
Small and medium businesses	62,8%	24,5%	54,7%	66,4%	72,5%	72,5%	69,8%6	9,6%	45,3%	36,3%	42,6%	30,3%
Supermarkets and department stores	6,7%	5,7%	5,1%	19,4%	17,6%	13,8%	13,5%	15,3%	5,8%	9,5%	3,0%	9,9%
Petrol Stations	11,2%	8,2%	6,1%	23,3%	21,9%	18,0%	22,8%	14,8%4	,3%	12,8%	4,0%	5,2%
Motorways	26,4%	26,2%	27,6%	30,9%	39,3%	38,5%	35,3%	53,0%	6,3%	13,0%	6,8%	3,7%
Hotels and plane tickets	4,7%	5,0%	3,3%	10,1%1	0,6%	8,3%	10,8%9	,0%4	,3%6	,0%2	,	,9%
Bar and restaurants	22,7%	11,1%	10,4%	32,1%	31,7%	21,8%	21,3%	23,9%	35,8%	35,8%	29,2%	10,7%
Recreation	13,2%	6,2%	10,1%	17,3%	22,4%	15,8%	17,8%	24,9%	13,1%	15,0%	8,8%	7,6%
Professional services for the home (plumbing)	50,1%	28,5%	29,9%	43,9%	46,1%	46,8%4	6,5%	54,0%	26,4%	28,3%	24,4%	10,4%
Medical services (dentist)	39,2%	10,6%	10,9%	30,9%	31,2%	30,3%	30,8%	43,7%	8,3%	13,8%	8,6%	3,4%

**Figure 19** Points of sale where they have been forced to use cash <sup>7</sup>

Population analyzed: ABI population that has been forced to pay in cash.
Source: Own elaboration based on the results of the question "During the last year, and in general terms, at what type of points of sale have you been forced to use cash, even if you would have preferred to use another means of payment?"

<sup>7</sup> For the preparation of this table, the answer "Yes, I have been forced to pay in cash, they have put up barriers or it was not possible to pay with other means" has been taken into account exclusively.

## BNPL, an incipient and growing phenomenon, especially in Latin America

The BNPL (Buy Now Pay Later) financing system is still afected by low general knowledge: only the United Kingdom shows high levels of knowledge and use of this system. By age, some differences are observed between European and Latin American countries, since while in countries such as Spain or Italy the system has higher levels of knowledge in the adult population (over 40 years of age), in Latin America there is a generalized tendency to greater knowledge among the younger segment, mainly in Colombia, Argentina, Chile and Peru.

But despite the fact that the United Kingdom stands as the country with the greatest knowledge and use of the BNPL financing system, it seems that a penetration cap is being reached there. The rest of the European countries show a low intention to use this financing formula, while a high growth in use is expected in Latin American countries, led by the Dominican Republic, Ecuador and Mexico, which stand out for the high declared intentions of future use.

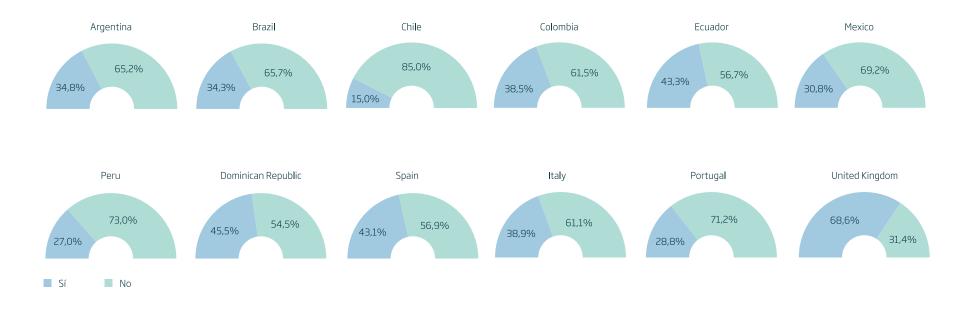


Figure 20 Knowledge of the BNPL financing system

Population analyzed: Total ABI population (400 cases per country)
Source: Own elaboration based on the results of the question "Did you know about this financing system?"

## The smartphone is already the dominant device

The dominance of the mobile phone is confirmed, the use of which skyrockets in 2021 for sending money, payments in physical stores and e-commerce, the latter purchase channel especially in Latin America where the smartphone gains ground over the personal or laptop computer. In Europe, although the use of the smartphone is also growing to make purchases online, the use of the personal computer continues to be higher.

#### Many more trends and findings

Asking people in their capacity as actual or potential users reveals quality information for public policy and business decision-making. Year after year, this Report has approached the demand in order to contrast what the data reveals and what the offer experiences and perceives.

How, if at all, does two-factor authentication affect e-commerce abandonment rate from a user perspective; what is the population's perception of the new payment service providers; how loyal customers are to their main financial institutions; or what are the barriers to mobile payment in stores, among many other questions, have their answer in this Report.

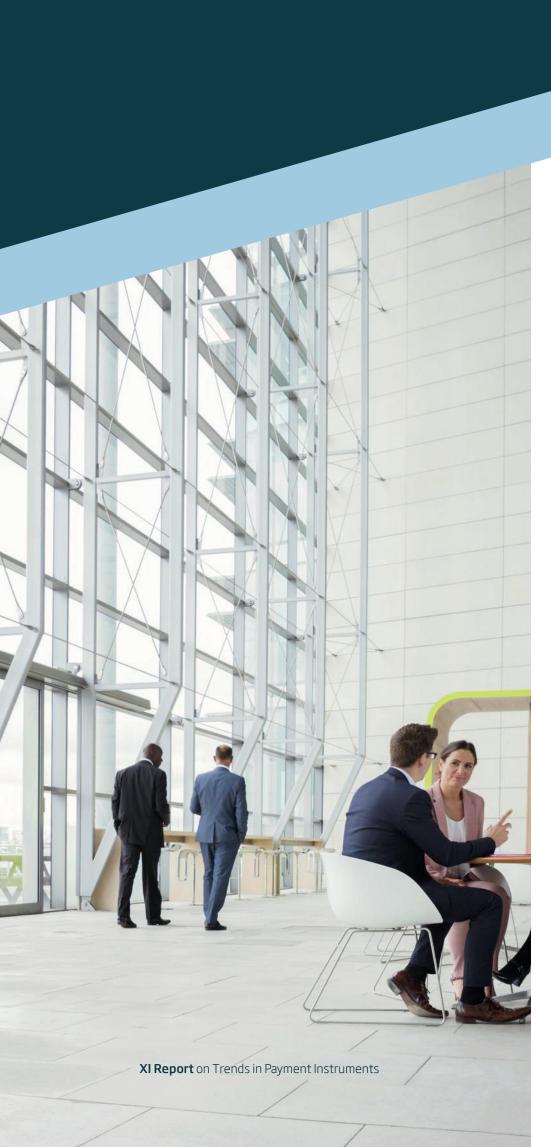


**Figure 21** Devices used to buy products and/or services online (2020-2021 evolution).

Population analyzed: Total ABI population that has purchased online. Source: Own elaboration based on the results of the question "With which device do you usually make purchases online?"

# The Vision of the Sector





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# Transition to a hybrid, interoperable and contextual world

The payments ecosystem finds itself in 2021, surpassing a 2020 described a year ago as extraordinary, at a time of accelerated transition towards the development of full capabilities in the physical and digital worlds, both dimensions in which payments are increasingly faster, easier to use and more comfortable. Roberta Isfer, Innovation Strategist & Content Director at Visa observes a trend that is here to stay, confirmed by the behavior of people in all markets that have been overcoming the strictest confinements: Phygital. "The consumer chooses what is most comfortable, and will navigate between the physical and digital, also reflected in payments."

These hybrid capabilities are also expected to be innate in all types of connected devices (soon, with the deployment of 5G and the Internet of Things, on an unimaginably larger scale) and that any solution is operable from the same channel and is capable of respond, without being noticed, to the particular context in which we find ourselves.

The new payment value chain is shaped and aspires to grow based on data and on the preventive, predictive and prescriptive capabilities of artificial intelligence, as well as on its invisibility (invisible payments) or integration (embedded or embedded payments). The Internet of Things and Open Banking will mean advances in offering Seamless and omnichannel solutions to users, with the consequent new business models based on new use cases. "The future will be the design of hyper-personalized products that, not being a new concept, are very difficult to achieve: because we cannot be intrusive in people's lives, who on the other hand do not expose what they want, they want to be I guessed them", confirms Heye Guo, co-founder and CEO of Nanopay.

The future will be the design of hyper-personalized products

**Heye Guo,** Nanopay

"5G as a communications infrastructure is going to be a revolution in all industries, also in finance and payments," predicts Paloma Real, General Director of Mastercard Spain. "Digital convergence, the incorporation of more devices in people's lives and that are in themselves payment or electronic commerce terminals, will flourish with the deployment of 5G, enabling contextual commerce and pay-per-use."

"The time will soon come when our digital avatars begin to transact, make payments and purchases in digital communities, in the metaverse. New communities and digital universes are created that must be addressed with new solutions", predicts Roberta Isfer from Visa.

### The time will soon come when our digital avatars begin to make payments

Roberta Isfer, Visa

The long-awaited and necessary interoperability is the least common regulatory requirement in terms of efficiency and competition in national payment systems, despite the proven difficulty in producing spontaneously, that it is offered by the Motu Proprio market. But there are already important exceptions to this aspiration, which is beginning to be a condition of public policy, at least recently and at least in some markets.

Brazil is an example of a jurisdiction that requires interoperability for some payment services such as electronic cash, purchasing, QR codes and payment initiation, through the instruction of common standards that guarantee it. Other countries in the region - Argentina (CBU-CVU), Costa Rica (SINPE), Mexico (CoDi) and Peru (BIM) require most Payment Service Providers (PSPs) to transfer without problems retail payments between them. The one adopted in Chile (still in the low-value payment clearing house bill) and Colombia (new low-value payment system regulation) is an approach that promotes interoperability, either for a specific set of payment types or only for some PSP. In much of Central America there are no specific interoperability requirements.

Other countries or regions have plans to achieve interoperability, such as the EU and the new retail payments strategy's aspiration that future systems be "pan-European" and interoperable. In this regard, the United Kingdom published its New Payment Architecture (NPA) plan in 2017, with end-to-end interoperability as one of the key design principles, phase in which it is. The NPA implies a renewal of the payment plumbing to replace the current interbank system of immediate payments with a new clearing and settlement infrastructure based on the ISO 20022 messaging standard, enabling the eventual Internet of payments.

Other initiatives aimed at improving interoperability and competition consist of granting PSP access to payment systems and central bank accounts to prevent operators acting as "Gatekeepers", or with market power, from preventing access to innovations, new solutions and new participants with practices that may be considered anti-competitive. The Central Bank of Costa Rica has been a pioneer in providing PSP access to the National Electronic Payment System (SINPE). "The Central Bank is doing the job of enabling access to payment systems that in Europe has been required of private banks. If we don't do it this way, the payment industry would not develop at the rate it is doing, because payments are essential for any fintech business vertical,"acknowledges Carlos Melegatti, Director of the Payment System of the Central Bank of Costa Rica.

## Competition in current payment systems

"From a technology standpoint, the payments ecosystem is evolving at a tremendous fees; it is in fact one of the financial verticals with the greatest technological evolution, and it does so so quickly that it forms an ecosystem that requires many resources to keep up to date", admits Jorge Martínez, Executive Director of Means of Payment and Consumption at Abanca.

The payments ecosystem is evolving at a tremendous fees; it is in fact one of the financial verticals with the greatest technological evolution, and it does so so quickly that it forms an ecosystem that requires many resources to keep up to date

Jorge Martínez, Abanca

Furthermore, payments are no longer an exclusive activity of traditional banks or Legacy Banks. Fintech and bigtech, originally considered Outsiders, are becoming part of the Establishment, gaining critical mass. We are at a turning point in which agents who are not traditional providers of financial and payment services - from large technology enterprises to car manufacturers or Gig -economy platformsare entering this industry and are doing so by contributing innovations to the ecosystem of Payments.

This has not gone unnoticed by regulators, who are now studying how regulation should adapt to cope with these changes: without sacrificing financial stability, the global payment ecosystem must be agile, secure and open to innovation. And this rapid digital transformation of financial services entails making decisions related to the defense of competition, the establishment of regulatory perimeters and the so-called Level-playing Field. "Any competition has to take place in a balanced environment and you cannot play with different rules," says Pilar Clavería, payments, operations and procedures advisor, Spanish Banking Association AEB.

Andrés Rodríguez Ledermann, Head of Wealth Management at Ualá, confirms that "the fintech world has managed to transcend the differentiation between licenses, because while a few years ago it was very important to know what you were, now it is not so important due to the great developments that have been shown who we are globally. For all this, regulation generates confidence and security for users."

The regulatory priorities in this regard seem clear, as Restoy (2021) reports in his Financial Stability Institute article: "Promoting equal conditions is not the main objective of financial regulation. Public policy objectives, such as financial stability, market integrity and consumer protection, rank first in the order of priorities". However, the European authorities acknowledge that the risks related to bigtech activities in finance may not be fully captured by the current regulatory approach, which is targeted at individual entities or specific activities and not at potential risks from interrelationships within bigtech groups and their role as providers of critical services to financial institutions, such as IT and infrastructure services such as cloud computing and data analytics. "We seek to strengthen business continuity, consumer protection (that they know at all times who they are dealing with)

and mitigation of the concentration of technology providers, which is a constant concern, especially in cloud services," explains Mary Pily Loo Castillo, General Director of Operational and Technological Risk of the CNBV.

Also as providers of connected devices. In this case, the European Commission announced in June 2020 an antitrust investigation into whether Apple's conduct in relation to Apple Pay - Apple's limitation of access to NFC / Tap And Go functionality on iPhones for in-store payments, and alleged access denials - violates EU competition rules, investigation ongoing in 2021. In this regard, among the draft amendments to the new European Payment Services Directive (PSD 2) and to the text of the Digital Markets Law, there are proposals to require smartphone manufacturers and other technical service providers to offer access to technologies such as NFC to ensure a level playing field for payment application providers.

Big tech	Core business	Banking	Credit	Payments	Micro financing	Gestión de activos	Insurance
Google	Internet search/Advertising						
Apple	Hardware production						
Facebook	Social network/Advertising						
Amazon	Retail E-Commerce						
Alibaba (Ant Group)	Retail E-Commerce						
Baidu (Du Xiaoman)	Internet search/Advertising						
JD.com (JD Digits)	Retail E-Commerce						
Tencent	Video games and messaging						
NTT Docomo	Mobile communications						
Rakuten	Retail E-Commerce						
Free market	Retail E-Commerce						

Provision of financial services through large technology companies and/or in cooperation with financial institutions outside of large technology companies, in at least one jurisdiction

#### Financial services offered by large technology companies

Sources: BIS (2019); CitiGPS (2018); FSB (2019b); IBFED and Oliver Wyman (2020); van der Spek and Phijiffer (2020) Public sources: FSI

Excepted release in 2021

Big tech is also not exempt from creating or increasing risks to financial stability and consumer protection, data privacy and cybersecurity. According to Restoy (2021), "all large technology enterprises have entities in their groups that have payment licenses and, therefore, are authorized to perform payment services and/or issue electronic cash in at least one jurisdiction." For this reason, it recognizes that the entry of large technology companies into finance requires a comprehensive public policy approach that combines financial regulation, competition policy and data privacy. The implications from the perspective of the regulator and the supervisor are therefore enormous, and there is a debate between models of supervision by entities and supervision by functions or activities.

An example is the risk of exercising discriminatory practices (uneven impact) due to the use of artificial intelligence and machine learning in financing decision-making. In the US, five regulators, including the Consumer Financial Protection Bureau (CFPB), have requested information from the industry to establish an inter-institutional policy around its use. Under disparate impact, a policy or practice may be considered illegal if it has a discriminatory effect on a protected class or collective.

The still high costs of user affiliation and technological developments encourage regrouping and give advantages to large technology providers that expand into financial services from other businesses, those that are really present in people's lives. Because, ultimately, payment is not an end in itself but an enabler of endless physical and digital activities. Big tech can leverage their edge, their ubiquity, to provide, for example, embedded, contextual financing solutions. It is therefore very likely that the increase in consolidation (geographical, sectoral and/or by specialization) will continue because the payments industry is an activity of scale, volume, but also many niches, in which fintech a priori they usually rely on traditional banks or BaaS or PaaS (Payments-as-a-Service) providers to deploy their solutions.

Chile, Colombia, Mexico and Peru issued in 2018 the "Guiding principles for fintech regulation in the Pacific Alliance" among which technological neutrality, regulation by activities or services, risk-based proportionality, consumer protection - especially the retail client-, financial integrity and stability and the prevention of the risk of money laundering and financing of terrorism.

## Consolidation drives mergers and acquisitions

The gradual consolidation of a few large agents is confirmed, marking the trend towards a global market dominated by them. All this is reflected in the intense activity of mergers and acquisitions. 2019 registered a record in the value of investments in the payment industry that approached 26,000 million dollars thanks, among others, to the mega mergers of FIS-Worldpay, Fiserv-First-Data and Global Payments-Total System Services. A year later, the protagonists were Nexi and SIA, as well as Worldline and Ingenico, in addition to the frustrated announcement of the purchase of the fintech Plaid by Visa for 5,300 million dollars, quickly overshadowed by the purchase of Tink, Open Banking platform Swedish, for 2,100 million dollars.

The frenzy in the sector forces many enterprises to opt for inorganic growth strategies to maintain their leadership position or for simple survival.

In geographical terms, the location of the investment activity in the last year has moved to Europe and Latin America, leading operations such as those carried out five years ago by the US and Chinese fintech. Klarna, a Swedish BNPL (Buy Now Pay Later) Startup, is valued at more than 46,000 million dollars while Revolut, a London-based neobank with aspirations of becoming a super app and entering the Travel business, it was at 33,000 million shortly after the American Stripe broke a fintech valuation record for 95,000 million dollars.

The Argentine Ualá has not only acquired the first digital bank in Argentina, but shortly after that announcement was followed by the purchase of the Mexican bank ABC Capital, characterized by providing services to other entities in the BaaS modality. Ualá was catapulted into the category of unicorn after the last round of investment in which it raised 350 million dollars and a valuation of more than 2,000 million. Nubank reached this category and in 2021 received more than 1,100 million dollars of investment from Berkshire Hathaway, Sands Capital and the Brazilian enterprises Verde Asset and Absoluto Partners, among others, to support the expansion of Nubank in Latin America where it is already present in Argentina, Brazil (his country of origin), Colombia and Mexico. Ualá and Nubank are joined by the Mexican Konfio, which has offered financing to SMEs since 2013. In 2021 Konfio reached a valuation of 1,300 million dollars after a new round of financing in which the Softbank Group participated. The Colombian Rappi reached a valuation of more than 5,000 million dollars after the investment round in 2021 of 500 million, which is added to the 1,500 million obtained in various rounds

since its birth in 2015, and its payment service RappiPay is also present in Mexico. "Mexico is the first landing country for many fintech multinationals with a Latin American vision," confirms Heye Guo of Nanopay. David Hernández, Head of Core Products for Southern Europe at Visa, shares the company's fintech strategy, which is based on a diagnosis that highlights some stylized facts: "Fintech have shown a remarkable ability to attract customers through attractive proposals, excellent UX and aggressive market expansion plans, although on the income side many are losing because commission income (including Premium subscriptions) is moderate and insufficient to cover costs. For this reason, typical banking services must be developed, such as financing, wealth management and personal banking, which entails adopting and complying with regulatory obligations, increased risk management and customer service capabilities, among others". Acknowledges that the growth of fintech has been driven by abundant venture capital funding, which may not be available in the future (which will show vulnerabilities in some of the current business models) or be adequate to fund the lending business to which they would be extending.

David Hernández from Visa points out that the most mediatic neobanks and Challenger Banks in Europe on their own merits (Revolut, N26, Monzo and Starling Bank) alone concentrate more than 28 million clients after growing between 28% and 58% in 2020 in its customer base, in a year marked by the crisis. He adds that "the expansion has also been geographical (Revolut is already present in 35 markets, N26 in 25, and Wise in 65), business (many are moving to a Marketplace model from which to offer a greater diversity of products and services and grow in the ratio of number of products per client) and through IPO and SPAC".

The expansion has also been geographical, business and through IPO and SPAC

David Hernández, Visa

From the perspective of a fintech in particular, Jacobo Miralles, VP Product at Bnext illustrates this diagnosis with what has been experienced in the last two years. We recall that Bnext began operating in Spain issuing means of payment contracting the services of an EDE and at the beginning of 2020 it obtained its own EDE license. As such, Bnext is authorized to open digital accounts and issue means of payment without having the money deposited, which is in a Scrow account in a bank. It has the operations so that each Bnext client has a unique IBAN in which they can direct payroll, receive transfers and make payments. "With the EDE we worked with, there was a single IBAN for all Bnext clients," heclarifies. "A fundamental project of the operation has been to set up our own technological infrastructure (core banking), connect with the processor and do the Onboarding of our clients again, a migration that has slowed down the acquisition of new ones. As an EDE, we have gone from having no regulatory burden to being a regulated entity, directly opening digital accounts and issuing cards from which we obtain income from interchange fees". A few weeks before the global pandemic was decreed, they launched their Premium product, which was very travel-oriented, forcing them to change their value offer and focus on an account that allows savings on daily expenses with a new rewards system. "With the setback of COVID, Mexico has been a blessing, where we have banked clients who did not have access to digital payment methods," explains Jacobo Miralles from Bnext.

Santander announces the launch of PagoNxt, a fintech that brings together payment businesses, to accelerate its global growth in three business areas (retailers, individuals and SMEs) after completing the acquisition of Wirecard assets and integrating Santander's different payment businesses: Santander Global Payments (Global Trade Services and Global Merchant Services) and Santander Digital. In Latin America, PagoNxt's strategy is developed through three business units: solutions for businesses structured around the Brazilian company Getnet, which already has a platform in Brazil, Mexico and Argentina; One Trade for international trade, and Superdigital, a financial inclusion platform for the unbanked population in Latin America, which is already present in five markets and hopes to expand to Colombia, Peru, Argentina and Uruguay in 2021. In Europe, PagoNxt operates in the merchant payment business, whether or not they are customers of the bank, under the Getnet brand, a launch that was accelerated by the purchase of Wirecard.

Regrouping trends are also anticipated in the B2B payment solution providers segment, as demonstrated by acquisitions of contactless payment solutions at the point of sale, to which they add others to incorporate new products in an attempt to become platforms.

Apple acquired the Canadian Mobeewave in 2020 with the aim of turning its iPhones into payment terminals through Apple Pay. In Spain, BBVA offers a solution for small businesses and freelancers to accept card payments using a mobile phone as a POS, integrated into the BBVA SmartPay app. Visa began testing its Tap-to-phone payment service for merchants in the US and Mastercard launches Cloud Tap on Phone. PayPal launched its Zettle POS for QR-based payments in the US after doing so in the UK, and Amazon expands financial services for SMEs on its platform, already offering credit cards, lines of credit and POS (AmazonOne). For this purpose, it acquires the omnichannel payment company Perpule.

#### BNPL and financing at the POS

PayPal's BilMeLater was one of BNPL's first digital services. Today it coexists with others such as Affirm, Klarna, AfterPay, FuturePay and soon with Apple, which is designing "Apple Pay Later" on Apple Card with Goldman Sachs. Discover joins the business and invests in BNLP Sezzle; and Square buys the Australian Afterpay for 29,000 million dollars to connect it with Cash App and the acceptance ecosystems of its affiliated points of sale. Nubank explores the fragmentation of cash payments in Mexico and Brazil, to date its main markets before announcing its arrival in India.

While Buy Now Pay Later (BNPL) is a very present phenomenon in the US, and many highly banked countries in Europe, the US, in Latin America this phenomenon is still incipient and partly motivated by the difficulty associated to the credit risk assessment process of the unbanked. In this sense, Oplay conceives risk analysis as a simple and online process for native digital enterprises such as the one it represents, in which they use alternative sources to the documentaries requested by banks, as well as alternative Scoring to that of the credit bureau. "We enrich our risk and fraud prevention models with technological tools such as Al and Machine Learning that we are native to, tools that traditional banks do not have as much flexibility and capacity to deploy and integrate," says Heye Guo of Oplay.

From the ABM Rodolfo Reyes, coordinator of the Cards Committee Operations Group, perceives that in Mexico there is a significant adoption by large marketplaces. "If before the promotions of months without interest were limited to certain businesses in alliance with some issuers, today the opening of the BNPL operation is total, motivated by the large Marketplaces and to the liking of many issuers who seek to offer an additional service to the client and break the hegemony of some large issuers". "The credit card industry in Brazil is highly consolidated, and the purchase deferral model is well established since its inception in 1994 with the Royal Plan for Economic Stabilization, with structure, financing models for issuers and adoption solutions for trading by acquirers," says Carlos Alberto C. Moreira Jr., ELO's Business Development Superintendent. Not surprisingly, payments in instalments represent approximately 60% of total credit card payments. The model of instalments without interest (Parcelado Sem Juros) came to combat the use of payment with post-dated checks, high-risk financing operations because they were not registered.

Ualá grew 400% in its "quotation" product in which, unlike other proposals, "the client must have the funds to buy the product, and we lend what has already been paid, so that, if the client needs reimbursement of the amount for something else, future instalments are returned". With this product, Ualá generates a genuine Credit Score for users who had never used any product in the financial system, in addition to taking care of the risks of over-indebtedness because they must have demonstrated, with the balance in their CVU, the ability to buy the well before getting into debt.

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Rodolfo Reyes, ABM

"In the Ecuadorian market it is a traditional practice, unlike more developed markets. As a result of deferred payment strategies (months without interest), 40% of the billing generated in Ecuador is paid in instalments by credit card," confirms Sebastián Quevedo, Vice President of Payment Methods at Produbanco.

"In Colombia this form of financing is not present because the licenses are very differentiated: if it is intermediation there are some rules; if it is financing with own resources, there are others"; confirms Andrés Mauricio Velasco, Deputy Manager of Payment Systems and Banking Operations, BANREP. "It is in this last area where these options may be appearing: integrating businesses with public service enterprises such as energy so that the payment of the fees for purchases of goods with a debit card arrives with the invoice of the service provider. Under this scheme, the implications of a non-payment can be very severe: if you do not pay for the television you have bought, your electricity could be cut off".

In Spain, the presence of BNPL is growing with solutions such as Viabill, Instant Credit (by Banco Sabadell), Aplázame, ClearPay (formerly Paga+Tarde by Pagantis, which announced its alliance with PayPal in 2019). Jorge Martínez de Abanca augurs success for the BNPL in Spain, because customers need easier and more understandable solutions. "We must not abandon BNPL, a solution that Spanish banks have incorporated as an industry solution with the PLAZOX product," heacknowledges. "This payment solution is used by Millennials and GenZ and, although with difficulty, Booomers could also join. Banks are obliged to provide the best services to our customers with the best possible experience and the greatest security of use".

Anna Puigoriol, Director of Financial Services at Banc Sabadell foresees important changes in the future because the regulator in the United Kingdom is concerned about how the solutions are being implemented, which were subject to less regulation due to their amount. In fact, the HM Treasury and the Financial Conduct Authority (FCA) seek to tighten the regulations governing BNLP through a regulation, suspected that it encourages consumers to spend more than they can afford to pay. This tightening is also foreseen by the CFPB in the US, given the growth in adoption and the evidence of its extension to the payment of professional services, including medical services. In this regard, Pilar Clavería of the AEB considers that in Spain consumption habits are very different from those of the United Kingdom and the United States, and there is not as much tradition of financing purchases as in those markets.

In Italy, Rita Camporeale, Director Responsabile Ufficio Sistemi di Pagamento at ABI, perceives an upward trend of BNPL, "but it may not be as high as in other countries although it could help overcome people's reluctance to use Revolving cards. Ferdinando Visone, PSD2 and Payment Expert mentions the Italian fintech Scalapay as Klarna's main competitor. "BNPL is a smart way, a win-win solution for the merchant, who has the possibility of making a complete sale, and for the buyer, who receives the good having paid only a fraction of its price at the time." However, he perceives a difficulty, "the BNPL fintechs do not carry out some KYC validations because it is considered an instalment payment in a short instalment number", concludes Ferdinando Visone.

In Portugal, as a result of the pandemic and the need for people to better manage their personal budgets, "the use of credit cards fell in favor of debit cards, which offered the opportunity to grow in BNPL alternatives," he notes. Maria Antónia Saldanha, Country Manager of Mastercard Portugal.

The emergence of the BNPL, without a doubt, is an example of the pressure from banking entities to be present in all the innovations that often cannot be developed internally and that require collaboration with fintech.

The use of credit cards fell in favor of debit cards, which offered the opportunity to grow in BNPL alternatives

Maria Antonia Saldanha, Mastercard Portugal

### Instant cross-border payments

The search for faster, cheaper, more transparent and inclusive cross-border payment services, with high levels of security and protection, aims to provide benefits for users of the financial system and the economy in general, due to its ability to promote economic growth, trade international, and financial inclusion. In Latin America, as more companies expand in the region and enter new markets, making or receiving payments from other enterprises (B2B) as well as from consumers (C2B) has become a challenge, especially with the growth of the online commerce and market fragmentation, both regulatory and associated with cultural barriers or domestic habits.

The G20 declared improving cross-border payments a priority in 2020, and asked the Financial Stability Board (FSB) to coordinate a roadmap for this purpose. In defining the roadmap, four key challenges were identified: high costs, low processing speed, limited access to services, and insufficient transparency. And the factors that contribute to these challenges are the lack of interoperability or fragmentation of standards and hours of operation, the complexity of complying with AML/CFT and data protection requirements, and the use of platforms with Legacy technologies. obsolete.

This is recognized by SWIFT itself, which attributes a lack of standardization to traditional cross-border payments as they are processes involving different banks, countries and time zones, as well as being costly, complex and not very transparent for consumers. In this way, it argues the launch in 2017 of its new Standard SWIFT GPI (global payment innovation) already adopted by more than 1,000 banks worldwide. Its evolution to SWIFT Go in 2021 allows fast low-value cross-border payments, in whose pilot launch BBVA has participated along with six other banks (The Bank of New York Mellon, DNB, MYBank, UniCredit, SberBank, and Société Générale).

Meanwhile, the BIS Innovation Center and the Monetary Authority of Singapore propose to improve the connectivity of the global retail payment network in real time through multilateral linkages of countries' national retail payment systems. They advocate the full integration of domestic retail payment systems into a single cross-border network, which would allow people to make instant and secure cross-border transfers via their mobile phones or internet devices.

This vision is reflected in the Nexus plan, announced in July 2021, which considers that the participating countries will only have to adopt the Nexus protocols (technical and governance requirements) to obtain access to the cross-border

payment network, eliminating the need for countries negotiate bilateral payment links with each jurisdiction. In the words of Benoît Cœuré, Head of the BIS Innovation Hub, "the Nexus project tries to be the equivalent of Internet protocols for payment systems". And it is expected to become a reality in the next four years, once improvements are made in the direct connectivity between the national instant payment systems and in the common wholesale settlement infrastructures. Not surprisingly, the European Central Bank is reviewing the design and governance of its payment system (TARGET), following the recommendations issued by an independent review when a series of system crashes occurred in 2020.

In the field of international remittances - the sending of cash by migrant workers to their families in their countries of origin, which mobilized 540,000 million dollars in 2020 - the traditional way of solving them has been through banks that have a presence in the two points of the corresponding corridor. The lack of transparency and high conversion costs have made it difficult for a high percentage of the population to use this banking solution, which is why several innovative cross-border remittance payment solutions have emerged. Some fintechs have specialized in high-margin products or services such as international remittances, and have become serious competitors of traditional banking providers. Wise (formerly Transferwise) and Remitly are examples of this strategy. For its part, MoneyGram inaugurates the use of Visa Direct technology to simplify the process of P2P money transfers from the US, allowing the receipt of funds to an account linked to a Visa debit or prepaid card.

The Global66 Multicurrency Wallet facilitates the process of international transfers to users (individuals) from Argentina, Brazil, Chile and Mexico. Global66 is a Latin American fintech of Chilean origin that offers international money transfers to more than 55 destinations in a 100% digital way as its main service. It is also present in Colombia (SEDPE), Ecuador, Peru and Spain.

Upon arrival in Mexico in 2020, Bnext realized that it was the only PSP with a presence in Spain and Latin America. And despite the fact that the Spain-Mexico corridor is not the largest, Jacobo Miralles of Bnext acknowledges that "we began to think about the concept of remittances because Spain moves 17,000 million euros in them every year, of which 40% are from Latin America, and Mexico receives approximately 40% of global remittances". This finding had another ingredient "With the investment of Algorand, one of the three most relevant blockchain protocols, we can make this remittance operation easier, cheaper, safer and more agile," he confirms, also alluding to the lack of transparency of traditional companies with the cost of the exchange fees, and the relevance that these services have for the United Nations 2030 Agenda, which calls for reducing the cost of remittances to 3%, and to 5% in those corridors with costs above 10%.

# The future of payments goes through digital currencies

The payment ecosystem grows in size and participants, it reproduces itself and it is very possible that we find ourselves at the gates of a set of disruptions, many of them promoted by the authorities, that make it mutate to an ecosystem more adapted to the needs and capacities that the 21st century demands. A modern and universal payment network.

The metamorphosis is about to take place (undoubtedly, before 2030) in the heat of two great innovations currently in the gestation phase: central bank digital currencies (CBDC) with the digital euro as the possible original, and the accompanying modernization of cross-border payment systems; enablers, perhaps, of that aforementioned Internet of payments.

In this context, "the incumbents have an interest in prevailing and for this reason they have promoted a constructive dialogue with the central banks, especially to continue taking advantage of the existing infrastructure," says Raúl Morales, Manager of Infrastructure and Financial Markets at CEMLA.

#### **CBDC**

On July 9, 2021, the Committee on Payments and Market Infrastructures (CMPI) and the Innovation Hub of the BIS, the International Monetary Fund (IMF) and the World Bank issued a joint statement to the G20 on the potential of CBDCs to improve the efficiency of cross-border payments, conditioning their success on international cooperation. On July 14, nine months after the publication of the "Report on a digital euro", the Eurosystem announces the start of the research phase of the project with a duration of 24 months. In the experimentation phase already concluded, no technical obstacles were identified in any of the four areas of analysis: the digital ledger in euros, privacy and the fight against money laundering, the limits of the digital euro in circulation; and users' offline access and inclusion guarantees with suitable and affordable devices.

The research phase is intended to address issues related to the design and distribution of the digital euro based on user preferences and advice from merchants and intermediaries, as well as to identify options to ensure privacy and avoid risks to citizens, intermediaries and the economy in general in the euro area.

The research phase will assess the potential impact of a digital euro on the market; define a business model for supervised intermediaries and examine the use cases that a digital euro must provide to meet its goal of being a risk-free, accessible and efficient form of digital central bank digital money, complementary to cash. Both TIPS (TARGET Instant Payment Settlement of the Eurosystem) and blockchain demonstrated in the experimentation phase their ability to process more than 40,000 transactions per second.

"From the perspective of the Eurosystem, the digital euro would continue to be a euro, like current banknotes and coins, but in digital format, for citizens and enterprises to use in their small payments. It would not replace cash, but would complement it. The main difference with other current forms of digital money is the issuance and support by the central bank, which guarantees and protects its value", explains Juan Luis Encinas, General Director of Iberpay.

Central banks that have la	unched ot tested (or will soon)				
Bahamas (issued)	Jamaica (pilot since May 2021)				
China (pilot)	Uruguay (pilot completed)				
Caribe Oriental (pilot)					
Central banks that have done proofs of concepts (or will soon do so)					
Japón (proof of concept)	Sweden (proof of concept)				
Ghana (2021)	Ukraine (proof of concept completed)				
Corea (proof of concept)					
Central banks in advanced stages of research and development					
Canadá	Russia				
Euro Área	United Kingdom				
Mauricio (2021)	U.S.A.				
Noruega					
Central banks in exploratory stages (with the year of the last update)					
Australia (2021)	Kenia (2020)				
Brazil (2021) (2021)	Kuwait (2019)				
Chile (2019)	Madagascar (2021)				
Curação en Sint Maarten (2018)	Malaysian (2021)				
Czech Republic (2021)	Morocco (2019) (2021)				
Denmark (2017)	New Zealans (2021)				
Swaziland (2020)	Pakistan (2021)				
Georgian (2021)	Philippines (2020)				
Haití (2021)	South África (2021)				
Hong Kong SAR (2021)	Switzerland (2019)				
Iceland (2018)	Taiwan (2020)				
India (2021)	Thailand (2021)(2021)				
Indonesian (2020)(2021)	Trinidad and Tobago (2021)				
Israel (2021)(2021)	Tunisia (2018)				
Kazakhstan (2021)	Turkey (2020)				
Central banks exploring retail CBDC issuance					
Bahrain (2018)	Nigerian (2021)				
Egypt (2018)	Palestine (2021)				
Iran (2018)	Rwanda (2021)				
Lebanon (2020)	United Arab Emirates (2021)				
Macau (2021)	Vietnam (2021)				
Central banks have launched and discontinued					
Ecuador (2014-2018)	Finland (1992-2006)				

Among the main challenges of its design are: the protection of the privacy of users while maintaining vigilance against illicit activities; the possibility of making payments without an internet connection; and how to convey to future users the operation and numerous advantages of the digital euro as a payment instrument compared to the use of cash

#### **Juan Luis Encinas**

"It is expected that the digital euro will be operational from 2026 and at the moment the Eurosystem is studying what its design will be like, how it will be distributed to citizens and companies, as well as its impact on the financial markets. Among the main challenges of its design are: the protection of the privacy of users while maintaining vigilance against illicit activities; the possibility of making payments without an internet connection; and how to convey to future users the operation and numerous advantages of the digital euro as a payment instrument compared to the use of cash." concludes Juan Luis Encinas.

Days and weeks after the announcement, several governors of the ASA Federal Reserve expressed their doubts about the positive balance between the benefits and risks of a ASA digital currency, alluding to the good performance of the country's current payment system. Adding to these doubts was The Clearing House, the bank-owned operator of the only private interbank payment system in the United States, which urged caution.

Pioneer in this race was the Bahamas Sand Dollar (B\$), in circulation and use since October 2020, which since February 2021 has the possibility of being used, in addition to digital wallets, through a prepaid card after the agreement between Mastercard, the Central Bank of the Bahamas and Island Pay; the first authorized PSP and EDE in the country.

#### Jurisdictions where retail CBDC is being explored (July 2021)

Source: http://kiffmeister.blogspot.com/2021/07/kiffmeisters-fintech-daily-digest\_22.html, from Central Banks or various news sources, the Bank for International Settlements CBDC database and CBDCTracker.org

"Countries like Brazil and the Dominican Republic, which have made significant progress in immediate payments, are already exploring CBDC, and Brazil has already issued guidelines for the potential development of a Brazilian digital currency," confirms Raúl Morales from CEMLA.

But to be honest, the first one that experimented with CBDC was a country that is included for the first time in the perimeter of this report. Ecuador was a visionary country with its digital currency issued by the Central Bank, with a purpose of financial inclusion. It can be considered the first country in the world to issue a CBDC , called Electronic Money, in 2014. The case of Ecuador already described, was the first CBDC in the world. And the most recent case of crypto assets (not CBDC) has been the announcement of El Salvador to implement bitcoin as legal tender. "It is not clear if the purpose of making Bitcoin legal tender in El Salvador is to try to counteract the administrative costs of dollarization or to create alternative payment mechanisms to the current ones, given that the current infrastructure is lagging," says Raúl. Morales of CEMLA. The project was suspended in 2016, and just four years later, initiatives of a similar nature, diverse purposes and greater scope are on the agenda of practically all central banks, some of which have already announced the theoretical and conceptual viability of this innovation.

Regarding CBDCs, from the Central Bank of Costa Rica, the question that arises is: what are digital currencies for? "It makes sense for countries that issue currencies (dollar, euro, others) to explore it, but it is difficult to understand its value for small countries that already have sufficiently developed payment systems, which the e-colón would provide, having already Sinpe mobile, the electronic wallet fastest growing in the country", affirms Carlos Melegatti. And another question that arises is CBDC or immediate payments?

1 Andrés Arauz, Rodney Garratt, Diego F. Ramos F., Electronic Money: The rise and fall of Ecuador's central bank digital currency, Latin American Journal of Central Banking, Volume 2, Issue 2, 2021, https://www.sciencedirect.com/science/article/pii/ S2666143821000107

Countries like Aruba, Colombia and Curacao are cases in which these questions are currently under discussion, shares Raúl Morales from CEMLA. In many cases, the decision point is linked to the development of domestic infrastructure and a conducive cost-benefit analysis that takes into account the opinion of the industry and the vision of the central bank. And although Mexico and Brazil have already moved forward with immediate payments, they may be candidates to consider CBDC. "Brazil seems to have it clearer because it has a working group and issued general rules for a Brazilian CBDC in May 2021. But recently also the Governor of Banxico suggested that central banks should coordinate towards a digital currency standard as stablecoins grow," reports Raúl Morales of CEMLA. "It is going to be a relevant issue and each country or central bank is going to give it the flavor it considers: financial inclusion, cross-border payments or, like the Sand Dollar that creates an infrastructure that did not exist, it supposes the reform of the payment system", concludes.

It is going to be a relevant issue and each country or central bank is going to give it the flavor it considers: financial inclusion, cross-border payments

Raúl Morales, CEMLA

#### Crypto assets

"We cannot move from the current financial system to a decentralized one overnight; We are going to need a relevant adaptation period to tokenize assets that we are already used to", says Jacobo Mirallles from Bnext.

Regulatory approaches for crypto assets and stablecoins begin to evolve in 2021, such as the consultation of the HM Treasury in the United Kingdom, the proposed STABLE Act in the US (focused on stablecoins), or the proposed EU Regulation regarding the markets of crypto-assets (MiCA, or Markets in Crypto assets) as part of the Digital Finance Package.

We cannot move from the current financial system to a decentralized one overnight; We are going to need a relevant adaptation period to tokenize assets that we are already used to

lacobo Mirallles, Bnext

Increasing regulatory clarity, coupled with market appetite for the crypto world, is encouraging traditional players to expand their services to include crypto assets as a payment means. "Cryptocurrencies are a booming asset in the payments space, and Mastercard is open to enabling this option on its network. We want to be part of that movement", says Paloma Real, General Director of Mastercard Spain.

Both Mastercard and Visa have expanded their service offerings to enable cryptocurrency settlements on their networks. Mastercard launched with the Spanish cryptocurrency trading platform Criptán a payment card that allows you to convert different cryptocurrencies into fiduciary currency and spend said investment in crypto at any terminal that accepts Mastercard. "The link through the card is going to have a very important value due to the use of the entire chain of acceptance already deployed", points out Paloma Real.

Visa has partnered with fifty of the major cryptocurrency platforms on card programs that facilitate conversion and tapand-go payment of digital currency at millions of merchants worldwide, recording transactions in the first half of 2021 alone. for more than a billion dollars.

Added to these initiatives to facilitate the use of cryptocurrencies is Amazon's announcement of its intention to accept at least one of them, Bitcoin, in its Marketplaces, as Elon Musk did months before in relation to his Tesla car business, or Paypal with the activation of its Checkout with Crypto service in its payment gateway for users in the US. Facebook announced that Diem will be the new denomination of its stablecoin after blurring its previous Libra proposal, reducing its scope to the US and with the support of the Silvergate bank. The Mexican Bitso, which also operates in Brazil, becomes the first Latin American cryptocurrency platform classified as a unicorn. There have also been chiaroscuros, such as the one carried out by the British cryptocurrency exchange Binance and the scrutiny of the regulator that has led entities such as Barclays to block card payments to said Exchange.

But probably the most significant crypto disruption in 2021 has been the announcement by the president of El Salvador to declare bitcoin legal tender in the dollarized country since 2000, as are Ecuador (2000) and Panama (1904). "It could be an interesting laboratory in Central America to understand the world of cryptocurrencies," predicts Alejandro Rubinstein, vice president of customer experience and service channels at BAC Credomatic.

Paloma Real de Mastercard acknowledges that "there is a lot of debate on how to be part of the different varieties that exist in the world of crypto assets and digital currencies, but at Mastercard we foresee that CBDCs will prevail."

In September 2021, the central bank of China (PBOC) officially declares all cryptocurrencies and transactions related to them illegal, prohibiting their circulation as currency for use in the market in any of its forms, including services provided by brokerage houses. foreign exchange to Chinese residents.

### Sustainability

The concern for environmental sustainability is beginning to be timidly present in the payment industry. Card issuers, networks and manufacturers are announcing solutions to reduce their carbon footprint as a first response to increased consumer sensitivity to the climate emergency. Amazon, Klarna, Telefónica and Visa announce their goal of reaching net zero carbon emissions by 2040, joining the Climate Pledge initiative. Some subscriber banks of the Net Zero Banking Alliance (NZBA) announced in 2021 also assume their commitments.

Paloma Real of Mastercard Spain recognizes that banks are very interested in acting in an environmentally responsible manner, which is why it foresees a boom in solutions that allow final customers and other agents in the value chain to be informed about the effects, especially environmental ones, of their operations. "75% of the people surveyed in Spain state that they are concerned about the issue and are available to take action, for example, opting for a Digital First model (card only in digital format), opting for recyclable solutions or the use of carbon calculators that report on the CO2 emitted in the purchasing process and propose compensation measures, for example, through donations to environmental causes." In short, "we invite you to spend more consciously and with less environmental impact".

The environmental impact has also been part of the experimentation phase of the future digital euro, demonstrating that the eventual infrastructure would be respectful of the environment and, in comparison with the impact resulting from the energy consumption and carbon footprint of crypto assets such as bitcoin, insignificant. . To demonstrate this, it was measured, evaluated and found that the energy consumption of basic settlement systems to execute thousands of transactions per second is just a few kilowatts, and the resulting carbon footprint is equivalent to that of a few European homes, regardless of the tested architectures (TIPS and blockchain).

And with this sensitivity, more voices are added to the claim that the environmental commitment contained in the 2015 Paris Agreements should be extended to innovations such as crypto assets, given the continuous demonstration of the enormous intensity of energy consumption and greenhouse gas emissions. greenhouse (GHG) of mining technology, especially bitcoin. In particular, some European parliamentarians, led by Finland, have included "green" amendments in the MiCA Regulation proposal with the purpose of including energy consumption in the global standard for digital assets, and suggest, among others, to incorporate requirements of disclosure of energy consumption, and the establishment of minimum energy standards for cryptographic assets as an energy label, even considering the prohibition of any digital asset that violates said standards. Jacobo Miralles from Bnext suggests exploring Algoram, "one of the most efficient protocols and recognized as the most sustainable blockchain on the planet."

The Eurosystem's Retail Payments Strategy presented in April 2021 contemplates the environmental sustainability of payment transactions and infrastructures and commits to developing, as a first step, a methodology to measure the level of environmental sustainability of payment transactions and infrastructures.

And if we consider the vulnerability of value chains as a key element of sustainability in a broad sense, the global shortage of chips and micro conductors has been able to affect the issuance of physical cards, a situation that has been alleviated by the deployment of the QR along with the growth of the issuance of digital cards or Virtual Card Numbers within the apps.

# Overview of payment means in Latin America

As Winston Churchill said and Carlos Melegatti of the Central Bank of Costa Rica reminds us, "a good crisis should never be wasted".

The enormous positivity and optimism about the potential of technology to change lives is remarkable, especially in regions where the digital economy can compensate or extend the reach, access and use of basic services that today cannot serve the majority. This optimism is not confined to the theoretical sphere, but is the result of what is perceived and verified in the market, of its effect on the effective financial inclusion of millions of people in the region.

It should not be overlooked that Latin America is a market of 650 million people, almost twice the size of the USA and 30% larger than the EU. Many millions of people who are excluded from financial services, so many that they are the majority, to which must be added the segment of micro-SMEs and self-employed professionals. A region in which finally "governments are more interested than ever in developing financial inclusion because the pandemic has exposed existing weaknesses, and demonstrated the need and priority of this public policy objective," confirms Milton Vega, Deputy Manager of Payments and Financial Infrastructures of the Central Reserve Bank of Peru BCRP.

A good crisis should never be wasted

Carlos Melegatti, Central Bank of Costa Rica

The Global Financial Inclusion Microscope of The Economist Intelligence Unit, the Bill and Melinda Gates Foundation, the Center for Financial Inclusion and the Inter-American Development Bank periodically evaluates the suitability of the environment for financial inclusion In its latest edition it recognizes that digital infrastructures have enabled governments to identify, register and mobilize funds on a large scale and suggests that governments support their development in three ways: i) promoting demand by prioritizing these channels in their fund transfer and tax collection programs; ii) investing in digital infrastructure (connectivity for citizens) and inclusive digital identification systems and iii) guaranteeing data privacy, cybersecurity and fair and non-discriminatory access to payment systems.

Governments are more interested than ever in developing financial inclusion because the pandemic has exposed existing weaknesses, and demonstrated the need and priority of this public policy objective

Milton Vega, Central Reserve Bank of Peru

Goverment Support and policies	Stability and Integrity	Products and Points of Sale	Consumer profection	Infraestructure
1. National strategies	1. Market entry requirements	1. Electronic money and simplified accounts	1. Financial services users	1. Payment infrastructure
2. Financial and digital education	2. Operating requirements	2. credit	2. Insurance users	2. Connectivity
<b>3.</b> Digitization of goverment payments	3. Due diligence	<b>3.</b> Emerging services	3. Data protection	3. Digital indentification
	4. Supervision capacity	4. Inclusive insurance		4. Credit information
	5. Cyber security	5. Points of sale		

Dimensions and aspects of the environment relevant to financial inclusion

Source: The 2020 Global Microscope. The role of financial inclusion in the response to COVID-19

This edition of the Report has a new country in the Latin American team; Ecuador, whose payment ecosystem is still incipient and faces important challenges of financial inclusion. Not in vain, the World Bank's Global Financial Index established in 2017 (the last year published) a level of bank penetration of 51%, three points below the average for the region and equivalent to just under five million people. "The Ecuadorian payment market was born as a credit market, and therefore limited to a medium and high value segment," explains Sebastián Quevedo, from Produbanco. It alludes to a factor common to practically all the countries in the region: the level of informality of the population and of the information available as a limitation on the ability of banks to penetrate lower income segments, which also suffer from lack of financial education. Other common elements to which he refers are the concentration of banking activity and attention in large cities and the consequent reduced capillarity of the acceptance network that prevents people equipped with cards from being able to transact. A description that, to a greater or lesser extent, is extensible to the rest of the Latin American region or, at least, reflected the generalized reality of just a few years ago.

Those described are some of the challenges that prevail, despite the recent increase in the use of digital channels (not face-to-face) to make purchases or payments in the region. "The pandemic effect has led many people who used to live in an ecosystem of cash and face-to-face payments to change their behavior, learning to use Internet and mobile payment channels for their transactions," explains Milton Vega of the BCRP Felipe Novales, Director of Digital Transformation at Asobancaria confirms that "banks already had digital channels, apps, digital branches deployed, but the mindset of people, whether due to age or habit, was not. In Colombia, three out of four transactions are now carried out through digital channels when before the banking core was fundamentally branches, ATMs and non-bank correspondents". Alejandro Rubinstein of BAC Credomatic describes the growth of more than 40% in new digital clients and, beyond these, notes that "the previously digitized client doubled its intensity of use, going from eight to sixteen transactions per month." "It is an irreversible process that the emergency aid for COVID-19 has made even more evident," says Ricardo de Barros Viera, Executive Vice President of the Brazilian Association of Credit Card and Services (ABECS), which represents 95% of the participating agents of the industry.

"There is no doubt that digitization is here to stay in the world of payments; people have understood the importance. And also the supply, given the large number of players who want to enter the market to offer digital payment services", notes Ángel González Tejada, Director of the Department of Payment Systems of the Central Bank of the Dominican Republic. Visa and Mastercard already have physical offices in the Dominican Republic to cover the entire Caribbean and Central America.

Hand in hand with greater digitization during the pandemic, there has been a global growth in fraud compared to the pre-pandemic period. "Criminals took advantage of confinement and the growing digital procedures with governments (taxes, pensions, subsidies, etc.) to innovate with phishing modalities and obtain customers' banking credentials. At BAC, the registration of trusted devices helped us a lot", confirms Alejandro Rubinstein.

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Felipe Novales, Asobancaria

In Mexico, there were two major cybersecurity problems during the pandemic, as reported by Mary Pily Loo of the CNBV. "We had attacks on financial entities either due to information hijacking (associated with the lack of a culture of security among employees, who went to telework without sufficient training and perhaps without all the protection software) or ATM damage." Data from CONDUSEF, the Mexican financial user protection authority, recorded numerous frauds through SIM Swaping and Phishing. "We work with telephone operators to see solutions. We consulted telephone companies in Spain that have an API that connects with banks so that they can do prior checks on recent SIM renewals". Mary Pily Loo points out that the phone number identifier may not be a sufficient factor anymore, because we have it associated with too many things. "We have to go for more data and maybe we should strengthen the second factor of authentication, which is not automatic, at least for bank authentications."

And in this context, fintechs and new agents that offer financial services must gain a reputation and trust in the market. "Fintech must be prepared and their owners and managers must be very careful in risk management and in complying with the rules of the game. As long as the private sector takes care of it, and there is good regulation, the possibilities are endless", says Ljubica Vodanovic, of Vodanovic Legal.

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Ljubica Vodanovic



# Immediate payments and inclusive ecosystems

### Immediate payouts

Retail payment systems suffer from limitations that translate into higher costs for citizens and an insufficient level of access to payment methods other than cash for, in some cases, more than half of the adult population: limited availability (not 24/7/365), slow execution (not immediate); lack of competition between PSPs, weak interoperability, and lack of financial inclusion and education, to which must be added other consubstantial aspects of digitization, such as digital identity for secure remote authentication.

The vision of the Bank of Mexico (Banxico) contemplates the aspiration that all Mexican men and women have access to the use of secure, immediate, efficient and commission-free electronic means of payment, in such a way that the form of payment does not distort economic decisions. or financial of individuals. To achieve this vision, Banxico imposes different functions on itself, among which are those of regulator, developer, operator and catalyst. Through SPEI, Banxico provides a public infrastructure for the development and innovation of electronic payment services. In November 2020, a project of modifications to its rules was put to public consultation to improve the user experience and the availability of SPEI, which include expanding access and incorporating indirect participants in the system.

In 2019, CoDi, the SPEI scheme for requesting payments of less than 8,000 pesos, was deployed, which allows sellers of products or services to send collection messages so that buyers can make the payment through immediate electronic transfers. It allows entities that carry out software development activities to register and certify with Banxico, offer the message generation service for businesses that want to offer their customers payment through CoDi and already has 19 TPP registered developers (14 with businesses enrolled) and 51 in the process of registration.

Rodolfo Reyes from ABM admits that "the immediate benefit provided by CoDi was the acceleration of digitalization that banks saw in the medium term" and, in the context of COVID-19, the need to continue interacting between merchants, issuers and customers speeded up this process. "Developing these digital methods with an unbanked sector in mind will always help the industry," confirms Christian Díaz Navarrete, coordinator of the New Technologies Group of the ABM Cards Committee. How digitized a country is, in addition to its market size and economic and financial stability, is one of the selection criteria for Oplay, which entered Mexico in 2020 with a microloan app service. "When we began to explore the services to offer in Mexico, we did not choose the credit card at that time because the acquirers and issuers were not prepared for a digital means of payment, which forced us to conceive the service from a physical card," he explains. Heye Guo from Nanopay, Oplay's credit card service launched in 2021.

The general feeling (and Banxico's statistics) is that the adoption of CoDi has been slower than expected. "We run the risk of comparing with other markets, such as the case of Brazil and Pix where adoption has been exponential," confirms Pablo Viguera, founder and CEO of Belvo, who identifies areas for improvement in the ease of connection of the Institutions of Electronic Payment Funds (IFPE) with SPEI (registration, documentation, codes, etc.).

Developing these digital methods with an unbanked sector in mind will always help the industry

Christian Díaz, ABM

Public administrations also need to integrate Pix into their platforms, but there are many instances (federal, state, municipal) that need time

Carlos Moreira, ELO

Carlos Moreira of ELO confirms that Pix is indeed changing the payment landscape in Brazil, which is already consolidated in transfers between accounts (P2P) but not so much in payments. "There is still some way to go for its adoption in the P2B segment because people prefer to use a card and Pix is not yet integrated into merchant equipment, so reconciliation and other needs still have to be done outside of their systems." That is why the acquirer is already working on automating stores and when it is consolidated it will grow much more. "Public administrations also need to integrate Pix into their platforms, but there are many instances (federal, state, municipal) that need time." He anticipates that the main affected will be the debit card, which will be replaced by Pix in this same decade.

The Central Bank of Brazil (BACEN) plans additional solutions leveraged on Pix, with a launch expected before the end of 2021. On the one hand, Pix card, officially Pix offline or Pix by Approximation, to allow payments without the need for an Internet connection with a prepaid card. On the other hand, Pix scheduled, to schedule payments from an account with Pix. "Pix was born as a transfer scheme and it is said that it will evolve into something else. Today it is a mandatory solution, as well as a competitor to private sector solutions, so we do not see it as a threat if it remains in the field of transfers. In any case, the industry demands regulatory symmetry ", declares Ricardo de Barros of ABECS.

The industry demands regulatory symmetry

Ricardo de Barros, ABECS

In Peru, the Electronic Clearing House (CCE) inaugurated the 24/7 service at the end of December 2020 with the aim of becoming the interoperability hub par excellence in the country with its new technological support platform developed with ACI Worldwide and Mastercard Vocalink. The Chamber only serves a banked public that barely represents 43% of the population. The BCRP supported the innovation process in the Chamber and changes were made in the LBTR System and in the Regulation of Immediate Transfers for the implementation of 24/7. "Throughout the second half of 2020 there was a significant growth in digital transfers cleared in the Chamber. The change in people's behavior occurred before the 24/7 capacity was enabled, as a response to COVID-19", clarifies Milton Vega from the BCRP.

Ecuador made an attempt in 2014 with the Electronic Money Service of the Central Bank, which generated uneasiness in banking due to the suspicion of inorganic money issuance and was interrupted due to low adoption. Banred, a Clearing House owned by a consortium of banks that operates the country's ATM network, acquired the platform and launched the BIMO mobile wallet in October 2019, which is not interoperable and depends on the existence of an acceptance network in which can be used. "Generating that level of acceptance has been very complicated; We have tried it with taxi drivers, markets... The user experience is not easy and when it passed into private hands, many banks preferred to promote their own wallets", explains Sebastián Quevedo from Produbanco. In August 2021, BIMO exceeded 50,000 downloads on Google Play, a timid adoption compared to the 100,000 accounts that Electronic Money reached.

Ruth Arregui, Superintendent of Banks of Ecuador, explains that in 2012 the Central Bank promoted the strengthening of the national payment system so that savings and credit cooperatives could be integrated. "At that time it was complex in terms of technology and security not to affect the national payment system, so we focused on the largest cooperatives to reconvert their technology for transactional support and cybersecurity, a process that took three years." Two transactional switches were also qualified for access to the payment system of these entities.

Ecuador does not have an immediate payment system. The only interoperable transfer solution is Direct Payment from Banred, which is not immediate and does not have aliases enabled. "In Ecuador, all digital wallet proposals are, for the time being, closed, despite the fact that we know that they are not sustainable in the long term", affirms Sebastián Quevedo from Produbanco, "but they allow experimenting with suitable solutions and models and aspire to limit the chances of a giant, ApplePay-type being successful." Banred is working on an interoperability model for the closed solutions of three issuers. "There is still no interbank and immediate P2P model, although some banks are working to get on the Visa (Direct) and Mastercard roads because they will allow cross-border payments to be made in a country with a lot of migration such as Ecuador," he concludes.

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Sebastian Quevedo, Produbanco

"In the regulations of CENIT, the ACH of the Central Bank, it is scheduled to eliminate exchange fees, as they were already in ACH Colombia, so it would be the end of exchange fees in the interbank transfer market in Colombia" confirms Andrés Velasco from BANREP. It adds that the intention of the Central Bank's immediate payment chamber is to connect the SEDPE and other supervised entities that can find value in the public offer. "The promotion of the ecosystem from the Central Bank chamber, whose immediate payment document will be prepared before the end of the year, should open up opportunities for the payment ecosystem. It is a complementary project to the private sector", explains Andrés Velasco from BANREP. The SEDPE grew a lot with the pandemic, to which government transfers contributed.

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Andrés Velasco, BANREP

"There are several barriers that private chambers present today. From the obligation to confirm collection by the recipient of the transfer, which delays the promise of value of immediacy, to the reduced list of participants (thirteen) which, if the financial groups are considered, is reduced to five or six, in addition that immediate transfers are only resolved in the P2P segment, with limits on amounts and daily operations. All of this offers opportunities for improvement in which BANREP is going to try to help with the aim of generating that desirable contestability on the part of the private sector", explains Andrés Velasco from BANREP, who, despite the fact that today they are batch payments, affirms that raising the Standard to immediate for the Central Bank is a logical and convenient investment.

Although CVU-CBU compatibility is recent in Argentina, the Central Bank of the Republic of Argentina (BCRA) analyzed for the first time the origin and origin of payments, as well as the enterprises that accept them. More than a third of the 26 million transfers recorded in June were to and/or from a CVU. Today there are more than 14 million CVUs created by financial apps such as Mercado Pago (5.4 million users and 1.5 million affiliated businesses), MODO (30 public and private banks), DNI Account (Banco Provincia) and BNA+ (Nation), Ualá, Orange X, Nubi, Ank and Bimo. In the businesses attached to Mercado Pago, 35% of the payments were made with the Banco Nación BNA+ wallet, 22% with the Banco Provincia DNI Account, 21% with MODO, 12% with the Banco Galicia app and the 6%, with Ank. About MODO, the digital wallet of the Argentine banking industry, Ignacio E. Carballo, Professor and Researcher (UBA and UCA), Ecosystem Director of Fintech Programs, explains that "Play Digital is the fintech that has developed the MODO proposal to which all the banks joined, without abandoning their particular solutions".

In parallel, the Transfers 3.0 payment method is advancing, a new regulatory framework announced in July 2020 that began to be implemented in December to be released on the market at the end of 2021 and that aims to create a single interoperable QR code compatible with all wallets. The objective is that a user of Mercado Pago, MODO or Ualá, for example, can pay at any store that accepts the QR, whether from Prisma or Santander. Since its implementation by Mercado Pago five years ago, payment with QR has grown at a rate never seen for any new payment method in history. The interbank networks Link and Banelco (owned by Prisma) announced an agreement to develop a joint, interoperable and omnichannel system for merchants and users that includes payments with the new OR code.

Andrés Rodríguez de Ualá acknowledges that the BCRA is very focused on developing interoperability between digital wallets and banks, allowing all the virtual accounts of any fintech to interact with the traditional financial system. "This way you make that user, that business visible and offer more information to improve the ecosystem of payments and collections for businesses, since before there was no type of record." It recognizes that the visibility of the conditions in which the different market players operate is an issue under discussion and on which the region's regulators are focused.

The main feature of Transfer 3.0. is interoperability. Another of its advantages is the cost (0.8% per operation) and the immediacy in the accreditation of the payment. Regarding the immediacy in the accreditation of payments in businesses, Andrés Velasco from BANREP reveals that now that they are setting up the low value online camera, they have discovered that some businesses do not always like to be paid immediately because they are not prepared to manage the float.

Special mention deserves the Visa Direct service for the registered deployment in the region. Visa acquires YellowPepper, a fintech founded in 2004 and a pioneer with patented tools such as the alias directory or the customer identity profile after the strategic alliance established between the two in 2018. In this way YellowPepper facilitates the integration with Visa Direct and Visa B2B Connect (non-card-based payment network, between countries and companies), as well as value-added services. For example, in early 2020, Visa and YellowPepper enabled the first real-time payment platform in Peru by developing PLIN, a P2P solution with Scotia Bank, BBVA and Interbank. It arrives in Colombia in April 2021 thanks to Credibanco's PaGo platform, Visa's push payment solution that enables transfers in real time, making Colombia the second country in the region, after Peru, to have the technology Visa Direct enabled on all Visa debit cards.

### Inclusive ecosystems

"The payment means industry in Brazil is not yet present in most of the consumer transactions of families and companies, so there is a lot of room to grow," says Ricardo de Barros of ABECS. "The region has a low penetration of financial products in general and although in some better than in others, the growth potential is enormous", notes Andrés Rodríguez de Ualá, "especially in products used by people on a daily basis: transactional, payments, situations that in developed markets seem simple and that here until recently it was very difficult to do without physical cash". He adds that practically all fintech developments in the region, emphasized by the pandemic, have been based on this reality, which includes the physical part of acquisition in stores and 24/7 availability.

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"In Argentina, people have to manage devaluation and inflation, and they need solutions that help them protect themselves." The product of common investment funds already offered by some fintech in the country has grown spectacularly, demonstrating that in the region there were not enough accessible and affordable savings and investment proposals for the majority. "In the last year we opened a million investment accounts in Ualá alone, when in 2015 the total number of accounts of this type throughout the country was 300,000," explains Andrés Rodríguez of Ualá. "Common investment funds contemplate the monitoring of relevant variables (devaluation and inflation), generate returns for users and do not require active attention because they are simple and understandable."

#### In Argentina, people have to manage devaluation and inflation, and they need solutions that help them protect themselves

Andrés Rodríguez, Ualá

The conviction is consolidated that "social support has to be delivered digitally, for which the ecosystem has to grow: not only is it enough to pay the funds into a card or account, but to offer options where they can be used beyond the ATM", declares Milton Vega of the BCRP. Recognizes that technology and payment providers have focused on digitizing processes and have developed contactless, remote, mobile payments, as exemplified by the emergence of digital wallets and the formulas for businesses to connect to acquisition networks without of POS. It also points out that "it is necessary to digitize the Post-end side of businesses, service providers and public administrations themselves, to dispense with physical evidence for verification of payments and collections (sending copies of Vouchers) and they can automatically identify who makes what payment and is registered and duly updated, as is the case of the Págalo.pe platform of the Peruvian State".

Another relevant aspect, as pointed out by the BIS (2020), is digital identification, the access key to all these payment activation points and administrative procedures. Many of the countries in the region are working on this. Digital onboarding, which has been a huge relief during the long lockdown during the pandemic, remains a challenge in some jurisdictions. In Argentina, "two years ago the business and/or entrepreneurial sector could not open a corporate bank account without going in person. Now it is not like that and, although it came very late, it is a very big advance", affirms Ignacio E. Carballo. In Ecuador, although the bank offers digital access to an account associated with a debit card through bank applications, the completion of the process is subject to a face-to-face signing of the savings account or current account contract because electronic signatures are not widely used and there is a lack of regulations in this regard. "We take advantage of the moment of delivery of the card to collect the respective signature", explains Sebastián Quevedo of Produbanco. Costa Rica is working to enable digital identity in the mobile phone as a strong authentication mechanism. "It will allow fintechs to be given the possibility of making payments in the National System of Electronic Payments (SINPE); Until now, they are only authorized to send payments because they do not have a reinforced authentication mechanism," announces Carlos Melegatti of the Central Bank.

The Mexican Congress approves in December 2020 the General Population Law to establish the bases of inter-institutional coordination that regulate the operation of the National Population Registry and create the Unique Digital Identity Key that will contain biometric data and will be the official identification document before the Mexican authorities. In Colombia, the Digital Certificate, the Onboarding document of any digital platform, is the citizenship card. The National Registry of Civil Status provides the identity validation service and all processes are exempt from attendance (replaced by call or video conference).

Mary Pily Loo of the CNBV acknowledges that in October 2020 they relaxed and made improvements to the digital Onboarding requirements, which were modified in March 2021 to authorize the use of alternative biometric means to videoconferences verified with the government authority that has facial records (Secretariat of Foreign Relations, Passport or the National Electoral Institute, which is developing a facial biometrics registry). "The modification also seeks that Mexican migrants in the US can remotely open accounts in pesos in Mexico," adds Mary Pily Loo.

That of migrants and refugees is an additional dimension of financial inclusion facing the region, as has emerged in several of the interviews. The Superintendence of Banks of Ecuador has worked with the Foreign Ministry to allow Colombian and Venezuelan migrants to access low-value payment accounts with minimum requirements (crossing information with the embassies to confirm the Civil Registry of both countries), because many do not even They have a national identity document or DNI. "They are the excluded of the excluded, and Ecuador is not a transit country for these people," emphasizes Ruth Arregui, Superintendent of Banks of Ecuador.

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Milton Vega, BCRP

### Regulation and supervision

The regulation, supervision and surveillance of small-value payments is usually the responsibility of the financial authorities (generally the Central Bank and the Financial Superintendencies, and in some cases the Ministries of Finance), but the operation of the clearing and settlement systems retail and in general of payment initiation processes, are usually carried out by the private sector under private agreements or rules.

Central banks and other public authorities have recently launched major initiatives to improve national payment systems, complementing the evolution and dynamism of the private sector. Regulation is becoming very active in the case of retail, especially when there are legal loopholes to regulate these fields. Two examples are Chile and Colombia, as they are large markets where the retail dimension was neglected.

"A very static regulation creates spaces, so regulatory flexibility is important: it is better to have a payment systems law than a fintech law, since the former can provide a broad enabling framework for the emergence of multiple applications technological solutions that concretely resolve aspects of innovation in the world of payments", says Raúl Morales from CEMLA. "The law is an enabler." This perspective has a nuance with the approach with which the Fintech Law proposal has been presented in Ecuador, as Ruth Arregui, Superintendent of Banks of Ecuador explains: "It is synthesized in the reform of existing legal bodies in which the Superintendency of Banks has suggested including as an objective of Fintech regulation, the creation of inclusive financial systems that promote financial well-being".

There are several institutional solutions in terms of regulation and supervision of payment systems in the region. In this sense, Raúl Moralesof CEMLA observes in the region "two major regulatory approaches: a more functional one like the one in Argentina (what are you doing), which may be related to the fact that supervision is within the BCRA, as is the case, for example, in Spain; another more focused on the typology of entities (what are you)". He adds that "one would expect that in jurisdictions where the prudential authorities of the central banks are separated, there may continue to be a duality of powers, so that the microprudential part of the payments would fall under the perimeter of the financial superintendencies, and the more macro part, of dialogue and persuasion, should fall on the Central Banks, due to its more global view of payment systems", declares Raúl Morales of CEMLA. This, in particular, may be an observable trend in the coming years.

This is demonstrated by the approach adopted by the Central Reserve Bank of Peru, which promotes regulation focused on services and the capture of relevant information from the participants in that service. "We have been regulating systems, payment agreements (as is the case of electronic money in Peru), but in some retail payment services it is difficult to define, for example, who is the administrator who centralizes the operation, because that function, as well as like others, it is distributed in several entities", explains Milton Vega.

"The atomization is very heterogeneous depending on the country, which makes functional regulation complex for central banks", admits Raúl Morales of CEMLA, and illustrates it with a very specific figure, that of sub-acquirers or aggregators. "There are very large ones, such as Paypal or Mercado Pago, which in Mexico, Peru and Colombia work as aggregators, while in Argentina and Brazil they are PSPs; that coexist with other smaller ones, including some very local ones, with very clear and delimited functions".

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Raúl Morales, CEMLA

"The new Payment Systems Regulation, in force since January 2021, has been very pleasantly received by all players," says Ángel González Tejada of the Central Bank of the Dominican Republic. Now they are preparing and consulting the instructions, lower-ranking regulations, prior to the authorization process.

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Ángel González Tejada, Central Bank of the Dominican Republic

Of all the fintech verticals, the regulator has focused on payments to authorize the operation of electronic payment entities (EPE) and electronic payment accounts, which are for all intents and purposes digital wallets. The SOEs will have to offer payment services, manage electronic payment accounts exclusively digitally and may reach agreements with establishments, such as those that make up the wide network of agents in the country, for establishments, recharges and administrative management of services. "To avoid barriers to entry, the capital requirements are very low, of 50,000 dollars for EPE and aggregators," he confirms. These accounts may also be managed by banking entities; In fact, some banks already offer digital accounts with simple Onboarding processes, such as the RESET service, which requests proof of life with biometrics.

The Regulation covers other figures such as acquirers, payment aggregators and ATM network administrators. "The acquirers operated without any type of regulation and the Central Bank limited itself to issuing a no objection to the contract models with the affiliates", explains Yilmary Rosario, Technical Consultant of the Central Bank's Department of Payment Systems. "Now, in addition to minimum capital requirements (60 million pesos), they must go through an authorization process by the Monetary Board." Payment aggregators that interconnect merchants with acquirers already operated before the Regulation came into existence, although only national and with very little participation. As for ATM network administrators, the planned process is simpler because they do not require authorization, only registration.

In Colombia, Decree 1692 of 2020 prepared by the Financial Regulation Unit (URF) of the Ministry of Finance includes in general terms the separation and definition of the different activities carried out in low-value payment systems and the duties of the actors of the system subject to such regulation, including the strengthening of corporate governance standards and transparency in the requirements for access to the system and the commissions and fees charged to users and participants. The administrators of low-value payment systems (EASPBV) are now obliged to divide the acquisition business from that of the clearing and settlement of operations and are likely to be invested by (new) the SEDPE. The decree also regulates the acquisition, an activity that can now be carried out both by credit establishments (the only ones authorized until then) and by the SEDPE and enterprises not supervised by the SFC, which will have to be registered in the Register of Unsupervised Acquirers. The figure of PSP is also created, defined as the payment system agent that, by delegation of the acquirer or the issuing entity, performs one or more of its functions, and may be an acquirer processor, aggregator or provider of access technologies.

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Felipe Novales de Asobancaria, alluding to the Decree, declares himself to be "in the expectation phase, because the Financial Superintendence has only issued the first external circular that regulates one of the aspects, the requirements of unsupervised acquirers, which still generates some doubts," he says. "The purpose of the Decree is to democratize the payment system that people have historically associated exclusively with banking, and where there are many actors involved (card issuers, acquirers, gateways, gateways, aggregators, PSP, networks that can do both clearing and settlement), but it has always been closed, owned by the banks". In this ecosystem there were many agents that played many roles, and the new rule requires choosing which role each one plays in the payment ecosystem, and which one they renounce. Calls for caution with the possibility of the existence of regulatory gaps that facilitate regulatory arbitrage due to imbalances in prudential regulation requirements such as digital onboarding, KYC, AML/CFT, credit risk management, capital, systems, manuals, etc., for example, of new acquirers. "Given the probable scenario that many fintechs and SEDPEs that have the role of PSP or gateways could become acquirers, who is going to supervise them? The banks do not want to carry out indirect supervision of these unsupervised entities; they do not want to assume burdens from the unsupervised so that there are no misunderstandings or market imbalances", explains Felipe Novales. As an example of a topic under discussion, he cites corporate governance requirements, which seek to prevent conflicts of interest between banks and new payment system administrators, discussions that have prevented progress in implementation. "For example, it defines banking operations in such an excessively broad and vague way that it generates confusion and legal uncertainty. As in any situation of change, it is important to understand the rules of the game", concludes Felipe Novales of Asobancaria.

The purpose of the Decree is to democratize the payment system that people have historically associated exclusively with banking, and where there are many actors involved, but it has always been closed, owned by the banks

Felipe Novales, Asobancaria

Andrés Velasco from BANREP explains that in 2021 things have happened that he expected to happen since last year with the approval of the Decree. "The market has reacted. There are new buyers. Redeban, Credibanco, CENIT and ACH have had to rethink their role, formulate and confirm their objectives. It has made it possible to start dismantling the situation with market failures identified in the previous diagnosis". In April 2021, the networks made the decision to act as clearers and liquidators, giving up a lot of information that they had as PSPs. Finally, BANREP will not be, as originally planned, the regulator of the system, but will be responsible for the State's operations, and will act, as it has been doing, in the clearing and settlement of the payment system.

In Chile, the development of a new flexible regulatory framework that is adaptable to innovations in low-value payment systems, which seeks to quarantee the interoperability of payments with cards or transfers, is in the regulatory definition phase by the Central Bank. promote financial inclusion and innovation, framed in the Central Bank's Strategic Plan 2018-2022, which defined as one of the five strategic pillars that of increasing its capacity to understand, manage and incorporate new technologies and on which it issued a consultation between March and June 2021. The result can be complemented, in the opinion of Ángel Sierra, Executive Director of the Chilean Fintech Association, with an alternative initiative: "future Fintech Law, on which a statement from the Ministry of Finance anticipated that the major issues to be addressed with said law will be Open Finance and Initiation of Payments, very much in line with the spirit pursued by the regulations on low value clearinghouses". That said, the eventual change of government may modify the regulatory agenda in this last aspect, that of the Fintech Law.

There are several regulations issued by the BCRA regarding PSPs. In January 2020, Communication "A" 6885 established a regulatory scheme and an information regime for its activity, including digital wallets. "But unlike Brazil or Colombia, where it was allowed to channel emergency funds through fintech and digital accounts, the Argentine government did not allow the payment of the Emergency Family Income (IFE) and the Emergency Assistance for Work and Production (ATP) through digital wallets (CVU), only through bank accounts (CBU), which was a catalyst for digital acceleration in banks", clarifies Ignacio E. Carballo.

The Public Tax Administration (AFIP) announced in July 2021 General Resolution 5029 that intensifies control over payments with virtual accounts (CVU) of all account operations that have income of 10,000 pesos or more per month, equating their tax control with those of bank accounts (CBU). Additionally, the purchase and sale operations carried out by legal entities (except single taxpayers) through the 55 registered PSPs so far, are subject to the tax on bank debits and credits (known as "check tax") since August 2021., so that the PSPs must act as agents for settlement and collection of the tax on debits (0.6%) and on credits (0.6%), as do banks and finance companies. The most recent, Communication "A" 7328 of the BCRA, obliges all virtual wallets to verify the identity of the people who open a payment account and limit that users can only associate instruments of their ownership to their wallets.

Unlike Brazil where it was allowed to channel emergency funds through fintech and digital payment accounts, the Argentina's government did not allow their payment through digital wallets, only through bank accounts. This was a shock to the digital acceleration for banks

Ignacio E. Carballo

In Ecuador, the approach to supervision by entities vs. activities prevails in an extreme way, as reported by Ruth Arregui, Superintendent of Banks of Ecuador: "In Ecuador, what has not happened elsewhere has happened. The reform of the Constitution in 2008 determined that the national financial system is made up of the public, private and popular and solidarity sectors. Instead of granting more capacity to the Superintendence of Banks and Insurance until then to be able to exercise control and evaluate risk in a comprehensive manner, it segmented the powers into several supervisory entities, passing the insurance

and reinsurance companies to the new Superintendence of Companies, Securities and Insurance and savings and credit cooperatives to the Superintendence of Popular and Solidarity Economy that lacked control standards and it has taken six years to have them. Since that year, the Superintendence of Banks has suffered significant cutbacks in its supervisory powers and responsibilities.

Fintech are classified by the Superintendency of Banks as auxiliary service entities due to the lack of clarity in the legal framework

Ruth Arregui, Superintendence

"Fintech are classified by the Superintendency of Banks as auxiliary service entities due to the lack of clarity in the legal framework," explains Ruth Arrequi, Superintendent. It specifies that some figures, such as collective financing platforms, are contemplated in the Organic Law of Entrepreneurship and Innovation of 2020, "which can operate with the authorization of the Superintendence of Companies, which offers only control of a corporate nature, not of the transactions or risk. "We proposed reforms in 2019 to the 2014 Monetary and Financial Code precisely anticipating the digital transformation, but without success," adds Superintendent Ruth Arregui. As a consequence, within the scope of its powers and capacities, the supervisory authority issued a rule that requires those that operate around the banking market to do so with an auxiliary services authorization. "According to the Code, the Super has the obligation to sanction entities that are not authorized, which implies that there must be a process for authorization and that is precisely what we have enabled, taking advantage of the recent ISO 37001 certification of Anti-bribery Management." Rosa Matilde Guerrero, General Advisor for Risk-Based Supervision and Financial Inclusion adds that "we have gone from a waiting list of 250 authorizations and authorization terms of two and even three

years, to an average of two months today. In this way, we have them registered and we know them, at the same time that we learn as a supervisory authority". In the meantime, the authority plans to propose amendments to the Code again in 2022, given that other urgent changes have already been made this year and the laws can only be amended once a year.

We have gone from a waiting list of 250 authorizations and authorization terms of two and even three years, to an average of two months today

#### Rosa Matilde Guerrero

"In Costa Rica there is no specific regulation for fintech and those that operate are very close to banks, they are peripheral, in such a way that regulatory issues are covered by financial entities," explains Alejandro Rubinstein of BAC Credomatic. He refers to Carlos Melegatti of the Central Bank in his reiterated position that "there should be a single payment system in which all operators participate, so that everyone can use it and work in it and avoid the existence of parallel payment systems".

Last but not least, "consumer protection is a pending task in many cases", recalls Raúl Morales from CEMLA. Notes that there is not in all cases clarity about dispute resolution mechanisms and who oversees them; This is a fundamental aspect for adoption and financial education. Shortcomings in capacity and institutional clarity can be sensed, which are highly relevant also taking into account the new instruments that are more prone to cyber fraud, which is increasingly sophisticated. "Phishing is still the main method of attack. People still do not carry out the basic controls in the digital sphere that we do carry out in the physical sphere, in addition to the fact that digital communications are confusing and sophisticated, which makes it easy to fall into deception", confirms Raúl Morales of CEMLA.

#### Access and use of cash

"Central banks have had to take expansionary monetary policy measures to counteract the effects of COVID-19, which is why the amount of cash in circulation has increased, an issue that biases the interpretation of the use of cash," notes Ángel González del Banco Center of the Dominican Republic. To this is added, as Andrés Velasco from BANREPstates, that "despite the fact that digital payments have increased, cash is still king, especially motivated by what seems to be a precautionary demand and hoarding of cash in reaction to the pandemic".

Despite the fact that digital payments have increased, cash is still king, especially motivated by what seems to be a precautionary demand and hoarding of cash in reaction to the pandemic

Andrés Velasco, BANREP

Access to cash through alternative means to branches and ATMs is mutating in the region. ABECS plans to launch two new transaction modalities in 2022 that allow consumers to make cash withdrawals with their card directly in stores. With "Buy with change" (Compre com troco), the user can request to add to the amount of the purchase the amount that he wishes to withdraw in cash, while "Withdraw at the terminal" (Without terminal) works as a pure withdrawal in the POS of shops. Before that date, the Central Bank has announced two new Pix functionalities: Pix take out (for withdrawal of funds in participating businesses, including Cash-back without purchases) and Pix troco, with a pure Cash-back model.

Mercado Pago allows its customers in Argentina to withdraw cash at participating businesses, to add more cash withdrawal points to those of the ATM network, Rappipago and Pago Fácil. In Chile, the latest National Survey on the Use and Preferences of Cash carried out at the end of 2020 by the Central Bank of Chile reveals that cash ceased to be the most used means of payment and was in second place after payment by debit card.

There are times when the use of cash is motivated by a lack of transparency. In Mexico, people were inhibited from using debit and credit cards at the POS because they could only find out the balance by going to the ATMs or branches. "This year, banks in Mexico have made it possible to check the balance from digital banking, a change that can encourage the use and administration of card payments and reduce the use of cash," explains Mary Pily Loo of CNBV.

# Fintechs expand and bigtechs aspire to omnipresence

"Digital payments were a captive business of the banking sector, but with the emergence of a fintech player in particular that opened a door to a huge industry, today we see how in just three years (where Argentina practically did not grow in economic terms) the ecosystem grows and is shared by many players and firms", analyzes Ignacio E. Carballo in reference to Mercado Pago in Argentina. From the perspective of Ljubica Vodanovic, founding partner of Vodanovic Legal, the industry has been transformed enormously and/or fintechs have been born as an alternative to increase financial inclusion, provide more agile services, integrate technology and improve UX. "Fintech firms in Peru seek to integrate with banks, to gain scale and access capital. Banks saw fintech as competition unrelated to the regulatory burden. This vision of competition has been changing and the pandemic has accelerated everything, showing the urgent need to digitize everything and cooperate. And it has been now when the bank has asked itself, do I do it alone or do I join forces?

"There is a lot to do in terms of financial inclusion, based on how little attention the population has historically received in terms of financial services and the lack of regional vision that the industry has of LATAM," explains Pablo Viguera, CEO of Belvo. "We are seeing solutions that are in more than one country and the ecosystem at the LATAM level is beginning to generate synergies, allowing us to think about cross-country value propositions," acknowledges Andrés Rodríguez de Ualá, already present in Mexico and close to launching in Colombia.

Not surprisingly, the region has seen a sharp rise in the number of fintech companies offering new ways to pay and collect and large technology companies integrating payment services into their e-commerce or social media platforms. "In Latin America, records are being broken for venture capital destined for fintech, due to its proven ability to innovate in a context that needs innovation," confirms Pablo Viguera from Belvo. "Financial innovation in the region is unstoppable and it is led by fintechs together with companies that need to grow on the financial side, issue means of payment, finance customer purchases," he adds.

In Latin America, records are being broken for venture capital destined for fintech, due to its proven ability to innovate in a context that needs innovation

Pablo Viguera, Belvo

"This industry in Latin America is increasingly regional rather than local," says Ljubica Vodanovic. "It is a market that has many similarities, for example, the challenges of financial inclusion and in regulation there are no great differences". He explains that the Pacific Alliance has already made progress on similar guiding principles for the development of inclusive digital financial services that make it possible to aspire to regional standards. "Other countries like Ecuador are beginning to emulate them to advance the regulation of the fintech industry." Ljubica Vodanovic affirms that after standardizing, it is necessary to seek flexibility as the Single Passport does in Europe: "Why not take advantage of this knowledge and background that a fintech has already developed with a regulator in one country and take it to others?", he concludes.

This industry in Latin America is increasingly regional rather than local

Ljubica Vodanovic

In Latin America, the protagonists today are Nubank, the largest digital bank in Brazil valued at 30,000 million dollars, with more than forty million customers and the fifth largest credit card issuer in Brazil; the Colombian Rappi, originally from the delivery business and today provider of a superapp used by more than ten million users in Mexico, Costa Rica, Colombia, Peru, Ecuador, Chile, Argentina, Uruguay and Brazil; the Ecuadorian Kushki, a digital payment platform founded in 2017 and operating in Chile, Mexico, Ecuador, Colombia and Peru; and the Brazilian startup Ebanx, which in 2021 receives an investment of 430 million dollars from Advent. Ualá is part of this successful team with visionary founders who are aware of the problems of local markets that are not adequately served due to lack of financial inclusion, access to credit and physical infrastructure for the delivery of basic services, including financial ones. Ualá reached a strategic agreement for the acquisition of Wilobank, the first digital bank in Argentina, in the approval stage by the BCRA, to further deepen the product verticals with a banking license, and launches an acquiring platform (Ualá Bis) that includes payments by link and mPos. Mercado Pago deserves a special mention as a disruptive model of Argentine origin that has extended its offer of solutions throughout the entire Latin American region. "We will see new digital banks in Peru next year, which are being developed in 2021," predicts Ljubica Vodanovic.

Deployments of solutions aimed at MSMEs are also carried out by a large number of start-ups that offer fintech As a Service services as a white label. Belvo offers, with pan-Latin American aspirations (LatAm-First and LatAm only), an API platform for companies and developers to access and interpret end-user information and design efficient and inclusive financial products. Pioneer in the scale application of Open Banking and Open Finance in the region, it has requested an IFPE license in Mexico to offer payment initiation services. "Many decisions have to do with moving money or paying. Today we can access information, but not carry out transactions", explains Pablo Viguera de Belvo. Present in Brazil since November 2020, it considers that the regulator's innovative agenda contributes to the ecosystem moving faster.

In Mexico, of the new infrastructures and relevant participants in the financial markets, in addition to the electronic payment fund institutions (IFPE) that allow payments to be made between users and businesses through electronic payment funds, there are aggregators, companies that have a contract with an acquirer through which they offer card payment acceptance services to small businesses. Among the latter, the Clip aggregator rises to the category of Mexican unicorn after receiving an investment of 250 million dollars from Softbank and Viking, and has enabled payment with ApplePay.

Traditional banks, although in some cases allied with fintech, are going to compete with them, evidenced by the significant investments in the digital field

Mary Pily Loo, CNBV

"Traditional banks, although in some cases allied with fintech, are going to compete with them, evidenced by the significant investments in the digital field. Surely next year we will see three or four new fully digital banks in Mexico that come with all the momentum," forecasts Mary Pily Loo of CNBV.

In Chile, Evo Payments and BCI acquire the online payment platform Easy Payment to cover digital acquisition. For its part, Khipu, considered an example of a payment initiator, has been affected since August by Banco Estado's decision to block its access to its accounts citing cybersecurity, coinciding with the launch of its own acquisition solution. Credicorp's Tempo hits the market with a prepaid solution of which it has already issued 600,000 cards and Global 66 and Mercado Pago are expected to do so soon.

For Carlos Moreira de Elo, after frenetic years, 2021 in Brazil has been a consolidation of those new players who entered in previous years challenging traditional banks, rather than the entry of more players, although in January they obtained a Rappibank operating license and N26 and 40% of the neobank C6Bank was acquired by JP Morgan for 2,000 million dollars.

Eln Colombia, the Financial Superintendence authorized the start of operations of Lulo Bank, a 100% digital bank that begins operations with a free credit product, a savings account, a card and access to the Servibanca ATM network. Added to this announcement is the consolidation of Bancolombia's Nequi; the pre-operational stage of Nubank that exceeded 200,000 clients at the end of 2020, the request of Rappi and Davivienda to create a digital bank and the SEDPE authorization to the Chilean international remittance fintech Global 66.

A specific demand of the fintech sector in Colombia is the deployment of Decree 1234 of 2020, which opened the possibility of developing licenses in phases and which is still in the regulatory stage. Since Law 1735 of 2014 was established, with which the SEDPE were formed, companies have been created such as Movii (leading P2P solution in the market with more than 85% of the value of electronic deposits and one million clients), Pagos GDE, Powwi and Coink. And soon Dale, the SEDPE of Grupo Aval. For the business segment CredibanCo launches Ding (Tecnipagos), SEDPE focused on small businesses receiving payments with debit and credit cards, QR codes, dynamic passwords and notifications.

The pan-Latin American aspiration is increasingly present in the speeches of the founders of these giants of the industry and there are many local nuances in the payment market that will inevitably perpetuate its fragmentation for a few years. But there are examples that deserve special mention.

Mercado Livre and PayPal announced in June 2020 the integration of their payment systems in Mexico and Brazil, thus advancing the alliance signed in December 2019. Mercado Pago obtained permission to operate as a financial institution in Brazil and since March 2021 Pix has been integrated into the Mercado Pago checkout. In Colombia, it received authorization to become a financing company.

Rappibank obtains a license from the Central Bank to operate in Brazil. In Chile, Rappi joins forces with Banco Itaú to distribute financial products; In Colombia, together with Davivienda, it requests authorization to create a digital bank. In Mexico, Rappi Card and PayPal strengthen their alliance by allowing the deferral of card payments without interest. And with Banorte and Visa launches RappiCard. In Peru, RappiBank is the strategic alliance between Interbank and Rappi.

### Competition in the card market

The year 2021 has not been without news about possible anti-competitive practices by international card schemes: in the US due to Visa's position in the debit card market and in the United Kingdom due to the multilateral interchange fees due to Visa Europe and MasterCard.

In Latin America, the wake of Argentina and the decision of the country's competition authorities in relation to the concentration and market power of card payment schemes has followed its course in other countries in the region. In Mexico, the Federal Economic Competition Commission (COFECE) determined in a preliminary opinion that there are no conditions of competition in the card payment network in the country, due to the probable existence of barriers that generate costs and requirements against entry of new participants due to the existence of a single card payment network that applies rules that make it impossible for others to coexist with lower fees, better services and greater security in transactions. There, eight banks are co-owners of the two clearing houses (E-Global, from BBVA and Banamex; and Prosa, from Grupo Financiero Banorte and the local subsidiaries of HSBC and Banco Santander) that are in charge of processing the operations in the network of Payments; that is, they allow the routing of authorizations between the acquiring bank and the issuing bank. This would have allowed them to have information that other banks do not have, as well as to implement commercial schemes that give them advantages over their competitors. This situation would be translating into several anti-competitive effects such as the lack of investment that means that some of the technological standards for fraud prevention cannot be fully implemented in Mexico.

In this context, COFECE proposes something similar to what happened in Argentina in 2016 with PRISMA: that the shareholder banks divest and sell their shares in the clearinghouses, in addition to recommending Banxico and CNBV to eliminate the regulatory obstacles detected and issue regulations that ensure competition, such as those issued in 2020 related to Disposal Means Networks in which the figure of issuers and acquirers is formally recognized without necessarily being banking institutions. In this context, Prosa is already looking for a buyer, which could be Visa, authorized (as has Mastercard, which would be creating a clearing house from scratch) as administrator of a clearing house in Mexico. "As of October, a PROSA-E Global and Mastercard integration pilot will begin, the second phase of which is expected in early 2022," announces Érika Lavara from the ABM payment methods department. "Mastercard will work with local rules, adapted to domestic language and messaging," he adds.

The National Institute of the Defense of Competition and Protection of Intellectual Property (INDECOPI) of Peru published in February 2021 the preliminary report on the payment card market to improve competition. It highlights that until the end of 2019, the Peruvian card market was characterized by exclusive relationships between acquirers and brands; by vertical ownership relationships between brands, issuers, acquirers, processors and payment facilitators and by determining the interchange fee as a percentage of the discount rate, in an agreement between issuers. The implications identified are the duplication of costs for businesses, the trend towards a monopolization of the most dominant network in the market (Visanet, today Niubiz), the few incentives to provide access to competitors; and the possible incentives to offer differentiated services in favor of related facilitators or aggregators, in addition to those derived from the mechanism for setting interchange fees. For all these reasons, INDECOPI recommends that acquirers and brands eliminate such practices, and that the BCRP establish procedures that allow (i) improving the dissemination of the interchange fees set by the brands, (ii) collecting information on the rates of exchange and the main factors that determine its levels and evolution, and (iii) have information on acquirers, payment facilitators, payment processors and card brands to monitor market dynamics. For its part, the Superintendency of Banking, Insurance and AFPs (SBS) published Resolution No. 1049-2021 that makes changes to the regulations for the expansion of operations of municipal savings and credit banks, municipal popular credit bank and rural banks. savings and credit, and includes a simplified procedure for issuing and managing credit cards.

In September 2020, the Central Bank of Costa Rica enacted the first setting of maximum fees for the card collection system, setting the discount rate at 2.5% and the interchange rate at 2%. In the case of gas stations, charities, tolls and regulated transport services, the acquisition rate was set at 1.5% and the exchange rate at 1%. Another of the prices set by the Central Bank was the cost of POS terminals, for which financial entities may charge a maximum of 30 dollars. "Congress adopted in November 2020 a law that gives the central bank the power to regulate exchange rates and also acquisition rates, which in Costa Rica customarily had the latter a floor of 4%, and was used to regulate the interoperability of the world of cards through a Regulation to the Card Law", informs Carlos Melegatti of the Central Bank. "The first impact of the Usury Law and the cap on interest rates was the cancellation of hundreds of thousands of credit cards because it is no longer a profitable product, and we will see a drop or freeze in the issuance of this type of card., especially to the vulnerable population", highlights Alejandro Rubinstein BAC Credomatic, the largest bank in Central America with a presence in all countries and in Costa Rica the largest private bank and leader in issuing cards, means of payment and acquisition. "45% of payments in Costa Rica go through our systems, either from the perspective of issuer and/or acquirer."

# The first impact of the Usury Law and the cap on interest rates was the cancellation of hundreds of thousands of credit cards

#### Alejandro Rubinstein, BAC Credomatic

"In Ecuador, exchange and discount rates are regulated (2.0% on debit cards and 4.5% on credit cards), which limits the possibility of boosting value offers and makes it difficult to design products," he says. Sebastian Quevedo of Produbanco. "In debit cards, it is only allowed to charge the renewal of the plastic and an annual maintenance fee that cannot exceed three dollars."

"In Colombia, the card networks operate the compensation, the processing and by delegation, the acquisition. They will probably decide to separate their businesses and create acquiring subsidiaries that will compete with fintech acquirers that have already emerged in 2021", predicts Andrés Velasco from BANREP after the approval of the new SPBV Regulations "We already have the rules of the game, now the challenge is to enforce them, supervising them, a task that is the responsibility of the Financial Superintendence of Colombia". He predicts, however, that there could be some litigation in the upcoming reorganization.

The litigation is already observed in Chile, considered the protagonist in this matter this year with the expected enactment of the exchange rate law, which aims, following the recommendations made by the Court of Defense of Free Competition, to promote competition in the card payment industry. The bill establishes the constitution of a committee for setting interchange fees in which several authorities are expected to participate and which will define transitory rates six months after the law is approved and definitive rates one year later. Before, the rates were set by the international card brands based on the discount rate determined by Transbank and which was around 80% of the exchange rate.

Transbank has historically been the dominant player in a three-sided model, which was rebuked by the Supreme Court for tariff policy. Some PSPs have recently been authorized to connect to their network, such as Mercado Pago and Redelcom. Multicaja, a pioneer in the physical acquisition segment with POS outside of Transbank, is joined in March 2021 by Santander, which formalizes the launch of its Getnet acquisition network. He is soon emulated by BCI, which joins forces with Evo Payments to roll out its acquiring business. BancoEstado begins operating its own acquiring network in June after ending its relationship with SumUp with which it shared the Compraguí brand, also connected to Transbank in order to operate. Among the online participants, together with Mercado Pago, the fintech Pago Fácil (acquired this year by Evo Payments), Khipu and Flow, or the BCI Pagos, Fpay and Chek platforms of BCI, Banco Falabella and Banco Ripley, respectively, are consolidated. Meanwhile, Visa announces the implementation of the processing of its domestic transactions (carried out by cards issued in Chile in stores in the country) through its own network, VisaNet and Worldpay announces a new card processing headquarters in the country.

The situation has affected the development of the acceptance of electronic or prepaid money, which despite having a law since 2016, the first issuers only appeared in 2019. "At the moment, the EDEs are facing a sudden problem because the large supermarkets and retailers do not accept prepaid cards, despite applying the same rates as debit cards, which suggests that they are wanting to promote their own means of payment," explains Ángel Sierra from FinteChile. The dimension of the problem is great: there are already four million prepaid cards in the country that today are not being accepted at many physical points of sale and, as Ángel Sierra illustrates, "it is not only Netflix and Spotify that can support a prepaid broadcast". Despite this, the EDEs continue to explore their development in the country: "The Compensation Funds could be preparing their issuance as EDE," heconcludes.

At the moment, the EDEs are facing a sudden problem because the large supermarkets and retailers do not accept prepaid cards, despite applying the same rates as debit cards, which suggests that they are wanting to promote their own means of payment

**Ángel Sierra**, FinteChile

## Contactless, mobile and remote payment and collection

Apple Pay announces its arrival in Mexico to operate with cards issued by American Express and Mastercard and the first banks to offer it are Citibanamex and Banorte. Samsung, however, leaves the country in July 2021.

From the ABM they share the three axes in which the card industry has worked in Mexico in recent months. In the first place, enable digital transactionality (e-commerce), for which the key was messaging, 3D Secure (version 2.0. in Mexico), the visualization of operations for the cardholder and security data (device used, authentication factor), to be able to respond to eventual claims. "Once the rails were prepared, the acquirers deployed the contactless acquiring network that was not ready, the issuers developed digital payment solutions in their products (wallets, e-commerce solutions, card not present)", explains Rodolfo Reyes from ABM.

Once the rails were prepared, the acquirers deployed the contactless acquiring network that was not ready, the issuers developed digital payment solutions in their products (wallets, e-commerce solutions, card not present)

Rodolfo Reyes, ABM

Third, security: "Mexico has regulations that require 2FA to have a responsibility towards the cardholder, and banks have introduced 3D Secure, 2FA indicators in the transaction, and tokenization according to brand standards., including biometric authentication with card not present", adds Rodolfo Reyes.

The objective is for businesses to accept digital payments not only through an electronic commerce or a POS, but through a channel digital as is the QR code

Christian Díaz, ABM

Christian Díaz from the ABM announces that the bank is working on a pilot project to pay with a QR code at the national level: "The objective is for businesses to accept digital payments not only through an electronic commerce or a POS, but through a channel digital as is the QR code". From Oplay, Heye Guo considers that in five years in Mexico there will be new forms of payment: "Even the credit card, which is already fifty years old, may have another name and operate by QR as is the case today in China where 95% of the payments are with QR, a simple and agile way of transacting".

"In Brazil, NFC contactless payment is finally entering people's lives because everyone uses public transport," illustrates Carlos Moreira de Elo in reference to the level of preparation that the market already had and the massive deployment of NFC in public transport in the country's big cities. "In large cities, mobility is connected (bicycles, scooters, toy scooters, public transport) and it is an ecosystem to which we must pay close attention so that the gesture of payment is something not to worry about because it generates custom, habits and also contains a high component of inclusion", declares Roberta Isfer of Visa.

Ricardo de Barros from ABECS confirms that "the pandemic has multiplied by four the use of P2B contactless payments, both from cards and cell phones, to which the increase in limits from 50 to 200 reais for payments without a PIN contributed." In April 2021, BACEN cleared the way for WhatsApp to allow its users to send money with Visa and Mastercard. In July, Santander Brazil announces that it already has this functionality for its clients, who can send up to 1,000 reais per transaction and receive 20 transactions per day, with a limit of 5,000 reais per month. "WhatsApp in Brazil is a great event. Retailers already used WhatsApp to make direct sales, but the payment did not go through there. Now yes", explains Roberta Isfer of Visa. In the opinion of Carlos Moreira de Elo, WhatsApp Pay needs to be present in order to grow -as it is in our daily life, even professional- in the entire payment system, in all flags, issuers and acquirers, and its integration in the payments especially for small businesses: "right now it is above all an acquiring provider, it is with a single acquirer and some flags, among which is not Elo, which has a third of the country's debit cards; neither is it in Caixa Economica Federal".

Brazil is a great event. Retailers already used WhatsApp to make direct sales, but the payment did not go through there. Now yes

Roberta Isfer, Visa

Pays do not operate in Colombia. Big ones like PayU and Mercado Pago do, initiators of digital payment based on debit and credit cards, which together with the PSE button of ACH Colombia account for almost all remote payment transactions. Bancolombia is the largest acquiring bank in the country and relies on Redeban as an acquiring vehicle. Its solution Nequi is acquiring small informal businesses, where they have grown more with QR than with NFC. "In Colombia, the QR was born in an uncoordinated way, everyone put their own without paying attention to interoperability. Merchants should not have to adapt to different QRs. The Financial Superintendence corrected the situation through regulation so that they were interoperable, and imposed a standard for payments", explains Andrés Velasco from BANREP and adds that "Contactless is more associated in Colombia with wallets than with cards, it seems that there is a perception of greater security in cell phones than in plastics".

From Asobancaria, Felipe Novales points out that in Colombia the majority use of cash is in micropayments, in small neighborhood businesses that do not have means of accepting payments other than cash. And although networks and banks are working on new technologies and electronic wallets (Negui, Daviplata, Movii) have been used by independent professionals and micro-businesses, without associated cost, they are not interoperable. "If the QR is from Negui (Bancolombia) and I want to pay with my Davivienda wallet, I can't do it, which forces the business to have several wallets, so they have been a very partial solution," concludes Felipe Novales from Asobancaria. Growth cannot be sustained by closed wallets; a more robust, interoperable payment structure is necessary and announces that for Asobancaria the challenge for the coming months is to bridge the interoperability gap of QR codes (as was already done with transfers with TransfiYA from ACH Colombia), an issue in which that the networks (Credibanco, Redeban) are working " associating a nickname or cell phone number without the need to know which bank you are in." It concludes that acceptance "is not only a matter of financial education but also of associated costs, which in Colombia represent around 8% because the trade considers the fiscal cost of withholding taxes at source." This assessment coincides with are cent Banxico study that concludes that reducing the costs of accepting payments with cards, together with clearly and detailed reporting of the benefits that businesses obtain by accepting said payment means, increases the amount invoiced by businesses. On the contrary, explaining only the benefits does not necessarily have an impact on billing.

In the last quarter of 2020 there was a revolution in Argentina of the acquisition proposals that join the one already deployed years ago by Mercado Pago: Getnet by Santander, Worldpay by Fis, Ualá con Ualá bis, Iudu Pagos de Supervielle ViüMi by Banco Macro, Toque de Naranja X, Ank de Itáu, even Prisma with Todopago and his intention to become an aggregator. Innovation has meant that in just three years the number of points of sale (shops, professionals, freelancers) that today accept payments with debit, credit or QR code cards has multiplied by five.

"The crisis made people go home to produce, and we realized that in Costa Rica we had a very robust payment ecosystem in stores, but non-existent in homes. Hence, the use of the Sinpe mobile electronic wallet skyrocketed", affirms Carlos Melegatti, and shares extraordinary transaction figures: with the start of the pandemic in March 2020, one million payment transactions were registered per month, which twenty months more later they were transformed into a million payment transactions a day. "In Costa Rica, the QR will have to wait for more mobility," predicts Alejandro Rubinstein. Although there is QR payment functionality in stores, the use of Sinpe Móvil, the 24/7 country system, is more common. "The usual thing is to send the link by WhatsApp, which coincides with the Sinpe Móvil phone number, widely used, for example, in restaurants." BAC Credomatic launched

CompraClic, a functionality that allows you to sell online without having to have a website and all the development to sell online. "The merchant generates an invoice and transforms it into a link that is transferred by WhatsApp, SMS or email, which the customer pays with a card and with the payment notice the good or service is delivered and reconciled at the accounting level for the merchant".

The crisis made people go home to produce, and we realized that in Costa Rica we had a very robust payment ecosystem in stores, but non-existent in homes. Hence, the use of the Sinpe mobile electronic wallet skyrocketed

#### **Carlos Melegatti**

The brief acceptance in Ecuador may be accelerated by a recent regulation issued by the Internal Revenue Service (SRI) for income tax and VAT withholdings at source, applicable to payment aggregators and online markets. "At the end of 2021 there will be agents that will enter, especially those that have developed a network of non-banking correspondents in which to leverage, generating an acceptance network in the low-end segment", anticipates Sebastián Quevedo of Produbanco.

### Open Banking starts

"Open Finance will be the great catalyst for financial inclusion in the next ten years", predicts Pablo Viguera, CEO of Belvo, who is part of the Open Banking Working Groups with BACEN. "In places where banking is low, alternative data sources that can inform a person's finances are extremely valuable." Belvo works with companies that operate with independent workers (Delivery, Uber drivers, Didi, etc.) who do not have access to banking products and offers quasi-banking information on behavior in apps, ratings, etc. "Identifying financial data sources and being able to analyze them is key to financial inclusion," he says.

### Open Finance will be the great catalyst for financial inclusion in the next ten years

#### Pablo Viguera, Belvo

Mexico's Fintech Law, the first in the continent, requires banks and fintech companies to develop APIs with common standards to allow registered third parties access to information on product offers, aggregated data on their operations and, with the permission of customers, individual transaction data. The CNBV published in January 2021 the secondary provisions for IFPEs (e-wallets), pending since 2020, based on the principles of inclusion, innovation, user protection and technological neutrality of the Law. "With the new authorized IFPEs we will have more work as supervisors, and we already have the SUPTECH platform through which the entities will deliver all the information to comply with the Reporting, which will greatly facilitate the relationship with them", announces Mary Pily Loo from the CNBV, who recalls that IFPEs are only one of the new entities authorized by the Fintech law, they also have crowdfunding ITFs and innovative models. It clarifies that, of the 96 applications received, 52 were authorized in July 2021, some of them with conditions, and that 69 were already operating before the Law (such as Mercado Pago) and will continue to do so until they obtain the IFPE title under the transitory article 8 of the Law.

"Open Finance is a reality since June 2021. Last year the data for ATM location was opened and it is an implementation in stages because not all entities had the capacity, suppliers or personnel trained to develop APIs and security is very important", explains Mary Pily Loo. "The next step is to extend this obligation to aggregate and transactional data, for which we are preparing new provisions related to transactional information on accounts and customer credit, but it will not be until 2022 when the obligation is extended to data. credit," he adds. "The Open Finance in Mexico contemplates that the requestor of data (open, aggregated and transactional) is any technology company, not necessarily financial, such as aggregators, which are not financial entities and do not require authorization to be so, only the consent of the client. ", explains Mary Pily Loo, and clarifies that "the initiation of payments is not provided for in the law; Transactional data, as defined by law, is data on the customer's financial behavior, backwards, historically, useful above all to information aggregators and credit providers". However, it states that the CNBV and Banxico are working on the initiation of payments, although it anticipates that it will not necessarily resemble the figures contemplated in Brazil and Europe.

Special care is being taken by the authority in relation to transparency towards the client about the authorized third parties that participate in the transactions. "That an authorized ITF has your application and is transparent about whether a third party is authorized on your behalf or offers services through you". There have been cases and warnings have been issued to third parties other than financial entities that are directly or indirectly offering financial products despite not being authorized. "We are drawing the perimeter of how much information can and should be reported in this regard," concludes Mary Pily Loo.

With the new authorized IFPEs we will have more work as supervisors, and we already have the SUPTECH platform through which the entities will deliver all the information to comply with the Reporting, which will greatly facilitate the relationship with them

Mary Pily Loo, CNBV

### In our opinion, excessive transparency is required

Jacobo Miralles, Bnext

Jacobo Miralles from Bnext recounts the situation from the other side: "In our opinion, excessive transparency is required. For example, in Spain, with Bnext, people opened an account with an EDE, although their logo did not appear in our app. In Mexico our provider is another entity with a license, something that the user does not provide, and it must appear visible to the client". For its part, Banxico has highlighted the importance of standardizing the use of APIs for financial services, even more so those related to SPEI services for the identification and validation of user identity and for the initiation of financial operations. It also highlights the need to promote the development of Transfer Service Providers (PST) in the payment ecosystem, which carry out essential processes for the provision of payment services such as the initiation of transfers, issuance of payment credentials and generation of files. , for which the two infrastructures under development - the Authentication and Identity Verification System (SAVI) and the API programming interface - will be the basis for the PST to promote Open Finance in the country.

In Brazil, and as part of its "competitiveness initiative" and in conjunction with the Pix project, BACEN launched its open banking model in 2019, issuing regulations to allow the exchange of registration and transaction data and establishing an implementation plan for which he asked industry participants to develop concrete API standardization proposals. On July 15, the second of the four stages that began with the publication in April

This regulatory agenda is extremely intense and challenging, and absorbs a lot of technology resources

Ricardo de Barros, ABECS

of BCB Resolution No. 86 for public access to data from financial institutions such as the characteristics and prices of retail banking products and services ended. related to accounts, credit cards and credit operations for individuals and companies and that includes a user experience manual. Phase three begins on August 30 with the start of payment services and the submission of credit proposals, and on December 15 the fourth and final phase begins with the expansion of financial products and services such as foreign exchange operations, investments and insurance., among others. "This regulatory agenda is extremely intense and challenging, and absorbs a lot of technology resources", confesses Ricardo de Barros from ABECS. In the opinion of Carlos Moreira de Elo, "competition is going to grow, not only in interest rates but also in business models that favor the consumer, with a great capacity to improve the market, such as retailers who have a great deal of knowledge of consumption patterns of their clients and are entering to offer financial services. Open Banking offers them tremendous opportunities to grow and customize their product offering with access to financial data." Not in vain, in the last year there have been purchases of payment platforms by retailers, such as the acquisition of the credit and debit card payment processor in the cloud Bit55 by the retailer Magazine Luiza, which seeks to become a superapp of services, including financial, beyond the prepaid cards and digital accounts that it already offers.

BACEN's regulatory agenda includes providing security to non-present operations, even more so with the enabling of Open Banking. "Double-factor authentication has grown in Brazil, driven by the big Players, although it is not yet mandatory for electronic commerce, and it will soon permeate small online businesses", confirms Ricardo de Barros ABECS. It is no coincidence that Brazil already has a General Data Protection Law in force, strongly inspired by the Data Protection Regulation of the European Union. "It is important that its implementation be accelerated because the data is very valuable and must be protected," says Carlos Moreira of Elo.

"Open Banking is the hot topic of the moment. Well managed, it can generate new services, efficiency gains and benefits for the consumer", describes Felipe Novales from Asobancaria, and confirms that the association has participated in the technical roundtables for the review of good practices and is waiting to see the first draft. "There are some challenges to overcome, such as the handling of sensitive information, the verification of the identity of start-ups and the banking reserve", he adds. He considers that BaaS is the way to monetize Open Banking, a business opportunity to market in third-party interfaces, in those that the client uses the most. "How many times a day does a person access their bank's app and how many do they do it on Amazon, WhatsApp or other interfaces?" he asks. The vision of Open Data in Australia, beyond the Open Finance of Mexico or Brazil or the Open Banking of Europe, is the one that he considers makes the most sense, because "the retail sector has a lot of information on customer purchasing habits; the operators know how many apps we have installed, what our routes are; providers of basic services know how much energy we consume, so having information from a person to come up with a broader and better quality offer of products and services surely generates interesting and value-generating use cases". It concludes with four wishes regarding its conception for Colombia: Open Data and not only Open Banking; reciprocity, because banks also want to be TPPs and have access to information from other providers in different sectors; flexibility of standards based on good practices; and voluntary or mixed or gradual implementation – starting with simpler use cases. He acknowledges, however, that "although the demands for innovation against the clock do not work, the regulator does not want to leave it voluntary because it would never be implemented."

How many times a day does a person access their bank's app and how many do they do it on Amazon, WhatsApp or other interfaces?

Felipe Novales, Asobancaria

Andrés Mauricio Velasco from BANREP confirms that the URF has concentrated this year on investigating all the implications of Open Banking (initiation of payments, legal rules, portability, information security). "Despite the fact that the proposal does not require any legal modification, the government will want to enshrine it in a law because in Colombia data protection is especially sensitive." He considers that Open Banking is one more step towards an inclusive and efficient payment ecosystem. And this is also how some financial entities that are positioning themselves in this new scenario that Open Banking opens seem to understand it. The financing company Tuya will have the support of the International Finance Corporation (IFC) of the World Bank for the development of its Open Banking strategy to be a pioneer and benchmark in BaaS in the country.

The Chilean Ministry of Finance, together with the Financial Market Commission and the Central Bank, after enabling the portability of bank accounts in June 2020, has been working since November on a legal proposal towards an Open Banking standard. Any progress in this direction requires two other legal initiatives beforehand: protection of personal data and cybersecurity.

"Developing Open Banking in Costa Rica is not possible today because the banks are not prepared and the Central Bank lacks the legal powers to promote it," explains Carlos Melegatti. "Here we choose to allow fintech access to SINPE payment services, of which more than ten already have access, an option with the sole objective of building an interoperable and inclusive payment system." In fact, with the entry of Costa Rica to the OECD in 2020, it received the approval of the organization for its open approach and even encouraged to expand the number of entities connected to the national payment system.

Developing Open Banking in Costa Rica is not possible today because the banks are not prepared and the Central Bank lacks the legal powers to promote it

Carlos Melegatti, Central Bank Costa Rica

#### Sandbox

The top six winners of the New Model Sandbox Challenge in Mexico held in 2020 were Mexico's Clinch, Oikonomos, Arca Financiera, Yvi Wealth Management, Britain's Tokenise, and Chile's Quantum.

In January 2021, the Evaluation and Monitoring Committee of the government pilot that will allow Cash-in (resource deposit) and Cash-out (resource withdrawal) operations in financial deposit products on behalf of crypto asset exchange platforms selected nine initiatives to test the SFC Sandbox: Banco de Bogotá - Bitso, Banco de Bogotá - Buda, Bancolombia - Gemini, Coltefinanciera - Obsidiam, Davivienda - Binance, Powwi - Binance, Coink - Banexcoin, Movii - Panda and Movii - Bitpoint. Since February 2019, a total of 10 projects have been submitted to the Sandbox of the Financial Superintendence of Colombia.

The BACEN Regulatory Sandbox began its first annual cycle in June 2021 with a total of 52 projects selected by the Strategic Regulatory Sandbox Management Committee (CESB) for the development of solutions in the following prioritized areas: foreign exchange market, development of the capital market through synergies with the credit market, microfinancing, Open Banking, Pix, rural credit, competition in the financial system or in the payment system, payments and financial inclusion, and sustainable finance.

"In Chile, the Sandbox is not on anyone's radar, neither the government nor the fintech sector. It requires resources and structure, which we do not yet have, not to mention that there is still a lot of doubt about the positive effects that it can generate in terms of financial innovation", acknowledges Ángel Sierra of FinteChile. The sector is committed to the public-private financial innovation table with the unions and that economic freedom is respected in the style of Common Law jurisdictions. "The pioneering United Kingdom Sandbox has a huge pipeline, and many innovations fall by the wayside," says Ángel Sierra.

#### The pioneering United Kingdom Sandbox has a huge pipeline, and many innovations fall by the wayside

**Ángel Sierra**, FinteChile

With the technical assistance of the IDB and under the leadership of the Central Bank of the Dominican Republic and in which the Superintendencies of Banks, the Securities Market, Insurance and Pensions participate, a financial innovation Hub is in the design phase that will be operational in early 2022. "Anyone who has innovations in the financial sector will be able to access a web portal, provide information on objectives and have an approach and dialogue with regulators and supervisors, but we do not contemplate the figure of the Sandbox because the technological developments are not ready yet."

"There is no regulatory Sandbox in Costa Rica", confirms Alejandro Rubinstein from BAC Credomatic. "The Central Bank has been a great promoter of technological innovation, starting with SINPE, which is an ACH squared. In fact, Costa Rica was one of the first countries in the world with its interconnected and interoperable financial system".

# Overview of payment methods in Europe

Given the dynamism in Latin America, in Europe things are apparently quieter. And it's apparent because they're happening off camera, rather than in front of the public. The purpose is firm: to build the (European) payment system of the 21st century, which must be immediate and practically invisible, where Open Banking and open structures, QR, financing at the POS, cryptos, apps and wallets, biometrics, Al and other innovations enable this path towards interoperability, apification, security and access to information required by this payment system. For Maria Antónia Saldanha from Mastercard Portugal, "it is the best time for payment solutions, even if it has been motivated by something as dramatic as the pandemic. For all of us who work in payments, very challenging and exciting years are ahead." Jorge Martínez de Abanca acknowledges that "the means of payment do not have the same weight in all entities; some perceive them as a threat from the income side, when we have proven the opposite, that there are many opportunities".

Pilar Clavería from AEB confirms that "it is not yet time to talk about news because we are in a transition phase after immediate payments were launched in Spain in advance (which already represent a third of interbank transfers, many of them with origin in Bizum), while in other European countries they are still considering it".

It is not yet time to talk about news because we are in a transition phase after immediate payments were launched in Spain in advance

Pilar Clavería, AEB

Juan Luis Encinas from Iberpay confirms Spain's leadership in terms of immediate transfers, "the 5G of payments", under the euro area standard. "While the United Kingdom has had immediate transfers since 2008 and the Nordic countries since 2012, they are neither in euros nor do they follow the SEPA standard. However, immediate transfers in the euro area under the SEPA Instant Credit Transfer (SCT Inst) scheme were launched in 2017 and are based on ISO 20022 messaging, the new regulatory standard for payment messaging used throughout the world,"he explains. The use of these standards for instant payments in euros has facilitated the fact that approximately 75% of the 800 million existing accounts in Europe are already issuing or receiving immediate transfers", he adds. "In Spain, the deployment of immediate transfers has been much greater. Thanks to the advanced and innovative interbank infrastructure launched by Iberpay, the massive adherence of Spanish entities (98% of the 75 million Spanish accounts are prepared to process immediate transfers) and services as innovative as Bizum, our country has become the leading issuer in the euro area in terms of volumes of immediate transfers processed".

"The pandemic has broken mental barriers for people who previously only used cash for their daily physical purchases, in a country where everyone had a debit card." On the trade side, Jorge Martínez de Abanca highlights "the change that has meant going from selling from the physical world to the online world, a revolution that has been made in record time." Maria Antónia Saldanha from Mastercard points out that "the pandemic has brought with it collaboration and dedication to deploy solutions that fit in with the new reality causing new needs and urgencies. We never thought that they could emerge so quickly, or that perhaps they would have deserved so much effort if it had not been for the pandemic.

Anna Puigoriol has observed two patterns after confinement: "the public that adopted digital means of payment in a new way in the pandemic is not the one that uses them more intensely today and the use of cash has recovered somewhat, although not to previous levels.

In Italy, Rita Camporeale of ABI explains that the reason for the record increase in electronic payments, which have helped offset the drop in consumption, is twofold: on the one hand, the pandemic; on the other, government incentives for digital payments. "Although it is early to fully assess its impact, the cost-benefit analysis is presumed positive because a year after enabling the tax credit of 30% of the acquisition cost for small businesses, the measure was recently raised to 100%". To this is added the inauguration of the Cashless platform that rewards with refunds those who pay for their purchases digitally and register them in the IO app that groups the services of the Italian public administration.

The public that adopted digital means of payment in a new way in the pandemic is not the one that uses them more intensely today and the use of cash has recovered somewhat, although not to previous levels

**Anna Puigoriol,** Sabadell Bank

In Portugal, the government inaugurates the IVAucher program, or VAT that Vai e Volta, endowed with 200 million euros, which allows to accumulate, between June 1 and August 31, the amount of VAT paid on accommodation services, culture and restoration and subsequently use it in those sectors before the end of 2021. "In addition to being an initiative to support the businesses that suffered the most during the confinement period and despite not specifically promoting digital payment since participation is not linked to the means of payment used, it has allowed the fintech sector to demonstrate its provide precise solutions to specific needs, such as SaltPay's IVAucher platform that manages the affiliation and management of the program" specifies Maria Antónia Saldanha from Mastercard.

Regarding mobile payment, Jorge Martínez de Abanca affirms that it is already consolidated in Spain, and Paloma Real from Mastercard adds figures: "12% of POS payments are already mobile payments". But to speak of a digital payment solution in Spain is to speak of Bizum, which will close 2021 with 20 million users. With it, or thanks to it, digital payment between people has grown, which has displaced cash. "In electronic commerce -already present, for example, in Renfe- Bizum does make things a lot easier because you don't have to enter card data", explains Anna Puigoriol from Banc Sabadell, although she considers that in physical commerce other payment solutions that do not they are cards have a limited supply, so people do not adopt them. "In physical commerce, payment against an account is difficult to beat the card experience, even with Bizum, except for specific cases such as Lotteries, a very particular and specific use case that shows that there are, but you have to find them", he adds. "What the offer must do is offer something new, not so much displace other means of payment, except in the case of cash."

Ángel Nigorra, General Director of BIZUM, explains that the Bizum payment in Loterías y Apuestas del Estado presents several novelties: "It is face-to-face payment at its 11,000 points of sale, it uses QR and it is enabled not only to buy, but also to collect immediate and from account to account prizes of up to 2,000 euros". To generalize the Bizum payment in face-to-face commerce, we will have to wait until 2022. "We have our own procedures regulated by Bizum based on those usually applied by financial entities in other means of payment, to resolve potential disputes in transactions between them. Therefore, these procedures are already fully rolled out in the 2 years that Bizum has been accepted in e-commerce and would be directly extensible to face-to-face commerce. Our focus, as always, will be on providing a good user experience (UX), as we did in the payment between individuals and in electronic commerce, taking into account the wide extension of card payment in the physical world, which, without a doubt, it will be maintained", explains Ángel Nigorra. "From our point of view, Bizum should be included in the standard product package for any client, and, therefore, it would be a good complement to basic payment accounts", he adds.

12% of POS payments are already mobile payments

Paloma Real, Mastercard

Bizum is undoubtedly a benchmark at European level. "It is not that advanced in all of Europe," confirms Jorge Martínez de Abanca. "The threat is that other forms of payment will come that can put revenue at risk, such as WhatsApp, WeChat or similar solutions, with which we have to be prepared to compete," he adds.

BANCOMAT Pay®, Bancomat's mobile payment solution, the domestic interbank disposal and acquisition network, has allowed paying since 2019 after the integration of the mobile payment solution Jiffy (from SIA) in physical stores by scanning the QR code or accepting the request received by notification; while in ecommerce payment is enabled by inserting the associated phone number. One of its major competitors in the account-to-account payment segment, Satispay, receives an investment of 18 million dollars from the Chinese Tencent after the approval of the Italian government, to facilitate the expansion of Satispay services in Italy, Luxembourg and Germany. The equivalent of Bancomat in Portugal is Multibanco, owned by SIBS (Sociedade Interbancária de Serviços) which launched MBWay for P2P and P2B payments with QR or NFC with the association of the phone number to a bank card.

"The market's interest in other payment channels beyond the card is clear," admits Paloma Real from Mastercard. "So is the interest in information and data services for business processes, customer and consumer knowledge." In 2019 we welcomed the UK to this report as the Western country with the most cuttingedge retail payments agenda, so that it could serve as a guide and inspiration for other countries. An agenda supported by the pattern of transactionality that is registered in the country. In 2020, more than 52% of all payments were made with cards with debit cards responsible for 44% of the total, which amounted to 35.6 billion transactions. Nine out of ten were made by individuals and of the 4,800 million made by companies, 2,300 went to individuals. Spontaneous purchases accounted for 81% of payments made by individuals and 19% were payment of bills and regular commitments. Cash accounts for 17% of total payments, up from 45% in 2019.

### The market's interest in other payment channels beyond the card is clear

Paloma Real, Mastecard

### Open Banking and alliances

The Open Banking Implementation Entity (OBIE) in the United Kingdom, in charge of providing software and standards for the industry, registered at the beginning of 2021 more than three million individuals and companies using Open Banking. It applauds the growth of the ecosystem during the years 2020 and 2021, which has more than 300 companies registered in its directory, and more than 100 proposals in its app Store. Jim Tomaney, COO of Renovite perceives that "cloud platforms are now much more widely accepted, confirming problems in Legacy environments, beyond usability". Manuel Peleteiro, CEO of Inbest shares that in addition to the 9 banks required to operate in an Open Banking environment in the country, Monzo and Starling have already joined voluntarily. "The hype of open banking today is in payments, while data aggregation could be considered the poor brother. You can now pay your taxes, the government is an active user and there are already payment gateways, trading and transfer platforms such as Wise, operating through OB".

Cloud platforms are now much more widely accepted, confirming problems in Legacy environments, beyond usability

Jim Tomaney, Renovite

Inbest is the data analysis platform for financial inclusion that operates in partnership with governments (responsible for social services) and financial entities to improve the financial health, skills and resilience of the most vulnerable households in the country. It uses the aggregation that Open Banking allows to calculate the social benefits to which vulnerable households are entitled, in addition to offering advice on unpaid debts accompanied by regulatory solutions. "70% of users identify additional social benefits to those they were aware of, for an average monthly amount of 450 pounds," says Manuel Peleteiro.

**<sup>2</sup>** https://www.ukfinance.org.uk/sites/default/files/uploads/SUMMARY-UK-Payment-Markets-2021-FINAL.pdf

"In Spain the opening of the APIs is delayed. Despite the fact that the foundations are well established, entities must improve the availability of solutions so that users can operate with whomever they want, complying with the spirit of the regulator. If the API is so complex that the use case cannot be programmed, it does not comply with the spirit that anyone can design an application and access bank data from anywhere", denounces Jacobo Miralles from Bnext. Anna Puigoriol from Banc Sabadell suspects that PSD2 was born incomplete and complex and that it is not achieving what it was looking for. "Complexity has prevented what was sought (third party access, payment initiation) from being achieved. What part of the access is done through API? What exceptions apply?

#### In Spain the opening of the APIs is delayed

Jacobo Miralles, Bnext

Regarding alliances with third parties, Anna Puigoriol shares that "the value of the purchases that were made at the time is being maximized to get the most out of them and greatly simplify the UX on both sides, commerce / companies and owners". He affirms that "the alliances contribute in places where I do not arrive with what I have; before it was the more the better and now we seek to occupy the necessary spaces, such as financing payments on account". Since November 2020, Spain has had the Law on the digital transformation of the financial sector that includes the Sandbox, a tool that allows testing financial products and services based on digital technology, carrying out pilots without being subject to all regulatory issues. "Banks must take advantage of this space to work with fintech companies as partners throughout the value chain. The limited resources we have do not allow us to do everything in-house that we would like to do", admits Jorge Martínez de Abanca. Two annual calls are planned; In the first, 67 projects were presented.

"Stress regulation by leveraging technology." Román Benito, Manager of Open Banking and Innovation at Liberbank, explains the participation in the sandbox with a use case based on the digital identity project within the Alastria framework. "DALION is a multisectoral project whose objective is to provide citizens with a sovereign digital identity of their data, with which they can regain control of their personal information. It will allow to operate with all types of AA.PP and businesses and open to integration with other sovereign identity systems for all European citizens. From the first moment we were clear that the sandbox was a great opportunity to mature this solution".

### Stress regulation by leveraging technology

Román Benito, Liberbank

"Banks are the main fintech companies in the country, which have not stopped innovating and investing with technological proposals for the financial sector and will continue to do so with or without Sandbox, although this helps regulation adjust to innovation," he notes. Pilar Clavería from AEB and adds that "competition has never scared the sector, it is a shock and, ultimately, the biggest competition for banks today is other banks, not fintech and less so in the world of payments where We are very advanced." Solarisbank, a German technology platform for Banking-as-a-Service (BaaS) with a banking license in which BBVA participates, arrives in Spain after doing so in France and Italy, with the capacity to offer Spanish IBANs to its customers.

"Open Banking further liberalizes the actors that can provide payment solutions or integrated payment solutions in other services" recalls Paloma Real from Mastercard. "In Europe we are absolute leaders in alliances with fintech, the partner chosen by most of the new digital entrants to whom we provide a platform, knowledge, contacts, advice and fast processes to enter the world of payments", he adds. "Our goal is that between 2025 and 2030 there will be a transition and about 90% of payment transactions will be online, all tokenized and all secured."

The Italian Sandbox begins to operate in July after the publication of Decree No. 100 of the Ministry of Economy and Finance that regulates Law No. 58/2019 and establishes the criteria for the tests, as well as a Fintech Committee. "The regulatory sandbox is integrated and added to the Banca d'Italia Milan Hub that is already operational, and from ABI we suggest that a comprehensive work on KYC and digital identification of bank customers could benefit from an experimental approach based on open innovation principles. In fact, digital identification could become the cornerstone of further digitization of payments", shares Rita Camporeale. It confirms that ABI is actively working with the European Banking Federation following the European Commission's announcement of its intention to review the eIDAS Regulation.

The Portuguese government issued in March 2020 a resolution to establish the general principles for the creation and regulation of Technological Free Zones (ZLT in Portuguese) to experiment with emerging technologies such as artificial intelligence (AI), Blockchain, big data and 5G. Since 2019, Portugal Finlab already

existed, a communication channel between fintech projects and the Portuguese authorities (Banco de Portugal, Comissão do Mercado de Valores Mobiliários and the Autoridade de Supervisão de Seguros e Fundos de Pensões) to provide regulatory guidelines to participants. In the third edition of 2021, two Pitch days have been held, in February and July.

The pioneering British Sandbox has modified its operations after the evaluation carried out by UK Fintech: the space will be available continuously instead of through limited-time calls; Proposals must be intended for the UK market with little or no comparable offerings on the market. They must be a truly innovative technology, approach, product, service or model related to a topic of particular interest to the FCA, and must also produce a better outcome for consumers. With these new rules the FCA emphasizes the requirements of diversity and inclusion.

# Request to Pay, payment initiation and immediate payments

PSD2 and SCT Inst (immediate transfers) are two innovations that, together, will enable the deployment of new financial products and services for the 21st century. The new SEPA Request to Pay (SRTP) or Payment Request (immediate "pull" payment) scheme complements the SCT Inst scheme (immediate "push" payment) by facilitating the initiation and reconciliation processes of payments, allowing a beneficiary of a payment (issuer of the SRTP) requests a payer (receiver of the SRTP) to pay an amount for a transaction, this being the usual model in payments in physical or electronic commerce, where it is the seller who asks the buyer to accept and complete payment for the product purchased or the service provided. Request to Pay is a key scheme to drive instant payments based on current account.

On June 15, 2021, the first version of the regulation of the SEPA Request to Pay (SRTP) scheme entered into force. "Before the entry into force of the SRTP scheme, the Iberpay and EBA Clearing payment systems put into operation their respective interoperable and interconnected services", details Juan Luis Encinas of Iberpay.

SRTP is a messaging functionality, not a payment method or instrument, but a way to request a payment initiation, an immediate payment trigger. "The importance of the implementation of the payment request is closely related to several use cases that have already been identified by the industry, such as: unpaid or returned debts, payments in electronic commerce, the substitution of other payment instruments, payments to public administrations, payment of electronic invoices or even payments at the point of sale", illustrates Juan Luis Encinas of Iberpay. In 2021, the immediate transfer scheme has 2,326 affiliated PSPs, representing 60% of the total European PSPs, of which 272 are Italian, 89 Spanish, 16 Portuguese and 22 British. The record is held by Germany with 1,232 connected PSPs. Appointed to manage four SEPA payment schemes and tasked with reporting the above data, it launched a survey of affiliated PSPs to find out the perceived usefulness of the new RtP scheme. 56% consider that it is in the P2B or P2P segment where it makes the most sense (especially in shops), followed by 18% in the B2B segment and 17% in the P2P segment, leaving the P2G and G2P area reduced to 7%. "Those who get many receipts back would benefit from the RtP. People return many receipts that they are not interested in or are not interested in paying at that time, "explains David Lozano, founder of Afterbanks.

Those who get many receipts back would benefit from the RtP. People return many receipts that they are not interested in or are not interested in paying at that time

**David Lozano**, Afterbanks

Renovite's Jim Tomaney explains that RtP is also at the heart of discussions in the UK payments industry, although it has yet to reach consumers. "You also don't see any big payment initiation solutions deployed in the market," he says.

You also don't see any big payment initiation solutions deployed in the market

Jim Tomaney, Renovite

It is clear that, at the moment, payment initiation services have not proven capable of providing value propositions, at least not in a visible way. Jorge Martínez de Abanca acknowledges that he is working above all in the world of information aggregation for the financing business. "The initiation of payments does not contribute much more than what we already had, while the aggregation is very relevant." Anna Puigoriol of Banc Sabadell considers that the changes are slower than expected or intuited. "They will come, but at the moment neither aggregation nor initiation is a revolution, in part because the use cases have not yet been found." From the AEB, Pilar Clavería does not observe many innovations in the field of initiation of payments. "It was thought that the fact of being able to initiate payments would generate new business and service delivery models, something that is not being seen. The European Commission will give an account of this when it presents the PSD2 impact report". The reality is that PSD2 offers legal protection to activities that were already being carried out and said legal coverage does not seem to be enough to change the way things are done. "They change more with the predisposition to change of the clients and the banks know their clients very well", concludes Pilar Clavería. For his part, David Lozano of Afterbanks considers the initiation of payments suitable for large amounts such as rents, insurance companies, contributions to pension fund managers or return of fixed-amount instalments"

Liberbank is, together with BBVA, the first to have already launched payment initiation solutions. "First we made the leveraged account aggregator already in the PSD2 APIs of other banks. After the account aggregator, the first payments MVP was offering customers with aggregated accounts to make payments against other accounts. Today it is already open to business clients, which are more multientity than individuals on a stable layer of apification", explains Román Benito from Liberbank. "The next step is to open it to all digital banking users, even if they don't have added accounts and the UX isn't as immediate. One more step in our commitment to Open Banking", he concludes.

Ferdinando Visone from Italy states that "at the moment there is no real-time payment initiation paradigm". The SCA application design is a stall friction. "Until recently, to initiate a payment, the user had to provide a username + password + OTP + payment confirmation. The UX is unfair and uncomfortable." He is confident that the adoption of app-to-app biometric authentication for payment initiation and account aggregation will provide a boost to these services.

### At the moment there is no real-time payment initiation paradigm

#### Ferdinando Visone

Although oblivious to immediate payments from account to account, the European Commission's request to Visa, MasterCard and American Express to guarantee clear information to cardholders when online purchases may entail subscriptions and recurring payments after the first payment, despite not recognizing that they are not responsible for this type of seller strategies, is quite reminiscent of the purpose of Request to Pay.

"At a European level, Request to Pay may make sense for immediate payments, but for domestic payments between people it has already been resolved with Bizum," explains Anna Puigoriol from Banc Sabadell. "And for the collection management of enterprises, in Spain we have reached a way of operating that works very well, receipts or debits, which have an advantage over the RtP because the receipt drawn by the company does not have to be accepted by the owner and from the perspective of the consumer, if he accepts, the return is not contemplated." Again, use cases for these solutions are missing. "Perhaps RtP will make sense between companies when the receipt includes additional data, for example, from the invoice," he adds. And in the field of public administrations, if this additional information is included, he also considers that there could be room to develop interesting cases and support the strengthening of acquisition at that point of sale, where Anna Puigoriol points out a significant lack of homogenization: "there is no there are common standards: each autonomous community does it in its own way and independently, which requires making specific adaptations in each case".

Pilar Clavería from AEB confirms that "Spanish banking is evaluating this option, which requires other actors to be involved because the initiation is not going to be done by the bank, but by a business or service provider". And it foresees that there will be in 2022 specific use cases that allow having a broad base of entities that know how to react to these payment requests. RtP is available at Iberpay with the implementation of a new subsystem for SEPA Payment Requests in accordance with the new SRTP scheme.

In Portugal, despite the fact that the domestic service to process immediate transfers launched by SIBS has been operating since the beginning of 2018, it has the adherence of practically all banks and offers a connection with TIPS since 2020 (not so with RT1), the volume of processed operations is still low. One of the reasons that may explain this situation is that the Portuguese solution for P2P mobile payments (MB Way) does not use immediate SEPA transfers as the underlying payment instrument, but rather the Multibanco scheme.

In Italy, Nexi has launched its immediate transfer service that also facilitates the connection of its entities with TIPS. Following its merger with SIA, it is expected that it will also offer access to the RT1 service. Despite this, the volume of immediate transfers is still low due to the commissions applied and the lack of adoption of the SIA solution for mobile payments (Jiffy).

Rita Camporeale shares the interest of banks and companies in this new SRTP scheme, especially for the messaging part, although the accession process has not yet begun in the country. "It is early, we hope to start in 2022 and from the ABI we are exploring ways to accelerate the process, given that there are an interesting number of use cases in the B2B and B2C segments that could be transferred to RtP: recurring payments beyond Utilities or streaming services". He explains that in Italy the direct debit fee has increased, but there are still customers who want to keep control of the payment. "That is the key question, and for the B2B segment, Italy already had a specific instrument at the domestic level similar to RtP (C-Bill)".

There are an interesting number of use cases in the B<sub>2</sub>B and B<sub>2</sub>C segments that could be transferred to RtP: recurring payments beyond Utilities or streaming

Rita Camporeale

In Italy, the direct access of EPs and EDEs to the ACH and Target is not yet a reality and is under discussion at the European level, as confirmed by Rita Camporeale of ABI. In Spain, the fourth Regulation of the national payment system (SNCE) is published at the end of 2020, which grants greater access to Payment Institutions (PE) and EDEs, in a manner analogous to that admitted by other European payment systems without attributing them this the condition of member entities until the Firmness Directive is modified in that sense. Access allows direct participants to designate European SOEs and EDEs as Accessible Entities in the system to facilitate the identification of their clients' payment operations, and allow them to directly present and receive operations in the name and on behalf of the direct participant that have designated them. Jacobo Miralles of Bnext acknowledges that "in the short term, the greatest aspiration is access to the ACH", while expressing his doubts about whether the EDEs will need a bridge entity to access and be able to issue IBANES.

### In the short term, the greatest aspiration is access to the ACH

**lacobo Miralles,** Bnext

Juan Luis Encinas from Iberpay explains that "some European payment systems, such as Iberpay, have already opened an access that allows Payment Institutions or Electronic Money Institutions to present operations directly to the system, although they still need a Payment Institution. Credit for the settlement of operations, because this is done in an account at the European Central Bank". However, it considers that the Firmness Directive is expected to be reviewed soon and in a few years it will be possible for any PE or EDE to be a member of a payment system to present, receive and settle their operations on their own account.

Juan Luis Encinas adds that among the current challenges in Payment Systems, the following stand out: "the complete adoption of immediate account-to-account payments, including the SEPA Request to Pay, international instantaneous payments with currency exchange, full access by Payment and Electronic Money Entities, as well as the preparation of the sector for the digital euro and the possible issuance of a tokenized digital banking money, a kind of banking stablecoin".

### It's time to render accounts

#### SCA

The European Commission has asked the countries to evaluate the implementation by businesses and other operators involved in payment operations of computer systems that allow the reinforced authentication (SCA) required by European regulations for all transactions from March 2021. He made this demand to the ministers of the Economic and Financial Affairs Council (Ecofin) in November 2020. Its entry into force was scheduled in PSD2 for September 14, 2019, but the European Banking Authority (EBA) allowed countries to have more time due to the challenge for the adoption of SCA until the last operator or store that needs to your customers pay digitally for their purchases on the Internet.

In Spain, as in most countries, the extended calendar was adopted and the double validation came into force in January 2021 for operations of an amount greater than 250 euros and all in March. "The adaptation of banks to the secure authentication of PSD2 has concentrated a lot of resources and time of the financial industry and businesses, which have been very focused on that and less on communicating with the client," boasts Paloma Real from Mastercard. "It is a challenge for the banking sector to communicate with the client in a more digital world but where not all clients have sufficient digital culture."

The adoption has not been exempt from delays that have caused problems for the closing of some operations, since the issuers cannot validate those that lack a double factor. "In the area of businesses, problems have been registered, not so much in the small ones that depend on financial entities, but in the large stores that have cost them more," notes Jorge Martínez de Abanca. He recognizes that financial entities have been key because they have established areas of influence with small businesses and, although it has not been an easy transition, there have been no conflicts. He predicts as a market trend that the UX of invisible and easy payments will be the most accepted. Maria Antónia Saldanha from Mastercard Portugal describes the new biometric solution New Detect embedded in the device with four security layers that simplify processes and decontextualize customer relationship processes without affecting regulation. "New Detect recognizes if it is you who is using the device and complies with the inherence factor dictated by PSD2, the most difficult for issuers to solve. It also complies with possession." He adds that "embedding the technology in the device offers convenience and

security to the holder in their routines and allows issuers to comply with SCA requirements." Anna Puigoriol clarifies that there have also been delays in Visa and Mastercard white label wallets for issuers, with which transactions are tokenized. They have already launched in the US and it is expected that they will do so in Spain at the beginning of 2022. "For the holder, what it has is the UX, since they do not need to enter the card data (CVV, CVV2), together with security, since they are tokenized, the card data is not stored."

As a user, Pilar Clavería from the AEB recognizes that certain operations require patience and commitment. "The problem has been more than combining the pace of change of all." He refers to the data from the AEB, which shows that the levels of rejection of operations are at the same level as in the previous phase, pre-SCA. "This would mean that it is already normalized, it is a closed issue. There have always been abandonment rates and during the first months there has been an effect that might seem high, but they are generally operations that are retried".

### The problem has been more than combining the pace of change of all

Pilar Clavería, AEB

"Italy benefited from the regulatory flexibility that the ECB allowed," says ABI's Rita Camporeale. "The process was more sensitive than expected due to the pandemic. The Italian Payments Committee followed up between December 2020 and April 2021 on the migration to SCA in terms of compliance and ease of use for citizens and prioritized communication with the public to explain SCA."

### Access to cash: Cash-back

The Eurosystem's Retail Payments Strategy acknowledges that the current downsizing of bank branch and ATM networks, as well as the decline in cash acceptance by some merchants and public administrations in certain countries, has raised concerns about the ability of most vulnerable people to make payments. It also recognizes that while financial inclusion is conceptually associated with the unbanked or underbanked population, usability is a key element to guarantee effective inclusion, considering the inequality in the digital skills of the population, which includes the elderly. In this context, the Eurosystem plans to investigate the promotion of the usability of digital payments and as a first step it will design a map of the challenges that people face in digitizing their payments.

In July 2021, the Bank of Spain published the report "Cash infrastructure and vulnerability in access to cash in Spain" in which it presents an index of vulnerability in access to cash to detect those municipalities with a greater risk of being financially excluded in terms of access to cash. It reveals that said vulnerability is low in a large part of the territory, but that 1.3 million citizens are in a situation that can be considered vulnerable.

"Mastercard has identified this concern and has enabled solutions that issuers could make use of," says Mastercard's Paloma Real. "In Spain, banks have invested heavily in deploying the ATM network, the extension and capillarity of which has been and continues to be very relevant despite the setback in recent years, so there has been no real need to date to explore alternatives to Obtaining money in cash outside the ATMs of the entities. Today, the number of people who have been left without access to cash is growing, something unthinkable a short time ago," says Paloma Real.

The investment effort in technology by banks, together with the fact that new players and solutions such as fintech and Open Banking do not invest in physical infrastructure such as ATMs, will make it easier for cash-back solutions to have more space. "We will have to analyze the business model and effective demand because they are not tested from a commercial point of view, as well as the impact on small businesses." But Paloma Real foresees, in relation to cash-back, that "we will see different models for different segments of the population."

### We will see different models for different segments of the population

### Paloma Real

Correos has become an important pillar in guaranteeing that financial services reach the least served segments, in rural areas, and some entities are promoting the use of the network of Correos offices as an alternative means of obtaining cash, a practice that is call to generalize, and even to extend to other points of sale that operate under license of the corresponding authority, as is the case of tobacconists and pharmacies. In any case, whatever the strategy, Paloma Real believes that we should focus more on the Long-tail.

Banc Sabadell's Anna Puigoriol aims to seek new, efficient, public-private collaboration solutions to guarantee access to a public service that until now has been offered by the private sector. "Taking advantage of what we already have aims to devise solutions along the lines of Cash-back, alliances with Post Office, town halls". Regarding Cash-back, PSD2 requires that companies that wish to offer refunds without purchases be authorized or registered by the regulator. Meanwhile, CaixaBank agrees with a regional government the installation and maintenance for four years of 135 ATMs in unattended rural areas, for eight million euros.

"In Portugal, access to cash is free by law, which made it difficult to compete with any digital solution, something that has changed with the pandemic," saysMaria Antónia Saldanha of Mastercard.

## Europe prepares for the challenges of the 21st century

The opportunities offered by the single space for payments in euros, Cross-border opportunities still being prepared by entities with a presence in several countries, are great. "We can generate synergies, industrialize products and offer the best value propositions in each country, in each country", anticipates Jorge Martínez de Abanca.

## European payment strategy and revision of PSD2

The Eurosystem's Retail Payments Strategy published in April 2021 is based on four pillars: digital, European, immediacy and inclusive (for everyone, everywhere). It acknowledges that the wait and see stance adopted in the past has meant that Europe is overly dependent on a few foreign providers for card and online payments, leading to a high degree of market concentration.

In this context, the key priorities of the strategy are five. Firstly, the development of a European payment solution for the point of interaction (physical, mobile and e-commerce point of sale). Second, the full deployment of immediate payments, for which he points out the slow pace of adoption by the private sector and the timid progress made in the connection with TIPS; the need for lower prices, ease of use and availability in all channels for its massive adoption by the public, given that the cost of using TIPS is 0.20 euro cents per transaction, as well as offering extended functionalities such as RtP. Third, to make cross-border payments easier, cheaper and faster, for which the Eurosystem is exploring with Sveriges Riksbank how TIPS could support instant cross-border payments. Fourthly, seizing the opportunity that pan-European digital signatures and identities provide for retail payments and, finally, as already noted, advancing the environmental and social sustainability of payments, as well as the preparatory work for the possibly future digital euro.

The European Commission has launched a consultation on retail payments and a possible revision of PSD2, the result of which will be known at the end of 2021 and the revision proposal in 2022. "The impulse of immediate payments can be expected, and it would be a pity that by having to regulate for other countries that are further behind in their deployment, it meant a change of course for Spanish banks, to which the Commission pays a lot of attention due to the advances achieved in Spain", admits Pilar Clavería of the AEB. In the opinion of Anna Puigoriol "PSD2 was born a bit old and above all complex. Old with security and complex with access to third parties". Jorge Martínez de Abanca considers that thesophistication of the fraud has advanced PSD2. "Of the things that are going to be reviewed with PSD2, I would highlight the homogenization of regulation with all the actors, the frictionless UX that in some cases has been worsened, and fraud and cybersecurity, this last capital issue in the financial world in general. and in that of payments in particular".

Pilar Clavería from the AEB explains that other regulations with planned revision, such as the Interchange Rate Regulation, are not a priority right now for the Commission, especially after knowing the results of the evaluation published in 2020. "Yes, the money laundering directive is under review, a regulatory challenge at European level due to the difficulty of standardizing immediate payments precisely because of the issue of real-time controls," explains Pilar Clavería. "The levels of security and cybersecurity that are required in the sector are increasingly challenging," he concludes.

The Commission published a new package of AML/CFT rules that are to be reviewed after identifying gaps and divergences in the effective application and supervision of the rules across the EU. The package includes a proposal for the creation of a new EU authority to fight money laundering that will start operating in 2023 and that the Regulation will be applicable in 2024.

3 https://www.ecb.europa.eu/pub/pdf/other/ecb.eurosystemretailpaymentsstrategy~5a74eb9ac1.en.pdf

### European Payments Initiative (EPI)

The European Payments Initiative (EPI), announced in June 2020, aims to be a payment alternative to Visa and Mastercard with the support of 31 major banks from seven countries in the euro zone, including some of the largest in Germany and France, sixteen of the Spanish and acquirers such as Worldline and Nets and aspires to be a unified pan-European payment system offering a card for consumers and businesses throughout Europe, a digital wallet and P2P mobile payments. It is in the infrastructure supplier selection phase and is expected to enter the operational phase as of 2022. "It is representative that half of the EPI participants are Spanish entities," says Pilar Clavería from AEB, who clarifies that the project, ambitious in scale and time, is still in a phase of analysis and study. Some countries have not shown interest in the current phase of the initiative, generally because they have wellestablished domestic solutions to which EPI is not adapted. This is the case of Italy (with Bancomat), Portugal (Multibanco) and some of the Nordic countries that have already built instant payment networks and would a priori have few incentives to switch to a pan-European system.

## It is representative that half of the EPI participants are Spanish entities

Pilar Clavería, AEB

The Italian payment services company Nexi (which SIA bought shortly before) merges with its Danish competitor Nets in November 2020, with the aim of creating a new European giant in the payment services segment, already present in 25 countries. Nets had been acquired by Mastercard that same year, a process that culminated in March 2021. These moves have led to the creation of three large groups of European processors around Worldline (France), Nexi (Italy) and Nets (Scandinavian countries), all with the clear ambition of becoming European champions and providers of the EPI initiative. ABI' sRita Camporeale considers that

"mergers led by Italian companies, which lead to having global technology champions in the payments industry, is good not only for Italy, but also for Europe."

Mergers led by Italian companies, which lead to having global technology champions in the payments industry, is good not only for Italy, but also for Europe

Rita Camporeale, ABI

### Digital euro

"Everything indicates that the digital euro will be a reality because it has a lot of institutional support, although we will have to wait for the ongoing work to decide on its implementation," predicts Ángel Nigorra of Bizum. The Bank of Spain declared that the essential aspects that define the CBDC are two: its digital nature and the possibility that the range of agents that have access to the Central Bank's liabilities be broader, thus constituting a third form of Bank money. Central, together with cash (physical, not digital) and reserves (digital, but whose access is limited to credit institutions).

Everything indicates that the digital euro will be a reality because it has a lot of institutional support

**Ángel Nigorra,** Bizum

The Spanish banking industry is prepared for an eventual issuance of the digital euro. Iberpay leads the Smart Money sector initiative, which has experimented and carried out a proof of concept of the different design options for the future digital euro. Among the preliminary conclusions of the experimentation, it highlights the advantages of a hybrid distribution model, the viability of the coexistence of Token-based models (suitable for use cases of low-value offline payments) and models based on account notes (suitable for massive use cases).

Among the challenges identified, the need to i) advance in European standardization in exchange systems to enable offline payments using mobile devices and facilitate their development (through QR codes, for example), ii) establish limits to uses and possession, and/or apply an interest rate or remuneration rate to encourage the use of the digital euro as a means of payment and not as a store of value, and iii) lay the technical foundations for a new standard for international payments between different currency areas that facilitates payments with CBDC.

"Except for the considerations that the ECB has exposed on financial stability and impact on the financial sector, to the extent that it seems to focus more on being a payment instrument and not so much a store of value, the public will not distinguish on a day-to-day basis if you are paying with a digital bank euro or a digital euro from the Central Bank", explains Pilar Clavaría from the AEB.

**<sup>4</sup>** Ayuso, J and Conesa, C (2020): "An introduction to the current debate on central bank digital currency (CBDC)", Banco de España. https://repositorio.bde.es/handle/123456789/10443443

### Crypto asset regulation (MiCA)

The proposal for a Regulation of the European Parliament and of the Council regarding information accompanying transfers of funds and certain crypto assets (MiCA) classifies them into four subcategories:

- 1. General crypto assets, which do not qualify as electronic money tokens or asset reference tokens such as pure cryptocurrencies or utility tokens, intended to provide digital access to a good or service, available in DLT and only accepted by the issuer of that token.
- 2. Asset-referenced tokens, which are intended to maintain a stable value by referring to the value of various fiat currencies that are legal tender, one or more commodities, or one or more crypto assets, or a combination of such assets. They are considered the riskiest of the three subcategories and would be subject to extensive requirements.
- 3. Electronic money token, which are intended to maintain a stable value by referring to the value of a fiduciary currency of legal tender, so they are considered electronic money and, therefore, subject to requirements similar to those of electronic money -such as redemption at par and the investment of the funds received by the issuer in safe and low-risk assets- in addition to other specific rules contemplated by MiCA.
- 4. Significant Tokens, which are electronic money and asset-referenced tokens with considerable scale and/or international reach, attributes that pose challenges in terms of financial stability, monetary policy transmission and monetary sovereignty for which they are expected to be subject to more stringent requirements (such as higher capital requirements, interoperability requirements and the establishment of a liquidity management policy).

The requirements of this Regulation apply to crypto asset service providers (or CASPs) whenever their transactions, whether in fiat currency or crypto assets, involve a traditional bank transfer, or a transfer of crypto assets between a CASP and another Reporting Entity (for example, between two CASPs or between a CASP and another Reporting Entity, such as a bank or other financial institution). And transactions involving transfers of crypto assets will be treated with the same requirements as cross-border wire transfers, in accordance with the FATF interpretive note to Recommendation 16.

## UK post Brexit

The institutional arrangement for regulation and supervision of the payments industry in the United Kingdom is complex but highly transparent.

Since 2013, the Financial Conduct Authority (FCA), an independent public body financed entirely by the companies it regulates, has been responsible for monitoring conduct and prudential regulation that was previously assumed by the Financial Services Authority and is accountable to the HM Treasury (responsible for the financial system of the country) and Parliament. Its objective is to guarantee that the markets work well for people, for companies and for the economy as a whole and it pursues this by regulating the conduct of some 51,000 companies, as a prudential supervisor of 49,000 companies and as an issuer of specific regulations for some 18,000 companies. For its part, the Prudential Regulation Authority (PAR) is the prudential regulator of some 1,500 banks, Building Societies, credit unions, insurance companies and large investment companies.

The Payment System Regulator (PSR), created in 2014 under the Financial Services Act as a subsidiary of the FCA, has the institutional vision of contributing to making payment systems accessible, reliable and secure and that they offer a good value for money. It regulates eight payment systems, by designation of the HM Treasury: BACS (direct debit used by companies and public administrations to make mass payments on a set date), CHAPS (interbank RGTS operated by the Bank of England since 2017), Checks and Credit (operated by PayUK), Mastercard, Visa (operated by Visa Europe and Visa UK), Link (ATM network to which Mastercard's Vocalink provides switching and settlement services), Faster Payments (FPS, operated by PayUK) and Northern Ireland Checks Clearing (NICC). In its 2020 annual report, PSR sets out the most relevant achievements and future challenges within its field of competence.

	Financial Conduct Authority (FCA)	Payments System Regulator (PSR)	Bank of England y Prudential Regulation Autorithy (PRA)
Objectives	Consumer protection, protection of financial markets and promotion of competition.	Promotion of the interest of individuals and companies in the use of payment systems and promotion of competition and innovation.	Ensure financial stability and promote the resilience of payment systems.
Payment related activity	Regulation of conduct, including the authorization and supervision of payment service providers, a related application. Prudential regulator of payments and electronic money companies. Regulated companies include payment institutions such as non-bank money remitters and credit card issuers, and electronic money institutions.	Regulate designated payment systems and the participants in those systems, to make sure they work well for everyone.	Monitor payment systems, service providers and their users; deliver liquidation and fiduciary functions, operate the RGTS and CHAPS systems, regulate the resolution of signatures; notes issued, regulate the security and solidity of companies, with the aim of guaranteeing that critical services continue in the event of financial failure. The PRA also has a competition objective.

"The British regulator is the most advanced in the world and the one that defends consumers the most," declares Manuel Peleteiro of Inbest. "The 2008 crisis left a very important and deep mark and now its priority is consumer protection, as demonstrated in the new regulation on vulnerable customers who are required to be given preferential treatment so that they have the same opportunities as customers. not vulnerable, forcing financial entities to have adapted processes and services", he explains.

## The British regulator is the most advanced in the world and the one that defends consumers the most

Manuel Peleteiro, Inbest

The 2020 Survey of Financial Lives found that five million adults use cash for the majority of their purchases. Together with the FCA and the University of Bristol, it carried out a diagnosis on access to cash , which confirmed that 95% of people have access (bank branches, ATMs and Post Offices) within a radius of 650 meters in urban areas. and 3.5 kilometers in rural areas. In this context, together with FCA, it issues a statement declaring the union of forces in order to guarantee access to cash in the country and works with the industry and consumers in the so-called Cash Reform to guarantee that no one is left behind. as digital payments become more and more common. Extends the requirement for LINK to maintain a geographic presence of free-to-use ATMs and relaxes the regulation to extend the cash back service without purchase, given that pure Cash back (with purchase) was the second most popular way of withdrawing money in 2019.

The development of the New Payments Architecture (NPA), the payments industry's proposal to reorganize the clearing and settlement of interbank payments in the country, fell to Pay.UK in 2018 and its performance is supervised by PSR. In relation to the mandate to the six largest banking groups that concentrate 87% of bank accounts for individuals and 85% of business accounts to offer the Beneficiary Confirmation service (Confirmation of Payee) to mitigate fraud in Authorized Push Payments (APP), PSR confirms its compliance, as well as the improvement experienced in the UX and confidence in the use of bank transfers and recognizes the need to extend the use of the service to other PSPs.

Regarding the card market, PSR prepares its provisional conclusions framed in an investigation resulting from a public consultation in which the concern emerged that card acquisition services may not be offering good value for money to merchants by not transferring IFR savings to smaller merchants. An agreement was also reached with three of the parties in the investigation into anti-competitive behavior in the prepaid card market used in the 2012-2018 period for social assistance disbursements from public bodies to vulnerable groups, with penalties amounting to 32 million of pounds sterling. Finally, PSR participates in research on cryptocurrencies and the problems that could arise from becoming conventional payment systems.

Jim Tomaney of Renovite confirms that, from the perspective of users, Access to cash is indeed a Hot Topic, motivated by the pandemic and the general refusal to accept cash payments from many businesses and services. "On the other side of the coin is the spectacular growth of contactless payment, especially mobile payment with which the limit established for card payment does not apply. People are more prepared to pay with their mobile phones, something that was previously only seen in big cities and that is already extended to the whole country", he confirms. In parallel, banks, which have historically deployed ATM services autonomously (Link is an interbank network), are evaluating the opportunity to outsource the service to reduce costs. "Banks consider that the availability of cash from consumers is going to continue to fall, a trend that has accelerated dramatically since the start of the pandemic." A trend much more associated with people becoming independent of cash, rather than with the greater Cash-back options available.

From the perspective of Manuel Peleteiro from Inbest, "the controversy derives from Poverty Premium: people who use cash are the most disadvantaged groups, and many establishments do not allow cash, obviously including online ones."

The potential impact of Brexit on payments, while waiting to know the point of arrival of the entire process, Jim Tomaney differentiates them in two. On the consumer side, Brexit has not yet had an impact due to the pandemic; it will be experienced when the pandemic is over. "Without travel there is no use of payment cards outside the UK." "On the business side, it will depend on whether or not to maintain SEPA payments, which are much cheaper, faster and easier than Swift. If that scenario is not feasible with Brexit, it will be much more expensive for companies.

**<sup>5</sup>** http://www.bristol.ac.uk/geography/research/pfrc/themes/finexc/where-to-withdraw/ **6** https://www.psr.orq.uk/news-updates/latest-news/announcements/access-to-cash-fca-and-psr-joint-statement/

When the UK left the EU a UK version of the EU IFR was created to ensure that it continued to function after disengagement. The scope of the British IFR is limited to UK domestic card transactions and the HM Treasury extends the Surcharge ban to B2C payments made by cards issued by three-party card schemes (such as AMEX) or other means of payment such as Apple Pay or PayPal.

With Brexit, the United Kingdom is therefore no longer subject to the cap on interchange fees established by the IFR, a situation that Mastercard and Visa have taken advantage of to revise their cross-border transaction fees upwards, which are expected to reach 1.5% for payments with credit card and 1.15% for debit cards, two-way increase in the case of Visa (affecting both UK and EU merchants) and only for online purchases made from the EEA to ecommerce of the United Kingdom in the case of Mastercard. It is plausible that such an increase, if it occurs, will cause an increase in the Surcharge or cancellations or rejections due to unexpected charges, for which PSR will monitor the possible impacts on companies and consumers. Not in vain, in November 2021 Amazon UK announces the interruption of the acceptance of payments with Visa credit cards from January 19, 2022 for this reason. "It reminds of the reintroduction of roaming charges that some of the telephone operators have already announced", illustrates Jim Tomaney of Renovite.

## Barometer of trends in innovation

This edition gives continuity to the collaborative instrument for measuring trends in innovation in means of payment built from the responses provided by experts in the payment industry to an anonymous ad-hoc questionnaire<sup>7</sup>.

This exercise makes it possible to quantify the qualitative assessments collected in the previous qualitative sections and to contrast the current perceptions of some of the most relevant trends in innovation with those expressed in previous editions.

Some textual comments have also been collected which, as they are reiterated, are included in this introductory section.

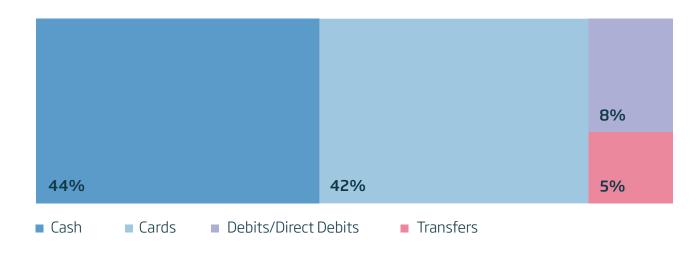
There is a clear recognition of the great acceptance of contactless payments (NFC, QR code) by consumers as a result of the pandemic and a great adoption is also anticipated of new forms of payment with biometric validation, invisible payments and virtualization. It is also noted that payment by operator (Direct Carrier Billing) is an alternative that will grow in the coming years for small and recurring payments. The strategic importance of the user experience at the time of payment is recognized, which can be a determining factor in the success or failure of solutions.

It is also recognized that technology must be within the reach of users, whose levels of knowledge will be key to adoption. That is why financial education and

technological literacy are considered important challenges for banks and fintech companies, for whose progress it is considered necessary for the private company and the public sector to work together and respectively in the development of solutions and infrastructure that guarantee access Internet and financial services for the entire population. For this reason, it is considered that, although digitization contributes to minimizing financial exclusion, the lack of infrastructure or equipment can also cause it. And something similar can happen with agents and processes that do not adapt or take advantage of technological innovations.

Finally, aspects related to environmental sustainability are pointed out, both in terms of greenhouse gas emissions and in the recovery and recycling of materials and devices.

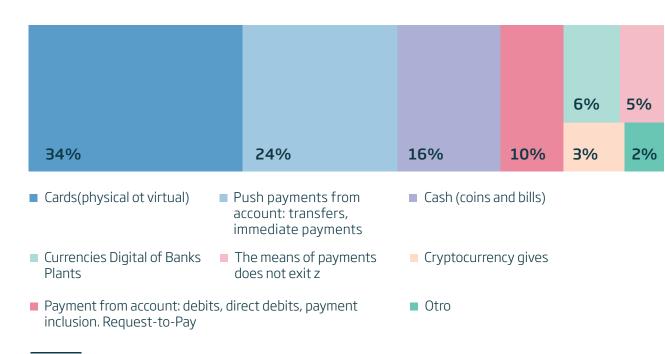
**7** A total of 212 responses have been collected from the following countries: Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Dominican Republic, Spain, Italy, Portugal, and the United Kingdom.



**Figure 1** What do you consider to be the most common means of payment in your country (the one with the highest number of payments)?

Despite the impact of the pandemic on changing habits and, in particular, towards the digitization of everyday payments, cash is still perceived by the industry (by 45% of responses) as the most common means of payment, the one with the largest number of payments, leading the daily ranking among low-value means of payment.

They are followed very closely by payment cards (42%), while payments from accounts are not perceived as such frequently used means of payment.



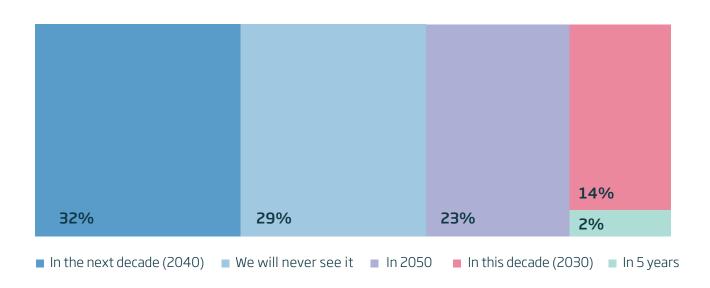
**Figure 2** What do you think will be the most widely used low value payment method in your country in 2030? (Mark the option you consider appropriate)

Looking ahead to the end of this decade (2030), there is a technical tie between payment cards and account payments - the latter considered regardless of their push (transfers) or pull (direct debits, direct debits) nature - as the of payment of low value of majority use, considered in this way by one of each three.

In this future context, push payments (24%) more than double pull payments (10%) in terms of becoming the majority means of payment. A year ago, payments from accounts slightly exceeded those from cards, so there has been a change, albeit barely perceptible, in this forecast.

Regarding the perspective of cash, located in third position in the ranking, barely one in seven considers that it will be the majority means of payment in 2030, when a year ago one in five recognized it, so that the tendency to the decline consolidates.

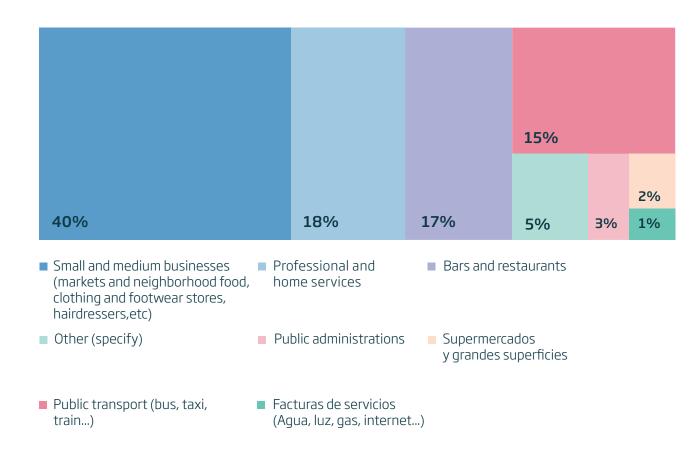
The consideration that other means of payment will be the most used means of payment in 2030 are still residual. And although central bank digital currencies already exceed 6%, cryptocurrencies do not (3%). The proportion of one in twenty who considers that the means of payment of majority use within ten years still does not exist is maintained for another year.



**Figure 3** Regarding the eventual disappearance of cash, do you consider that it will take place (Mark the option that you consider appropriate)

The opinion on the possible disappearance of cash in the next decade (before 2040) falls five points (48% vs. 53% registered in the last edition), but it is still the majority.

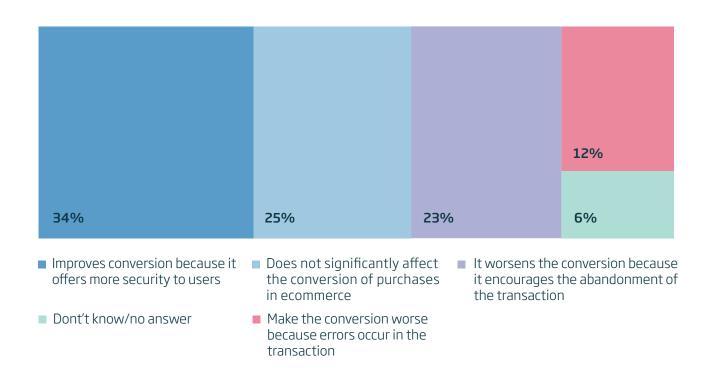
If the period is extended to 2050, this scenario of possible disappearance rises to 71%, leaving 29% who consider this scenario totally unlikely, three points less than what was recorded in the last edition.



**Figure 4** In what type of points of sale or payment do you consider that the use of cash is still majority (and even exclusive)?

The acceptance of alternative means of payment to cash is one of the determining factors of the high perceived use of cash. For four out of ten, small businesses are the point of sale that concentrates the majority use of cash. The next most relevant points of sale in this regard are professional and home services (recognized by 18%), bars and restaurants (17%) and public transport (15%).

These four types of points of sale or payment are, therefore, likely to receive the attention of payment service providers and public administrations to advance in the digitization of daily payments and aspire to the legitimate universality of payment acceptance digital.

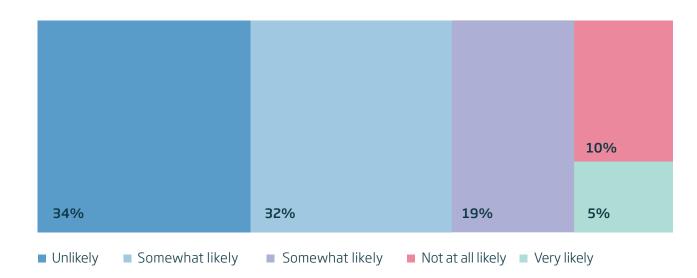


**Figure 5** Do you think that the incorporation of the double authentication factor affects the conversion of purchases in electronic commerce?

A tie is observed between the most positive evaluations (conversion improvement) and the most negative evaluations (conversion worsening) about the effect of the double authentication factor. Thus, while a third considers that the incorporation of the double factor worsens the conversion of purchases into electronic commerce, another third considers that it improves it because it offers greater security to users.

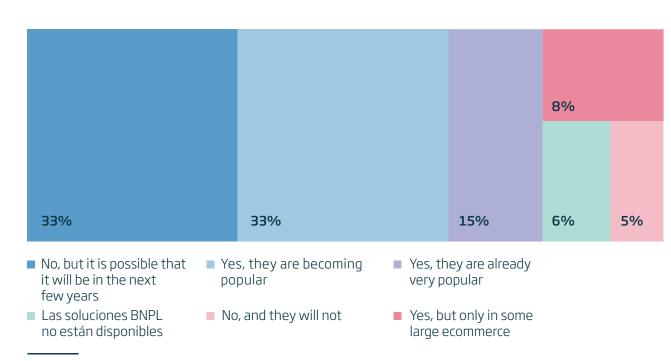
Among the most negative evaluations, greater importance is given –in a 2:1 ratio- to spontaneous abandonment by buyers than to errors that may occur in transactions, the latter largely the responsibility of issuers and/or acquirers.

As a whole, the positive evaluations (it improves or does not affect the conversion) exceed the negative evaluations (it worsens the conversion) by more than twenty points.



**Figure 6** Do you think account payments will replace card payments in your country/market in this decade (2030)? (Mark the option you consider appropriate)

Regarding the "threat of cannibalization" of payment by card for payment from an account, the perception rises 10 points compared to the last edition and the intensity of the threat is reversed: 57% believe such cannibalization is likely (somewhat, quite, a lot). to 43% who consider this threat little or not at all likely.

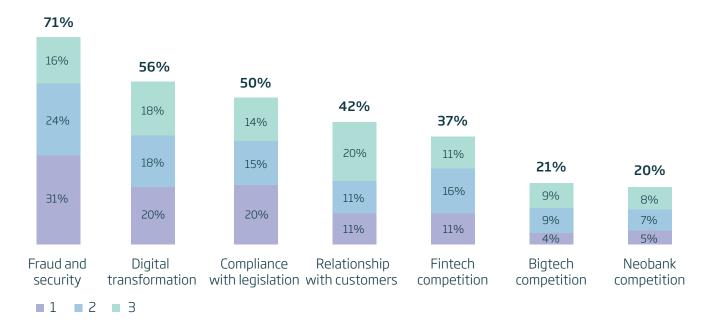


**Figure 7** Do you consider that consumer financing solutions at the point of sale (POS-financing) of the BNPL (Buy Now Pay Later) modality are a generalized alternative to credit card financing in your market?

More than half consider BNPL to be an alternative to credit card financing, either because it is widespread (15%), because it is in some e-commerce (8%), or because it is in the process of to be soon (33%).

A third recognizes that it cannot yet be considered an alternative but that it possibly will be in the coming years.

A 6% acknowledge that it is not available in their market and only 5% reject this option as feasible.



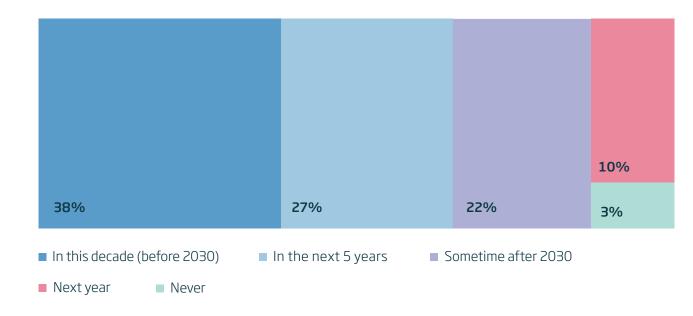
**Figure 8** What do you consider to be the greatest challenge for agents in the payment method industry in 2020? Select up to 3

The three biggest challenges recognized by agents in the payment method industry in 2021 remain unchanged compared to 2020: fraud and security (71%), which increases three points; digital transformation to a second position (56%) that repeats position and score and regulatory compliance (50%) that registers 14 points more than the last edition. The relationship with customers (42%) climbs four positions and is in fourth place in 2021.

The competitive challenge with fintech is valued by a third of those interviewed (37%), increasing almost ten points compared to the last edition, while competition with new bigtech agents is only considered a challenge for one in five (21%) and maintains a timid sixth position. In that range (20%) is the challenge posed by neobanks, which falls two positions.

The expectations that Open Banking will be a standard in the next five years fell fifteen points again compared to the previous edition (it already fell another fifteen points compared to 2019, when that was the majority feeling with 71%).

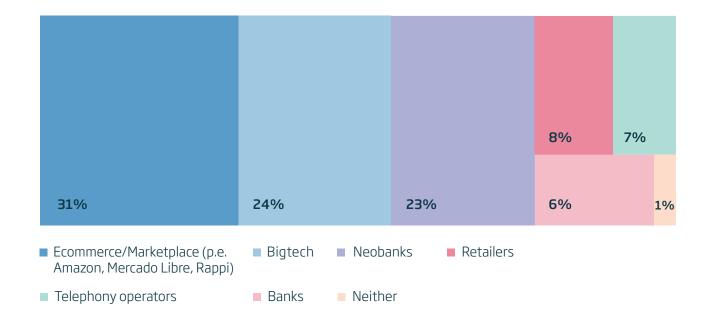
The consideration that it manages to be a standard in 2030 doubles, going from 21% last year to 38% in this edition.



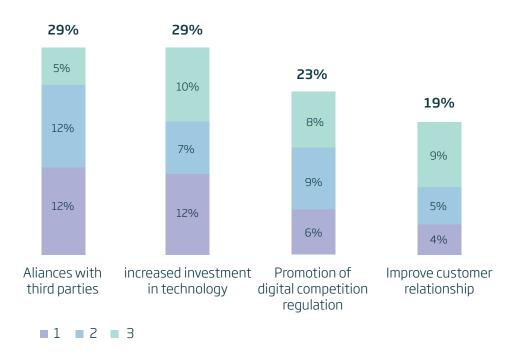
**Figure 9** What do you think will be the main competitors of financial institutions in your country in 10 years (in 2030)? (Mark the option you consider appropriate)

A third of the responses consider that marketplaces and e-commerce platforms will be the main competitors of financial institutions in 2030, seven points above the competition that bigtech and neobanks are considered to be able to exercise (24% respectively). If Retailers are added to these e-commerce and Marketplaces, the proportion increases to 40%.

Telephone operators, protagonists in other geographical areas such as Africa or Asia, are hardly considered a threat by 7% of the people interviewed.



**Figure 10** What do you think will be the main competitors of financial institutions in your country in 10 years (in 2030)? (Mark the option you consider appropriate)



**Figure 11** What do you think will be the reaction of the majority of the banking industry to the eventual entry of bigtech in the provision of financial services? (Mark the option you consider appropriate)

One out of three considers that the increase in investment in technology will be the majority reaction of the banking industry to the possible entry of bigtech companies in the provision of financial services, as reported in the last edition.

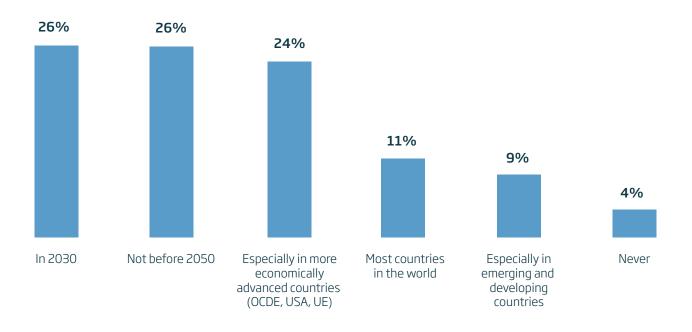
However, this year it shares the first position with alliances with third parties. The promotion of a regulation of digital competence is in third position above the improvement of the relationship with the client, which barely seduces one in five.

Optimism regarding central bank digital currencies (CBDCs) as an everyday payment method is reflected in the prevalence, albeit small, of 2030 as a more likely arrival date than 2050, albeit focused on those more economically advanced countries.

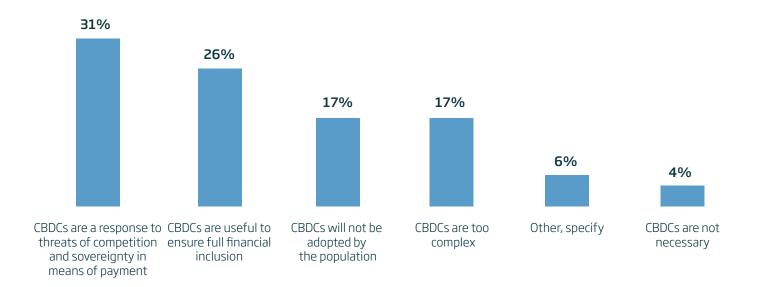
Only 4% give a null probability that CBDCs are a widespread reality, motivated by not being considered necessary.

The declared optimism responds to its condition of response to threats of competition and sovereignty in means of payment (31%) as well as its usefulness in guaranteeing full financial inclusion (26%).

Among the less optimistic, the complexity of its design and the forecast that it will not be adopted by the population weigh equally. 6% think that an alternative to be considered before the implementation of CBDCs in emerging countries is immediate payments.



**Figure 12** Do you think that Central Bank Digital Currencies (CBDC) will be a means of daily payment in...? (Mark up to a maximum of two options that you consider most appropriate)



**Figure 13** What is the reason for your previous answer? (Mark up to a maximum of two options that you consider most appropriate)

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# The sector in figures





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The monitoring of official payment statistics carried out within the framework of this report since its first edition now allows us to have a retrospective view of more than a decade, which has culminated in a year absolutely overwhelmed by the COVID-19 pandemic

Undoubtedly, the digitization of payments and the infrastructures that support them have made it possible to maintain normality in this highly specialized and at the same time popular area (because payments and collections are made by the entire population).

But there is also no doubt that there have been changes that are worth noting in the battery of data that are made available on these pages.



## Payment statistics are essential for decision making

Since the first edition, the aim has been for this chapter to become a source of reference and useful knowledge for making public and business policy decisions. A qualitative leap in terms of precision, diversity and statistical innovation is expected in the next edition.

The reason is that the European Central Bank (ECB), which has compiled payment statistics since 2014 based on Regulation ECB/2013/43, has implemented a substantial reform in reporting that will be visible in 2022. PSD2 requires expanding the scope of reporting and monitoring to new payment services (initiation of payments and account information), new types of entities and new security measures (authentication methods). Also the 2014 Interchange Fee Regulation (IFR), which introduced a new definition of cross-border payments and, with it, changes in the notification regime of such payments in order to use statistics to support the monitoring of cross-border trade.

As a result of PSD2 and IFR, the ECB modified in December 2020 the Regulation on payment statistics and introduced new information requirements in relation to information on innovative payment services and channels, payment systems, and fraudulent payment operations. The modifications are basically divided into two: increase the frequency of reporting, and expand the perimeter and detail of the information.

In relation to the frequency, the presentation to the ECB by the national authorities of quarterly and half-yearly statistical information will begin with the quarterly data for the first quarter of 2022 at the end of May 2022 and the half-yearly data for the first half of 2022 at the end of November 2022.

In relation to the scope, greater detail is conceived, frequency (quarterly) and perimeter (worldwide) of card payment transactions and the merchant's activity sector through the merchant category code (MCC). Regarding new products and services, the ECB confirms the feasibility of presenting statistics on digital wallets, P2P and P2B mobile payment solutions, ATM and POS-initiated payments, e-commerce payments, payments initiated by service providers payments, services provided by account information service providers, payments with cards provided by issuers of card-based payment instruments (differentiating between debit, credit and prepaid), including three-party (not retail cards unless that have the flag of one of the networks); contactess payments, and instant payments. Transactions

initiated through payment initiation services will be broken down by remote and non-remote initiation channel, and within each category, by type of authentication (SCA, non-SCA) and reasons for not applying a second factor.

These statistical improvements -some of them already implemented in Latin American countries- will be duly transferred to these pages with the aspiration that they serve as inspiration, as PSD2, RGPD and IFR have already done, to many countries outside Europe.

## Payments from account grow during the pandemic

Over the last decade (2010-2020), the value paid from accounts in Latin America (primarily via transfers) has gone from representing 74.3% of all payments made by electronic means in 2010, to 85.2% in 2020 (83.9% in 2019) (see **Figure 1**), expanding its undisputed leadership as leading payment method in terms of value.

In 2020, cards represent 5.9% of the value compared to 3.7% in the previous decade and are ranked for the first time as the second means of payment in terms of value.

Checks give up one position and fall for the first time to the third, concentrating 5.1% of the value paid in 2020 (7.0% 2019). A decade ago they channeled one of every five dollars paid by means other than cash in the region (19.2% of the total value).

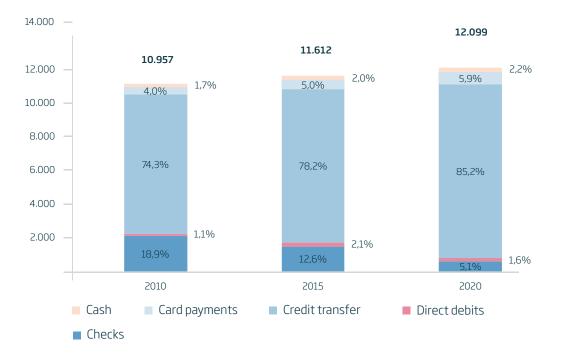
Direct debits hardly grew during the decade (from 1.1% in 2010 to 1.6% in 2020), and in some countries they are still not even enabled.

In terms of volume (or number of operations, see **Figure 2**), card payments in 2020 concentrated in the Latin American region almost eight out of every ten payments made by digital means (76.7%), while in 2010 they represented almost seven out of every ten (66.5%), reducing its share compared to 2019. In absolute numbers, the 10.7 million card payments registered in the region in 2010 have become more than 30.7 million in 2020, tripling in the last decade. The effect of the pandemic on the intensity of card transactions is very significant, since the global number of operations has remained almost unchanged compared to 2019, when in the 2010s the registered interannual growth has been uninterruptedly positive and two digits in the middle.

In the year of COVID-19, the behavior of card payments has been uneven among the countries of the region, registering positive interannual fees only in Argentina (2.8%) and Brazil (2.7%), and negative in the rest, with special intensity in Ecuador (-30.7%), the Dominican Republic (-17.1%), Peru (-16.0%) and Costa Rica (-15.7%). Interbank transfers amount to 20.8% of total digital payments (16.1% in 2019 and 18.5% in 2010), almost quadrupling the number (from the 2.3 million interbank transfers recorded in 2010, to the most of 8,000 million in 2020). In interannual growth in the intensity of use of transfers, Costa Rica (84.6%), Peru (73.4%) and Colombia (48.27%) stand out by far. At the opposite extreme, the most timid growth in 2020 was led by Ecuador (8.3%), Chile (10.1%) and Argentina (10.9%).

Cleared checks fall from more than 1,600 million in 2010 to just 470 million in 2020 and their proportion in total payment operations also plummets: from 13.1% in 2010 to 1.2% in 2020. The use of the check falls in all the countries of the region in 2020. The most significant drop in 2020 was recorded by Peru, with a specular interannual drop in transactionality (-51.8%), followed by Chile (-41.4%). The most pronounced fall in the last decade has been carried out by Costa Rica (-14.4% CAGR), Colombia (-12.7%) and Brazil (-11.4%). These same countries have led the decline of the check in terms of value paid.

The number of direct debits doubled in a decade (from 238 million in 2010 to 544 in 2020), but fell in relative weight from 1.9% to 1.4%. The direct debit with which the check competes for the last position in terms of transactions in the region, once again Colombia stands out for registering positive interannual growth (15.6%), far behind Mexico (7.6 %), unique with positive fees although only the first with a relevant dimension.



**Figure 1** Value of payment transactions in Latin America in 2010, 2015 and 2020, by instrument, billion USD

Source: Afi, based on central banks and bank superintendencies. Exchange fees of the corresponding year

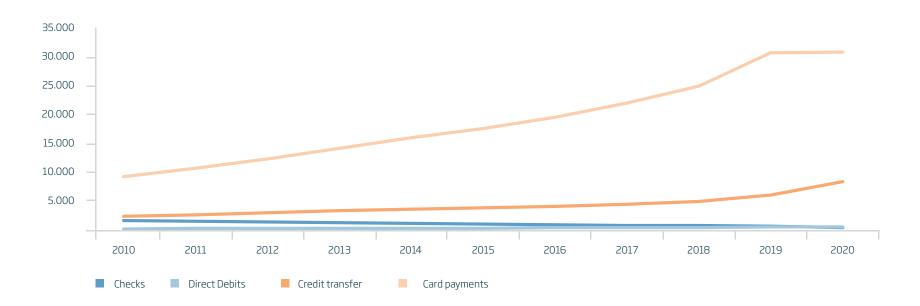


Figure 2 Number of payment operations in Latin America, 2010-2020, million

Source: central banks and bank superintendencies

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In terms compared to Latin America, Europe has registered less pronounced changes in the last decade, especially static in the case of Italy, with an immovable presence of payments from account in more than 9 out of every 10 euros paid.

The pattern of participation of the different means of payment in the value of operations in Spain and the United Kingdom is (**Figure 3**) very similar. In all countries, transfers are the means of payment that channel the greatest value, as in Latin America, although with different intensities: while in Italy more than 8 out of every 10 euros paid by digital means are paid by transfer, in Spain they are 6 out of 10 and in the United Kingdom 7 out of 10. Transfers are, together with cash, the only means of payment that gain prominence in terms of value in 2020 and that do not register negative interanual rates.

With more than 610 million transfers ordered in 2020, a number similar to that of the previous year, Spain is the European country with the most timid interanual growth in transactions (1.5%), far from the 7.2% and 7.8% registered by the United Kingdom and Portugal, respectively. (**Figure 4**).

Contrary to what happens in Latin America, direct debits in Europe enjoy a very relevant presence, especially in the United Kingdom and Spain. In the latter they concentrate 13.5% of the total value of transactions and 18.8% of the volume in 2020, although reducing their relative participation with respect to 2010 by 3.5 and 11.4 points, respectively. A significant drop in terms of transactions (in absolute numbers, in 2010 1,120 million direct debits were ordered, while in 2020 there were 1,240 million). However, they continue to hold the second position as a means of payment in terms of value, only behind transfers. Thus, payments from an account (push and pull), which accounted for 64.9% of the total value paid in Spain in 2010, reach 73.9% in 2020. Three out of every four euros paid in Spain are paid from an account.



**Figure 3** Value of payment transactions in Spain, Portugal, the United Kingdom and Italy in 2010 and 2020, by instrument, million USD

Source: Afi, based on superintendencies and central banks

The most significant variation of the period is that registered by checks, which from concentrating more than one of every five euros paid in 2010 (20.3%), go on to do so in one of every fourteen (7.8%) in 2019, abandoning the second position as a means of payment with the highest value traded. More significant is the change from 2019, when they represented 13.9% of the amount paid. In transaction volume, they barely represent 0.4% of the total (26 million checks in 2019), the lowest percentage of all the countries in the Report. In Europe, the United Kingdom is leading the fall in the use of checks (-16.3% CAGR 2010-2020), although all European countries more than comply with said global trend (Portugal -15.2%), Italy (-10.9%) and Spain (-9.6%). For the period mentioned, Spain registers a volume of cash in circulation 93% higher than that registered in 2010, and 48% higher than that registered in 2019, the highest of all the countries included in this Report.

In Portugal, credit transfers represented 56.2% of the total value of transactions in 2020, with 180 million transfers ordered, more than double what they represented in terms of value (24.9%) and volume (86 million). in 2010. These become the main means of payment in value, when in 2010 it was, with an abysmal difference (45.1% of the total), the check (12.2% in 2020). However, in terms of volume, credit transfers in Portugal rank third behind cards and direct debits. The weight of direct debits in terms of value has stabilized in the last decade, as it remains at around 7.0% of the total value paid and is in fourth position as a means of payment. It does increase transactionality considerably, from 7.4% of total payment operations in 2010 to 14.0% in 2020, three points above transfers.

The most significant variation of the period is that registered by checks, which from concentrating more than one of every five euros paid in 2010 (20.3%), go on to do so in one of every fourteen (7.8%) in 2019, abandoning the second position as a means of payment with the highest value traded

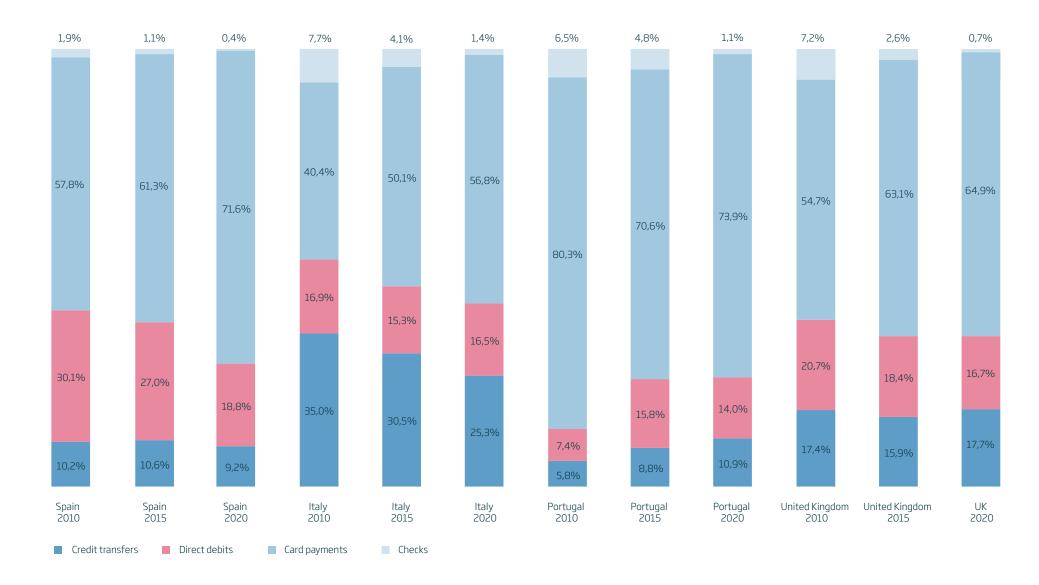


Figure 4 Number of payment transactions in Spain, Portugal, the United Kingdom and Italy, 2010, 2015 and 2020, million

Source: Afi, based on central banks and bank superintendencies. Note: The data for the United Kingdom refer to the year 2013 because it is the first year with complete information available

In the United Kingdom, the number of transfers and direct debits made in 2020 is very similar, around 4,500 million of each modality, and they represent a third of the total registered payments. However, the former account for more than seven out of every ten pounds traded in 2020 (56.6% of the total) and the latter barely one out of every seven (14.8% of the total). The relative weight of debits falls. Card payments represent 8.8% of the total paid in 2020; 7.2% in 2010. The United Kingdom also registered an increase in cash in circulation in 2020 (4.8%), when since 2015 it had been stagnant.

Italy is the European country where the least pattern changes have been observed in the last decade. It is also the leader in Europe for payments from accounts, since they account for 91.5% of the value of registered payments, and 41.8% of the volume. It is followed by the United Kingdom with 87.2% of the value and one out of every three registered payments. Far behind are Spain (73.9% and 28.0% respectively) and Portugal (62.9% and 25.0%).

Card payments represent 18.5% of the value of payment transactions in Portugal in 2020, ahead of the United Kingdom (8.8%), Spain (7.3%) and Italy, where they barely represent 2, 6%. In terms of volume, the United Kingdom leads in transactions, with 17 million card payments registered in 2020, two million less than the year before the pandemic, a drop of ten points. Spain is the only country with positive interannual growth rates in card transactions, reaching 4,700 million payments in 2020, above the 3,500 million in Italy or the 1,200 million in Portugal. In terms of transactions, they represent 73.9% of the total payments made in Portugal, 71.6% in Spain, 64.9% in the United Kingdom and 56.8% in Italy.

The year of the pandemic has had different effects in the four European countries in terms of the use of the different means of payment, except in the case of checks, which registered a cut of almost a third in the number of operations in all of them. Portugal (-9.4%) and the United Kingdom (-6.5%) lead the drop in global transactions in 2020, while Spain (2.3%) and Italy (1.5%), the leading European countries in decreeing confinements and limitations to mobility, they register positive rates. In those that fall (Portugal and the United Kingdom), cards are the ones that are most affected and transfers only absorb part of said fall. In those that are growing (Spain and Italy), only direct debits and cards, respectively, suffer, but more timidly.

	Spain	Italy	Portugal	United Kingdom
Checks	-26,40%	-28,70%	-27,90%	-27,10%
Direct Debits	-4,00%	5,50%	-6,50%	0,80%
Credit transfer	1,50%	5,30%	7,80%	7,20%
Card payments	4,40%	-0,20%	-11,70%	-10,90%
TOTAL	2,30%	1,50%	-9,40%	-6,50%

**Table 1** Annual growth rate in transaction volume by means of payment, 202

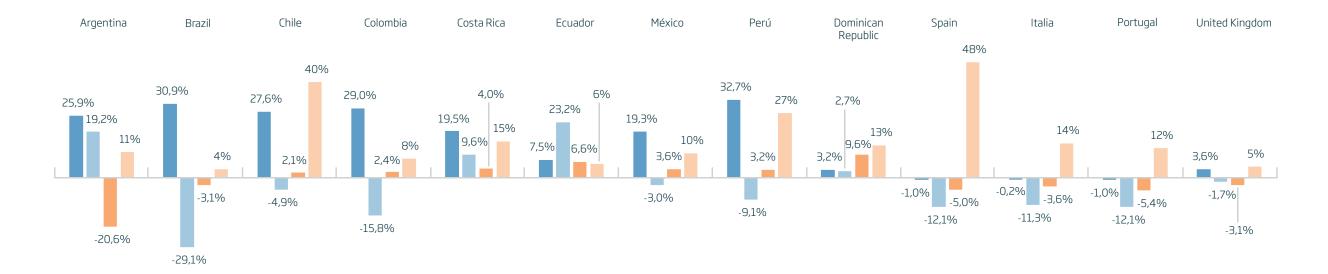
Source: Afi, based on central banks and bank superintendencies

### The pandemic causes a cash hoarding effect

The effect of the pandemic on the volume of cash in circulation is very significant, as stated in the **Figure 5**. After a decade of continued declines in the volume of cash in circulation in practically all countries, all of them recorded notable growth in 2020, with particular intensity in Spain (where cash in circulation grew by 48% compared to 2019) and Chile (40%). At the opposite extreme, but also with a positive sign, are Brazil (3.5%), the United Kingdom (4.8%) and Ecuador (5.9%).

Eln Spain, cash in circulation accounts for just over 214 billion euros in bills and coins in 2020, and represents 19.2% of GDP (exceeding Italy by five points in this relative indicator), and more than seven points above the record of the prepandemic year. In Portugal, the 32 billion euros in circulation represent 15.6% of GDP, while in the United Kingdom the 237 billion pounds in circulation are equivalent to 4.1% of British GDP in 2020 (**Figure 6**).

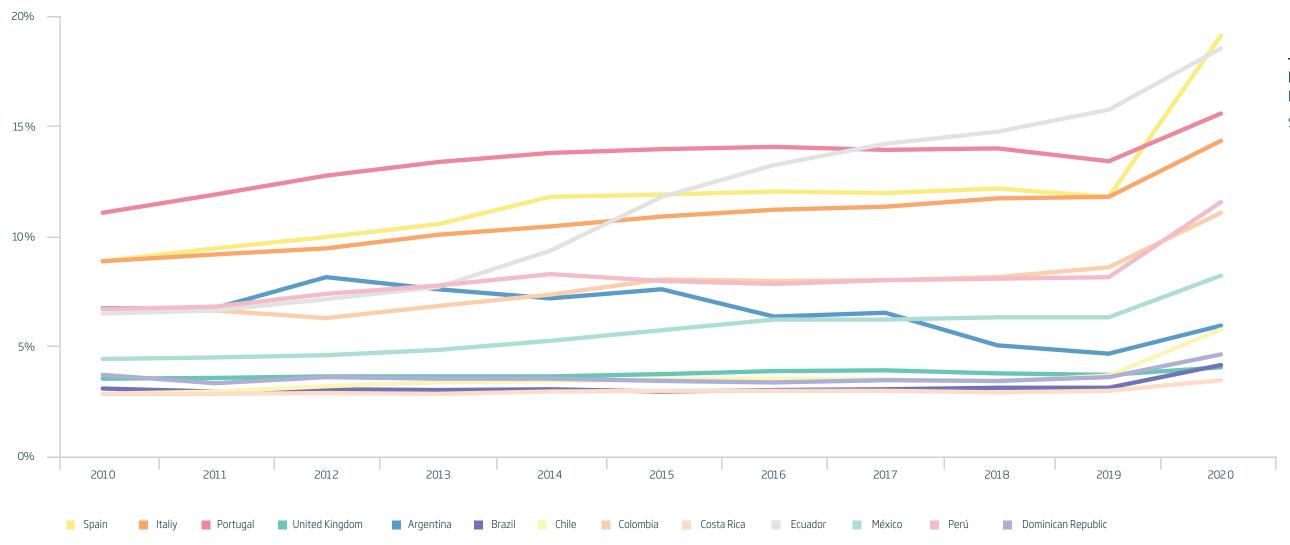
In Latin America, the weight of cash in circulation over domestic GDP ranges from 18.6% in Ecuador to 3.5% and 4.2% in Costa Rica and Brazil. The highest growth in 2020 is recorded by Ecuador (40.0%) and Peru (27.1%).



**■** 2010 **■** 2015 **■** 2019 **■** 2020

**Figure 5** Cash in circulation, interannual growth, 2010-2020

Source: Afi, based on superintendencies and central banks



**Figure 6** Currency in circulation in Latin America and Europe, dollars, 2010-2020, % of GDP

Source: Afi, based on superintendencies and central banks

## Diversity of payment patterns

On average, each inhabitant in Spain made 101 card payments in 2020, 13 credit transfers (4 of which were immediate), 27 direct debits and issued 0.6 checks. In terms of value, each inhabitant in Spain spent an average of 3.921 dollars with cards, in line with what was registered in Italy. The United Kingdom leads in this area (13,269 dollars paid by card per inhabitant in 2020), followed by Portugal (6,595 dollars) and Chile (5,258). Ecuador, with three card payments per inhabitant and 236 dollars spent, is the country that is in last position.

In the United Kingdom there were 66 ordered debits per inhabitant, more than double the 27 registered in Spain and the 22 in Portugal. From the average amount of ordered transfers, the different use of this means of payment in each country can be inferred depending on whether the payer is predominantly a natural person (individual) or legal entity, ranging between 109,252 dollars paid per inhabitant in United Kingdom or the 62,690 in Ecuador, and the 1,779 in Peru.

United Kingdom, Portugal, and Chile lead the number of transfers made by each inhabitant on average. The average of transfers allows intuit the different use of this means of payment in each country

	Card payments	Direct debits	Credit transfers	Checks	B.Quickly transfers
Argentina	46	7,1	9	1,2	7,1
Brazil	100	-	27	1,3	-
Chile	120	-	11	2,9	-
Colombia	13	3,3	4	0,1	-
Costa Rica	72	0,1	16	0,9	10,8
Ecuador	3	-	5	1,0	-
México	27	0,4	13	0,3	8,3
Perú	14	-	2	0,1	0,4
Dominican Republic	14	0,6	3	1,9	0,7
Spain	101	27	13	0,6	4,1
Italy	59	17	26	1,4	-
Portugal	118	22	18	1,8	0,5
United Kingdom	259	66	71	2,8	42,0

<b>Table 2</b> Number of transactions
per inhabitant, 2020

Source: Afi, based on central banks and bank superintendencies

	Card payments	Direct debits	Credit transfers	Checks	B.Quickly transfers
Argentina	1.362	3.665	3.317	1.990	2.413
Brazil	1.767	-	23.978	579	-
Chile	5.258	-	10.165	9.840	-
Colombia	556	438	8.525	752	-
Costa Rica	2.302	199	24.834	2.165	18.193
Ecuador	236	-	62.690	1.982	-
México	797	63	31.757	578	4.125
Perú	630	-	1.779	578	151
Dominican Republic	541	172	4.278	3.228	2.025
Spain	3.921	7.265	32.412	4.181	1.339
Italy	3.756	8.089	26.212	3.264	-
Portugal	6.595	3.740	31.243	6.774	683
United Kingdom	13.269	22.259	109.252	4.369	39.686

**Table 3** Value transactions per inhabitant, 2020, USD

## Transfers (push) gain weight and universality

In Latin America, Peru, the Dominican Republic, Mexico and Costa Rica experience greater dynamism in the use of credit transfers in the 2010-2020 period. The compound annual growth fees for the period are between 36% and 32%, 27% and 23% in number, respectively, and 20%, 7%, 1% and 7% of the value of operations.

The growth of transfers in Costa Rica and Peru in 2020 is very unique, especially in terms of volume (84.6% and 73.4% respectively), in a year in which the transactionality of transfers grows, however, in all the countries. In terms of value, growth is recorded –Argentina (21.9%), Dominican Republic (8.4%), Peru (7.5%) and Chile (1.6%), but also falls –from –3.1% from Colombia to –9.5% from Mexico.

In Europe they grow more timidly than in Latin America, but from a much more developed, relevant and universal base among the population.

In Europe they grow more timidly than in Latin America, but from a much more developed, relevant and universal base among the population

	Number of operations (millions)	Value (Billions of USD)	Average transaction amount (USD)	Number of operations	Amount	Number of operations	Amount
		2020			Growth rate 2019-2020		te annual 2010-2020
Argentina	393	150	381	11%	22%	22%	12%
Brazil	5.637	5.097	904	36%	-7%	11%	2%
Chile	207	194	938	10%	2%	12%	8%
Colombia	198	434	2.194	48%	-3%	10%	2%
Costa Rica	83	127	1.517	85%	-4%	23%	7%
Ecuador	82	111	1.356	8%	-3%	12%	14%
México	1.660	4.094	2.467	47%	-10%	27%	1%
Peru	61	59	969	73%	8%	36%	20%
Dominican Republic	33	46	1.404	33%	8%	32%	7%
Spain	611	1.515	2.481	2%	5%	5%	2%
Italy	1.585	1.585	1.000	5%	5%	3%	3%
Portugal	179	319	1.784	8%	5%	8%	7%
United Kingdom	4.796	7.417	1.547	7%	3%	6%	4%

#### **Table 4** Interbank transfers, 2020

Source: Afi, based on central banks and bank superintendencies

<sup>1</sup> Data from the Bank of Mexico for interbank credit transfers include payment orders from the low-value Electronic Funds Transfer (EFT) system and the Interbank Electronic Payment System (SPEI) of up to 500.000 pesos, as well as credit card payments. credit from other banks

**<sup>2</sup>** In the Dominican Republic includes both low-value and high-value transfers and instant payments

**<sup>3</sup>** UK includes credit transfers made through Faster Payments Scheme Limited as well as direct credits made through Bacs Payments Scheme Limited

# Immediate transfers (fastpayments) already present in most countries

The transfers are processed in real time, with service hours 24x7, in an exchange time of just a few seconds and with immediate payment of the funds in the beneficiary's account. They usually have a limited maximum amount per operation.

They usually have a limited maximum amount per operation, which in the United Kingdom has been raised in 2022 to one million pounds sterling, while in the eurozone the limit is currently, and since July 2020, 100,000 euros.

In the case of Brazil, the Central Bank delegates to financial entities the establishment of transaction limits with Pix, although it limits night transactions to amounts of a maximum of 1,000 reais, equivalent to 190 dollars.

Banxico establishes a maximum daily limit of 8,000 Mexican pesos (390 dollars) for immediate transfers 24/7 of the CoDi system. For its part, the Central Reserve Bank of Peru established in November 2020 the maximum limit of 30,000 soles and 10,000 USD for operations in soles and dollars, respectively. SINPE mobile in Costa Rica sets daily limits for free immediate transfers at 100,000 colones (155 dollars).

	Number of operations (millions)	Value (Billions ofUSD)	Average transaction amount (USD)	Number of operations	Amount	Number of operations	Amount
		2020			vth rate 9-2020	Inmedia percentage	
Argentina	323	109	338	87%	33%	82%	73%
Brazil	178	0,03	0,2	-	-	1,2%	0%
Chile	207	194	938	10%	2%	100%	100%
Colombia	-	-	n.d	n.d	n.d	n.d.	n.d.
Costa Rica	55	93	1.687	181%	-6%	24%	73%
Ecuador	-	-	-	-	-	-	-
México	1.070	532	497	57%	-4%	42%	7%
Peru	13	5	386	156%	79%	2%	0,7%
Dominican Republic	7	22	3.109	100%	20%	7%	21%
Spain	192	63	326	140%	23%	14%	0,8%
Italy	-	-	n.d	n.d	n.d	n.d.	n.d.
Portugal	6	7	1.244	81%	56%	2%	0,5%
United Kingdom	2.850	2.694	945	17%	9%	59%	36%

**Table 5** Instant transfers, country selection, 2020

Source: Afi, based on superintendencies and central banks

# Direct debits (pull) continue to be token in the region

Only Argentina, Colombia and Mexico register operations in the region in significant volume and value through direct debits. Argentina and Colombia are exceptional cases, since the transfers registered in 2020 are only 19% and 16% respectively higher in number than direct debits. In Argentina, direct debits and transfers equal in transaction (13.6% and 11.0%) and in value (35.5% and 32.1%).

Despite its still small size, considering the number of operations, the use of direct debits has grown very significantly in the period 2010-2020 in the Dominican Republic, Costa Rica and Mexico.

In Spain, direct debits, as they are also called, barely grew by 1.1% CAGR in the period in terms of volume, and fell by 2.1% in value, the European country in which they grew the least. The highest growth in the period (7.7% CARG) is recorded by Portugal.

The average amounts differ substantially, from \$167 in Portugal to \$473 in Italy. The country with the highest average amount paid by direct debits is Costa Rica (1,486 dollars) and the lowest, Colombia (135 dollars).

	Number of operations (millions)	Value (Billions ofUSD)	Average transaction amount (USD)	Number of operations	Amount	Number of operations	Amount
		2020		Growt 2019-		Composit growth rate	e annual 2010-2020
Argentina	319	166	518	0%	-8%	7%	5%
Colombia	166	22	135	16%	-12%	10%	5%
Costa Rica	1	1	1.486	-21%	2%	21%	-5%
México	52	8	155	8%	-14%	16%	11%
Dominican Republic	6	2	294	43%	84%	47%	6%
Spain	1.246	340	273	-4%	-8%	1%	-2%
Italy	1.033	489	473	6%	-6%	6%	0%
Portugal	229	38	167	-7%	-1%	8%	-1%
United Kingdom	4.512	1.511	335	1%	-11%	3%	0%

### **Table 6** Direct debits, 2020, selected countries

**<sup>1</sup>** Authorized Direct Debits (DDA), are not considered under this definition

**<sup>2</sup>** The data for the Dominican Republic includes both low-value and high-value direct debits, since the financial institution can choose the settlement system to use

## Global pre-eminence of the debit card, except in Argentina

In the set of thirteen countries included in the Report, there were more than 1,500 million payment cards in circulation at the end of 2020, of which two out of three are debit cards and almost half correspond to the Brazilian market and, considering only the of credit, this country concentrates more than half. Considering only those of credit, this country concentrates more than half.

Mexico, Peru and Italy stand out for being predominantly debit countries (more than 80% of the cards in circulation are of this modality), while on the opposite spectrum are Argentina (49% of the card park is debit), Spain (57%) and the United Kingdom (59%).

In the case of Spain, the payment card park reached 86.2 million plastics at the end of 2020, a historical record despite growth was just 0.7% during the year of the pandemic. The highest interannual growth in the number of cards was registered in Brazil (29.4%), Mexico (23.3%) and Portugal (14.3%). Chile registers a singular drop of eight points, the largest of the only three countries included in this report that register setbacks in 2020 (United Kingdom -4.1% and Dominican Republic -0.7%).

	Charge cards	Credit cards	Total
Argentina	56.719.419	59.287.804	116.007.223
Brazil	453.542.416	281.075.738	734.618.154
Chile	21.712.213	13.993.720	35.705.933
Colombia	36.387.824	14.676.302	51.064.126
Costa Rica	6.045.921	2.446.768	8.564.381
Ecuador	8.150.126	3.392.684	11.542.810
México	157.782.610	27.679.900	185.462.510
Perú	26.889.060	6.315.235	33.204.295
Dominican Republic	5.576.300	2.450.340	8.026.640
Spain	49.040.000	37.140.000	86.180.000
Italy	59.418.000	14.290.000	73.708.000
Portugal	24.728.000	8.650.000	33.378.000
United Kingdom	92.172.000	62.948.000	155.120.000

**Table 7** Number of debit and credit cards in circulation, 2020 Source: Afi, based on central banks and bank superintendencies

In the set of thirteen countries included in the Report, there were more than 1,500 million payment cards in circulation at the end of 2020, of which two out of three are debit cards and almost half correspond to the Brazilian market Argentina is on the verge of transforming from a credit card country to a debit card country, a transformation that Spain experienced in 2018 due to a change in the card classification system of the Bank of Spain. The UK, Brazil and Chile share a similar pattern, with between 1.6 and 1.5 debit cards for every credit card in circulation in 2020. The debit park more than doubles the credit park in Colombia, Costa Rica, Ecuador, the Dominican Republic and Portugal. And Mexico continues to stand out for another year, with six debit cards for each credit card. It is followed by Italy (4.2:1 ratio) and Peru (4.3:1).

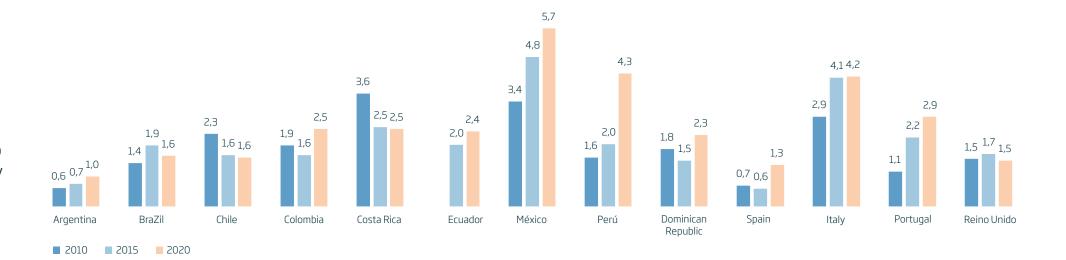
The debit modality grew in 2020 in all Latin American countries except Chile. The leadership in interannual growth (in the year of the pandemic) is assumed by Brazil (30.0%), followed by Mexico (23.9%) and Argentina (16.8%) (**Figure 8**). In Europe, it is Portugal that registers two-digit growth rates in debit cards (18.5%), while the United Kingdom is the only country in the Report that cuts the park of cards of this modality (-4.8%). In compound annual terms for the 2010-2020 period, the highest growth was recorded by Argentina (11.4%), Peru (10.0%) and Colombia (9.2%). In Europe, all countries recorded growth in the period, led by Portugal (9.1%) and followed by Spain (5.5%)% and Italy (4.8%). In the United Kingdom hardly a point grows.

In relation to the park of credit cards, Brazil registers a interannual growth of 28.4%, although Chile maintains the leadership in compound annual growth in the period, of 11.1% despite falling almost nineteen points in 2020. In 2020 they reduce their credit card park, along with Chile, Costa Rica (-10.0%), Peru (-9.2%), Colombia (-8.6%), Dominican Republic (-7.7%) and Ecuador (-2.2%). Argentina also falls, although it is almost imperceptible.

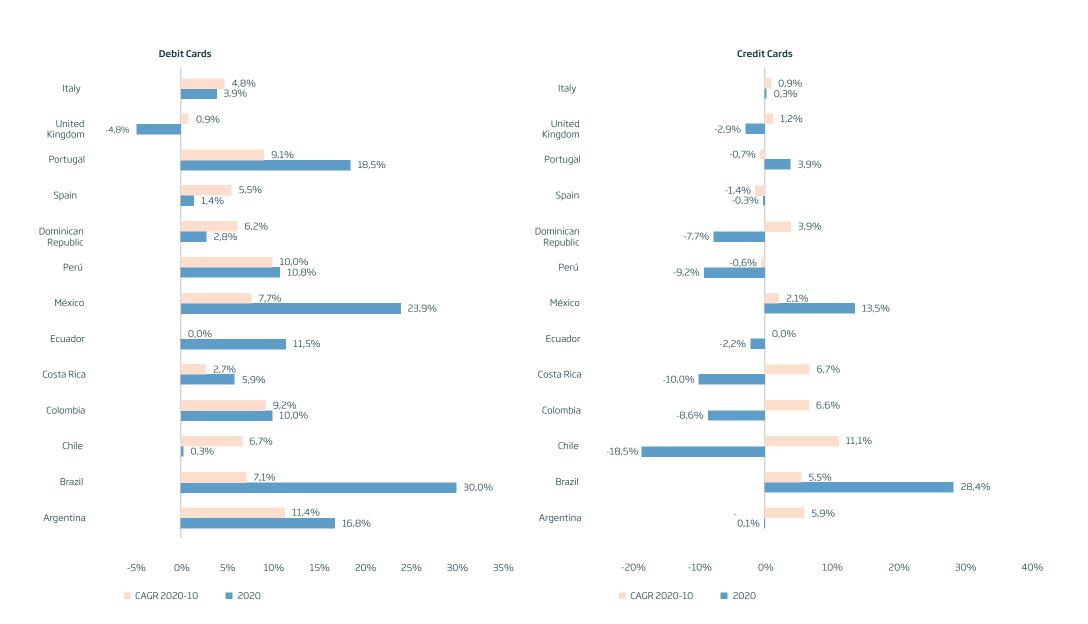
On the European side, the United Kingdom (-2.9%) and Spain (-0.3%) registered a decrease in the number of credit cards in circulation in 2020, while Portugal (3.9%) and Italy (0.3%) grow.

In aggregate terms, the most notable growth in the period is that registered by Argentina, Chile and Colombia, whose total card parks are 2.2 times higher in 2020 than those existing in 2010. The least intense changes are registered in the United Kingdom and Spain, where they are barely 11% and 20% higher, respectively, at the end of the decade.

**Figure 8** Compound annual growth vs growth last year, number of cards, debit and credit, 2010-2020



**Figure 7** Debit/credit ratio on circulation cards, 2010-2020



Fuente: Afi, a partir de información publicada por Bancos Centrales y Superintendencias de bancos

Analyzing the circulation of cards in relation to the size of the population, it **Figure 9** reflects a certain stability (or stagnation) in the debit modality in markets such as Chile, Costa Rica and the Dominican Republic, in addition to the United Kingdom during the 2010-2020 period. Brazil is the country with the highest number of debit cards per inhabitant (2.1) in Latin America, while Portugal is in Europe (2.4). The highest per capita growth rates have been recorded by Argentina, Chile and Colombia.

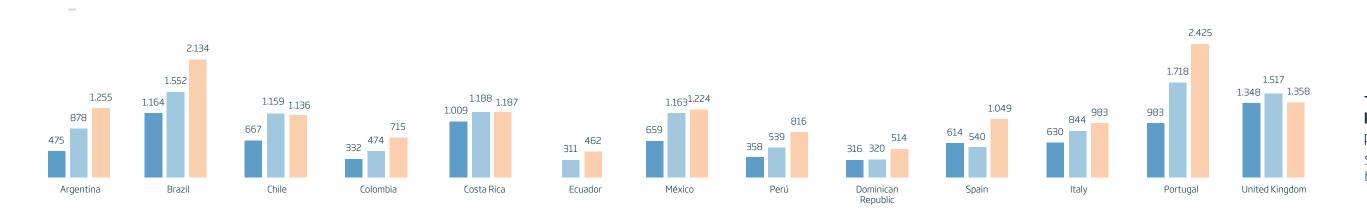
Above one debit card per inhabitant are Argentina (1.3), Chile (1.1), Costa Rica (1.2) and Mexico (1.2) in Latin America, and Spain (1.0) and United Kingdom (1.4) in Europe. The rest register less than one per capita.

2015

**2010** 

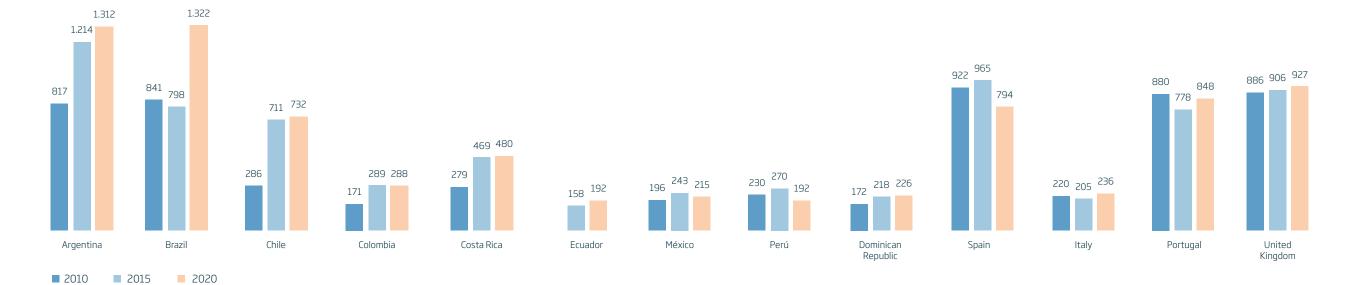
2020

In credit cards per capita, Argentina and Brazil stand out for the highest level reached (1.3 plastic credits per capita). Chile, Colombia and Costa Rica are, for their part, countries in which the number of credit cards per capita has grown significantly in the analysis period. Few changes in per capita terms are observed in Mexico, Peru and the Dominican Republic. In Italy, only one in five inhabitants would have one, in line with the Latin American countries least equipped per capita with this type of card. Credit equipment falls slightly in Spain and Portugal and the United Kingdom hardly show any changes (see **Figure 10**).



**Figure 9** Number of debit cards in circulation per 1,000 inhabitants, 2010-2020

Source: Afi, based on central banks and bank superintendenciess



**Figure 10** Number of debit cards in circulation per 1,000 inhabitants, 2010-2020

## The pandemic drives cash away from the point of sale

In the year of the pandemic, Brazil, the leading country in absolute ATM transactions, recorded more than 3.2 million cash withdrawals from these devices, 10% less than the previous year. The \$284 billion withdrawn was 22% less than what was withdrawn in the year before the pandemic. In POS, Brazil registered more than 21 billion payment operations for a value close to 375 billion dollars, 15% less than in 2019..

There is no clear pattern of the effect of the pandemic on the average amount withdrawn at the ATM: it falls in Brazil, Colombia and the United Kingdom and it rises in all the others.

In POS (**Table 9**) use, the leadership is assumed by the United Kingdom with more than 17.500 card payments made in 2020 (10% less than the pre-pandemic year) for a value of almost one billion dollars (2% less than 2019) and a ticket average of 51 dollars.

This average amount indicator does reflect an unequivocal pattern in variability with respect to 2019: it fell in all countries (up to 20% in Brazil and Colombia), except in the United Kingdom.

There is no clear pattern of the effect of the pandemic on the average amount withdrawn at the ATM: it falls in Brazil, Colombia and the United Kingdom and it rises in all the others

	Number of operations (millions)	Value (Billions of USD)	Average transaction amount (USD)	Number of operations	Amount	Number of operations	Amount
		2020			owth rate -2020	Annual gr composite	owth rate 2019-2020
Argentina	1.092	68	62	-7%	12%	7%	-3%
Brazil	3.218	284	88	-10%	-22%	1%	-4%
Chile	291	31	108	-34%	-23%	-3%	-1%
Colombia	684	70	102	-16%	-20%	4%	1%
Costa Rica	118	13	113	-24%	-14%	-2%	3%
Ecuador	153	16	108	-21%	-15%	n.a.	n.a.
México	1.761	193	110	-13%	-9%	3%	2%
Perú	352	46	130	-30%	-19%	6%	9%
Dominican Republic	100	8	82	-14%	-13%	4%	6%
Spain	625	117	187	-31%	-17%	-4%	-3%
Italy	807	204	253	-20%	-10%	1%	2%
Portugal	362	32	88	-22%	-14%	-2%	-3%
United Kingdom	1.332	104	78	-40%	-50%	-7%	-10%

**Table 8** ATM usage, 2020, selected countries

	Number of operations (millions)	Value (Billions of USD)	Average transaction amount (USD)	Number of operations	Amount	Number of operations	Amount
		2020		Annual gro 2019-		Inmedia percentage	
Argentina	2.099	62	29	3%	-1%	10%	5%
Brazil	21.184	375	18	3%	-15%	13%	3%
Chile	1.883	65	35	-5%	-5%	22%	17%
Colombia	668	28	42	-5%	-20%	11%	5%
Costa Rica	366	12	32	-16%	-18%	11%	6%
Ecuador	55	4	76	-31%	-33%	n.d.	n.d.
México	3.499	103	29	-2%	-12%	13%	8%
Perú	454	21	46	-16%	-21%	12%	10%
Dominican Republic	153	6	38	-17%	-18%	9%	6%
Spain	4.736	183	39	4%	1%	8%	4%
Italy	3.560	227	64	0%	0%	10%	5%
Portugal	1.207	67	56	-12%	-17%	0%	-1%
United Kingdom	17.565	901	51	-11%	-2%	8%	3%

**Table 9** ATM usage, 2020, selected countries

Source: Afi, based on central banks and bank superintendencies

In the last decade, the trend of using cards as a means of direct payment versus a means of disposing of cash at ATMs has (**Figure 11**) intensified, although there are exceptions (Italy), as well as different intensities.

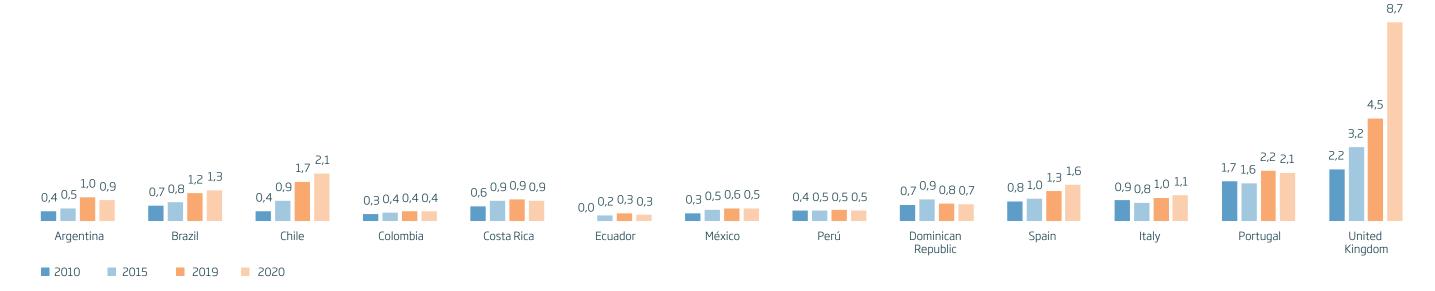
Regarding the use of cards, the value of payment operations at POS exceeds the value of card withdrawals at ATMs in all European countries -with special intensity in the United Kingdom, where payments in 2020 represent nine times the value of withdrawals, double that in the pre-pandemic year, Portugal (2.1), Spain (1.6) and Italy (1.1) . In Latin America, the record of Chile (2.1) is noteworthy, second only to Brazil (1.3). Setbacks in this ratio are observed in Argentina, Mexico and the Dominican Republic; and stagnation in Peru, Colombia and Ecuador, where ATM withdrawals more than double the value of card payments at the POS.

In terms of intensity of use (**Figure 12**), POS in the United Kingdom receive thirteen times the number of operations received by ATMs in said country; Spain is in second position with 7.6 POS payments for each ATM cash withdrawal. They lead in intensity in Latin America Brazil and Chile with a ratio of 6.6 and 6.5 times respectively. All the countries except Colombia and Ecuador register a higher transaction fee in POS than in ATM.

The highest growth in relative POS transactions in the year of the pandemic corresponds to Spain (where the ratio grows by 52%), the United Kingdom (46%) and Chile (4%).

In the last decade the trend of using cards as a means of direct payment versus a means of disposing of cash at ATMs has intensified

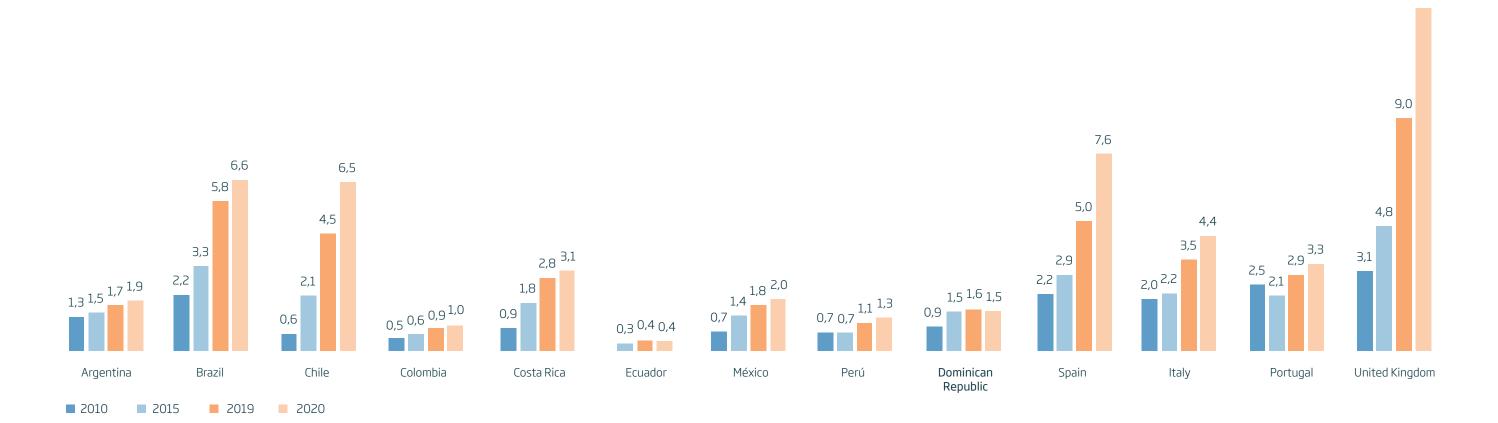
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**Figure 11** Value ratio of card payments at POS vs ATM cash withdrawals, 2010 and 2020

Source: Afi, based on central banks and bank superintendencies.

**1** Due to the absence of data, the first year observed for Costa Rica is 2012, while for Argentina it is 2011

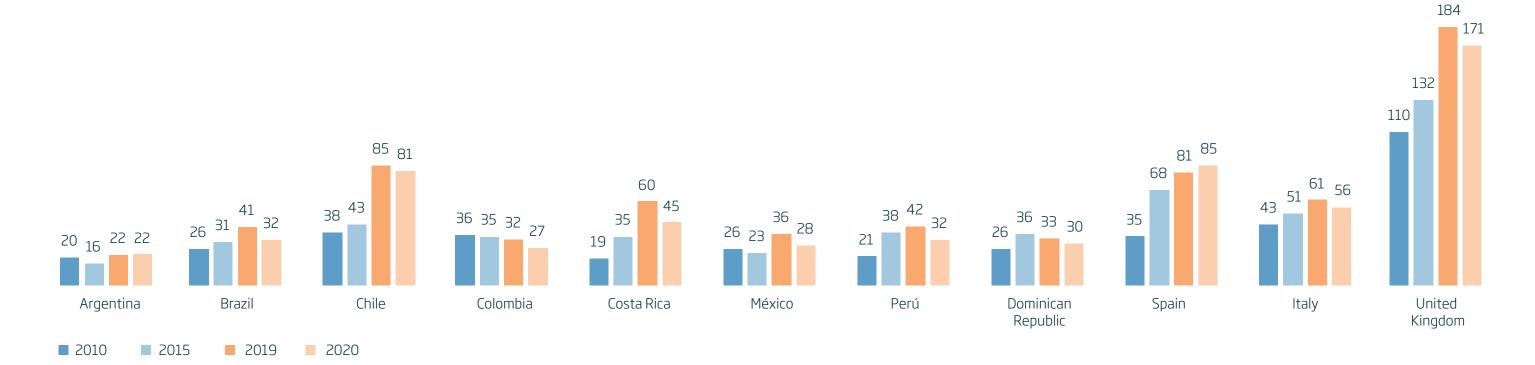


**Figure 12** Value ratio of card payments at POS vs ATM cash withdrawals, 2010 and 2020

Source: Afi, based on central banks and bank superintendencies.

**1** Due to the absence of data, the first year observed for Costa Rica is 2012, while for Argentina it is 2011.

13,2



**Figure 13** Intensity of use of debit cards: No. Transactions per card / year, 2010 and 2020 Source: Afi, based on central banks and bank superintendencies

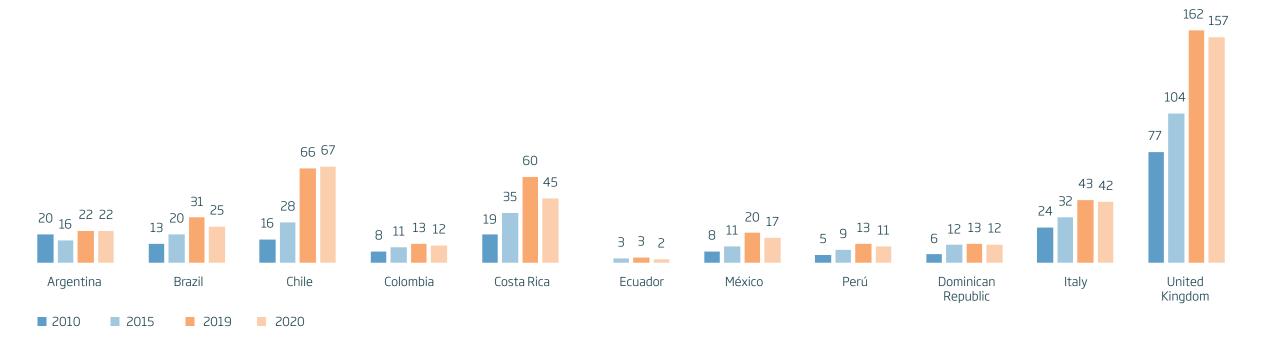
The intensity of use of debit cards (**Figure 13**), without being broken down by type of operation (payments and withdrawals) measured as the number of transactions made with each card in circulation per year only grows in Spain, which goes from 81 transactions in 2019 to 85 in 2020. It is also the second most dynamic country in this variable after the United Kingdom, with 171 debit card transactions per year. Chile leads in Latin America with 81 card transactions, and doubles the second in the region, Costa Rica, with 45 transactions. The most notable change in intensity in the decade was recorded by Spain and Chile.

Regarding the intensity of the use of debit cards to make payments at POS (**Figure 14**), the United Kingdom once again leads the ranking with 162 payments per debit card per year. Chile and Costa Rica are also in the lead, in this case in Latin America, with 66 and 60 transactions per debit card per year, respectively. For Argentina,

Spain and Portugal there is no data available from public sources to be able to incorporate them into the analysis segmented by card use (payments/withdrawals) and modality (debit/credit).

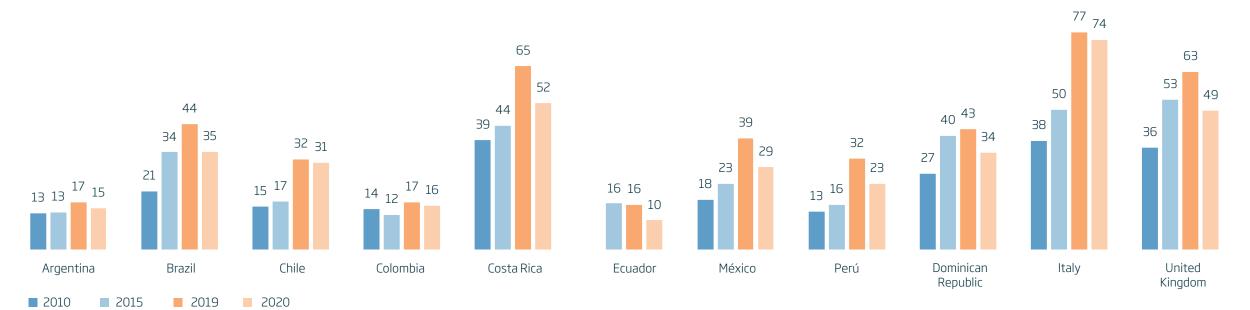
In the credit mode (**Figure 15**), Italy, the United Kingdom and Costa Rica also stand out, with an average of 77, 63 and 65 payment operations at POS for each credit card in circulation, respectively. Some distance behind are Brazil (45) and the Dominican Republic (42). The intensity of use doubles in all countries except Colombia.

The United Kingdom, despite leading the two modalities, has a greater relative use of the debit card: 2.5 times higher.



**Figure 14** Intensity of use of debit cards for payments at POS: No. Transactions per card / year, 2020-2020

Source: Afi, based on central banks and bank superintendencies



**Figure 15** Intensity of use of debit cards for payments at POS: No. Transactions per card / year, 2020-2020

The average ticket for debit card payments in Latin America (**Figure 16**) is similar in almost all the countries analyzed, with the exception of the highest expense registered in Colombia (36 dollars) and the lowest, in Brazil (16 USD). As for credit cards, the average ticket per country follows an uneven behavior, with the lowest amounts being registered again by Brazil (27 USD) and Argentina (16 USD). Dominican Republic (47 USD), Costa Rica (51 USD) and Mexico (50 USD) are below the regional average, while the highest are those shown by Colombia (74 USD), Peru (83 USD) and Chile (64 USD).

The disposition means are basic equipment to be able to use the cards. The use made of them in each country offers clues about their profitability, that is, the efficiency in the use of the resources available in the country.

The daily transaction volume received by a POS installed in the United Kingdom triples that received by a POS in Spain. The United Kingdom is followed by Portugal (10), Mexico and Peru (8), and Costa Rica and Argentina (7). A Colombian and Italian POS barely receives, on average, three operations a day.

In terms of value paid, the variability is also huge. From the 116 dollars received in payments per day for a POS in Brazil (Colombia 172 and Italy 174), up to 841 dollars in the United Kingdom or 607 dollars in Portugal, the rest of the countries for which there are public data (Argentina, Costa Rica, Mexico and Spain), the daily transaction of a POS is around 200-250 dollars. Argentina, Colombia and Costa Rica are the countries in which, on average, the largest number of cash withdrawal operations are served by an ATM installed in 2020. Those of Peru and Spain are the ones that receive the fewest operations: an average of thirty per day, followed by Brazil (54) and Italy (57).

In terms of value, the ATMs that dispense the most cash per day are the Italian, Costa Rican, Chilean and Colombian ones, with more than 10,000 dollars on average. Between 5,000 and 10,000 dollars a day are dispensed by those from the United Kingdom, Portugal, Spain, Mexico, Ecuador and the Dominican Republic. At the bottom are those of Brazil and Peru, with less than 5,000 average daily operations per ATM. Argentina registers the most intense fall in the last decade, in terms of value, affected by the unit of measure (USD).

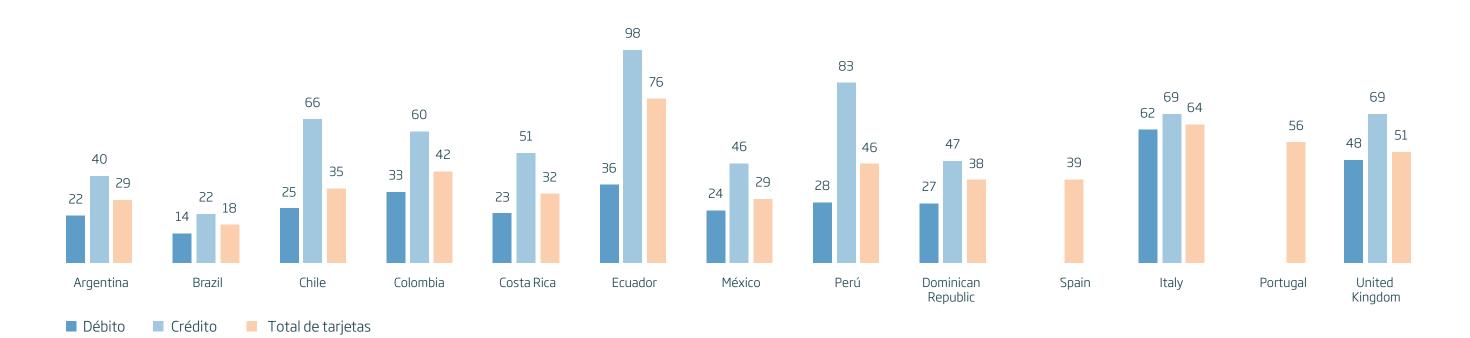
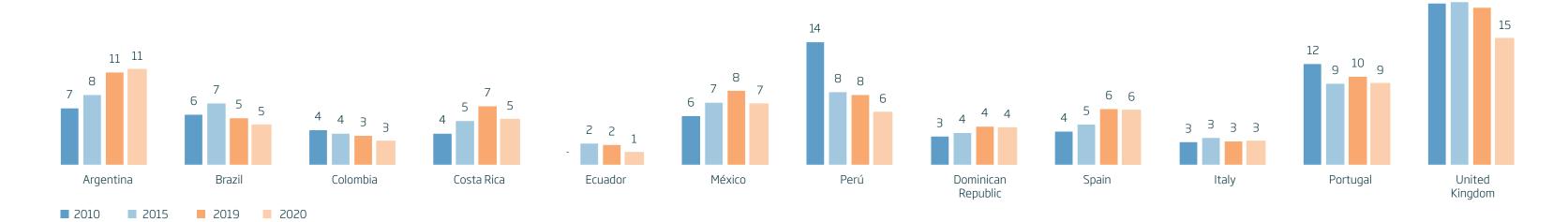


Figure 16 Average debit and credit card receipt, payments, 2020, USD



**Figure 17** Number of daily transactions per POS, 2010-2020

Source: Afi, based on central banks and bank superintendencies.

\* Due to the lack of available data in Argentina, the first period observed corresponds to the year 2011. In the case of Peru, the first data observed is from 2012 and the Dominican Republic from 2010.

\* No data available for Chile.

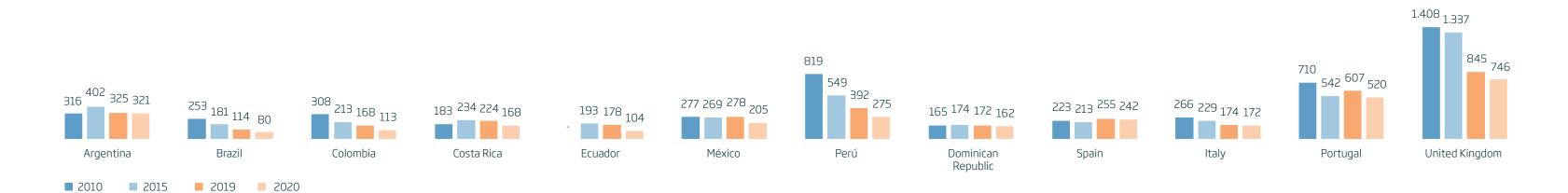


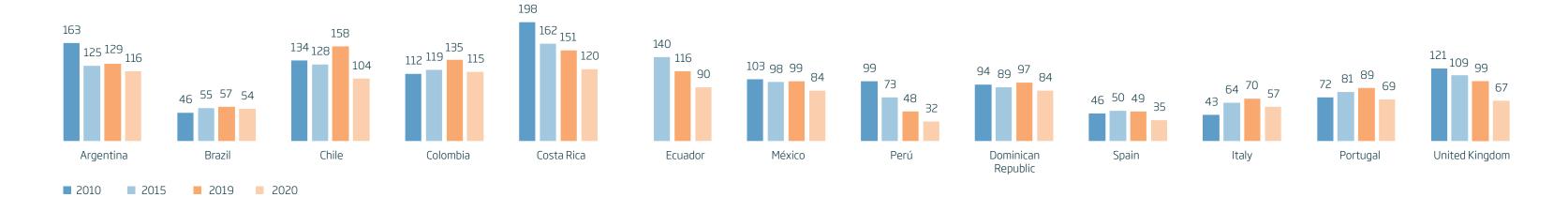
Figure 18 Value of daily transactions per POS, 2010-2020, USD

Source: Afi, based on central banks and bank superintendencies.

19 19 <sub>18</sub>

<sup>\*</sup> Due to the lack of available data in Argentina, the first period observed corresponds to the year 2011. In the case of Peru, the first data observed is from 2012 and the Dominican Republic from 2010.

<sup>\*</sup> No data available for Chile.



**Figure 19** Number of daily transactions per POS, 2010-2020

Source: Afi, based on central banks and bank superintendencies.

<sup>\*</sup> Due to the lack of available data in Argentina, the first period observed corresponds to the year 2011.

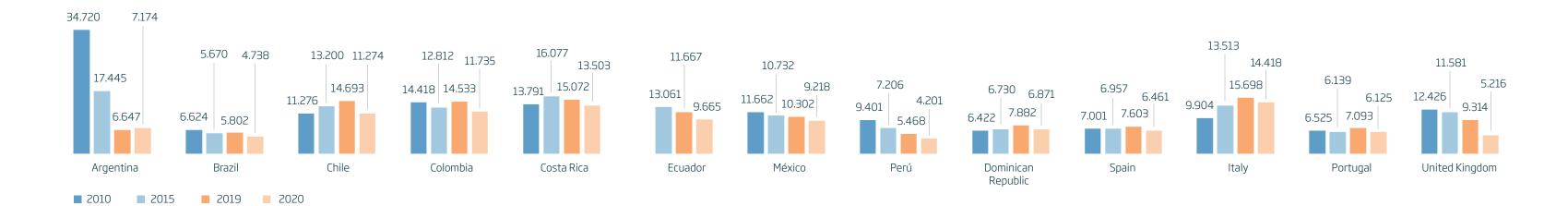


Figure 20 Value of daily transactions per POS, 2010-2020, USD

Source: Afi, based on central banks and bank superintendencies.

<sup>\*</sup> Due to the lack of available data in Argentina, the first period observed corresponds to the year 2011.

#### ATM networks continue to shrink in mature markets

LATM and POS networks in Latin America have registered an unequal growth in the last decade, as shown in the one **Figure 21** for ATMs, and in the one **Figure 22** for POS.

In Brazil, the ATM network reduced its size in 2019 at a fee of -2.4%, the only country in the region that decreased in the last year. In Europe, only the United Kingdom registered an interannual drop (-4.0%), with 2,500 fewer units and closing the year with 60,600. Spain registered a fourth year of slight growth (+0.3%), placing the ATM fleet at 50,501 units.

From the data collected in the **Figure 21** highlights the drop in ATM coverage per capita in Brazil and Chile, in Latin America, and in all European countries in the last decade. The ATM park in Spain, Italy, Portugal and the United Kingdom at the end of 2020 has a size of 81%, 83% and 86% over that of 2010, respectively. On the opposite side are Peru and Argentina, whose ATM network, although part of a significantly lower per capita coverage, has multiplied by five and three times, respectively, in the last decade.

Ecuador is at the bottom in ATM coverage per million inhabitants (265), which unseats the Dominican Republic from a historical last position (303), behind Colombia (320), Chile (400) and Mexico (445). The highest per capita coverage is still recorded, despite the fall of the network, by Portugal (1,400) and Spain (1,000).

LATM and POS networks in Latin America have registered an unequal growth in the last decade

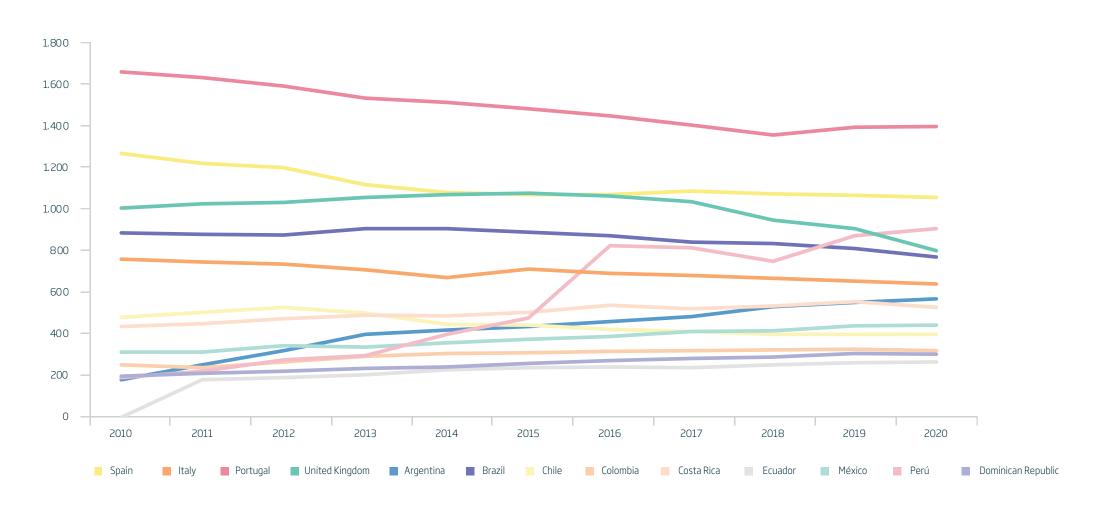


Figure 21 Number of ATMs per million inhabitants, 2010-2020

Source: Afi, based on central banks and bank superintendencies

#### The different capillarity of POS networks remains

It **Figure 22** is evidenced by the undisputed leadership of Italy and Brazil in terms of POS coverage per capita, with both countries around 60,000 POS per million inhabitants.

Between 40,000 and 60,000 are the United Kingdom (48,700) and Spain (44,400). In a next step of coverage are Portugal (34,800) and Costa Rica (37,500). Below 10,000 per million are Ecuador, Peru and the Dominican Republic.

Brasil alcanza una cifra agregada cercana a los 13 millones de terminales al cierre de Brazil reaches an aggregate figure close to 13 million terminals at the end of 2020, a park 4.3 times higher than that registered in 2010, although it is not the one that has grown the most in this period: the POS park in Peru has multiplied by seven in the last decade, and is 4.4 times higher in the case of Colombia. Spain registered a compound annual growth in the period of 3.0% (and 6.8% interannual), exceeding two million POS installed in 2020, while in Portugal the park fell by -3.5% in 2020. The highest interannual growth was recorded by Brazil (21.9%), Mexico (19.8%), Colombia (17.9%) and Peru (11.7%). The United Kingdom and Italy have a total fleet of POS, respectively, of 3.3 million and 3.6 million terminals.

As can be seen in **Table 8** and **Table 9**, the variation in the number of points of the disposal networks is reflected in the number and value of transactions in the period. The United Kingdom registers the highest drop in compound annual growth in ATM use during the period 2010-2020 (-7.1% CAGR), followed by Spain (-4.5%), in terms of number of operations. Italy is the only European that maintains positive rates (1.3%). In Latin America, growth is positive in all countries except Chile (-3.0%) and Costa Rica (-2.0%), with Argentina (6.5%) and Mexico (5.8%) standing out.

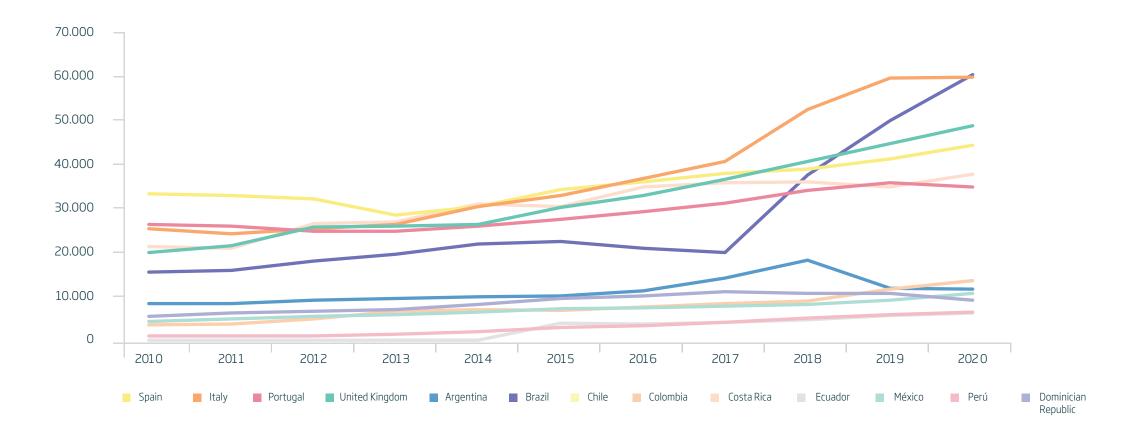


Figure 22 Number of ATMs per million inhabitants, 2010-2020

Source: Afi, based on central banks and bank superintendencies. Data not available for Chile. The data for the United Kingdom have been estimated taking into account the data for the previous period

Undisputed leadership of Italy and Brazil in terms of POS coverage per capita, with both countries around 60,000 POS per million inhabitants

<sup>\*</sup> There are no official public data for the series corresponding to Chile.

In terms of the value of cash withdrawn from ATMs, the European countries fall in addition to Argentina, Brazil and, to a lesser extent, Chile. The rest register a compound annual growth for the period with a positive sign.

During the year of the pandemic, however, all countries recorded significant falls in the use of ATMs, in double digits, except in the case of Argentina. The countries that registered the greatest drop were the United Kingdom (-39.5%), Chile (-33.6%), Spain (-31.2%) and Peru (-29.9%). In terms of value withdrawn at the POS, the United Kingdom registers half as many pounds as in 2019, far from the falls that do not exceed 20% in most countries.

The average amount per transaction registered at ATMs in 2020 ranges from 62 dollars in Argentina, 187 dollars in Spain or 253 dollars in Italy. In all countries, the average amount grows in 2020 compared to 2019, except in Brazil and the United Kingdom.

Cardholders in Spain withdrew the euro equivalent of \$117 billion from ATMs during 2020. In Italy this amount amounted to 204 billion, a value that almost doubles that withdrawn at ATMs in the United Kingdom and that in per capita terms is the highest of all the countries in the Report. In Portugal, 32 billion dollars were withdrawn.

In the period 2010-2020, the countries that grew the most in terms of volume of payments in the POS were Chile (22.0% CAGR) and Peru (17.5%). Increases in Italy, Spain and the United Kingdom both the number of payment operations in POS (+9.7%, 8.2% and 7.5% CAGR, respectively) and the value (+4.6%, 3.8 %, 3.4%). Portugal stagnates in the period in both variables.

The behavior in 2020 deserves separate attention due to the exceptional nature of that year. Transactionality in the POS falls in all countries except Argentina, Brazil and Spain, although the only one that registers a positive figure in terms of value is the latter.

The average amount per payment transaction in POS ranges between 18 dollars registered in Brazil and 76 in Ecuador, without registering a pattern associated with being a European or Latin American country. A generalized reduction in the average ticket for card payment in 2020 can be seen.

### Non-bank correspondent networks stop their expansion

A key tool to facilitate the banking of the population and the consequent extension of electronic or digital means of payment in Latin America is that carried out by non-banking correspondents (**Figure 23**). It is intuited that soon these physical service points will be relevant in those European countries that are facing the withdrawal of more traditional bank branches, especially in rural areas.

Peru persists as the country that leads the ranking of the number of correspondents in relation to the population, with more than five correspondents for every 1,000 inhabitants. Colombia maintains the second position with more than three correspondents per 1,000 inhabitants, and Costa Rica the third position. Brazil is in fourth position while the Dominican Republic and Mexico barely show changes, and are in the lower part of the ranking. Argentina inaugurates its presence in this indicator after Communication A6603 of the Central Bank of the Argentine Republic (BCRA) that approves in 2019 the delegation of banking services in non-financial commercial entities.

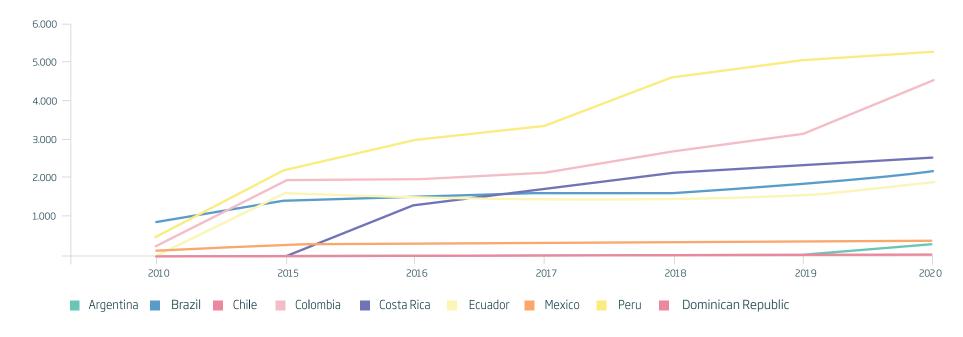


Figure 23 Number of banking correspondents per million inhabitants, 2020

Source: Afi, based on central banks and bank superintendencies

### Financing purchases with a credit card continues to be more of a Latin American habit than a European one

The ease of consumer financing with a credit card persists in the greater (**Table 10**) dynamism that it has historically shown in Latin America in relation to Europe, even considering the unique case of the United Kingdom.

In fact, the weight of consumer financing with a credit card has a considerable weight with respect to domestic GDP in Colombia (6.0%), Chile (4.0%) and Brazil (3.9%). Costa Rica (3.2%), Argentina (2.4%) and Ecuador (2.3%) are in intermediate positions, but all of them are above the weight represented by this method of financing purchases in Europe, except the case of the already mentioned United Kingdom (2.3%).

The interannual fall in the value financed by credit card has been generalized (except Argentina), with special intensity in Chile (-25.2%), Mexico and Ecuador (-23.6%) and Brazil (-22.4%). In compound annual growth during the last decade, only Brazil, Ecuador, Mexico and the United Kingdom registered negative fees. Spain registers a timid 0.6% in line with the low weight of this practice in GDP (1.0%), the lowest of all the countries included in the Report, closely followed by Italy (1.1%).

The highest average values of outstanding balance per credit card in circulation are registered in Italy (1,488) and Colombia (1,111 USD), and the lowest in Argentina (157 USD) and Brazil (198 USD). The average values in Europe show two behaviors: Spain and Portugal around 340 dollars per credit card in circulation; United Kingdom and Italy in the range of 1,000-1,500 dollars, more pronounced in the case of the latter.

	Value (USD) per credit card	Total value (% of PIB)	Amount			
	20	)20	Growth rate 2019-2020	ompound annueal growth rate 2010-2020		
Argentina	157	2,4%	5,1%	5,4%		
Brazil	198	3,9%	-22,4%	-0,2%		
Chile	722	4,0%	-25,2%	6,5%		
Colombia	1.111	6,0%	-11,9%	4,1%		
Costa Rica	809	3,2%	-18,6%	6,1%		
Ecuador	222	2,3%	-23,6%	-4,9%		
México	484	1,2%	-23,6%	-4,6%		
Perú						
Dominican Republic	387	1,2%	-20,2%	7,9%		
Spain	329	1,0%	-1,3%	0,6%		
Italy	1.488	1,1%	-14,6%	6,3%		
Portugal	352	1,5%	-4,0%	-1,0%		
United Kingdom	980	2,3%	-13,0%	-3,5%		

**Table 10** Consumer financing with a credit card, 2020, USD

Source: Afi, based on central banks and superintendencies of banks and associations of financial entities

- \* The data for Chile, Ecuador and Mexico is from 2015-2020 as data prior to 2015 are not available.
- \* The data for Italy corresponds to the 2017-2020 period. In Peru, the series on SBS was discontinued in 2017-
- \* In Portugal the series was discontinued in 2019, this data has been used.

The ease of consumer financing with a credit card persists in the greater dynamism that it has historically shown in Latin America in relation to Europe, even considering the unique case of the United Kingdom

### The use of online bankingis already majority in Chile, Costa Rica and Europe (except Portugal)

Online banking continues to gain weight by leaps and bounds as a transactional channel for payment operations. This **Table 11** is evidenced by the presence of online banking in the transactional field, although there is no standardized reporting policy among the authorities in charge.

Of the countries for which it has been possible to access relevant information and data, it can be seen that the proportion of transactions with a financial impact carried out online out of the total already exceeds 20% of the total in Argentina, Brazil, Colombia and Peru. There are no official data available for this variable for the cases of Spain, Italy, Portugal and the United Kingdom, nor for the rest of the countries of the Latin American region.

	Number of online banking users (Millions)	Online banking users (% of total population)
Argentina	20	44%
Brazil	59	28%
Chile	17	91%
Colombia	25	49%
Costa Rica	3	59%
Ecuador	-	0%
México	56	44%
Perú	6	18%
Dominican Republic	5	45%
Spain	29	62%
Italy	35	59%
Portugal	5	47%
United Kingdom	54	80%

#### E-commerce sets new transaction records

Retail electronic commerce in Latin America (**Figure 24**) has multiplied by almost seven in the period -in volume of sales made through this channel-, reaching a global figure of 107 billion dollars in 2020. Brazil concentrates 45% of the value of registered sales, followed by Mexico with 29%. Argentina occupies the third position with 12%, followed by Colombia and Chile (9%).

It should be remembered that, unlike what happens in Spain, where the National Commission of Markets and Competition (CNMC) publishes a homogeneous series of e-commerce data with a high degree of tabulation, or in Portugal with its central bank, or United Kingdom from the UK Cards Association; The identification of official electronic commerce data for Latin American countries is a more complex exercise due to the heterogeneity of sources available for consultation, some of them unofficial.

The behavior and dimension of e-commerce in the United Kingdom, one of the largest markets for online sales globally, stands out by far. Not in vain, the value of e-commerce transactions paid with cards exceeds 225 billion euros, a spectacular increase of 20% during 2020. In number of online sales, they exceed 2,700 million, 4.5% higher than the figure for 2019.

Table 11 Onlinebanking, 2020

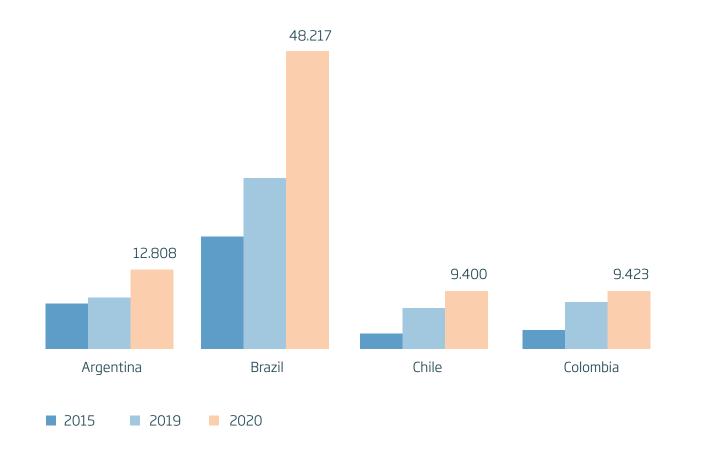
Source: Afi, based on central banks, bank superintendencies, Eurostat, IPSOS, ONTSI

Portugal registered e-commerce transactions worth more than 7,400 million euros, noting a timid year-on-year growth of 20%. The Bank of Portugal in its Relatório dos Sistemas de Pagamentos 2020 recognizes that online purchases reached 12.8% of the volume and 11.6% of the value of purchases made with cards issued in Portugal in 2020, offsetting the fall registered in physical purchases. Italy generated in 2020 an e-commerce turnover of 30,600 million euros, less than that registered in 2019 and the only country that records a setback.

Spain has seen the turnover of electronic commerce multiply by seven since 2010. The figures published by the CNMC for the 2020 financial year, which accounts for purchases made online by credit or debit card, support this behavior: 1,038 million e-commerce transactions were recorded (20% more than those recorded in 2019), which represented a turnover of close to 52 billion euros, 6% more than in 2019.

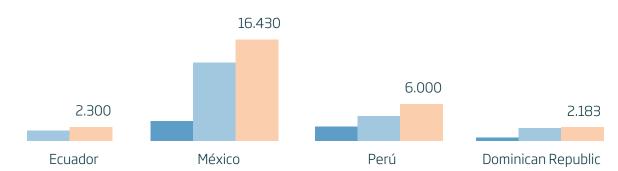
In the details of the transactions by origin and destination (**Figure 26**), the predominance of transactions from Spain with foreign countries (57%) can be seen, associated with the import of goods and services purchased online, the weight of which has grown huge in the last year.

The transactions carried out in the domestic market (32%) have remained unchanged in relative terms and, perhaps the most worrying thing is the fall, to almost half in terms of representation of the total e-commerce turnover in Spain, of the transactions registered from abroad with Spain, that is, e-commerce exports (12%), which in 2020 interrupts the gradual growth registered since 2010, the year in which they reached 20% of the total.





Source: Afi, based on national electronic commerce chambers and associations and specialized reports



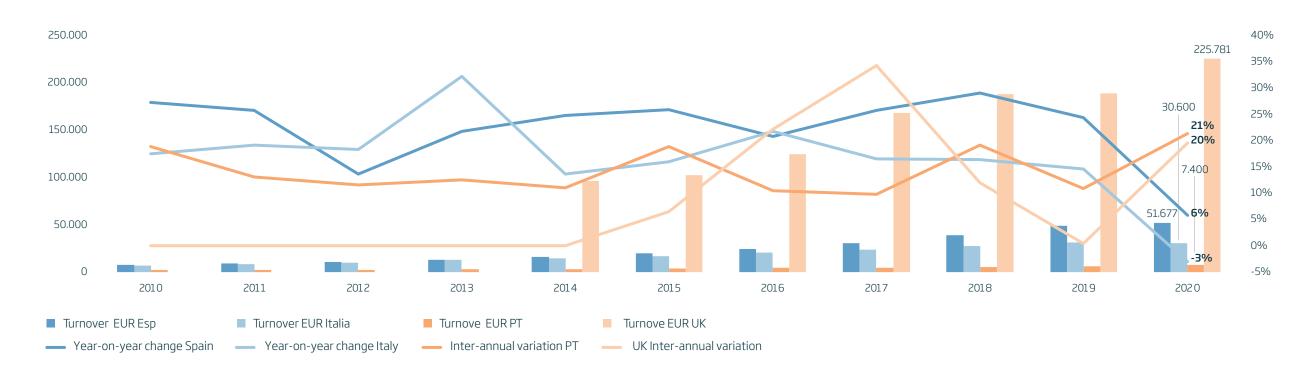
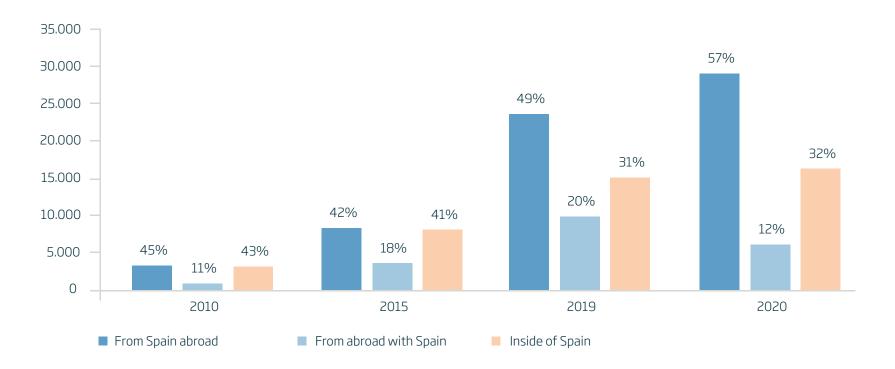


Figure 25 Electronic commerce in Spain, Italy, Portugal and the United Kingdom, 2010-2020, million EUR

Source: Afi, based on the National Markets and Competition Commission, Banco de Portugal, The UK Cards Association and UK Finance. No data available prior to 2014 for the UK



**Figure 26** E-commerce in Spain, 2010-2020, % of e-commerce turnover

Source: Afi, based on the National Markets and Competition Commission

# Demand





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After the pandemic, each payment means finds its utility in a diversified market. The consumer appears with a diverse portfolio of means of payment, which he uses based on his preferences and the alternatives offered by the establishments

The existing gap between what customers want to use and what is accepted in establishments makes it necessary to have more means of payment and not to give up any of them.

The use of mobile phones for cash transfers, payments in physical stores and online purchases is skyrocketing, and traditional banks are beginning to give in in favor of new companies operating in the financial field, especially neobanks



In this instaltment, in line with previous editions, the results of the research that aims to offer a global and evolutionary vision of trends in payment methods from the perspective of demand are presented. The study focuses on the perspective of the most relevant population for the financial sector at the current moment of the digitization process -the Internet banking population-, and allows to know the state of the situation one year after the outbreak of COVID-19 and its impact on the use of payment methods.

The scope of the investigation reaches, this year, a total of twelve countries: eight belonging to Latin America (Argentina, Brazil, Chile, Colombia, Mexico, Peru and the Dominican Republic and, for the first time, Ecuador) and four, to Europe (Spain, Italy, Portugal and the United Kingdom).

The study begins with a review of the growing variety of payment methods used. The percentage of the population that uses digital means of payment (whether they are wallets/aggregators, or payment apps between individuals) increases and the use of cash recovers after the passage of the pandemic. The means of payment revolve around a clear protagonist: the card, used both for purchases in physical establishments and for online purchases.

Next, it is observed how the new operators begin to take positions within the financial industry, with special mention in this section to the neobanks, and especially in some Latin American countries such as Brazil and Colombia.

It will also be analyzed how the mobile device is still in the process of becoming a fundamental instrument for the Internet banking population, not only due to the increase in the use of digital means of payment through mobile phones, but also because it is the preferred device for purchasing on-line.

Some specific topics of this year will be reviewed, such as card ownership, the use of the credit modality, the appearance of new financing systems such as Buy Now Pay Later, or the experience with the second authentication factor in online purchases.



#### Methodology

**Type of research:** quantitative through online survey (CAWI)

**Universe:** Internet banking population over 18 years of age

**Geographic scope:** Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru, Dominican Republic, Spain, Italy, Portugal and the United Kingdom

**Questionnaire** duration: 15 minutes

**Sample size:** 400 interviews per country (4,800 interviews in total)

**Sampling error:** 4.9% per country, considering random sampling with maximum variance and a confidence level of 95%.

Field work: August 2021.

**Responsible for the research:** The Cocktail Analysis®

#### Internet banking population

This research has been carried out on the adult Internet banking population (ABI from now on), that is, the segment of the population over 18 years of age that has access to the Internet and that has an account (in a bank, savings bank, union credit or other financial institutions).

The two indicators exposed in the **Table 1** allow to have a general vision of the situation of each country with respect to the level of bankarization and the use of the Internet.

According to the most up-to-date data from "The Global Findex Data Base" of the World Bank carried out in 2017, it is found that, in the European countries included in the research, the banked population is close to the entire population, exceeding 90% in all cases. For its part, the levels of bankarization in Latin America generate the image of a process in progress (Chile and Brazil being at the forefront of this phenomenon, where more than 70% of the population is banked).

Regarding access to the Internet, based on the information published by the International Telecommunication Union (ITU), the Internet user population is the majority in all the countries analyzed. In order to make a correct reading of the data presented in this report, it is essential to bear in mind the internal differences in the composition of the ABI population in the different countries. Thus, in Latin American countries, the ABI population is made up of younger individuals who belong to medium and high socio-economic segments compared to the more horizontal structure of the European ABI population. These differences in the composition of the ABI population are key to making a correct comparative reading between countries.

An analysis by age has been included where it has been pertinent, that is, where significant differences were established between both population groups. Said analysis by age has been carried out through the median in each of the countries, to maintain representative bases in both segments, generating two groups (young people and adults).

Thus, in Latin America, the young Internet banking population is approximately between 18 and 35 years old, while adults are over 35 years old. On the other hand, in Europe we find two realities: while in Spain, Italy and Portugal the youngest age group reaches 40 years, in the United Kingdom the youngest group reaches 51 years.

	Banked population over 18 years of age (Globalfindex 2017) <sup>1</sup>	Over 15 years of age with Internet access (ITU 2016-2017-2018-2019-2020) <sup>2</sup>
Argentina	48,7%	74,3%
Brazil	70,0%	73,9%
Chile	74,3%	82,3%
Colombia	45,8%	65,0%
Ecuador	51,3%	54,1%
Mexico	36,9%	72,0%
Peru	42,6%	65,3%
Dominican Republic	56,2%	74,8%
Spain	93,8%	93,2%
Italy	93,8%	74,4%
Portugal	92,3%	78,3%
United Kingdom	94,6%	94,8%

**Table 1** population and Internet user population table

Source: Own elaboration based on data from Global Findex 2017, from the International Telecommunication Union (ITU 2016-2017-2018-2019-2020)

<sup>1</sup> Latest data published by the World Bank at the time of writing this report, https://globalfindex.worldbank.org/

<sup>2</sup> Last update made by the International Telecommunication Union on the proportion of people, older than 15 years, with access to the Internet (who used the Internet in the last three months), https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx

#### Multibanking advances gradually in Latin America

# The phenomenon of multibanking is growing gradually in Latin America and tends to stagnate or decline in Europe

In Europe, there is a stabilization and even a slight recession in multibanking.

The ABI population that operates with a single entity is the same as that which operates with more than one bank, tending to balance in all European countries. The United Kingdom stands out, a country that experiences a greater recession due to this multibanking (going from 63.5% of the population that operated with two or more entities, to 50.0% in 2021).

This specific situation in the United Kingdom may derive from the implementation of Open Banking systems, where financial solutions are offered in a centralized manner without the need to rely on various entities to cover specific needs.

For its part, Latin America continues to see an increase in the phenomenon of multibanking.

The percentage of the ABI population that operates with more than one entity exceeds 50% in all countries and Brazil continues to lead the multibanked ABI population (76.4%).

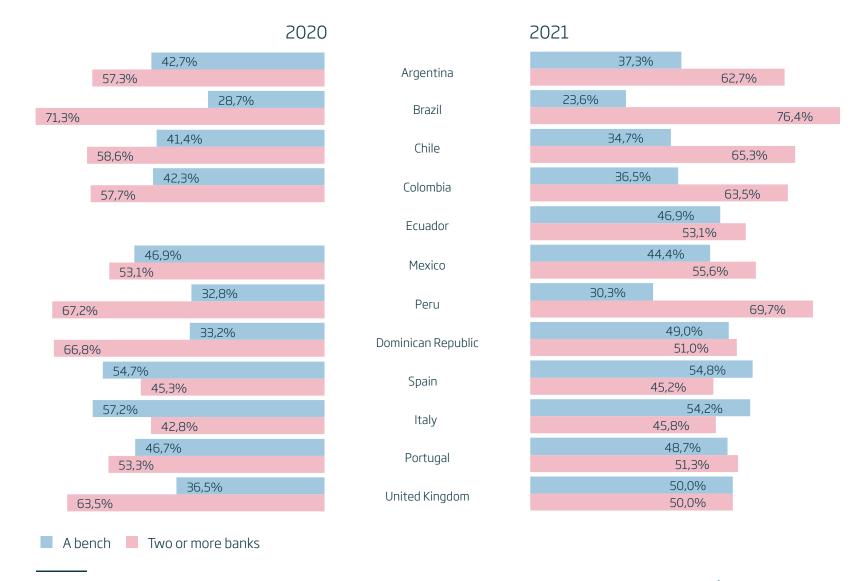


Figure 1 Number of financial entities with which the ABI population operates (evolutionary 2020-2021) 4

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the question "How many banks or other providers do you currently operate with or have you contracted some type of financial or payment/collection service or product?"

- **3** For more information on the Open Banking system and its implications: "Future of finance" Bank of England. Accessible in 2021 at: https://www.bankofengland.co.uk/-/media/boe/files/report/2019/future-of-finance-report
- 4 In the previous measurement (year 2020), the question was asked: 'With how many banks/financial entities do you currently operate or have you contracted any type of financial service or product?' and it was indicated exclusively and as a general concept: banks. In the current measurement (2021), the question was asked: 'With how many banks or other providers do you currently operate/have you contracted some type of financial or payment/collection service or product? Six types of entities with which financial relationships can currently be had were included: banks, neobanks, businesses or physical stores, e-commerce websites, large technology companies and large telecommunications companies. To establish benchmarksbankmarks for each of the providers, specific examples were included for each type of entity based on each of the countries analyzed. In order to establish a comparison between the question of the previous year and the current one, only "banks" and "neobanks" have been combined as a sum that allows a comparison with the previous formulation where only "banks" were mentioned.

### Brazil and Colombia present a booming neobank sector

The bank continues to be the entity with which it operates the most in financial terms. However, other types of entities are increasing their presence (**Figure 2**).

This increase occurs especially in Latin America, where telecommunications companies (through personal loans) or the inclusion of neobanks are generating a new financial paradigm.

However, although the ABI population is beginning to operate with these new entities, when it comes to establishing a preference or identifying the type of main entity, the bank continues to be the protagonist (**Figure 3**).

Two countries do stand out in this regard, Brazil and Colombia, where just over 26% of the ABI population indicates a neobank as the main entity. This presence is explained not only by the large presence of this type of entity, but also by age, since it is the younger groups, both in Brazil and Colombia, that operate with these entities to a greater extent and identify them as its main.

Although the ABI population is beginning to operate with these new entities, when it comes to establishing a preference or identifying the type of main entity, the bank continues to be the protagonist

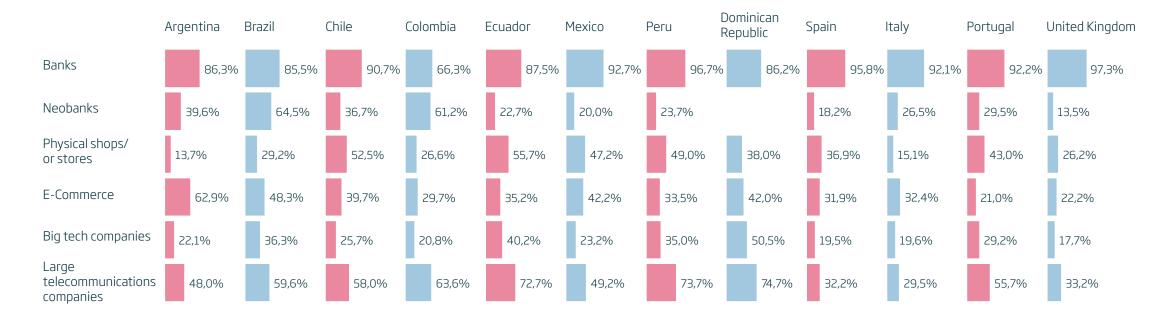


Figure 2 Banks or other providers with which the ABI population operates <sup>6</sup>

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the question "How many banks or other providers do you currently operate with or have you contracted some type of financial or payment/collection service or product?"

	Argentina	Brazil	Chile	Colombia	Ecuador	Mexico		República Dominicana	Spain	Italy	Portugal	United Kingdom
Banks	75,0%	62,7%	86,8%	54,0%	79,6%	86,6%	87,3%	75,9%	89,9%	89,6%	82,3%	94,2%
Neobanks	9,7%	26,2%	2,0%	26,3%	1,8%	1,3%	3,5%		4,0%	3,5%	7,3%	1,7%
Physical shops/ or stores	1,2%	2,0%	5,3%	5,7%	6,5%	4,0%	3,8%	3,8%	2,5%	0,7%	5,8%	2,2%
E-Commerce	9,7%	5,4%	0,8%	4,1%	1,8%	2,8%	0,3%	3,3%	2,2%	3,5%	0,5%	0,2%
Big tech companies	0,7%	1,2%	1,3%	1,0%	2,0%	0,5%	1,3%	4,0%	0,2%	0,7%	1,3%	0,7%
Large telecommunications companies	3,7%	2,5%	3,8%	8,9%	8,3%	4,8%	3,8%	13,0%	1,2%	2,0%	2,8%	1,0%

#### Figure 3 Bank or main operator

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the question "which do you consider the main one?"

- **5** For more information, refer to the report of the Banking Association of Financial Entities of Colombia (Asobancaria) https://www.asobancaria.com/wp-content/uploads/2021/06/1286\_BE.pdf and the Mastercard report "Accelerating Financial Inclusion During the COVID-19 Pandemic: Hidden Opportunities Revealing" https://www.mastercard.com/news/media/qdxlkOnc/ami\_201016\_mastercard\_financial\_inclusion\_during\_covid\_es\_short\_03-1.pdf
- **6** In the Dominican Republic, for the question "With how many banks or other providers do you currently operate or have you contracted some type of financial or payment/collection service or product?" The "neobanks" option was not specified due to its scarce presence".

# The relationship with the bank as the main financial institution continues to expand. The customer is a loyal customer

The relationship with the main financial institution (which is banks or neobanks) remains stable, holding in all countries with values similar to 2020 or slightly higher.

In Latin American countries it is less durable than in European countries, with Colombia, Mexico and Peru being the Latin American countries with the least extensive relationship with their main financial institution (5.9, 6.4 and 7.2 years on average, respectively). On the contrary, Argentina, Brazil, Chile and Ecuador exceed 9 years.

European countries, meanwhile, stand out as the countries with the longest-lasting relationships with their main bank, with the United Kingdom once again leading the way with an average relationship of

In Latin American countries it is less durable than in European countries, with Colombia, Mexico and Peru being the Latin American countries with the least extensive relationship with their main financial institution

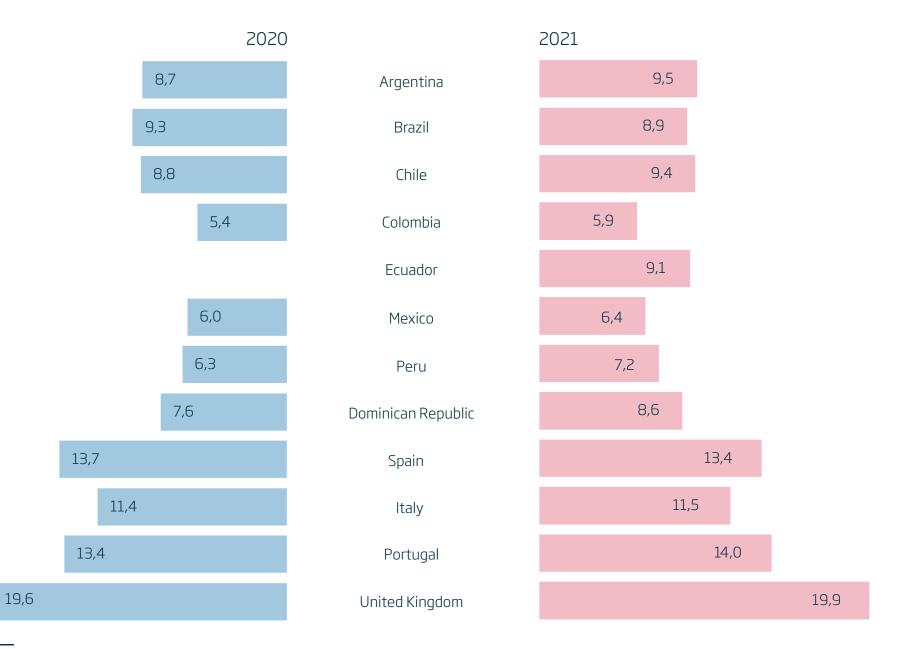


Figure 4 Age of the relationship with the main financial institution (average years - evolutionary 2020-2021) 7

Population analyzed: Total ABI population that has the bank or neobank as the main entity
Source: Own elaboration based on the results of the question "How long have you been operating with your main bank or financial institution?"

<sup>7</sup> In the previous measurement (year 2020), the question was asked: "How many banks/financial institutions do you operate with or do you currently have any type of financial service or product contracted?" and it was indicated exclusively and as a general concept: banks. In the current measurement (2021), the question was asked: "With how many banks or other providers do you currently operate/have you contracted some type of financial or payment/collection service or product?" And six types of entities with which you can currently have financial relationships were included: banks, neobanks, businesses or physical stores, e-commerce websites, large technology companies and large telecommunications companies. To establish benchmarks for each of the providers, specific examples were included for each type of entity based on each of the countries analyzed. In order to establish a comparison between the question of the previous year and the current one, "banks" and "neobanks" have been joined as a sum that allows a comparison with the previous formulation where only "banks" were mentioned.

# The credit card recovers its presence in Latin America, but the debit card continues to be the protagonist in all countries

The debit card continues to be the main protagonist, maintaining percentages similar to those of previous periods. In all countries, the population with a debit card exceeds 85%, with the United Kingdom and Portugal leading (98.8% and 98.3% respectively).

After the slight decrease in the credit cardholder population during 2020, in 2021 there is a general recovery in all countries except the Dominican Republic, Portugal and the United Kingdom, which continue to decline (-2.0 pp, -8.5 pp and -4.5 pp respectively). Among the countries where the percentage of credit cardholders is increasing, Mexico and Chile stand out as the countries that have increased the most in the population with this type of card (+12.1 pp and +10.5 pp, respectively).

Regarding the prepaid card, Latin America experienced a general growth, with the exception of the Dominican Republic, which fell 9.5 pp, and Brazil, which lost 1.2 pp Chile is the country that grew the most compared to 2020 (+7, 4 pp) followed by Peru (+4.6 pp).

On the contrary, in Europe there is a generalized decrease in the holding of prepaid cards with Italy in the lead, presenting a decrease of 8.5 percentage points. A fact that stands out if one takes into account that the use of this type of card in Italy, especially for online purchases, is a trend of its own in its ABI population. It is an independent phenomenon that does not find similarities with any other country analyzed <sup>8</sup>.



**Figure 5** Card ownership in the ABI population (2020-2021 evolution)

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the question "Next, different types of payment cards are shown. Which of them do you have?"

**8** For more information, refer to the report of the Associazione Bancaria Italiana https://www.abi.it/DOC\_Mercati/Analisi/Innovazione-ricerca/Banche-social-media/DIGITALIZZAZIONE%20 E%20INNOVAZIONE%20NEL%20RETAIL%20BANKING\_%20RELAZIONE% 20BANKING%20CUSTOMER%202020.pdf

Regarding the prepaid card, Latin America experienced a general growth, with the exception of the Dominican Republic and Brazil

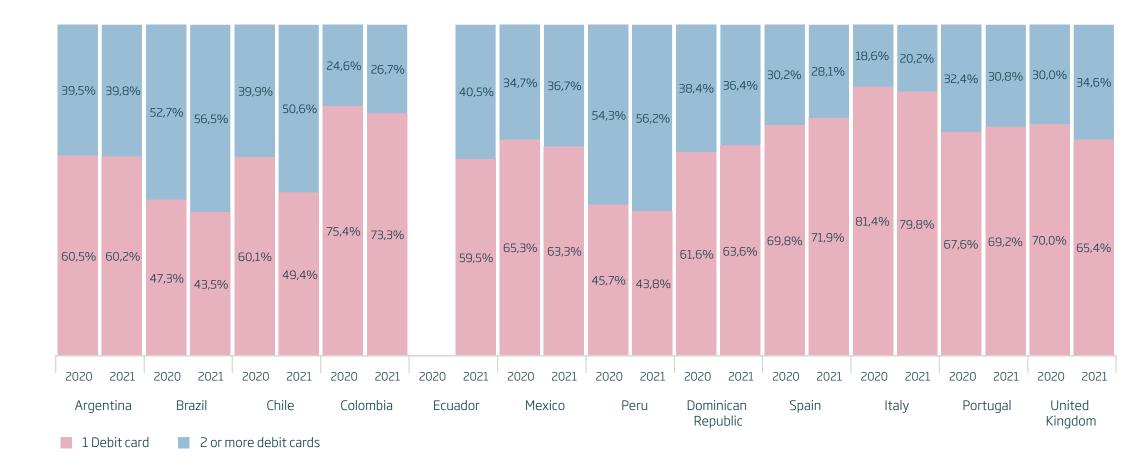
### Brazil, Chile and Peru lead the multitenancy debit cards

In Chile, the ABI population that has more than one debit card grew by more than 10 percentage points in a single year, going from 39.9% to 50.6%. Although far behind, Brazil and the United Kingdom also experienced a slight growth in multitenancy use of this type of card. In the rest of the countries there is evidence of a certain stability with respect to 2020 (**Figure 6**).

With regard to credit card multiple tenancy, European countries remain stable compared to 2020. These countries tend to have more people with a single credit card, unlike Latin America. Italy stands out, which continues to position itself as the country with the lowest registered multi-tenancy (13.9%). In evolutionary terms, Latin American countries show differentiated evolutions. Thus, while Mexico, Peru and the Dominican Republic decreased in the percentage of the population with more than one credit card, Brazil, Chile and Colombia increased with respect to the last year. Of all the countries, Argentina stands out as the country with the largest ABI population with more than one credit card and with hardly any variation compared to 2020 (63.3% and 64.1%).

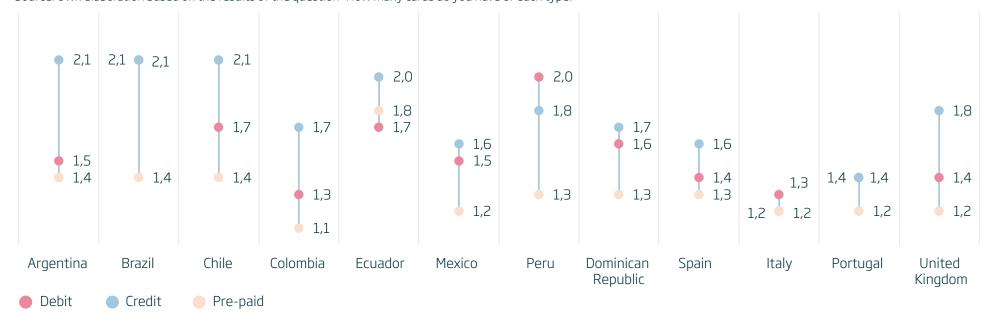
In relation to prepaid cards, Chile once again stands out for being the country where the proportion of the ABI population that has more than one card of this type has increased the most (+15.5 pp). On the contrary, Colombia is the one that decreases the most, with a drop of 11.4 percentage points.

Taking into account the average number of cards that the ABI population has (**Figure 7**) it is evident that in Latin American countries there is a greater tendency to multi-card compared to Europe.



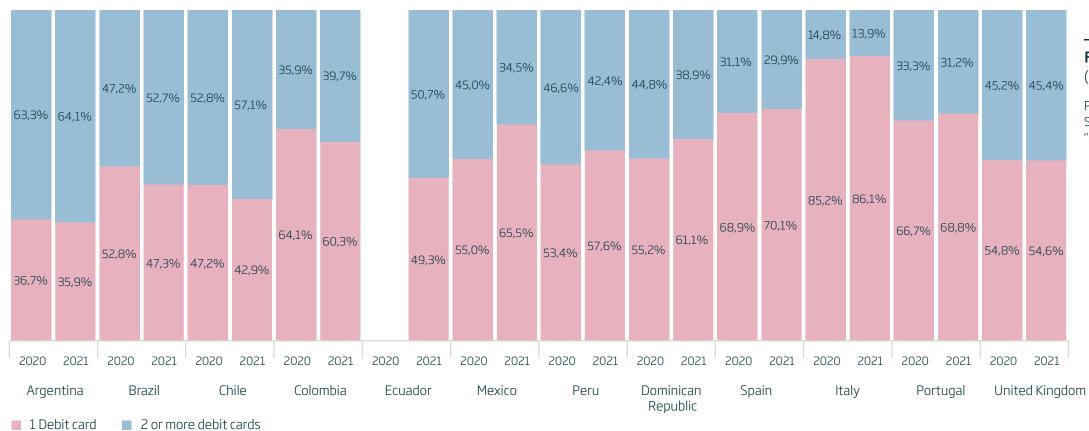
**Figure 6** Number of cards among the ABI cardholder population (2020-2021 evolution)

Population analyzed: ABI population with possession of each type of card Source: Own elaboration based on the results of the question "How many cards do you have of each type?"



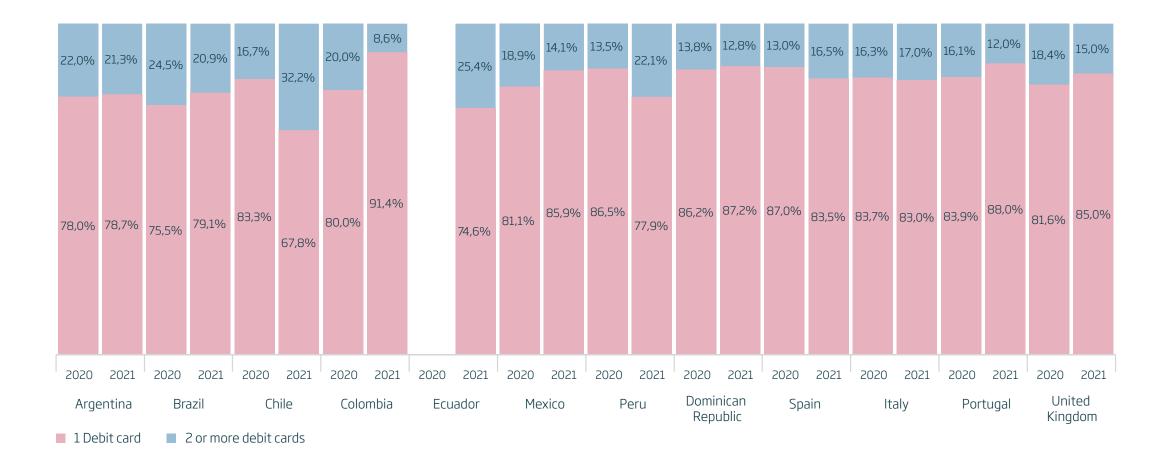
**Figure 7** Average number of cards among the ABI cardholder population

Population analyzed: ABI population with possession of each type of card Source: Own elaboration based on the results of the question "How many cards do you have of each type?"



**Figure 6** Number of cards among the ABI cardholder population (2020-2021 evolution)(evolutivo 2020-2021)

Population analyzed: ABI population with possession of each type of card Source: Own elaboration based on the results of the question "How many cards do you have of each type?"

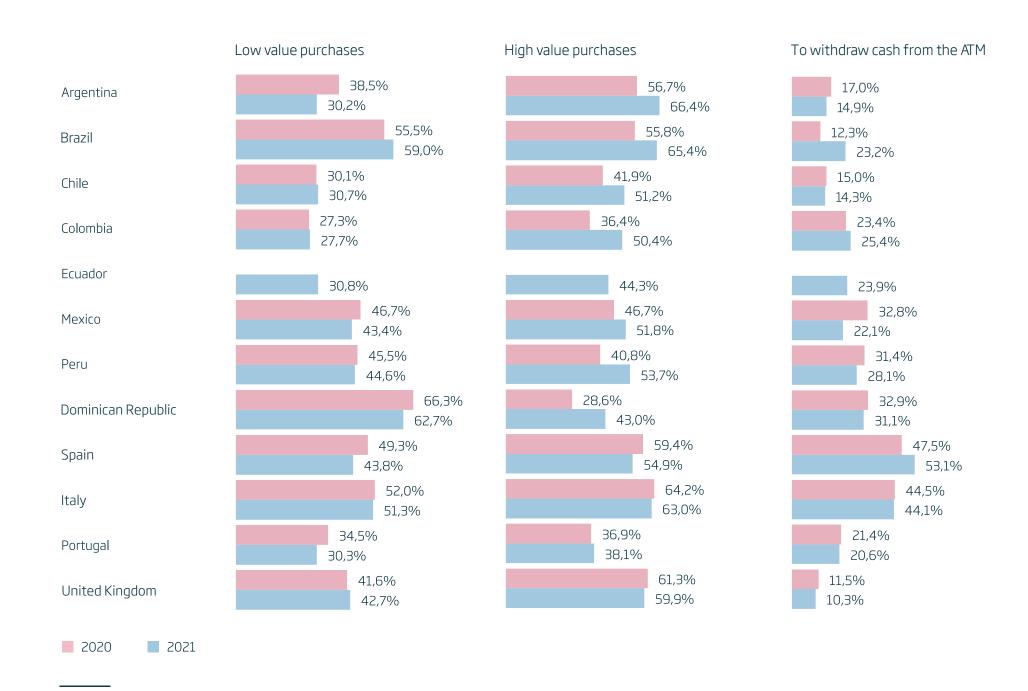


#### Latin America recovers the frequent use of the credit card for high-value purchases

After a slight general decrease in 2020 in the use of credit cards for high-value purchases in Latin America, in 2021 it recovered and exceeded previous percentages of use for this type of purchase, with Colombia and the Dominican Republic leading this increase in use with 14.0 pp and 14.4 pp respectively (**Figure 8**).

Brazil is the only Latin American country that shows growth in the frequency of use of credit cards to withdraw cash from ATMs (+10.9 pp compared to 2020), but Spain is still the country where the use of credit cards is most evident. credit card for this purpose (53.1%) followed by Italy (44.1%).

Brazil is the only Latin American country that shows growth in the frequency of use of credit cards to withdraw money from ATMs



**Figure 8** Frequent use of the credit card according to type of operation (evolutionary 2020 - 2021)

Population analyzed: ABI population with credit card ownership

Source: Own elaboration based on the results of the question "In which of the following situations do you usually use your credit card?

**<sup>9</sup>** Frequent use is defined as the percentage of people who mention using their card "always" or "almost always" on a five-level verbal scale of frequencies (Likert):always, almost always, sometimes, rarely, and never.

### Europe and Latin America: two credit card payment models

In Europe, there continues to be a predominant use of the credit card payment method at the end of the month. The rest of the options, especially those that carry interest payments, are in significantly less use, or even residual (**Figure 9**).

Within the use of payment by credit card at the end of the month, Spain continues to lead, with 74.1% of the population with this type of card using this method of payment.

The Dominican Republic is the only country in Latin America that replicates the European behavior in this regard.

In the rest of the Latin American countries, the payment method preferred by the ABI population is payment in interest-free installments, especially in Argentina (67.5%).

As a peculiarity, we must highlight Colombia and Ecuador, countries that present the highest percentage of choice of credit card payment consisting of the modality with interest (12.1% and 10.0% respectively) and payment using the line of credit. available on the card by paying a part of the debt each month (12.1% and 14.4% respectively).

In Europe, there continues to be a predominant use of the credit card payment method at the end of the month. The rest of the options, especially those that carry interest payments, are in significantly less use, or even residual

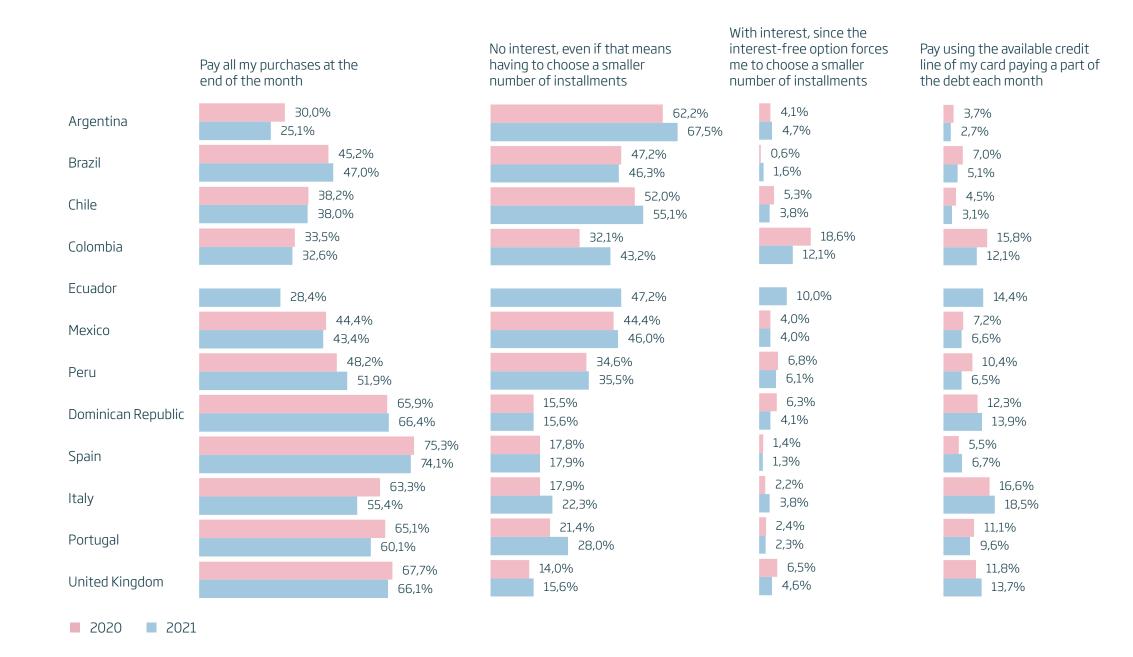


Figure 9 Use of the credit card according to modality

Population analyzed: ABI population with credit card ownership

Source: Own elaboration based on the results of the question "Which of the following phrases best represents your way of using a credit card?"

# The use of wallets or aggregators and payment apps between individuals is triggered

# The number of payment methods used continues to grow. Digital media gain prominence, but cash is far from disappearing

The average number of forms of payment used by the entire ABI population continues to grow compared to the previous period (**Figure 10**). Peru is the country that increased the most in the average number of payment methods used in the last month (2.7 in 2020 compared to 3.6 in 2021), followed by Colombia and Chile.

Regarding the different means of payment used during the last month (**Figure 11**), cash has experienced a slight increase, unevenly among Latin American countries, where the largest increase is observed in Chile (+8.0 pp), followed by Mexico and Peru (+6.9 pp in both countries). Argentina and Brazil are the only exception. The former remains unchanged, while the latter continues with the downward trend of 2020 (-4.5 pp), opting for payment through payment apps between individuals via mobile.

With regard to the method of payment from account, a very pronounced growth is observed in Mexico, with an increase of 15.2 pp In contrast, there is a decrease in Portugal of 9.0 pp

The means of payment with a virtual prepaid card continues to be very pronounced in Argentina, with growth of 10.8 pp. In the rest of the Latin American countries, the upward trend continues, but in a very moderate way.

It is also verified that payment with mobile devices, wallets or aggregators and payment apps between individuals have experienced a general growth compared to 2020. In Argentina, the most common is payment through wallets or aggregators (43.8%), followed by Peru (37.8%). Mobile payment applications between individuals expand very significantly in Brazil and Peru (+36.5 pp and +36.9 pp respectively), in both cases exceeding 60% of the ABI population that has used this means of payment. payment during the last month. Colombia, which has already experienced great growth in use in 2020, continues to increase the ABI population that makes use of payment apps between individuals, reaching 55%. This places it as the third country in Latin America with the most users during the last month <sup>11</sup>.

Peru is the country that increased the most in the average number of payment methods used in the last month (2.7 in 2020 compared to 3.6 in 2021), followed by Colombia and Chile

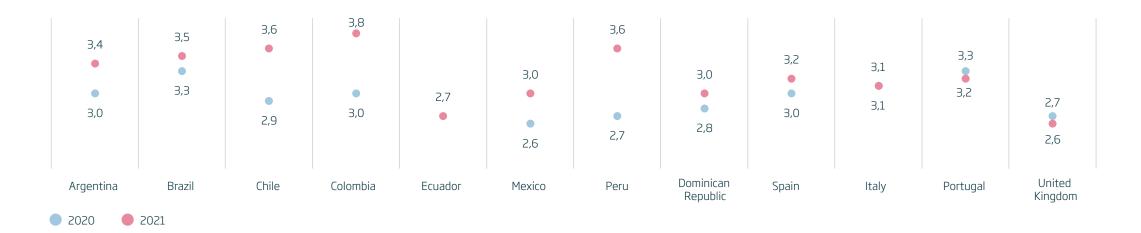
<sup>10</sup> After a slight recess in the use of cash due to COVID-19, which was generalized in all countries, the data on the use of cash not only did not decrease (or not significantly) but also recovered the percentages of use of ABI population from pre-pandemic times.

<sup>11</sup> Due to the visual clarity of the graph and due to the lack of evolution since it was incorporated for the first time in this measurement, the "Payment Initiators" have not been included here since they are not present in Mexico, Peru, the Dominican Republic and Ecuador, and in the rest of the countries it has a presence of use from a minimum of 0.2% in the United Kingdom to a maximum of 11.5% in Chile. However, the case of Colombia is unique in this regard since payment initiators are well-known and used systems, 55.5% of the Colombian ABI population used this means of payment during the last month.

In Europe, Portugal doubles users again and already half of the ABI population has used payment applications between individuals in the last month. In Spain, the system of wallets or aggregators continues without penetrating, but the use of payment applications between individuals continues to increase and is already used by more than 50% of the ABI population.

In general, payment applications between individuals present a greater use among young people. On the other hand, the wallets or aggregators do not present changes according to the age group.

More means of payment are being adopted and becoming more common, but cash is still very present among the ABI population. After the slight decrease in the ABI population that had used cash in 2020, this year percentages of use are recovered that are more similar to pre-pandemic data (2019), with more than 75% of the ABI population of all countries having used cash. effective during the last month (with the sole exception of the United Kingdom, which reaches 68.1%).



**Figure 10** Average number of payment methods used during the last month (2020-2021 evolution)

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the question "Of the following means of payment, which of them have you used in the last month?"

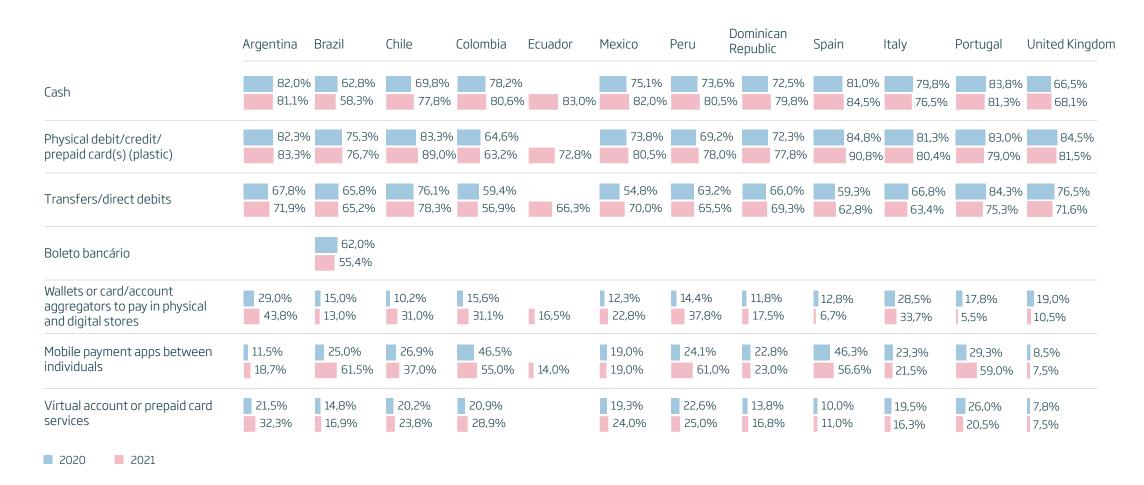


Figure 11 Means of payment <sup>12</sup> used in the last month (evolutionary 2020 – 2021) <sup>13</sup>

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the question "Of the following means of payment, which of them have you used in the last month?"

<sup>12 12</sup> The following means of payment have been defined in the questionnaire: The cash option / The "cards" option includes debit, credit and prepaid / The "payments from account" option includes transfers, direct credit and direct debits / The "virtual card" option includes virtual account or prepaid card services (these are digital services, usually for smartphones, in which you can top up money and use it for payments) / The option "wallets or card/account aggregators (these are applications for smartphones or smartwatches with which you can pay with your usual cards or bank accounts, allowing you to choose which method to pay with at all times)" / The option of payment apps between individuals via mobile)"

<sup>13</sup> For visual clarity, this figure does not indicate the data obtained for the options "other paper-based payment methods (checks or promissory notes)" or "payment with cryptocurrencies" because the percentages of use in both cases in all countries are less than 9%. No data is shown on "virtual prepaid account or card services in Ecuador, because there is no presence of this means of payment in that country.

### The card continues to gain ground as the main means of payment<sup>14</sup>, except in Colombia and Ecuador

Cash loses importance as the main means of payment in all countries, with the exception of Portugal and the United Kingdom, which have experienced a small increase in the preference for cash as the main payment (2.2 pp and 2.7 pp, respectively) in comparison with 2020.

The card, for its part, continues to be the main means of payment for the majority of the ABI population in all countries, with the exception of Ecuador, which maintains very balanced percentages between cash, card and payment from account.

Within the preference for the card, it is worth highlighting the increase in Peru (+14.7 pp) and Chile (+12.2 pp), in Latin America; and in Spain (+13.8 pp), in the case of Europe.

If we look at the most digital options (wallets or aggregators, or payment apps between individuals), although their use has increased very significantly (**Figure 11**), they are still not considered the main means of payment (**Figure 12**), with the exception of apps payment methods between individuals in Brazil, Colombia, Peru and Portugal, where between 10% and 15% of the ABI population choose them as their main means of payment. Brazil stands out not only for being the country where the largest population chooses payment apps between individuals as the main means of payment (16.7%), but this population almost doubles that which chooses cash as the main means of payment (8.8%)

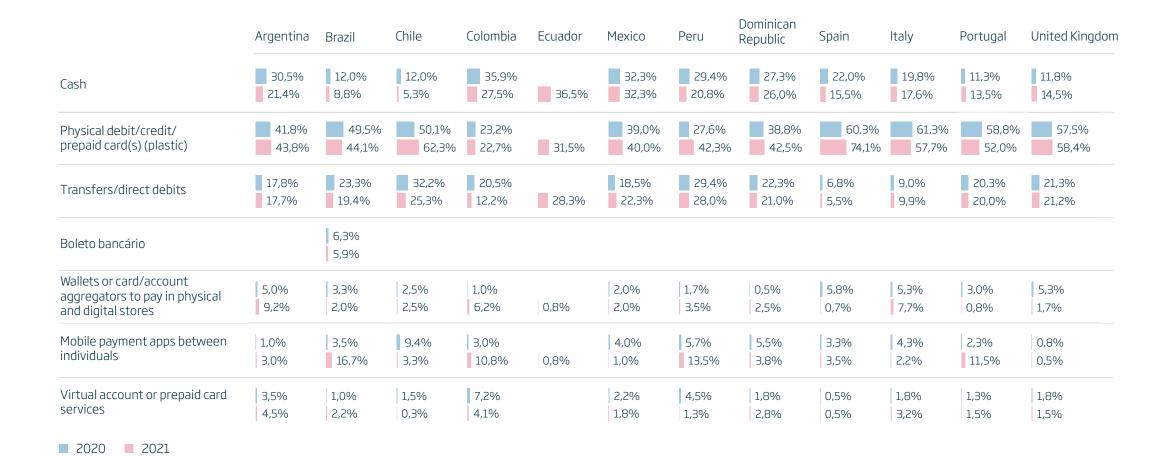


Figure 12 Main means of payment <sup>15</sup> (evolutionary 2020 - 2021)<sup>16</sup>

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the question "And what do you consider to be your main medium, that is, the one with which you make the majority of your expenses?

14 In the questionnaire, the main means of payment was defined as "means of payment with which you make most of the expenses".

15 The "cards" option includes debit, credit and prepaid / The "payments from account" option includes transfers, direct credit and direct debits / The "virtual card" option includes virtual account or prepaid card services (these are digital services, usually for smartphones, in which you can top up money and use for payments). The "wallets and card/account aggregators" option are applications for smartphones or smartwatches with which you can pay with your usual cards or bank accounts, allowing you to choose which method of payment you use at any time.

**16** Similar to the means of payment used during the last month, in Colombia, 15.6% of the ABI population indicates that their main means of payment are payment initiators.

The card, for its part, continues to be the main means of payment for the majority of the ABI population in all countries, with the exception of Ecuador, which maintains very balanced percentages between cash, card and payment from account

### The adoption of contactless card payments advances

Among those who have the card as the main means of payment (the one with which they make most of the expenses), it is observed that in all countries the use of contactless cards is higher than those that are inserted in the dataphone.

This trend was pronounced as a result of the pandemic, a moment from which payment methods for purchases that do not involve unnecessary contacts have been chosen.

Two European countries stand out in the use of this type of card: the United Kingdom and Spain, which continue to lead in the use of the contactless modality, with 90.2% and 87.6%, respectively. In Latin America, Chile (83.5%), Peru (77.5%) and Argentina (72.1%) are the countries with the highest use of contactless.

Colombia and Brazil, meanwhile, stand out for experiencing the greatest growth in the ABI population that chooses this type of card as the main one, with an increase of 16 pp in Brazil and 18.4 pp in Colombia.

The Dominican Republic is the country that still has a clear parity in the use of both types of cards.

In all countries the use of contactless cards is higher than those that are inserted in the dataphone

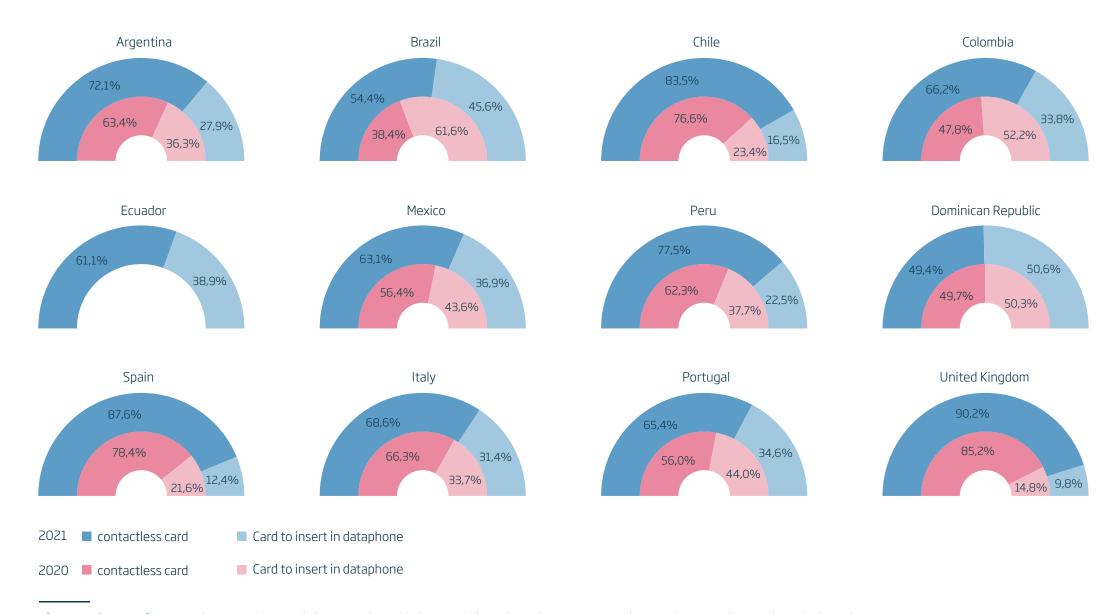


Figure 13 Use of contactless card or card that needs to be inserted in a dataphone among those who use the card as their main means

Population analyzed: ABI population that indicates the card as the main means of payment.

Source: Own elaboration based on the results of the question "And what do you consider to be your main medium, that is, the one with which you make the majority of your expenses?

17 Spain and the United Kingdom are the countries that lead the holding of cards contactless. It is interesting to note that they are also countries that are in the first positions regarding the use of the card during the last month (Figure 11) as the main means of payment (Figure 12) and as a favorite payment method (Figura 14). It is important to note, at this point, that they are the only two countries (along with Portugal) where the use of wallets and aggregators not only does not increase, but also decreases. This low presence of this means of payment, and the lack of growth at a time of adoption of digital means of payment, may result from this massive presence of cards contactless.

### Card payment is the favorite for the ABI population

Beyond the main means of payment (the one that is usually used for most payments), in the present investigation the favorite means of payment was investigated. That is, the one with which the ABI population would like to make most of the payments, if possible.

In this sense, and in line with the main means of payment (**Figure 12**), the card is also the preferred means of payment for all the countries with the exception of Colombia, where the population is diversified in this regard (23.2 % adhere to cash, 15.8% tend to a more digital payment through payment apps between individuals, and 20.5% point to payment initiators<sup>18</sup>).

#### The card is also the preferred means of payment for all the countries with the exception of Colombia

Among the geographical areas that select the card as their favorite means of payment, Spain, with 66.3%, and Chile, with 59.5%, lead the ranking; followed by Italy (53.0%) and the United Kingdom (51.9%).

Establishing a differentiation between a card that needs to be inserted in a dataphone and a contactless card (**Figure 15**), the latter is the preferred one. More than 50% of the ABI population of all the countries that choose the card as their favorite means of payment prefer contactless payment, with the United Kingdom in first position (90.0%), followed by Spain (89.1%) (**Figure 13**)

Brazil, Colombia, Peru and Portugal are not only the countries with the highest growth in users of payment apps between individuals or **Figure 11** those with the largest ABI population indicating said payment as the main one **Figure 12**, but they are also the countries where the highest proportion of the ABI population indicates it as favorite: between 15% and 25% of the population would always use this means of payment if possible.

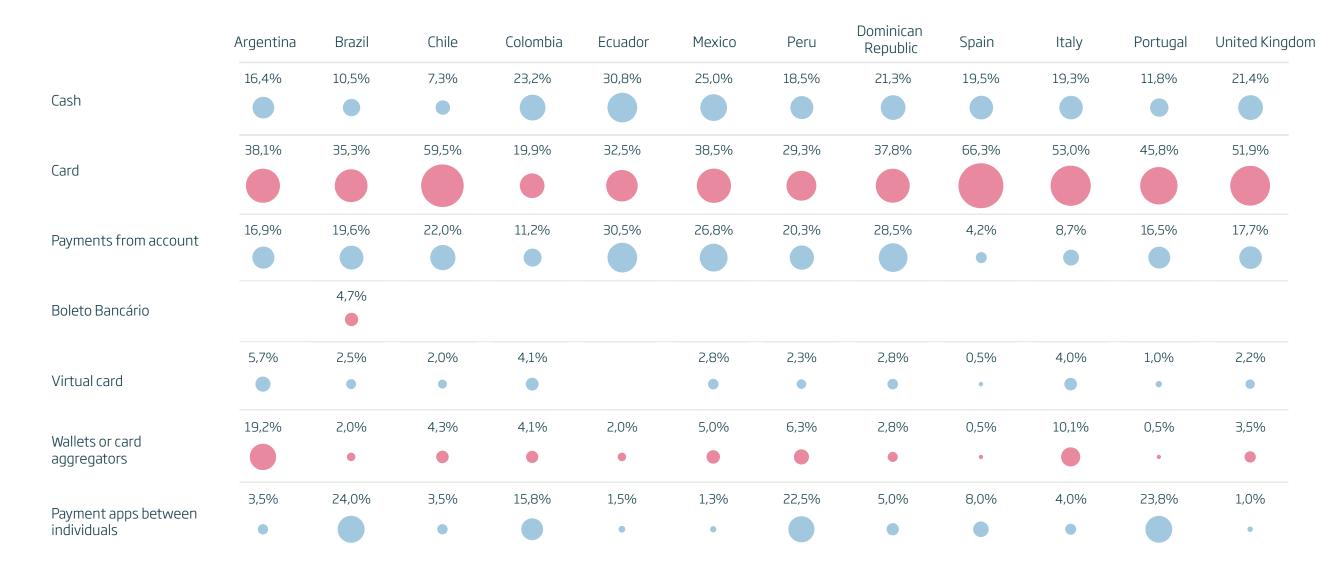
Argentina, for its part, stands out as the country that presents a greater preference for payment through wallets or card aggregators to pay in physical and digital stores.

Payments from accounts are the second favorite means of payment for the ABI population of Ecuador (30.5%), the Dominican Republic (28.5%) and Mexico (26.8%)..

Cash, for its part, continues to have strength in some countries such as Ecuador, Mexico and Colombia, where one in four would prefer to pay in cash.

Among the geographical areas that select the card as their favorite means of payment, Spain, with 66.3%, and Chile, with 59.5%, lead the ranking; followed by Italy (53.0%) and the United Kingdom (51.9%)

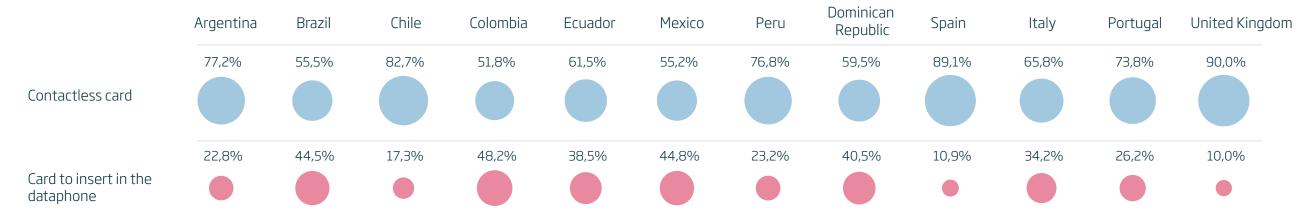
**<sup>18</sup>** Because payment initiators do not have a presence in all countries; because in those who have it, the pentration is very slight; since there was no evolutionary, since it was the first year where said means of payment was included; not included in this graph (**Figure 14**)



#### Figure 14 Favorite payment method <sup>19</sup>

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the question "And what do you consider to be your favorite medium?

**19** In the questionnaire, the favorite payment method is defined as 'payment method with which you like or would like to pay always if possible'.



**Figure 15** Type of card chosen among the favorite means of payment: the card

Population analyzed: ABI population that has the card as its favorite means

Source: Own elaboration based on the results of the question "And what do you consider to be your favorite medium?

## Ease of use, speed and comfort, main transversal reasons for choosing the payment method as a favorite

For whom cash is their favorite means of payment, the main motivation comes because it is widely accepted by both people and establishments. In addition, and with respect to the rest of payment methods, cash stands out for being 'usual'.

Cards, whether they need to be inserted in a dataphone or contactless, also share acceptance with cash in all establishments, but are recognized as more comfortable, easier to use and faster.

The most digital means of payment (payments from accounts, wallets or aggregators, and payment apps between individuals) seem to have problems with acceptance (either by establishments or individuals), but they stand out in comfort, ease of use and speed. In addition, and compared to the rest of the payment methods, they stand out for their immediacy, especially on the part of the payment apps that, on the other hand, do not identify so intensely with the feeling of security, the control over the expenses made and the privacy it provides regarding expenses.

Wallets or aggregators, although it is the payment method recognized as the most convenient, are surpassed by cards in terms of ease and speed, and by payment apps between individuals due to the same characteristics plus immediacy. This can generate the difficulty of adoption that this means of payment seems to be having in some countries, such as Spain and the United Kingdom (**Figure 11**).

	Cash	Cards (contactless)	Cards (dataphone)	Payments from account	Wallets or aggregators	Payment apps between individuals
Give me security	26,2%	24,2%	34,8%	33,1%	29,8%	19,1%
It is hygienic (no contact required)	1,9%	24,4%	11,3%	15,8%	25,6%	23%
It is convenient	21,4%	41,8%	37,5%	36,8%	48,8%	40,4%
It is easy to use	35,2%	52,9%	49,6%	45,3%	48,3%	58,7%
It's fast	35,7%	51%	44,3%	49%	48,8%	57,8%
I have more control over my spending	35,8%	23,3%	28%	32,9%	26,4%	18,9%
It gives me privacy regarding my expenses	20,1%	8,8%	10,6%	15,5%	8,3%	8,5%
They accept it in all establishments	35,9%	28,4%	32,3%	14,1%	11,6%	12,8%
All people accept it	39,7%	13,9%	18,1%	14,6%	11,6%	9,1%
Tradition	25,2%	8,6%	13,1%	7%	6,6%	3,3%
It is immediate (I give/send or receive the money at the moment)	20,8%	22%	18,6%	35,3%	32,6%	47,6%

**Figure 16** Reasons for choosing the preferred payment method

Population analyzed: ABI population whose favorite payment method is one of those shown in the tables.

Source: Own elaboration based on the results of the question "What are the reasons why this means of payment is your favorite? Indicate the 3 main reasons"

# Cash is reluctant to disappear, at least in the short term. It loses frequency of use, but not presence, and most do not want to give up having it available

The use of cash as a regular means of payment has been affected by the pandemic, a fact that was confirmed in 2020 when the ABI population of all countries reduced the frequency of use of this means of payment. However, in 2021 it recovers positions and accumulates pre-pandemic percentages again (**Figure 11**).

Although the use of cash has not yet been abandoned, there are disparities regarding its frequency of use. While less than 25% of the ABI population in European countries have used cash on a daily basis, the United Kingdom is the country with the lowest percentage of frequent users (10.2%); In Latin American countries, the population that uses cash frequently (daily) varies between 30% and 50%, with the exception of Brazil and Chile (15.0% and 19.3%, respectively).

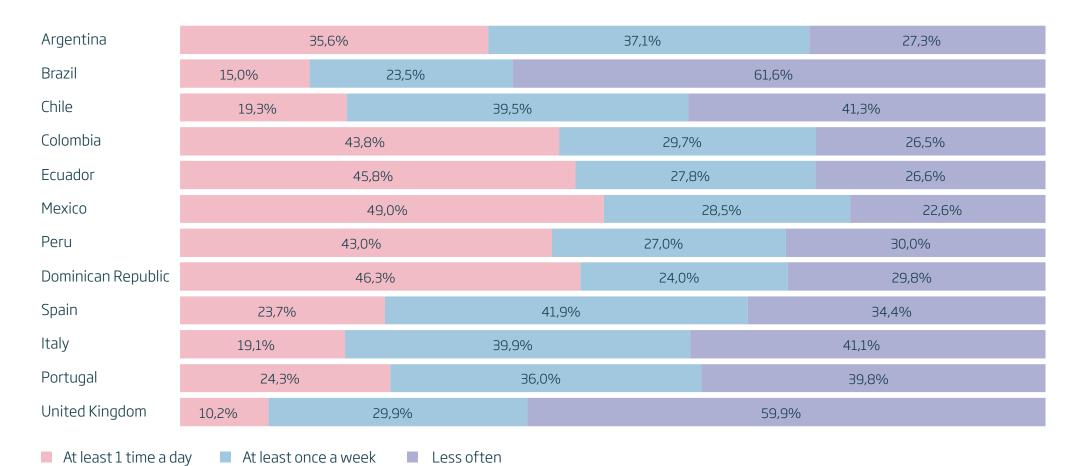
Looking to the future, more than 50% of the ABI population of all countries declare that they will continue to use cash as a means of payment with the same frequency as before, but between 20% and 55% indicate that they will use cash less frequently, highlighting Brazil and the Dominican Republic (54.9% and 48.5%, respectively) (**Figure 18**).

There is a consonance in all the countries regarding the use of cash in the future: almost half of the population of all of them considers that the frequency of use will decrease.

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The only exception is in the United Kingdom, where only 22.7% foresee a decrease in the frequency of use (**Figure 18**). This may be influenced by the composition of the ABI population in the United Kingdom, which, as has already been mentioned, is older than the population of the rest of the European countries and, especially, than the ABI population of Latin America. Thus, the oldest segment of the population in the United Kingdom (52 years or older) is the one with the lowest accumulated percentage indicating that it will reduce the use of cash (15.8%), remaining a long way from the youngest segment where 29, 6% indicate that they plan to reduce the use of cash.

In addition, it is the country with the least variety of means used during the last month, just 2.6 means of payment (**Figure 10**). That is to say, there seems to be some resistance to the definitive abandonment of cash since, although it is used infrequently, it is one of the three most used means of payment (cash, card and payments from account - direct debits and transfers)



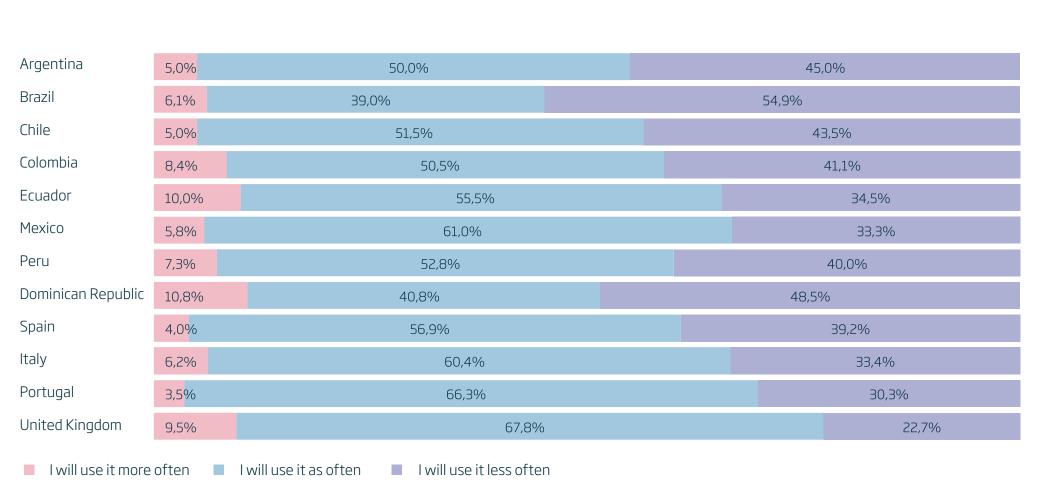


Figure 17 Frequency use of cash during the last year

Population analyzed: Total ABI population (400 cases per country)
Source: Own elaboration based on the results of the question "During the last year, how often have you used cash?"

Figure 18 Frequency use of cash during the next year

Population analyzed: Total ABI population (400 cases per country)
Source: Own elaboration based on the results of the question "How do you think your frequency of using cash will be during the next year?"

### For half of the banking population, cash is an expired means of payment

Between 40% and 50% of the ABI population in all countries would permanently abandon the use of cash if they could make all payments with alternative systems.

The only exception is found in the United Kingdom due to the phenomenon, already mentioned, of fewer means of payment used and an older ABI population. Thus, 79.7% of the most mature segment of the English ABI population indicate that they would not stop using cash.

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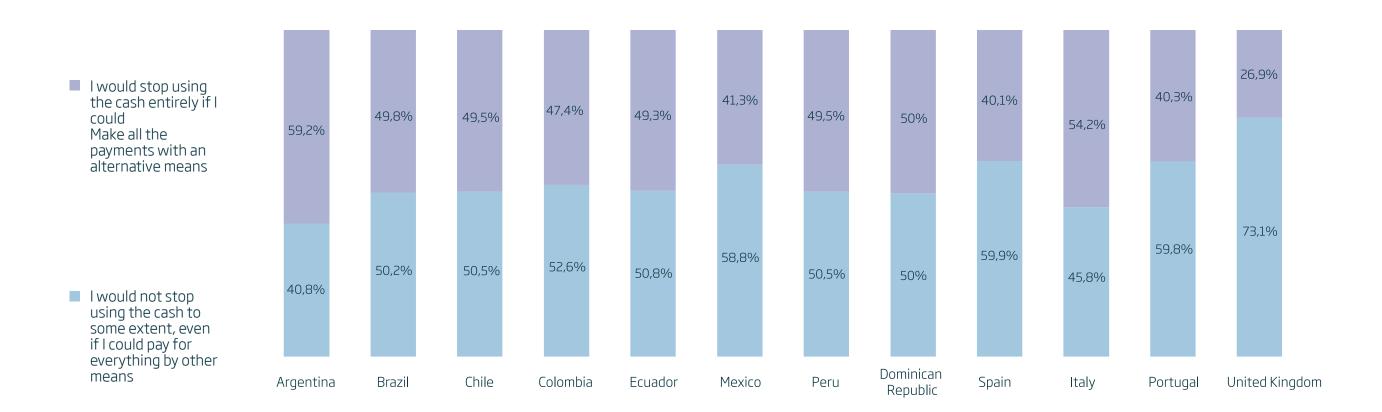


Figure 19 Attitude towards the use of cash in the future

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the question "Thinking about the use of cash in the future, with which of the following phrases do you feel most identified?"

There are still many points of sale that limit the use of payment methods other than cash, especially in Latin America. Small businesses and public transport are the ones that pose the most barriers

The increasing trend in the use of digital payment methods or those that do not require contact is generalized in all countries, however, not all points of sale accompany the consumer in this transformation.

In general terms, the mandatory use of cash at the different points of sale is greater in Latin America than in Europe. However, all countries share two establishments as the most restrictive with respect to accepted means of payment: small and medium businesses (markets and food court, clothing and footwear stores, hairdressers) and public transport (buses, taxis, train).

In Latin America, the Dominican Republic stands out for its mandatory use of cash in the payment of highways, 53% of the ABI population indicates that they have been forced to pay in cash. Added to this point of sale are professional services

for the home, where 54.0% were unable to use an alternative means of payment. These professional services for the home (plumbing, electricity...) also generate resistance to the use of alternative means of payment to cash in almost all Latin American countries, with the exception of Colombia and Brazil, which show significantly lower percentages than the rest of the countries of the continent.

These two countries, Brazil and Colombia, stand out for being the ones that show, within the continent, the lowest percentages of compulsory use of cash for the different points of sale, although Colombia is aligned with the rest of Latin American countries with respect to the two points of sale most critical: public transport and small businesses.

For its part, in Europe, the options of means of payment for the different points of sale seem broader, however, there are also limitations in some of them.

Thus, professional home services, bars and restaurants, public transport and, especially, small businesses, seem to put obstacles to payment with means other than cash. This is especially relevant in Spain, Italy and Portugal. However, the United Kingdom, although it also seems to have difficulties in the use of alternative means of payment in small businesses, stands out as the country where the least difficulties are perceived for the use of other alternative means of payment for almost all points of sale.

	Argentina	Brazil	Chile	Colombia	Ecuador	México	Perú	Dominican Republic	Spain	Italy	Portugal	United Kingdom
Public administrations (fines, fees, taxes)	14,7%	18,8%	8,4%	16,8%	27,0%	19,8%	31,3%	29,4%	9,3%	12,8%	5,5%	4,4%
Utlity bills (water, electricity, gas, internet)	9,5%	14,4%	4,3%	26,4%	26,7%	25,5%	23,3%	21,1%	3,3%	8,5%	3,5%	4,2%
Publi transport (buses, taxi, train)	34,9%	35,1%	53,9%	67,9%	75,3%	65,0%	74,5%	76,4%	31,0%	27,5%	19,1%	10,7%
Small and medium businesses	62,8%	24,5%	54,7%	66,4%	72,5%	72,5%	69,8%	69,6%	45,3%	36,3%	42,6%	30,3%
Supermarkets and department stores	6,7%	5,7%	5,1%	19,4%	17,6%	13,8%	13,5%	15,3%	5,8%	9,5%	3,0%	9,9%
Petrol Stations	11,2%	8,2%	6,1%	23,3%	21,9%	18,0%	22,8%	14,8%	4,3%	12,8%	4,0%	5,2%
Motorways	26,4%	26,2%	27,6%	30,9%	39,3%	38,5%	35,3%	53,0%	6,3%	13,0%	6,8%	3,7%
Hotels and plane tickets	4,7%	5,0%	3,3%	10,1%	10,6%	8,3%	10,8%	9,0%	4,3%	6,0%	2,3%	2,9%
Bar and restaurants	22,7%	11,1%	10,4%	32,1%	31,7%	21,8%	21,3%	23,9%	35,8%	35,8%	29,2%	10,7%
Recreation	13,2%	6,2%	10,1%	17,3%	22,4%	15,8%	17,8%	24,9%	13,1%	15,0%	8,8%	7,6%
Professional services for the home (plumbing)	50,1%	28,5%	29,9%	43,9%	46,1%	46,8%	46,5%	54,0%	26,4%	28,3%	24,4%	10,4%
Medical services (dentist)	39,2%	10,6%	10,9%	30,9%	31,2%	30,3%	30,8%	43,7%	8,3%	13,8%	8,6%	3,4%

**Figure 20** Points of sale where they have been forced to use cash <sup>20</sup>

Population analyzed: ABI population that has been forced to pay in cash.

Source: Own elaboration based on the results of the question "During the last year, and in general terms, at what type of points of sale have you been forced to use cash, even if you would have preferred to use another means of payment?"

**20** For the preparation of this table, the answer "Yes, I have been forced to pay in cash, they have put up barriers or it was not possible to pay with other means" has been taken into account exclusively.

#### Payment with mobile devices

## NFC loses ground in almost all markets compared to other alternatives and only leads in Europe

Payment with mobile devices (smartphone or smartwatch) has experienced general growth compared to 2020 (**Figure 11**).

Regarding the type of system used to make these digital payments, Latin America is characterized by establishing a model of multiplicity of systems where, mainly, both static and dynamic QR payment and in-app payment coexist.

Payments with NFC have decreased in the Latin American ABI population below 25%, while payments with static QR and dynamic QR have experienced a general increase, but especially in Chile, with an increase of 28.9 pp in payment with QR static and 13.7 pp in dynamic QR payment.

For its part, in-app payment remains relatively stable in almost all of Latin America, except in Peru and Chile, where it fell by 17.4 pp and 14.6 pp, respectively.

In Europe, NFC is the means of payment used by the highest percentage of the ABI population that pays with their mobile device, although it has experienced a decrease compared to 2020, with the exception of Italy, where it remains the same.

In this sense, the United Kingdom stands out very significantly, where NFC payment has been reduced, giving priority to in-app payment.

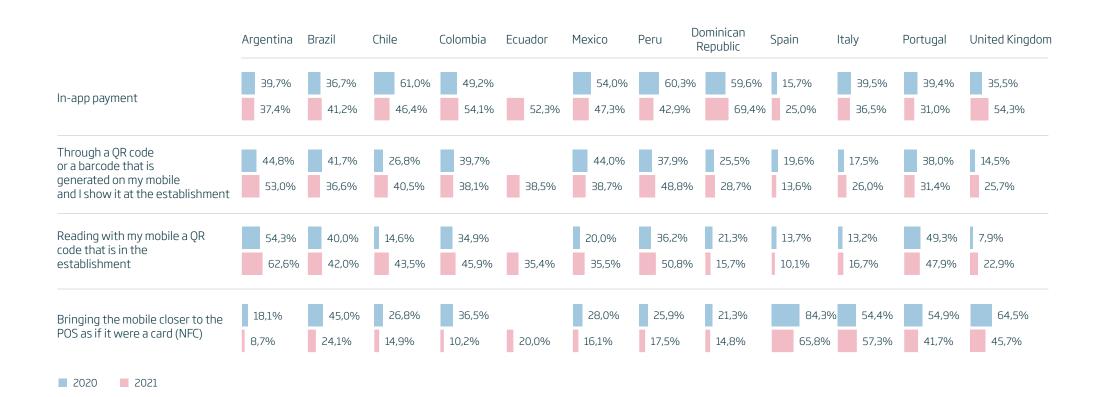


Figure 21 Ways with which you can pay with smartphone or smartwatch in stores, restaurants and physical stores used

Population analyzed: ABI population that has used the mobile as a wallet or has used payment apps between individuals to pay in establishments during the last month
Source: Own elaboration based on the results of the question "Of the following ways you can pay with your smartphone or smartwatch in stores, restaurants and physical stores in general, which of them have you used?"

- **21** Static QR is defined as: "Reading a QR code in the establishment with my mobile".
- **22** Dynamic QR is defined as: "Through a QR code or a barcode that is generated on my mobile and I show it in the establishment.
- 23 Payment in App is defined as: "Through applications that some businesses have that allow you to enter your card or other means of payment, making the payment directly from the app without going through the cashier".

## Lack of specific benefits and perceived security: a challenge for digital payments

The main barriers to mobile payments are based on attitudinal barriers such as distrust in these payment methods and the perception of lack of need. The ABI population belonging to the most adult segment is the one that most identifies this lack of trust as a barrier to mobile payments.

Apart from these reasons, transversal to all the countries of both continents, other reasons are established that present differences according to the country.

In Latin America, the fact that commercial establishments are not providing this payment option can be considered a barrier, but not the main one as in 2020, given the evolution that indicates an ongoing process of adaptation to payment with a mobile device.

The Dominican Republic, Brazil, Colombia and Peru suffer from a lack of permanent Internet connection as a notable barrier, for at least 10% of the ABI population that has not made payments with a mobile device, although there are relevant differences between young people and adults in these countries, since young people indicate this reason more frequently than adults, probably due to data limitations (modalities and prepaid rates).

In Mexico and the Dominican Republic, there is a need to publicize the possibility of paying with a mobile device, since more than 15% of the population did not know that they could be made.

	Argentina	Brazil	Chile	Colombia	Ecuador	Mexico	Peru	Dominican Republic	Spain	Italy	Portugal	United Kingdon
Cause it's not something I find necessary	24,9% 23,7%	20,6%	23,9% 32,3%	19,6% 19,5%	21,9%	19,5% 22,5%	15,4% 15,0%	15,3% 19,1%	36,9% 30,2%	29,6% 33,5%	29,0%	42,1% 41,2%
Because it doesn´t give me confidence	16,9% 20,1%	13,4% 20,1%	20,9% 25,3%	15,0% 18,9%	22,5%	12,4% 11,0%	22,0% 27,8%	11,3% 11,5%	26,5% 33,1%	25,4% 26,1%	18,9% 32,5%	23,6% 26,3%
Because in the establishments they do not give me that option	24,1% 16,5%	26,9% 18,1%	23,6% 15,7%	24,8% 20,1%	15,6%	30,3% 24,6%	24,6% 12,0%	28,5% 19,1%	5,5% 4,7%	10,0% 4,6%	17,9% 10,4%	2,1%
Because that way i have less control over what I spend	4,8% 5,2%	7,5% 6,9%	3,9% 4,0%	5,5% 5,7%	5,6%	6,8% 5,3%	7,5% 9,8%	5,5% 4,6%	6,1% 7,1%	11,4% 8,7%	6,2% 6,5%	4,6% 4,2%
Because my smartphone or smartwatch does not have that technology	4,8% 6,7%	6,3% 8,3%	5,2%	2,8%	4,6%	4,6% 4,5%	2,6% 2,3%	6,7% 4,6%	9,8% 5,9%	6,4% 8,3%	7,5% 1,3%	5,7% 5,1%
Because I don't have a permanent internet connection on my smarphone or smartwatch	9,2% 8,2%	6,9% 13,9%	5,2% 4,5%	15,3% 11,3%	10,9%	7,4% 8,7%	9,2% 10,5%	13,8% 15,6%	3,4%	3,2% 4,1%	9,4% 11,0%	7,1% 7,5%
Because I didn´t know that you could	9,2% 9,3%	9,7% 4,9%	10,0% 10,1%	11,0% 11,9%	10,9%	9,0%	11,1% 12,0%	13,8% 17,2%	1,5% 4,7%	3,2% 6,4%	3,6% 3,9%	4,3% 3,9%
Because it seems very complicated	4,0% 8,8%	6,3% 6,9%	3,6% 5,1%	3,1% 5,7%	6,3%	6,2% 6,4%	3,6% 9,0%	3,4% 5,0%	5,2% 7,1%	8,2% 6,0%	3,6% 2,6%	3,9% 7,2%

Figure 22 Main reason why they do not use a smartphone or smartwatch to pay in an establishment

Population analyzed: ABI population that has not paid with a smartphone or smartwatch in physical establishments.

Source: Own elaboration based on the results of the question "What is the main reason why you have not used your smartphone or smartwatch to pay in an establishment?"

**24** For more information on the percentages of the population with prepaid or postpaid fees, refer to the following reports by country:

Dominican Republic, Dominican Institute of Telecommunications (INDOTEL): https://transparencia.indotel.gob.do/media/214393/informe-desempen-o-de-las-telecomunicaciones-iulio-sentiembre-2020.pdf

Brazil, National Telecommunications Agency (ANATEL): https://informacoes.anatel.gov.br/paineis/acessos/telefonia-movel

Colombia, Ministry of Information and Communication Technologies (ColombiaTIC/MinTIC): https://colombiatic.mintic.gov.co/679/w3-propertyvalue-47274.html

Peru, Supervisory Body for Private Investment in Telecommunications: https://repositorio.osiptel.gob.pe/handle/20.500.12630/736

XI Report on Trends in Payment Instruments

2020

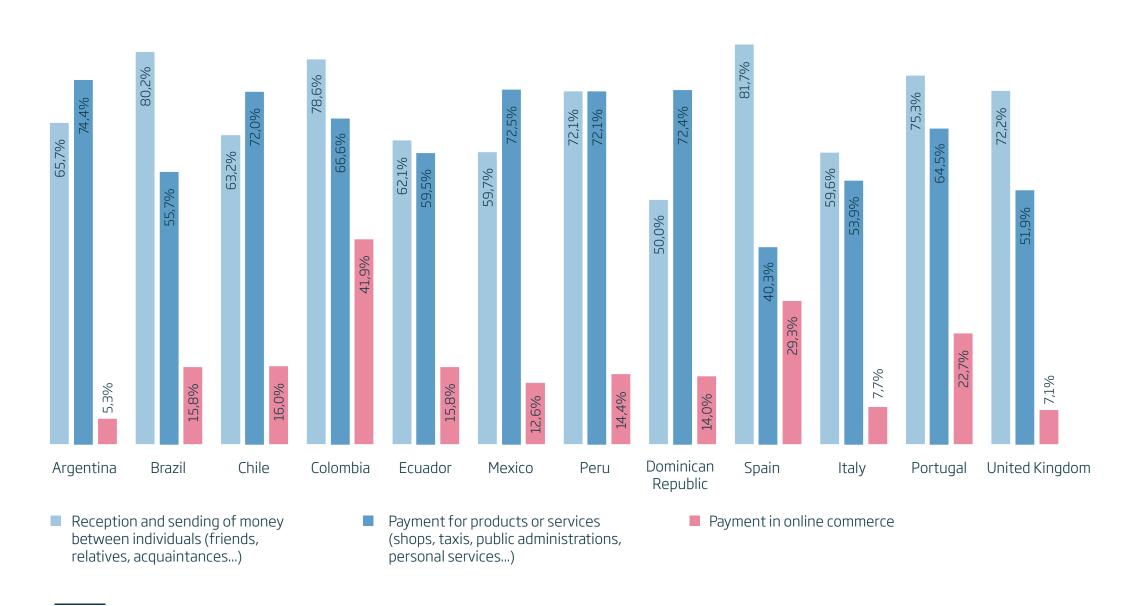
2021

#### The advantages of payment apps between individuals make them gain strength in the pandemic for all kinds of operations

In line with the analysis of the reasons for choosing the preferred payment method (**Figure 16**), where ease of use, speed and immediacy stood out, payment apps between individuals have presented a general growth during 2021, being Brazil, Colombia, Peru, Spain and Portugal are the countries with the largest ABI population that have used them during the last month (**Figure 11**).

In Europe, receiving and sending money between friends and acquaintances is the type of payment that has been made the most with transfer applications between individuals, Spain standing out with 81.7%, but paying for products and services is also common through this system, especially in the United Kingdom, Italy and Portugal.

On the contrary, in Latin America differences are observed depending on the country analyzed. Thus, in Argentina, Chile, Mexico and the Dominican Republic, payment for products or services predominates as the type of payment made. On the other hand, in Brazil and Colombia, transfers between individuals are mainly used to receive and send cash.



**Figure 23** Type of payment made with transfer applications between individuals

Population analyzed: ABI population that has made payments with payment applications between individuals during the last year.

Source: Own elaboration based on the results of the question "What type of payments have you made with transfer applications between individuals? And what payment methods do you use for your online purchases?

Payments in online stores through payment apps between individuals show a significantly lower use, between 5% and 15%, with the exception of Colombia (41.9%), Spain (29.3%) and Portugal (22.7%).

Regardless of the type of payment or use given to this type of applications, the ABI population that uses them is satisfied with their operation (**Figure 24**).

Thus, between 70% and 80% of users indicate that they are satisfied when they use them to make payments to friends or acquaintances.

Between 65% and 80% are satisfied when they use these apps to make payments in physical stores (where the United Kingdom stands out, with 87.8% satisfied with this experience).

Lastly, between 60% and 80% of users of apps for payments in online stores indicate that they are satisfied with this process, with Portugal and Argentina especially standing out, with 85.2% and 90.5% of satisfied users, respectively

Between 70% and 80% of users indicate that they are satisfied when they use them to make payments to friends or acquaintances.

Between 65% and 80% are satisfied when they use these apps to make payments in physical stores

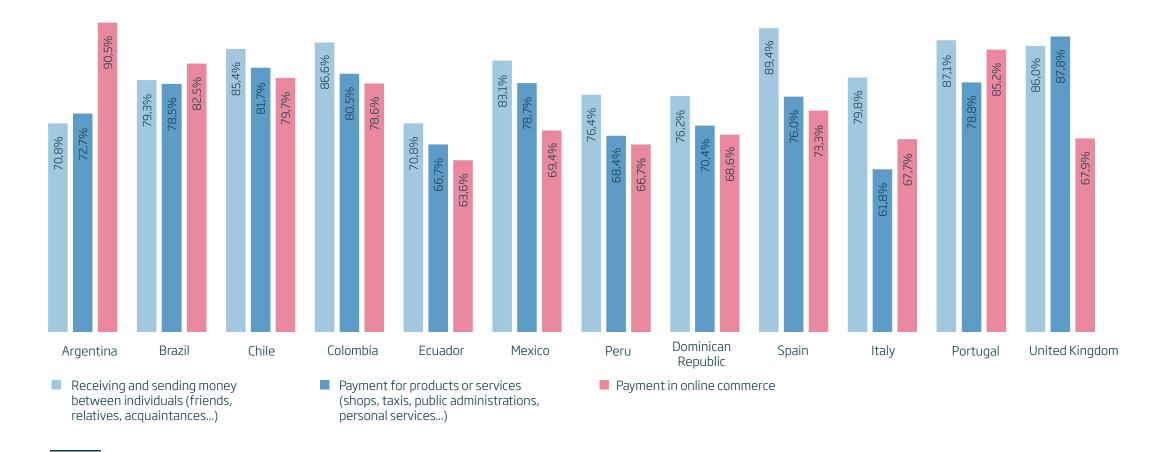


Figure 24 Satisfaction with <sup>25</sup> the payment experience with peer-to-peer payment applications

Population analyzed: ABI population that has made payments with payment applications between individuals during the last year.

Source: Own elaboration based on the results of the question "Taking into account your payment experience with payment applications between individuals, rate your satisfaction using a scale of 1 to 5 where 1 means "very dissatisfied" and 5 "very satisfied"."

**25** The level of satisfaction is defined as the percentage of individuals who mention being very satisfied (5) or quite satisfied (4) on a 5-level verbal scale (Likert): (1) very dissatisfied, (2) quite dissatisfied, (3) somewhat satisfied and (5) very satisfied.

# Buy Now Pay Later 26

## A service still weighed down by low knowledge: only the United Kingdom has high levels of knowledge and use of the BNPL financing system

In general, this financing system still has low levels of awareness both in Europe and in Latin America, with the exception of the United Kingdom, where the financing system reaches 68% of the population in terms of notoriety.

On the contrary, Chile is the country with the lowest level of knowledge (it is only recognized by 15% of the ABI population).

By age, some differences are observed between European and Latin American countries. By age, some differences are observed between European and Latin American countries, since while in countries such as Spain or Italy the system has higher levels of knowledge in the adult population (over 40 years of age), in Latin America there is a generalized tendency to greater knowledge among the younger segment, mainly in Colombia, Argentina, Chile and Peru.

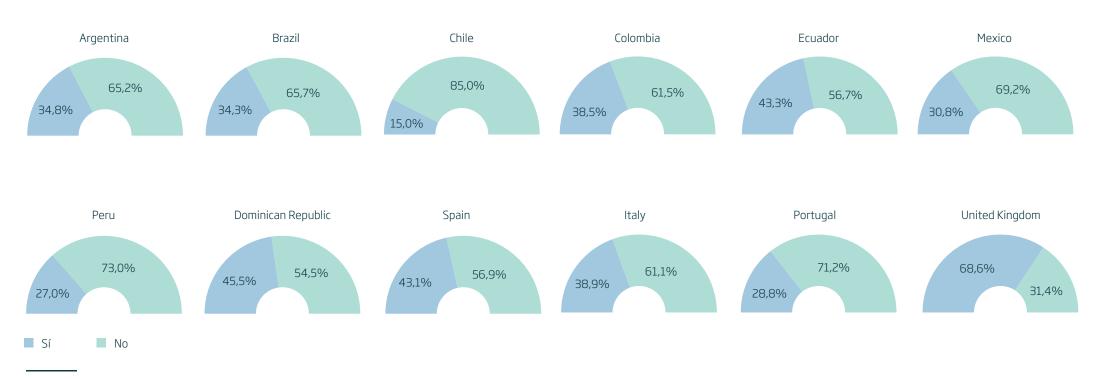


Figure 25 Knowledge of the BNPL financing system

Population analyzed: Total ABI population (400 cases per country)
Source: Own elaboration based on the results of the question "Did you know about this financing system?"

26 The BNPL financing system was defined and presented to the interviewees as follows: "Some physical and online establishments offer their customers, as a means of payment, the possibility of financing purchases, based on a certain economic value. In these cases, instead of paying by credit card, the purchase is financed, with a specific number of installments, by the establishment itself. It does not require contracting any type of additional service or product (a card is not contracted). Once the payment of the installments is finished, the debt with the establishment ends."

At the level of use, it is a system that is not yet very widespread (**Figure 26**). Only the United Kingdom, the Dominican Republic and Ecuador present levels of use above 40% among those who know the financing method. However, in countries such as Portugal and Chile the use is still incipient (less than 30% of the population that knows this system has ever used it).

In Latin America, Brazil stands out for its high rate of use among connoisseurs (49.3% of individuals who know the service have decided to use it).

This places Brazil in fourth place in the ranking of global use, above Argentina or Colombia, which started from higher levels of knowledge.

On the opposite side is Italy, which, starting from relatively high levels of knowledge (compared to the rest of the countries), only 27.8% of these individuals have made use of the financing system, placing the country at the bottom of the usage ranking, along with Chile and Portugal (countries that already start with low levels of knowledge).

Only the United Kingdom, the Dominican Republic and Ecuador present levels of use above 40% among those who know the financing method

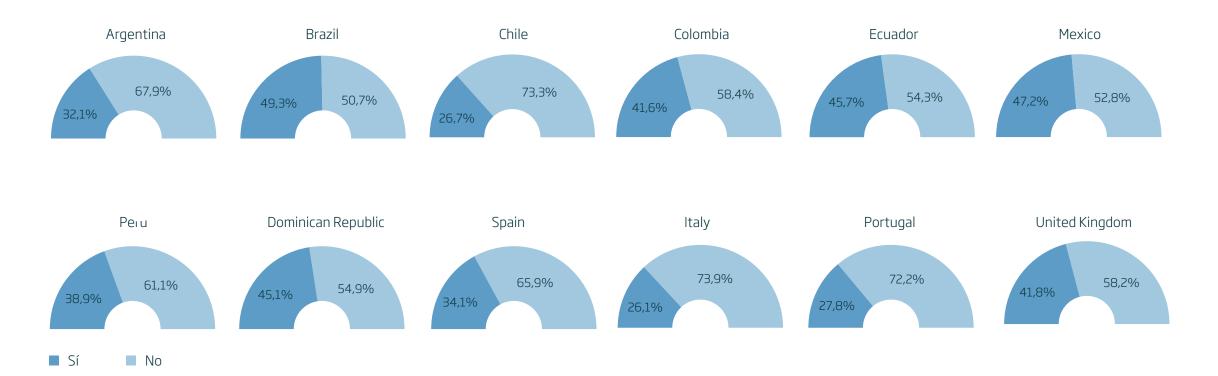


Figure 26 Use of BNPL financing system

Population analyzed: ABI population that knows the BNPL financing system. Source: Own elaboration based on the results of the question "Have you ever used it?"

# Latin America, more open to the use of BNPL

Despite the fact that the United Kingdom stands out as the country with the greatest knowledge and use of the BNPL financing system, it seems that it is reaching a penetration limit among the ABI population, since the population that is unaware or does not use this financing formula presents very low levels of intention for future use.

In general, all European countries show a low intention to use this financing formula. In Spain, Italy and Portugal, there are high levels of population that do not intend to use this system.

On the contrary, a high growth is expected in the use of the financing system in Latin American countries, led by the Dominican Republic, Ecuador and Mexico, among which high future use intentions stand out. Specifically, in the Dominican Republic, it is expected that the penetration of the system will come from the use of the adult age segment (individuals over 31 years of age have an intention to use – surely or probably yes – greater than 80%).

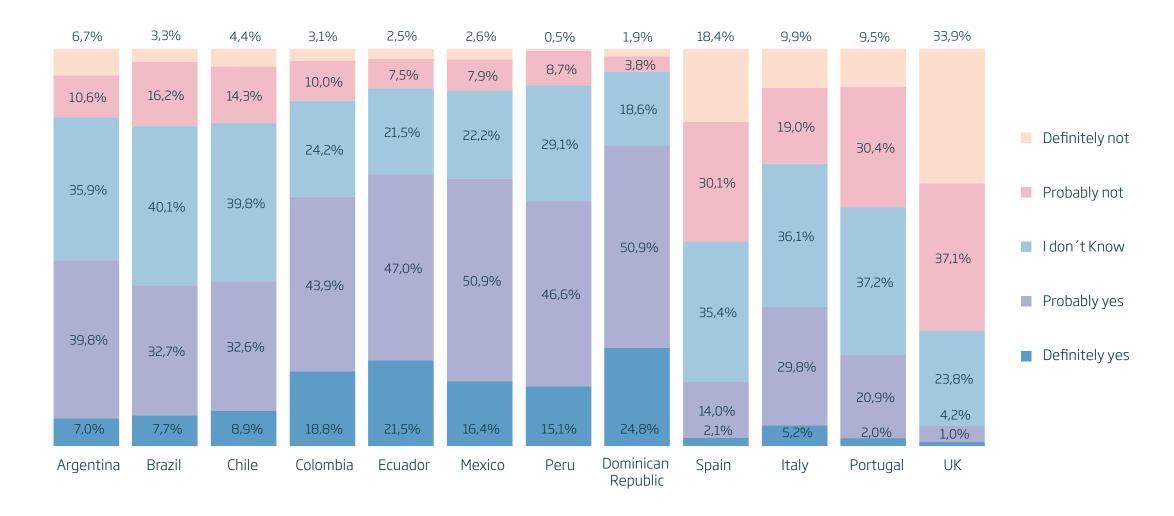


Figure 27 Intention to use future financing system BNPL

Population analyzed: ABI population that did not know or knew, but has not yet used the BNPL system. Source: Own elaboration based on the results of the question "Now that you know what it is, do you think you would use it?"

A high growth is expected in the use of the financing system in Latin American countries, led by the Dominican Republic, Ecuador and Mexico

# Ecommerce

# The United Kingdom and Italy remain at the forefront of online shopping, joined by Chile

There has been an increase between 2020 and 2021 in practically all Latin American countries. The most notable change is starring Chile, with an increase of 14.0 pp in the ABI population that buys online frequently (at least once a month). There have also been high variations in Mexico (+9.8 pp), in Peru (+8.1 pp) and in Brazil (+8.7 pp). Thus, those who buy online at least once a month are around 50% of the population in practically all countries, with the exception of Ecuador, which ranks as the country with the lowest levels of frequency of use (only 35.1 % of the population buys at least once a month).

For its part, in Europe the levels of the ABI population that buys online remain very stable. It is important to bear in mind that, during the previous period and in the midst of the pandemic, there were increases in the percentages of high-frequency online buyers. Currently, there is a stagnation in European countries, and even a very slight decrease, which may be caused by a reopening of physical stores and large consumption spaces.

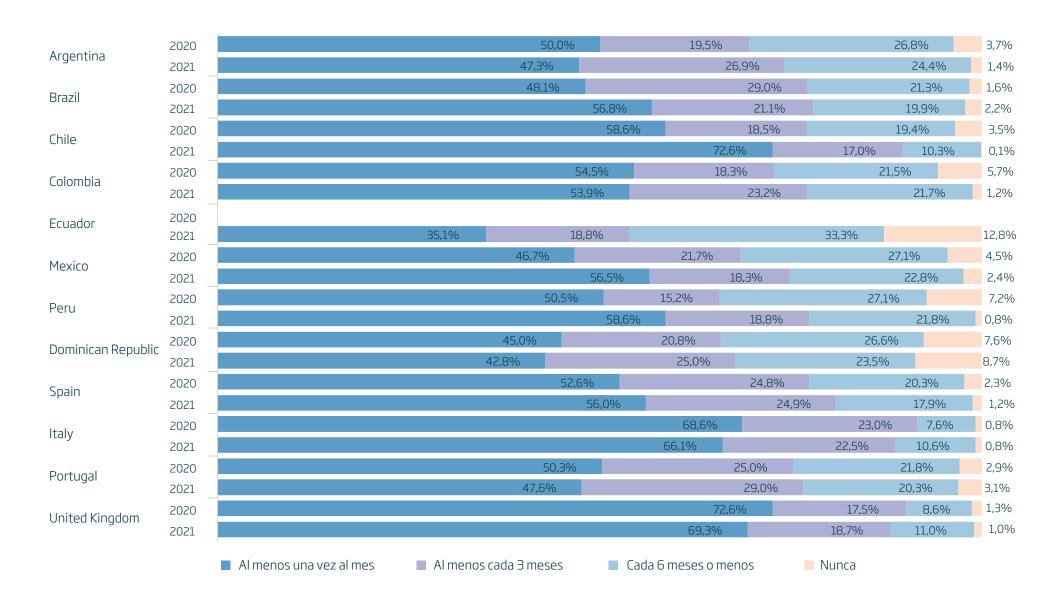


Figure 28 Frequency of purchase of products and/or services online (evolutionary 2020-2021) 28

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the question "How often do you buy a product or service on the Internet?"

 $\textbf{27} \ \mathsf{Santiago} \ \mathsf{Chamber} \ \mathsf{of} \ \mathsf{Commerce} \ \mathsf{https://www.ccs.cl/2021/04/23/ccs-proyecto-ventas-online-por-mas-de-us11-500-millones-este-ano/$ 

La Tercera: "The e-commerce boom: online retail sales tripled in the first quarter" https://www.latercera.com/pulso/noticia/ventas-del-comercio-electronico-en-el-retail- tripled-in-the-first-quarter/ANFWD2KIPFB5FCJ3QVGJOZLDCM/

https://www.latercera.com/pulso/noticia/ventas-del-comercio-electronico-en-el-retail-se-triplicaron-en-el-primer-trimestre/ANFWD2KIPFB5FCJ3QVGJ0ZLDCM/

**28** The "At least once a month" option groups "every week" and "at least once a month" / The "every 6 months or less" option groups "every 6 months or less" and "less frequently/only I have bought once.

# Domain of mobile devices for online purchases in Latin America

The upward trend, already observed in 2020, continues, and the smartphone continues to gain ground over the personal computer or laptop to make online purchases, especially in Latin America.

In Europe, although the use of the smartphone is growing (especially in Portugal), the use of the personal computer to make online purchases is still higher.

In the United Kingdom, although this year it increased by 4.5 pp, the use of the mobile phone continues to be far from the levels of the rest of the countries in terms of the use of said device. In addition, it is the slightly less "multi-device" country (use of 1.3 devices to make online purchases compared to 1.4 or 1.5 devices on average in the rest of the countries analyzed).

The lower use of the mobile device for online purchases is explained, to a large extent, by the composition of the country's ABI population, since young people outnumber adults in the use of the mobile terminal for online purchases (64.2% among young, compared to 20.6%) and, in this sense, Latin American countries have an ABI population slightly younger than the European.

In Europe, although the use of the smartphone is growing (especially in Portugal), the use of the personal computer to make online purchases



**Figure 29** Devices used to buy products and/or services online ( 2020-2021 evolution)

Population analyzed: Total ABI population that has purchased online. Source: Own elaboration based on the results of the question "With which device do you usually make purchases online?"

# The card heads the ranking of the most common means of payment for online purchases

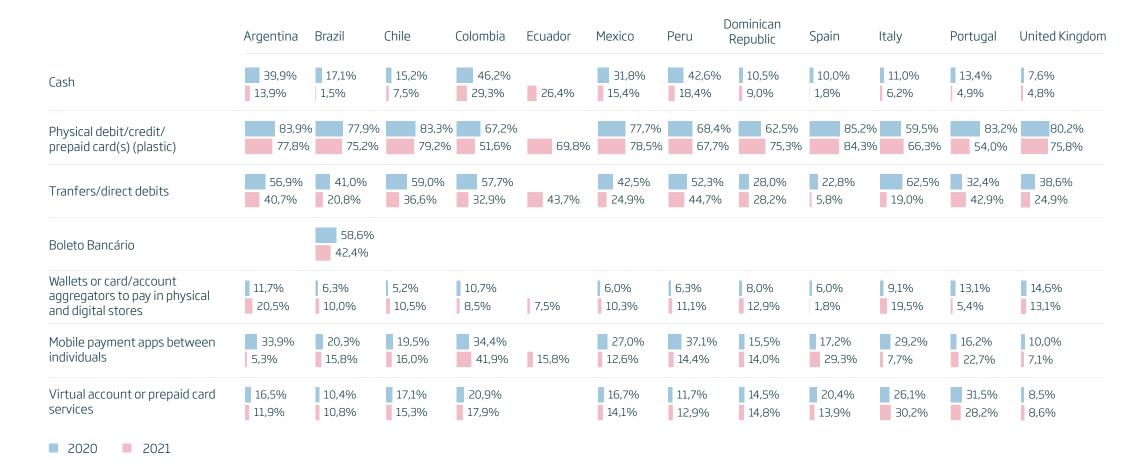
In online commerce, the most widespread means of payment is the card. And it is not only the first payment method in all countries, but it also does so with a percentage of over 50% of the ABI population that has purchased online.

As a second payment method, the high use of transfers in most Latin American countries stands out, with the exception of Brazil, where the bank slip holds second place (42.4% of the ABI population uses it for online purchases) or Colombia, where payment through payment applications between individuals increases significantly compared to 2020 and ranks as the second payment system (and mainly among the youngest Colombian ABI population)<sup>29</sup>.

Also in European countries such as Spain and Portugal, there was a significant increase in the use of payment apps between individuals for online purchases (+12.1 pp in Spain and +6.5 pp in Portugal).

The decrease suffered in 2021 in the use of cash in Latin American countries is also very noteworthy. The percentage of the ABI population that pays for online purchases with cash has fallen by half compared to 2020 in all countries on the continent.

# It is highlighted high use of transfers in most Latin American countries



**Figure 30** Payment methods used in purchases of products and/or services on the Internet (evolutionary 2020-2021)

Population analyzed: Total ABI population that has purchased online.

Source: Own elaboration based on the results of the question "What payment methods do you use for your online purchases?"

29 As was the case in the figures referring to the means of payment used in the last month, the main or preferred means of payment (**Figure 12**, **Figure 12**, **Figure 14**), the data referring to Payment Initiators are not shown in this section, since only 7 of the 12 countries analyzed have the presence of said means of payment and because they do not have an evolutionary method, since it is the first year that is included. said system. In any case, it is specified that Colombia (a country where said means of payment does have a presence) is a system used by 19.1% of the population that buys online to pay for said purchases.

# Security systems for online payment

# Widespread use of two-factor authentication<sup>30</sup>

In the last year, the use of the double authentication factor in online purchases has been high in a generalized way, reaching the highest values in Spain (75.5% of the ABI population has used a double authentication factor in some of its online purchases made in the last year), Italy (71.8%), Chile (70.7%) and Portugal (67.5%).

On the other hand, the countries in which the use of this double authentication in online purchases has been lower are Argentina (49.2% of the population indicates that they have used this double authentication factor in their purchases) and Peru (50, 5% usage).

In the last year, the use of the double authentication factor in online purchases has been high in a generalized way

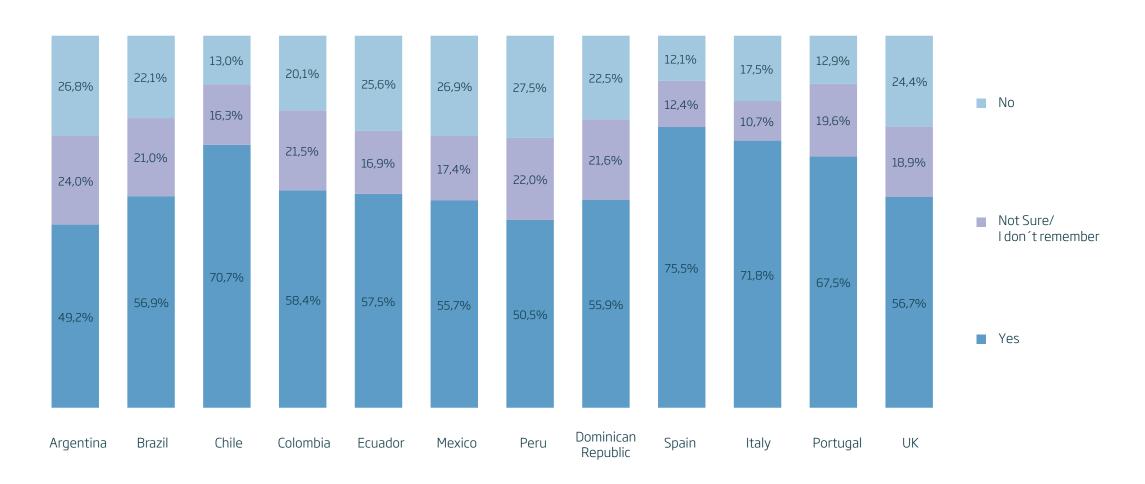


Figure 31 Use of two-factor authentication in online purchases

PPopulation analyzed: ABI population that has purchased through the Internet ource: Own elaboration based on the results of the question "Have you used a double authentication factor in any of your online purchases made during the last year?"

**30** EIn the present investigation, the interviewee was provided with the following definition and information on the double authentication factor: in order to reduce fraud in online purchases or when we access our bank accounts, we are asked to prove who we are through two factors. of authentication. It can be: (1) something that we know or know such as a password, access code or PIN; (2) something we have like a mobile phone or bank card; and (3) something inherent to us like fingerprints or biometric facial features

# Entering a PIN plus a temporary code received via SMS is the most widely used system

In all the countries analyzed, the use of the system based on entering a PIN/CVV or password plus a temporary code received via SMS (OTP – One Time Password) is the most widely used. Although it is in European countries where this system has a much greater presence. 79.3% of the ABI population that has bought online in Portugal has used this system in the last year. In the United Kingdom, 75.6% of the population has done so and in Spain, 72.9%.

On the contrary, the Latin American ABI population, although they also use this system, combine it with others. Brazil, Chile and Peru mainly combine it with the use of opening the app on the mobile plus entering a password, and Colombia and Mexico with opening the app on the mobile plus the fingerprint.

The double factor authentication system that combines the opening of the app plus access through facial recognition, has a significantly lower use, regardless of the country.

Brazil, Chile and Peru mainly combine it with the use of opening the app on the mobile plus entering a password, and Colombia and Mexico with opening the app on the mobile plus the fingerprint

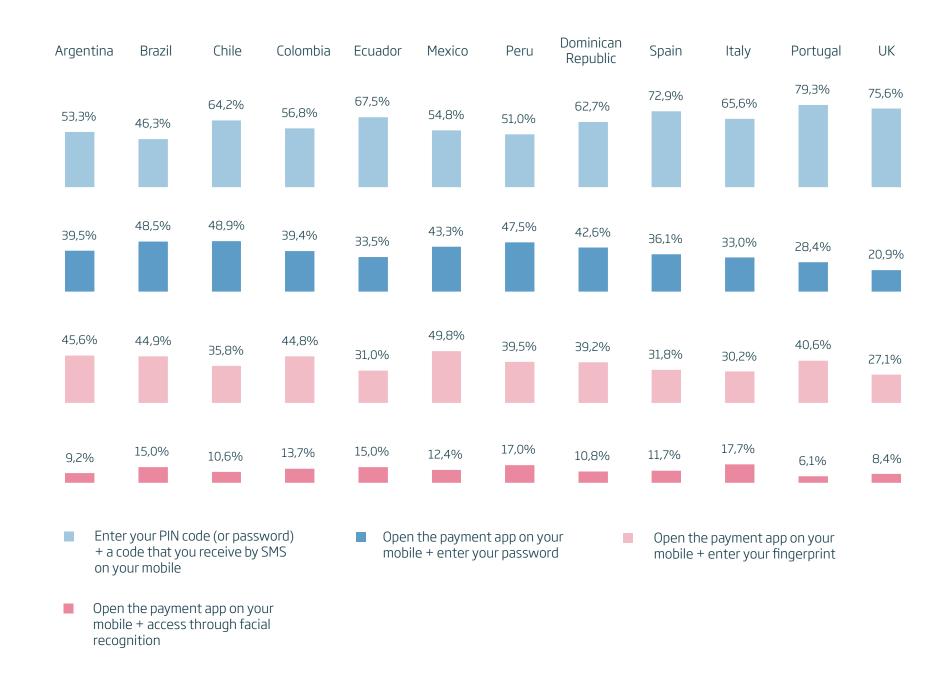


Figure 32 Two-factor authentication systems used

Population analyzed: ABI population that has used at least one second authentication factor
Source: Own elaboration based on the results of the question "What double factor authentication systems have you used in your online purchases during the last year?"

# The service with the highest use is not the service with the greatest satisfaction

In general terms, European countries present higher levels of satisfaction than Latin American countries regarding the double authentication systems used (**Figure 33**). 79.2% of the European ABI population is satisfied with the most used system (enter a PIN/CVV or password plus an expired code received via SMS), compared to 72.2% who are satisfied in Latin America.

Although, it should be noted that it is not the service that shows the highest levels of use that obtains the highest levels of satisfaction. Opening the app on the mobile plus entering a fingerprint is the double authentication system that obtains

the greatest satisfaction (86.4% of the European ABI population and 81.8% of the Latin American population are satisfied with this system).

By attributes, the security of the system and ease of use are the ones that receive the best levels of satisfaction globally for all double-factor authentication systems.

It should also be noted that the United Kingdom in Europe and Colombia in Latin America are the countries that have, in general, the largest number of people satisfied with the different systems.

On the contrary, Argentina and, especially, Peru, are the countries where strong authentication systems seem to generate worse experiences.

Enter your PIN code(or password) + a code that you receive by SMS on your mobile	Argentina	Brasil	Chile	Colombia	Ecuador	Mexico	Peru	Dominican Republic	Spain	Italy	Portugal	United Kingdom
Systm Security	64,4%	64,8%	83,4%	78,1%	72,6%	71,4%	63,7%	73,4%	75,2%	84,7%	81,6%	88,8%
Time spent in the process	52,9%	56,2%	63,5%	70,8%	65,9%	59,7%	55,9%	67,2%	61,9%	70,4%	73,9%	77,1%
Ease of process	55,8%	61%	74,6%	74,5%	70,4%	63%	62,7%	70,3%	68,8%	81%	82,1%	89,4%
Usability of the system	68,3%	66,7%	77,9%	78,8%	70,4%	72,3%	70,6%	71,1%	70,2%	78,3%	82,6%	85,3%
Overallsatisfactionwith this system	67,3%	65,7%	80,1%	76,6%	71,1%	73,1%	69,6%	71,1%	72%	80,4%	81,2%	84,1%
Open the payment app on your mobile + enter your password												
Systm Security	62,3%	73,6%	83,3%	85,3%	73,1%	78,7%	61,1%	79,3%	71,3%	80%	71,6%	85,1%
Time spent in the process	49,4%	61,8%	76,8%	76,8%	64,2%	70,2%	55,8%	73,6%	57,4%	71,6%	74,3%	78,7%
Ease of process	54,5%	63,6%	73,9%	78,9%	59,7%	73,4%	52,6%	73,6%	71,3%	76,8%	73%	85,1%
Usability of the system	59,7%	73,6%	84,8%	86,3%	68,7%	76,6%	71,6%	79,3%	69,4%	76,8%	79,7%	85,1%
Overallsatisfaction with this system	63,6%	74,5%	82,6%	82,1%	67,2%	75,5%	68,4%	81,6%	70,4%	71,6%	77%	85,1%
Open the payment app on your mobile + enter your fingerprint												
Systm Security	82%	79,4%	90,1%	87%	77,4%	82,4%	68,4%	82,5%	81,1%	83,9%	86,8%	86,9%
Time spent in the process	83,1%	79,4%	81,2%	80,6%	75,8%	77,8%	64,6%	76,3%	74,7%	79,3%	85,8%	88,5%
Ease of process	83,1%	76,5%	87,1%	78,7%	75,8%	77,8%	67,1%	80%	80%	78,2%	84,9%	86,9%
Usability of the system	82%	80,4%	88,1%	88%	77,4%	82,4%	69,6%	83,8%	82,1%	88,5%	88,7%	88,5%
Overallsatisfaction with this system	86,5%	82,4%	87,1%	83,3%	79%	78,7%	72,2%	83,8%	83,2%	85,1%	88,7%	88,5%
Open the payment app on your mobile + access through facial recognition												
Systm Security	61,1%	76,5%	76,7%	87,9%	70%	74,1%	47,1%	72,7%	80%	70,6%	93,8%	89,5%
Time spent in the process	50%	82,4%	66,7%	72,7%	76,7%	66,7%	58,8%	72,7%	65,7%	82,4%	87,5%	84,2%
Ease of process	61,1%	73,5%	73,3%	78,8%	73,3%	66,7%	61,8%	63,6%	71,4%	70,6%	87,5%	78,9%
Usability of the system	55,6%	79,4%	76,7%	87,9%	76,7%	81,5%	61,8%	72,7%	77,1%	76,5%	87,5%	89,5%
Overallsatisfactionwith this system	66,7%	79,4%	70%	93,9%	73,3%	77,8%	50%	77,3%	74,3%	74,5%	87,5%	89,5%

**Figure 33** SSatisfaction <sup>31</sup> with aspects related to double authentication factor

Population analyzed: ABI population that has used each of the authentication systems

Source: own elaboration based on the results of the question "Taking into account your experience, indicate your degree of satisfaction with each of these aspects related to the double authentication factor"

**31** The level of satisfaction is defined as the percentage of individuals who mention being very satisfied (5) or quite satisfied (4) on a 5-level verbal scale (Likert): (1) very dissatisfied, (2) quite dissatisfied, (3) somewhat satisfied, (4) quite satisfied and (5) very satisfied.

# Opening the app on the mobile plus entering a fingerprint is the service that produces the fewest incidents in its use

At a global level, the use of the double authentication system that consists of opening the app on the mobile plus entering a fingerprint is the one that obtains the fewest errors in its use (**Figure 34**).

On the contrary, opening the app on the mobile phone plus access through facial recognition is the one that has obtained the highest incidences in a generalized way. Portugal stands out for being the country in which the fewest incidents occur, while Peru and Chile are the countries in which the use of the systems produces the highest proportion of errors.

These errors in the payment process materialize mainly in the form of unfinished payments (26.1% of the Chilean population has suffered errors at this point in the password entry system) or payments not accepted (a 23.5% of errors in Peru with the facial recognition system).

				-								
Enter your PIN code(or password) + a code that you receive by SMS on your mobile	Argentina	Brazil	Chile	Colombia	Ecuador	México	Peru	Dominican Republic	Spain	ltaly	Portugal	United Kingdom
I have NOT had any issues with this system	87,5%	84,8%	77,3%	77,4%	76,3%	76,5%	74,5%	77,3%	78%	79,9%	87,9%	87,10%
YES, there has been an incident	12,5%	15,2%	22,7%	22,6%	23,7%	23,5%	25,5%	22,7%	22%	20,1%	12,1%	12,9%
YES, payment errors (payments not accepted)	0,0%	4,8%	8,8%	4,4%	9,6%	13,4%	12,7%	10,9%	5,5%	8,5%	3,9%	2,4%
YES, payment errors (unfinished payments)	4,8%	9,5%	16%	16,8%	11,9%	10,1%	9,8%	6,3%	16,5%	8,5%	5,8%	4,7%
Othererrors	8,7%	2,9%	2,8%	4,4%	5,9%	4,2%	5,9%	7%	3,7%	4,2%	3,4%	7,1%
Open the payment app on your mobile + enter your password												
I have NOT had any issues with this system	79,2%	80%	65,9%	83,2%	77,6%	84%	68,4%	78,2%	80,6%	72,6%	95,9%	89,4%
YES, there has been an incident	20,8%	20%	34,1%	16,8%	22,4%	16%	31,6%	21,8%	19,4%	27,4%	4,1%	10,6%
YES, payment errors (payments not accepted)	7,8%	8,2%	17,4%	4,2%	10,4%	6,4%	15,8%	12,6%	8,3%	11,6%	1,4%	6,4%
YES, payment errors (unfinished payments)	6,5%	10,9%	26,1%	11,6%	17,9%	8,5%	13,7%	6,9%	13%	6,3%	4,1%	2,1%
Othererrors	6,5%	0,9%	1,4%	1,1%	1,5%	3,2%	4,2%	3,4%	1,9%	11,6%	0,0%	2,1%
Open the payment app on your mobile + enter your fingerprint												
I have NOT had any issues with this system	92,1%	88,2%	80,2%	83,3%	85,5%	85,2%	77,2%	81,3%	81,1%	81,6%	90,6%	93,4%
YES, there has been an incident	7,9%	11,8%	19,8%	16,7%	14,5%	14,8%	22,8%	18,8%	18,9%	18,4%	9,4%	6,6%
YES, payment errors (payments not accepted)	1,1%	4,9%	10,9%	3,7%	6,5%	7,4%	15,2%	6,3%	4,2%	9,2%	2,8%	1,6%
YES, payment errors (unfinished payments)	3,4%	5,9%	13,9%	9,3%	6,5%	5,6%	11,4%	10%	13,7%	8%	5,7%	3,3%
Othererrors	3,4%	1%	0,0%	4,6%	3,2%	1,9%	2,5%	5%	2,1%	1,1%	1,9%	1,6%
Open the payment app on your mobile + access through facial recognition												
I have NOT had any issues with this system	83,3%	76,5%	70%	69,7%	76,7%	70,4%	61,8%	72,70%	80,00%	86,30%	93,80%	68,4%
YES, there has been an incident	16,7%	23,5%	30%	30,3%	23,3%	29,6%	38,2%	27,30%	20,00%	13,70%	6,30%	31,6%
YES, payment errors (payments not accepted)	11,1%	8,8%	13,3%	18,2%	10%	14,8%	23,5%	18,20%	5,70%	9,80%	6,30%	21,1%
YES, payment errors (unfinished payments)	5,6%	14,7%	13,3%	15,2%	13,3%	11,1%	17,6%	9,10%	14,30%	2,00%	0,00%	15,8%
Othererrors	5,6%	2,9%	3,3%	0,0%	0,0%	7,4%	2,9%	4,50%	2,90%	2,00%	0,00%	5,3%

**Figure 34** Incidence with double factor authentication systems

Population analyzed: ABI population that has purchased through the Internet and has used the double authentication factor.

Source: Own elaboration based on the results of the question "Have you suffered any incident using the system...?"

# New players in the financial space

# New service providers have localized potential: Latin America

Following the trend of recent years, the emergence of new agents in the financial market is changing the traditional financial landscape. New digital technologies have allowed the entry of new agents in the financial sector and these new payment service providers are covering specific financial needs of consumers.

Although none of the new entities has yet reached the levels of confidence, in terms of savings management and security similar to those that banks currently have, they do begin to glimpse notable values in some countries, mainly Latin American, which continue to show more predisposed than European countries to operate with these new entities.

Neobanks have burst onto the scene in countries such as Brazil and Colombia (**Figure 2**), with confidence levels already reaching around 50% of the ABI population in relation to the management of their savings and information security.

Sharing data in exchange for benefits does not present as much predispositionis less available, although they achieve that 42.1% of the Colombian ABI population is willingavailable (only 7.2 pppercentage points below the willingness before availability of banks) and 37.5% of the Brazilian ABI population (9.3 pppercentage points below the provision they present toavailability of banks).

On the other hand, in the Dominican Republic, the high levels of confidence aroused by other new agents that are making their foray into the financial market stand out: the large technology companies and telecommunications companies. Both entities achieve confidence levels above 50%, even so, still far from the confidence that banks present in this country, which is the highest compared to the rest of the countries analyzed.

Argentina, within Latin America, stands out for being the country with the lowest percentages of trust, security and availableness to share data, obtaining values more similar to those of European countries, especially similar to those of Spain, which is meant as the country with more reticence regarding new financial operators.

Spain is also the country that shows the lowest values of trust, security and availableness to share data with banks. In other words, it establishes a general distrust regarding the financial market regardless of the operator, with special mention to the case of banks which, although they are the operator that obtains the best percentages, are the lowest compared to the rest of the countries.

Compared to the rest of the European countries, the trust that new providers of services in the financial field arouse in general is still low. It is the banks that appear significantly better positioned than the rest of the financial operators, especially in the United Kingdom.

In general terms, and regardless of the country and the financial operator, the ABI population shows more confidence regarding the management of savings and perception of security in relation to information (personal, financial data...) than availableness to share data in favor of obtaining benefits (discounts...).

Latin American, which continue to show more predisposed than European countries to operate with these new entities

How much confidence	محبرته مأطنة امان يمين				
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	Argentina	Brazil	Chile	Colombia	Ecuador	Mexico	Peru	Dominican Repub <b>l</b> ic	Spain	Italy	Portugal	United Kingdom
Banks	56,7%	65,7%	67,3%	64,8%	63,5%	72,3%	66,0%	78,5%	41,9%	49,5%	58,3%	65,6%
Neobanks	21,4%	52,0%	25,8%	51,9%	20,8%	23,5%	30,5%	21,3%	17,0%	21,0%	20,3%	18,7%
Physical shops/or store	17,2%	34,1%	28,3%	40,0%	39,5%	36,3%	30,5%	41,3%	20,4%	28,5%	26,5%	24,4%
E-Commerce	23,9%	35,3%	26,0%	30,1%	21,0%	30,5%	21,3%	28,5%	13,2%	28,2%	15,3%	18,0%
Big tech companies	25,4%	43,4%	28,3%	39,7%	38,3%	35,8%	35,3%	51,5%	17,0%	27,7%	22,5%	21,4%
Large communications companies	19,9%	34,1%	23,8%	36,4%	34,0%	34,3%	34,3%	51,3%	17,0%	25,0%	23,5%	21,9%

What about the security of your information (personal data, location, financial data...)?

	Argentina	Brasi	Chile	Colombia	Ecuador	México	Perú	República Dominicana	España	Italia	Portugal	Reino Unido
Banks	54,5%	61,3%	59,3%	64,1%	58,8%	69,0%	58,8%	79,5%	45,6%	51,7%	58,3%	67,6%
Neobanks	21,6%	48,3%	29,3%	48,6%	23,5%	26,0%	31,5%	29,5%	22,7%	28,7%	25,3%	25,9%
Physical shops/or store	12,9%	35,8%	26,0%	35,6%	31,8%	27,8%	28,3%	36,3%	20,9%	28,2%	25,0%	30,4%
E-Commerce	19,4%	34,6%	24,5%	29,9%	22,5%	25,8%	21,8%	32,8%	18,5%	28,7%	18,8%	26,9%
Big tech companies	17,9%	38,0%	26,0%	34,7%	31,5%	31,3%	31,3%	49,0%	17,2%	30,9%	22,5%	28,9%
Large communications companies	16,2%	32,4%	23,5%	31,6%	32,8%	29,3%	32,3%	53,5%	16,5%	29,7%	20,8%	26,7%

To what extent would you be willing to share data with these organizations in exchange for benefits?

	Argentina	Brasil	Chile	Colombia	Ecuador	México	Perú	República Dominicana	España	Italia	Portugal	Reino Unido
Banks	41,0%	46,8%	43,5%	49,3%	47,0%	52,8%	49,5%	64,8%	26,2%	40,6%	33,8%	48,1%
Neobanks	22,1%	37,5%	23,3%	42,1%	20,8%	22,8%	28,0%	27,5%	15,5%	26,2%	17,8%	20,0%
Physical shops/or store	19,9%	31,6%	22,8%	34,4%	26,8%	29,8%	31,8%	33,5%	19,7%	28,2%	17,8%	23,9%
E-Commerce	21,9%	30,4%	21,8%	31,6%	23,0%	29,0%	24,3%	32,0%	18,2%	32,4%	17,5%	20,9%
Big tech companies	19,4%	30,9%	22,3%	35,2%	28,8%	31,3%	31,0%	44,5%	17,7%	31,9%	20,3%	23,4%
Large communications companies	19,4%	29,4%	22,8%	36,4%	28,0%	31,0%	29,8%	47,3%	16,2%	31,9%	18,3%	21,9%

**Figure 35** Confidence, perception of security and willingness to share data with the different operators of the financial market

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the questions "How much confidence would this type of entity give you regarding the management of your savings? What about the security of your information (personal data, location, financial data...)? To what extent would you be willing to share data with these organizations in exchange for benefits?"

**32** The level of confidence, security and availableness are defined as the percentage of individuals who (4) quite confident, fairly confident and fairly willing and (5) very confident, very confident or very willing. on a 5-level verbal (Likert) scale: (1) not confident, not confident, and not at all willing, (2) somewhat confident, or unwilling, (3) somewhat confident, and somewhat willing, (4) quite confident, quite confident, and quite willing; and (5) very confident, very confident, or very willing.

# Country summary

In this chapter, an individualized analysis of each of the countries analyzed is carried out, highlighting the most relevant elements in each of them.

Taking into account that Ecuador is the first time that it is part of the research, only eleven countries include the evolutionary data with respect to the year 2020.

As commented at the beginning of the chapter, it is important to take into account the different internal characteristics of the ABI population of each country when reading the data.





#### 01

The ABI population with a credit card increased 5.9 pp and, furthermore, it continues to be the country with the largest multi-card population in the credit modality. 64.1% of the ABI population with a credit card has more than one.

#### 02

Argentina is the country that uses credit cards the most for high-value purchases (66.4%) and the one that has experienced the greatest decrease in the use of credit cards for low-value purchases (-8.3 pp).

## 03

It continues to be the country with the highest percentage of the ABI population with a credit card that uses the "interest-free" instalment payment method (67.5%), and the country that uses the month-end payment method least and payment using the available credit line of the card, compared to the rest of the countries analyzed.

#### 04

After the increase during this year, Argentina is the country where the largest population has used wallets or aggregators during the last month (43.8%) and, in addition, 9.2% of the ABI population indicates this form of payment as the main and 19.5%, as the favourite, ranking as the country in which the largest population chooses this option as the one with which they would like to pay all their expenses if possible. To this is added that it is the country where this payment system is used to a greater extent (wallets or aggregators) for online purchases (20.5%).

### 05

With regard to the attitude towards cash, it is the country that presents the highest percentage of rejection, with 59.2% of the Argentine ABI population stating that they would stop using cash if they could make all payments with an alternative means.

#### 06

Argentina is the country with the highest use of smartphone or smartwatch payments through static QR, going from 54.3% in 2020 to 62.6% in 2021.

#### 07

It is the country that has used payment apps between individuals the most for the payment of products or services (in stores, taxis, public administrations, personal services...) with 74.4% and the one that has used them the least for payments in shops online (5.3%).

## 08

Argentina is the country where to a lesser extent it is remembered to have used a double authentication system for internet purchases (49.2%).

#### 09

Argentina is the Latin American country that shows the least confidence and security regarding information, and that would be willing to share data to a lesser extent with new financial market operators (neobanks, physical stores or shops, online commerce websites...).

	2020	2021
Debit card	95,5%	95,0%
Credit card	67,5%	73,4%
Prepaid card	33,0%	37,3%

**Table 1** Card ownership in the ABI population (2020-2021 evolution)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
1 Debit card	60,5%	60,2%
2 Or more debit cards	39,5%	39,8%
1 Credit Card Back	36,7%	35,9%
2 Or more credit cards	63,3%	64,1%
1 Prepaid card	78,0%	78,7%
20r more prepaid	22,0%	21,3%

**Table 2** Card ownership in the ABI population (2020-2021 evolution)

Population analyzed: ABI population with possession of each type of card Source: Own elaboration based on the results of the study

	2020	2021
Low value purchases	38,5%	30,2%
High value purchases	56,7%	66,4%
To withdraw cash from the ATM	17,0%	14,9%

**Table 3** Frequent use of the credit card according to type of operation (evolutionary 2020 - 2021)

Population analyzed: ABI Argentina population with credit holdings Source: Own elaboration based on the results of the study

	2020	2021
Pay all my purchases at the end of the month	30,0%	25,1%
No interest, even if that means having to choose a smaller number of instalments	62,2%	67,5%
With interest, since the interest-free option forces me to choose a smaller number of instalments	4,1%	4,7%
Pay using the available credit line of my card paying a part of the debt each month	3,7%	2,7%

<b>Table 4</b> Use of credit card according to modality	o modality
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Population analyzed: ABI population with credit card ownership Source: Own elaboration based on the results of the study

	2020	2021
Cash	82,0%	81,1%
Physical debit/credit/prepaid card(s) (plastic)	82,3%	83,3%
Payments from account	67,8%	71,9%
Virtual card	21,5%	32,3%
Wallets or aggregators	29,0%	43,8%
Payment apps between individuals	11,5%	18,7%

**Table 5** Means of payment used in the last month (evolving 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Cash	30,5%	21,4%
Physical debit/credit/prepaid card(s) (plastic)	41,8%	43,6%
Payments from account	17,8%	17,7%
Virtual card	3,5%	4,5%
Wallets or aggregators	5,0%	9,2%
Payment apps between individuals	1,0%	3,0%

**Table 6** Main used means of payment table evolutionary (evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Cash	16,4%
Physical debit/credit/prepaid card(s) (plastic)	38,1%
Payments from account	16,9%
Bank payment slip	0,0%
Virtual card	5,7%
Wallets or aggregators	19,2%
Payment apps between individuals	3,5%

#### **Table 7** Favorite payment means

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Cash	39,9%	13,9%
Physical debit/credit/prepaid card(s) (plastic)	83,9%	77,8%
Payments from account	56,9%	40,7%
Virtual card	16,5%	11,9%
Wallets or aggregators	11,7%	20,5%
Payment apps between individuals	33,9%	5,3%

## **Table 8** Means of payment used in purchases of products and/or services online (evolutionary 2020-2021)

Population analyzed: Total ABI population that has purchased online. Source: Own elaboration based on the results of the study

	2021
I would not stop using cash to some extent, even if I could pay for everything by other means	40,8%
I would stop using cash altogether if I could make all payments with an alternative means	59,2%

#### **Table 9** Attitude towards cash

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
In-app payment	39,7%	37,4%
Through a QR code or a barcode that is generated on my mobile and I show it at the establishment	44,8%	53,0%
Reading with my mobile a QR code that is in the establishment	54,3%	62,6%
Bringing the mobile closer to the POS as if it were a card (NFC)	18,1%	8,7%

<b>Table 10</b> Methods of payment used with mobile devices in
physical stores (evolutionary 2020-2021)

Population analyzed: ABI population that has used the mobile as a wallet or has used payment apps between individuals to pay in establishments during the last month Source: Own elaboration based on the results of the study

	2021
Receiving and sending money between individuals (friends, relatives, acquaintances)	65,7%
Payment for products or services (shops, taxis, public administrations, personal services)	74,4%
Payment in online commerce	5,3%

**Table 11** Type of payment made with payment apps between individuals

Population analyzed: ABI population that has made payments with payment applications between individuals during the last year.
Source: Own elaboration based on the results of the study

	2021
Yes	49,2%
No	24,0%
I'm not sure	26,8%

**Table 12** Use of two-factor authentication table

Population analyzed: Total ABI population that has purchased online. Source: Own elaboration based on the results of the study

	Trustworthy	Security of your Information	Willingness to share data in exchange for benefits
Banks	56,7%	54,5%	41,0%
Neobanks	21,4%	21,6%	22,1%
Physical shops or stores	17,2%	12,9%	19,9%
E-commerce websites	23,9%	19,4%	21,9%
Big tech companies	25,4%	17,9%	19,4%
Large telecommunications companies	19,9%	16,2%	19,4%

**Table 13** Confidence, perception of security and willingness to share data with the different operators of the financial market

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study



#### 01

It is the country that heads multibanking (76.4%). Almost 8 out of 10 members of the ABI population operate with two or more banking entities.

#### 02

Brazil is the country with the greatest presence of neobanks: 64.5% of the ABI population have some type of financial service or product or payments/collections through neobanks, and 26.2% have one of these entities as a financial entity principal.

#### 03

It is the country with the highest percentage of the ABI population (77.2%) that has a credit card. It is also the country with the highest average number of debit and credit cards, 2.1 cards on average in both cases among cardholders of each of the types (matched only by Argentina and Chile in the case of debit cards).

#### 04

Brazil is the second Latin American country that most uses the credit card for low value purchases (59.0%) (only behind the Dominican Republic) and also the second for high value purchases (65.4%) (behind Argentina.

#### 05

Together with Peru, it is among the countries that have experienced the greatest growth in the use of payment apps between individuals as a means of payment used in the last month (+36.5 pp), with the percentage rising to 61.5%. of the ABI population that has used this means of payment. It is the country where the largest population chooses this means of payment as their main method (16.7%) and also as a favorite (24.0%).

#### 06

Brazil is the Latin American country that uses cash the least: 85.1% declare that they use it at least once a week or less frequently. And 54.9% declare that, in the future, they will use it less frequently.

#### 07

Brazil is the Latin American country that makes the most payments through apps between individuals for receiving and sending money (80.2%).

## 08

After an increase of 8.5 pp, Brazil becomes the country where most online purchases are made through the mobile device (82.8%).

#### 09

Brazil is, along with Colombia, one of the countries most open to financial operations with other entities, beyond banks, demonstrating more trust, perceiving security and showing greater willingness to share data with new players operating in the financial market.

	2020	2021
One bank	28,7%	23,6%
Two or more banks	71,3%	76,4%

**Table 14** Number of financial entities with which the ABI population operates (evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Banks	85,5%
Neobanks	64,5%
Physical shops or stores	29,2%
E-commerce websites	48,2%
Big tech companies	36,3%
Large telecommunications companies	59,6%

**Table 15** Banks or suppliers with which it operates / has contracted financial services or products

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Banks	62,7%
Neobanks	26,2%
Physical shops / or stores	2,0%
E-commerce websites	5,4%
Big tech companies	1,2%
Large telecommunications companies	2,5%

**Table 16** Banks or suppliers with which it operates / has contracted financial services or products

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Debit card	93,5%	94,6%
Credit card	75,3%	77,2%
Prepaid card	23,5%	22,3%

**Table 17** Card ownership in the ABI population (2020-2021 evolution)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Debit	2,1
Credit	2,1
Pre-paid	1,4

**Table 18** Average number of cards among the ABI cardholder population

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Low value purchases	55,5%	59,0%
High value purchases	55,8%	65,4%
To withdraw cash from the ATM	12,3%	23,2%

**Table 19** Frequent use of the credit card according to type of operation (evolutionary 2020 - 2021)

Population analyzed: ABI population with credit card ownership Source: Own elaboration based on the results of the study

	2020	2021
Cash	62,8%	58,3%
Physical debit/credit/prepaid card(s) (plastic)	75,3%	76,7%
Payments from account	65,8%	65,2%
Bank payment slip	62,0%	55,4%
Virtual card	14,8%	16,9%
Wallets / aggregators	15,0%	13,0%
Payment apps between individuals	25,0%	61,5%

**Table 20** Means of payment used in the last month (evolving 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Cash	12,0%	8,8%
Physical debit/credit/prepaid card(s) (plastic)	49,5%	44,1%
Payments from account	23,3%	19,4%
Bank payment slip	6,3%	5,9%
Virtual card	1,0%	2,2%
Wallets / aggregators	3,3%	2,0%
Payment apps between individuals	3,5%	16,7%

**Table 21** Main payment method table evolutionary (evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
At least 1 time a day	15,0%
At least once a week	23,5%
Less often	61,6%

#### **Table 22** Frequency use of cash

Population analyzed: ABI Brazil population (400 cases per country). Source: Own elaboration based on the results of the study

	2021
I will use it more often	6,1%
I will use it as often	39,0%
I will use it less often	54,9%

#### **Table 23** Frequency use of cash next year

Population analyzed: ABI Brazil population (400 cases per country). Source: Own elaboration based on the results of the study

	2021	
Receiving and sending money between individuals (friends, relatives, acquaintances)	80,2%	
Payment for products or services (shops, taxis, public administrations, personal services)	55,7%	
Payment in online commerce	15,8%	

Table 24 Type of payment made with payment apps between individuals
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Population analyzed: ABI population that has made payments with payment applications between individuals during the last year.
Source: Own elaboration based on the results of the study

	2020	2021
Personal computer or laptop	55,7%	51,3%
Smartphone (smartphone)	74,3%	82,8%
Tablet	4,3%	5,3%

**Table 25** Devices used to buy products and/or services online (2020-2021 evolution)

Population analyzed: Total ABI population that has purchased online. Source: Own elaboration based on the results of the study

	Trust	Security of your Information	Willingness to share data in exchange for benefits
Banks	65,7%	61,3%	46,8%
Neobanks	52,0%	48,3%	37,5%
Physical shops or stores	34,1%	35,8%	31,6%
E-commerce websites	35,3%	34,6%	30,4%
Big tech companies	43,4%	38,0%	30,9%
Large telecommunications companies	34,1%	32,4%	29,4%

**Table 26** Confidence, perception of security and willingness to share data with the different operators of the financial market

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study



#### 01

Chile is the second Latin American country with the highest growth in multibanking (+6.7 pp compared to 2020), with 65.3% of the ABI population operating with more than one entity.

#### 02

It is the country where the proportion of the ABI population that has a prepaid card (+7.4 pp reaching 37.7%) and a credit card has increased the most, going from 61.3% in 2020 to 71.8% in 2021.

#### 03

It is the second country with the highest percentage of the ABI population that uses the interest-free payment method (55.1%), only behind Argentina.

#### 04

After the 10.9 pp increase in the use of wallets and aggregators, it becomes the country that uses payments through mobile devices more evenly. 31.0% used wallets and aggregators in the last month and 37.0% used payment apps between individuals.

#### 05

Among the Chilean ABI population whose main means of payment is the card (62.3%), 83.5% use a contactless card, leading the ranking as the Latin American country that uses this type of payment card the most.

#### 06

It is the second country, only behind Spain, where the largest ABI population chooses the card as their favorite means of payment (59.5%).

#### 07

Chile is the second country that uses cash the least daily (19.3%), only behind Brazil.

## 08

According to the different payment methods through the mobile device, in Chile, In App payment predominates in 2020 (61.0%), to a greater use of payments through QR code, either dynamic (40, 5%) static (43.5%).

#### 09

In relation to the Buy Now Pay Later financing system, it is the country with the lowest level of knowledge (it is only recognized by 15% of the ABI population).

#### 10

Chile is the country where the ABI population that buys online frequently (at least once a month) grows the most, going from 58.6% to 72.6% and becoming the country with the highest percentage of this type of buyer frequent.

#### 11

It is the Latin American country that has presented a greater use of the double authentication factor in some of the online purchases made during the last year, being the combination of a PIN code plus a temporary code sent by SMS the most used modality among Chileans.

	2020	2021
One bank	41,4%	34,7%
Two or more banks	58,6%	65,3%

**Table 27** Number of financial entities with which the ABI population operates

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Debit card	97,5%	97,8%
Credit card	61,3%	71,8%
PrePaid Card	29,9%	37,7%

**Table 28** Card ownership in the ABI population (2020-2021 evolution)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Low value purchases	30,1%	30,7%
High value purchases	41,9%	51,2%
To withdraw money from the ATM	15,0%	14,3%

**Table 29** Frequent use of the credit card according to type of operation (evolutionary 2020 - 2021)particulares

Población analizada: Población ABI Chilena con tenencia de tarjeta de crédito Fuente: elaboración propia a partir de los resultados del estudio

	2020	2021
Cash	69,8%	77,8%
Physical debit/credit/prepaid card(s) (plastic)	83,3%	89,0%
Payments from account	76,1%	78,3%
Virtual card	20,2%	23,8%
Wallets / aggregators	10,2%	31,0%
Peer-to-peer payment apps	26,9%	37,0%

<b>Table 30</b> Method of payment used in the last month
(evolving 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Physical debit/credit/prepaid card(s) (plastic) contactless (or tap and go)	76,6%	83,5%
Physical debit/credit/prepaid card(s) (plastic) to be inserted into the dataphone	23,4%	16,4%

**Table 31** Use of contactless card or card that needs to be inserted in a dataphone (evolutionary 2020 - 2021)

Population analyzed: ABI population that indicates the card as the main means of payment.

Source: Own elaboration based on the results of the study

	2021
Cash	7,3%
Physical debit/credit/prepaid card(s) (plastic)	59,5%
Payments from account	22,0%
Virtual card	2,0%
Wallets / aggregators	4,2%
Peer-to-peer payment apps	3,5%

**Table 32** Favorite payment method table

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Physical debit/credit/prepaid card(s) (plastic) contact- less (or tap and go)	82,7%
Physical debit/credit/prepaid card(s) (plastic) to be inserted into the dataphone	17,3%

**Table 33** Payment method table according to contactless card or card that needs to be inserted in a dataphone

Population analyzed: ABI population that indicates the card as the main means of payment. Source: Own elaboration based on the results of the study

	2021
At least 1 time a day	19,3%
At least once a week	39,5%
Less often	41,3%

#### **Table 34** Frequency use of cash

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
In-app payment	61,0%	46,4%
Through a QR code or a barcode that is generated on my mobile and I show it at the establishment	26,8%	40,5%
Reading with my mobile a QR code that is in the establishment	14,6%	43,5%
Bringing the mobile closer to the POS as if it were a card (NFC)	26,8%	14,9%

**Table 35** Ways with which you can pay with smartphone or smartwatch (evolutionary 2020-2021)

Population analyzed: ABI population that has used the mobile as a wallet or has used payment apps between individuals to pay in establishments during the last month Source: Own elaboration based on the results of the study

	2021
Yes	15,0%
No	85,0%

**Table 36** Knowledge of BNPL financing system

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
At least monthly	58,6%	72,6%
Least every 3 months.	18,5%	17,0%
Every 6 months or so	19,4%	10,3%
Never	3,5%	0,1%

**Table 37** Frequency of purchase of products and/or services online (evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Yes	70,7%
No	13,0%
I'm not sure	16,3%

**Table 38** Use of two-factor authentication table

Population analyzed: Total ABI population that has purchased online. Source: Own elaboration based on the results of the study



#### 01

It is the country that maintains the least lasting relationship with its main financial institution, with an average of 5.9 years.

#### 02

Colombia, similar to Brazil, has a strong presence of neobanks: 61.2% of the Colombian ABI population has some type of financial service or product or payments/collections contracted through neobanks, and they are already the main financial entity for 26.3%.

#### 03

It is the only country that has experienced a slight decrease in debit card ownership (2.8 pp).

#### 04

Although it shows a certain decrease, it is, together with Ecuador, the Latin American country that most uses the credit card payment method with interest (since the interest-free method forces them to choose a smaller number of instalments) (12.1%).

### 05

Colombia has experienced a large increase in mobile payment methods in the last month: wallets or aggregators (+15.5 pp), and payment apps between individuals (+8.5 pp). Both means of payment also grow as the main means of payment. This last system, in addition, is chosen by 10.8% of the population as the main means of payment; and by 15.8%, as the preferred means of payment.

#### 06

It is the country that to a lesser extent considers the card as its main or favorite means of payment, due to its preference (a phenomenon typical of Colombia) for payment initiators.

#### 07

Colombia is one of the countries that uses cash the most: 43.8% of the Colombian ABI population uses it daily. The establishments where they have been forced to pay in cash, although they would have preferred to use another payment method, are small and medium-sized businesses (66.4%) and public transport (67.9%).

### 08

It is the country that shows the greatest decrease in the form of payment, bringing the mobile closer to the POS as if it were a card (NFC) (36.5% in 2020 compared to 10.2% in 2021), in favor of an increase in the use of static QR (+11.0 pp reaching 45.9%).

#### 09

Colombia is the second Latin American country, only behind Brazil, that makes the most payments through apps between individuals for receiving and sending money (78.6%) and leads the ranking in payment through this means in online stores (41.9%).

#### 10

Like the rest of the countries, except for the United Kingdom, Colombia also has a low level of knowledge about the BNPL financing method.

#### 11

Colombia is the only Latin American country that decreases, albeit very slightly, in the use of smartphones to buy products or services online (73.3%).

#### 12

Brazil is, along with Colombia, one of the countries most open to financial operations with other entities, beyond banks, demonstrating more trust, perceiving security and showing greater willingness to share data with new players operating in the financial market.

	2020	2021
Years of relationship with the main bank	5,4	5,9

**Table 39** Age of the relationship with the main financial institution (average years - evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Banks	66,3%
Neobanks	61,2%
Physical shops or stores	26,6%
E-commerce	29,7%
Big tech companies	20,8%
Large telecommunications companies	63,6%

#### **Table 40** Banks or other providers with which the ABI population operates

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Banks	54,1%
Neobanks	26,3%
Physical shops or stores	5,7%
E-commerce	4,1%
big tech companies	0,9%
Large telecommunications companies	8,9%

**Table 41** Banks or other major providers operates

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Debit card	90,6%	87,8%
Credit card	51,7%	53,6%
Prepaid card	32,2%	36,1%

<b>Table 42</b> Card ownership in the ABI
population (2020-2021 evolution)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Pay all my purchases at the end of the month	33,5%	32,6%
No interest, even if that means having to choose a smaller number of instalments	32,1%	43,2%
With interest, since the interest-free option forces me to choose a smaller number of instalments	18,6%	12,1%
Pay using the available credit line of my card paying a part of the debt each month	15,8%	12,1%

**Table 43** Use of the credit card according to modality (evolutionary 2020-2021)

Population analyzed: ABI population with credit card ownership Source: Own elaboration based on the results of the study

	2020	2021
Cash	78,2%	80,6%
Physical debit/credit/prepaid card(s) (plastic)	64,6%	63,2%
Payments from account	59,4%	56,9%
Virtual card	29,7%	28,9%
Wallets / aggregators	0,7%	31,1%
Peer-to-peer payment apps	46,5%	55,0%
Payment initiators	N/A	55,5%

**Table 44** Method of payment used in the last month (evolving 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Cash	35,9%	27,5%
Physical debit/credit/prepaid card(s) (plastic)	23,2%	22,7%
Payments from account	20,5%	12,2%
Virtual card	7,2%	4,1%
Wallets / aggregators	1,0%	6,2%
Peer-to-peer payment apps	3,0%	10,8%
Payment initiators	N/A	15,6%

**Table 45** Means of payment table (evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Cash	23,2%
Physical debit/credit/prepaid card(s) (plastic)	19,9%
Payments from account	11,2%
Virtual card	4,1%
Wallets / aggregators	4,1%
Peer-to-peer payment apps	15,8%
Payment initiators	20,1%

**Table 46** Favorite payment method

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
At least 1 time a day	43,8%
At least once a week	29,7%
Less often	26,5%

Table 47 Frequency use of case	sh
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Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Public administrations (fines, fees, taxes)	16,8%
Utility bills (water, electricity, gas, internet)	26,4%
Public transport (buses, taxi, train)	67,9%
Small and medium businesses	66,4%
Supermarkets and department stores	19,4%
Petrol Stations	23,3%
Motorways	30,9%
Hotels and plane tickets	10,1%
Bars and restaurants	32,1%
Recreation	17,3%
Professional services for the home (plumbing)	43,9%
Medical services (dentist)	30,9%

**Table 48** Points of sale where they have been forced to use cash

Population analyzed: ABI population that has been forced to pay in cash.

Source: Own elaboration based on the results of the study

	2020	2021
In-app payment	49,2%	54,1%
Through a QR code or a barcode that is generated on my mobile and I show it at the establishment	39,7%	38,1%
Reading with my mobile a QR code that is in the establishment	34,9%	45,9%
Bringing the mobile closer to the POS as if it were a card (NFC)	36,5%	10,2%

**Table 49** Ways with which you can pay with smartphone or smartwatch (evolutionary 2020-2021)

Population analyzed: ABI population that has used the mobile as a wallet or has used payment apps between individuals to pay in establishments during the last month Source: Own elaboration based on the results of the study

	2021
Receiving and sending money between individuals (friends, relatives, acquaintances)	78,6%
Payment for products or services (shops, taxis, public administrations, personal services)	66,6%
Payment in e-commerce	41,9%

**Table 50** Type of payment made with payment apps between individuals

Population analyzed: ABI population that has made payments with payment applications between individuals during the last year.

Source: Own elaboration based on the results of the study

	2020	2021
Personal computer or laptop	59,1%	60,0%
Smartphone	76,4%	73,3%
Tablet	3,4%	4,6%

	Trust	Security of your information	Willingness to share data in exchange for benefits
Banks	64,8%	64,1%	49,3%
Neobanks	51,9%	48,6%	42,1%
Physical shops or stores	40,0%	35,6%	34,4%
E-commerce websites	30,1%	29,9%	31,6%
Big tech companies	39,7%	34,7%	35,2%
Large telecommunications companies	36,4%	31,6%	36,4%

**Table 51** Devices used to buy products and/or services online (2020-2021 evolution).

Population analyzed: Total ABI population that has purchased online.

Source: Own elaboration based on the results of the study

**Table 52** Confidence, perception of security and willingness to share data with the different operators of the financial market

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study



#### 01

Ecuador is, together with the Dominican Republic, the least multibanked country in Latin America (46.9% of the ABI population operates with a single bank). However, it is from the Latin American countries, together with Argentina and Chile, where the number of years of relationship with the main entity is greatest (9.1 years of average seniority).

#### 02

It is the Latin American country where the least ABI population has a credit and prepaid card (50.3% and 17.8% respectively).

## 03

It is among the countries with the lowest payment at the end of the month (28.4%). On the contrary, it is the country, only behind Colombia, that most uses the credit card in the form of payment with interest (10.0%), and the first in Latin America in use of credit payment using the available line on the card and paying part of the debt each month (14.4%).

## 04

Ecuador is the Latin American country in which the largest ABI population has used cash during the last month, and the country, of all those analyzed, where cash has the greatest presence as the main means of payment (36.5%) and also as favorite means of payment (30.8%).

### 05

It also stands out for being the Latin American country with the largest ABI population that has never bought online (12.8%). In addition, among those who buy, the frequency is the lowest of all the countries analyzed (only 35.1% of the population buys at least once a month).

#### 06

Ecuador is, together with the Dominican Republic, the Latin American country with the greatest knowledge of the BNPL financing system (43.3% of the ABI population knows it). It is also the country that is expected to have the highest growth due to its high future use intention among those who did not know; or they knew, but had not used the financing system.

	2021
One bank	46,9%
Two or more banks	53,1%

**Table 53** Number of financial entities with which the ABI population operates

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Years of relationship with the main bank	9,1

**Table 54** Age of the relationship with the main financial institution (average years)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Debit card	90,8%
Credit card	50,3%
Prepaid card	17,8%

**Table 55** Card ownership table in the ABI population

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Pay all my purchases at the end of the month	28,4%
No interest, even if that means having to choose a smaller number of instalments	47,2%
With interest, since the interest-free option forces me to choose a smaller number of instalments	10,0%
Pay using the available credit line of my card paying a part of the debt each month	14,4%

<b>Table 56</b> ∪	se of c	redit car	d accor	ding to	o modality
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Population analyzed: ABI population with credit card ownership Source: Own elaboration based on the results of the study

	2021
Cash	83,0%
Physical debit/credit/prepaid card(s) (plastic)	72,8%
Charge to account / transfer / direct debits	66,3%
Wallets or aggregators	16,5%
Payment apps between individuals	14,0%

**Table 57** Means of payment used during the last month

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Cash	36,5%
Physical debit/credit/prepaid card(s) (plastic)	31,5%
Charge to account / transfer / direct debits	28,3%
Wallets or aggregators	0,8%
Payment apps between individuals	0,8%

**Table 58** Main means of payment

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Cash	30,8%
Physical debit/credit/prepaid card(s) (plastic)	32,5%
Charge to account / transfer / direct debits	30,5%
Wallets or aggregators	2,0%
Payment apps between individuals	1,5%

#### **Table 59** Payment method table

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
At least monthly	35,1%
Least every 3 months.	18,8%
Every 6 months or so	33,3%
I have never bought online	12,8%

#### **Table 60** Frequency of purchase of products and/or services online

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Yes	43,3%
No	56,7%

#### **Table 61** Knowledge of the BNPL payment system

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Definitely yes	21,5%
Probably yes	47,0%
l don't know	21,5%
Probably not	7,5%
Definitely not	2,5%

#### **Table 62** Intention to use future financing system table

Population analyzed: Total ABI Ecuador population that did not know or that knew, but has not yet used, the BNPL system. Source: Own elaboration based on the results of the study



#### 01

Mexico remains among the least multibanked countries in Latin America (44.4% of the ABI population operates with a single bank). In addition, it continues to be, after Colombia, the country with the lowest number of years of relationship with the main entity (6.4 years).

#### 02

It is the Latin American country with the lowest percentage of the multi-credit card ABI population (34.5%) and with the lowest average number of cards of this type, which is 1.6 among credit cardholders.

#### 03

It is the country that experiences the greatest decrease in the use of credit cards to withdraw cash from ATMs, going from 32.8% in 2020 to 22.1% in 2021.

### 04

Mexico is the second country, only behind Ecuador, where more people used cash during the last month (82.0%) and shows resistance to its abandonment. 32.3% of the population choose cash as their main means of payment and 25.0% as their favourite. In addition, it is the country where the largest ABI population makes frequent use (at least once a day) of this means of payment (49.0%), and it is the Latin American country with the lowest percentage of the population that indicates that during the next year they will use it less (33.3%) and that indicates that they will not stop using it in the future, even though they may use other means of payment (58.8%).

#### 05

Mexico is the country with the highest increase in the number of frequent online buyers (at least once a month), only behind Chile (from 46.7% to 56.5%).

#### 06

For online purchases, the use of smartphones continues to increase (from 72.4% in the previous period to 81.2% in 2021). On the contrary, the use of the personal computer experiences the greatest decrease in Mexico, going from 53.5% in 2020 to 41.2% in the current period, becoming the country where this device is least used for online purchases.

## 07

In this period, Mexico experiences an increase of 9.8 pp in the ABI population that buys online frequently.

## 08

It is the second country, only behind the Dominican Republic, that shows greater trust, security regarding information, and willingness to share data with banks.

	2020	2021
One bank	46,9%	44,4%
Two or more banks	53,1%	55,6%

**Table 63** Number of financial entities with which the ABI population operates (evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the study	2020	2021
Years of relationship with the main bank	6,0	6,4

**Table 64** Age of the relationship with the main financial institution (average years - evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
1 Debit card	65,3%	63,3%
2 or more debit cards	34,7%	36,7%
1. Credit Card Back	55,0%	34,5%
2 or more credit cards	45,0%	65,5%
1 prepaid card	81,1%	85,9%
2 or more prepaid	18,9%	14,1%

**Table 65** Card 3 ownership in the ABI population (2020-2021 evolutionary)

Population analyzed: ABI population with possession of each type of card Source: Own elaboration based on the results of the study

	2021
Charge cards	1,5
Credit cards	1,6
Prepaid Cards	1,2

**Table 66** Average number of cards among the ABI cardholder population

Population analyzed: ABI population with possession of each type of card Source: Own elaboration based on the results of the study

	2020	2021
Charge cards	46,7%	43,4%
Credit cards	46,7%	51,8%
Prepaid Cards	32,8%	22,1%

	2020	2021
Pay all my purchases at the end of the month	44,4%	43,4%
No interest, even if that means having to choose a smaller number of instalments	44,4%	46,0%
With interest, since the interest-free option forces me to choose a smaller number of instalments	4,0%	4,0%
Pay using the available credit line of my card paying a part of the debt each month	7,2%	6,6%

	2020	2021
Cash	75,1%	82,0%
Physical debit/credit/prepaid card(s) (plastic)	73,8%	80,5%
Charge to account / transfer / direct debits	54,8%	70,0%
Virtual card	19,3%	24,0%
Wallets or aggregators	12,3%	22,8%
Payment apps between individuals	19,0%	19,0%

	2020	2021
Cash	32,3%	32,3%
Physical debit/credit/prepaid card(s) (plastic)	39,0%	40,0%
Charge to account / transfer / direct debits	18,5%	22,3%
Virtual card	2,2%	1,8%
Wallets or aggregators	2,0%	2,0%
Payment apps between individuals	4,0%	1,0%

**Table 67** Frequent use of the credit card according to type of operation (evolutionary 2020 - 2021)

Population analyzed: ABI Mexico population with credit card ownership

Source: Own elaboration based on the results of the study

**Table 68** Use of the credit card according to modality (evolutionary 2020-2021)

Population analyzed: ABI Mexico population with credit card ownership

Source: Own elaboration based on the results of the study

**Table 69** Payment method used in the last month (evolving 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

**Table 70** Main payment mean (evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the study

	2021
Cash	25,0%
Physical debit/credit/prepaid card(s) (plastic)	38,5%
Charge to account / transfer / direct debits	26,8%
Virtual card	2,8%
Wallets or aggregators	5,0%
Payment apps between individuals	1,3%

#### **Table 71** Payment method table

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
At least 1 time a day	49,0%
At least once a week	28,5%
Less often	22,6%

#### **Table 72** Frequency use of cash

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
I will use it more often	5,8%
I will use it as often	61,0%
I will use it less often	33,3%

#### **Table 73** Frequency of use of cash during the next year

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
I would stop using cash altogether if I could make all payments with an alternative means	41,3%
I would not stop using the cash in some way, even if I could pay for everything with other means	58,8%

	2020	2021
At least monthly	46,7%	56,5%
least every 3 months.	21,7%	18,3%
Every 6 months or so	27,1%	22,8%
Never	4,5%	2,4%

Table 75 Frequency of purchasing products and/or	
services online (evolutionary 2020-2021)	

Population analyzed: Total ABI population that has purchased online. Source: Own elaboration based on the results of the study

	2020	2021
Personal computer or laptop	53,5%	41,2%
Smartphone (smartphone)	72,4%	81,2%
Tablet	11,1%	7,2%

**Table 76** Devices used to buy products and/or services online (2020-2021 evolution).

Population analyzed: Total ABI population that has purchased online. Source: Own elaboration based on the results of the study

	Trust	Security of your information	Willingness to share data in exchange for benefits
Banks	72,3%	69,0%	52,8%
Neobanks	23,5%	26,0%	22,8%
Physical shops or stores	36,3%	27,8%	29,8%
E-commerce websites	30,5%	25,8%	29,0%
Big tech companies	35,8%	31,3%	31,3%
Large telecommunications companies	34,3%	29,3%	31,0%

**Table 77** Confidence, perception of security and willingness to share data with the different operators of the financial market

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

**Table 74** Attitude towards the use of cash in the future Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study



#### 01

Peru maintains levels very similar to those of previous periods, and continues to be positioned as second most multibanked country, only behind Brazil, with 69.7% of the population operating with two or more banking entities.

#### 02

In 2021 Peru recovers the loss it suffered in the previous period of Population that had a credit card (It went from 55.1% in 2019 to 47.5% in 2020 and now it is back to 57.8% in 2021).

#### 03

The Andean country continues to be one of the countries with the highest percentage of ABI population concentrated with two or more debit cards (only behind Brazil), reaching 56.2% of the ABI population.

#### 04

Peru experiences the second-largest increase in frequent credit card use for high-value purchases (+12.9 pp reaching 53.7%), behind Colombia.

### 05

Is the second Latin American country, only behind the Dominican Republic, where to a greater extent use the credit method of payment at the end of the month, being used by 51.9% of the ABI population who have a credit card.

#### 06

In Peru it is produced the highest increase in the use of the card as the main means of payment (it goes from 27.6% in 2021 to 42.3% in the current period). But it stands out mainly for the increase in the ABI population that has used payment apps between individuals during the last month (from 24.1% in 2020 to 61.0% in 2021) and for choosing this system as the main means of payment (from 5.7% in 2020 to 13.5% in 2021), a means of payment that is also chosen as the favorite by 22.5% of the ABI population.

#### 07

Peru is, after Chile, the country with the least knowledge of the BNPL financing system (only 27% of the ABI population knows it).

## 08

It is the country where it is produced the biggest decrease in population that I had never bought online. Thus, while in 2020 there was still 7.2% of the ABI population that had never purchased products online, in 2021 this percentage is 0.8%.

#### 09

Peru is, only behind Argentina, the country where fewer online shoppers have used two-factor authentication for online purchases (50.5%) and it is, together with Argentina, the country with the lowest satisfaction rates with respect to any of the four combinations of existing authentication factors.

	2020	2021
One bank	32,8%	30,3%
Two or more banks	67,2%	69,7%

**Table 78** Number of financial entities with which the ABI population operates (evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Debit card	95,8%	96,0%
Credit card	47,5%	57,8%
Prepaid card	25,9%	30,5%

**Table 79** Card ownership in the ABI population (2020-2021 evolution)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
1 Debit card	45,7%	43,8%
2 or more debit cards	54,3%	56,2%
1. Credit Card Back	53,4%	57,6%
2 or more credit cards	46,6%	42,4%
1 Prepaid card	86,5%	77,9%
2 or more prepaid	13,5%	22,1%

**Table 80** Ownership in the ABI population (2020-2021 evolution)

Population analyzed: ABI Peru population with possession of each type of card Source: Own elaboration based on the results of the study

	2020	2021
Low value purchases	45,5%	44,6%
High value purchases	40,8%	53,7%
To withdraw money from the ATM	31,4%	28,1%

	2020	2021
Pay all my purchases at the end of the month	48,2%	51,9%
No interest, even if that means having to choose a smaller number of instalments	34,6%	35,5%
With interest, since the interest-free option forces me to choose a smaller number of instalments	6,8%	6,1%
Pay using the available credit line of my card paying a part of the debt each month	10,4%	6,5%

	2020	2021
Cash	73,6%	80,5%
Physical debit/credit/prepaid card(s) (plastic)	69,2%	78,0%
Charge to account / transfer / direct debits	63,2%	65,5%
Virtual card	22,6%	25,0%
Wallets or aggregators	14,4%	37,8%
Payment apps between individuals	24,1%	61,0%

**Table 81** Frequent use of the credit card according to type of operation (evolutionary 2020 - 2021)

Population analyzed: ABI Peru population with credit card ownership

Source: Own elaboration based on the results of the study

**Table 82** Use of credit card according to modality

Population analyzed: Total population ABI Peru with credit card ownership

Source: Own elaboration based on the results of the study

**Table 83** Means of payment used during the last month (evolving 2020-2021)

Population analyzed: Total ABI population (400 cases per country)

Source: Own elaboration based on the results of the study

	2020	2021
Cash	29,4%	20,8%
Physical debit/credit/prepaid card(s) (plastic)	27,6%	42,3%
Charge to account / transfer / direct debits	29,4%	28,0%
Virtual card	4,5%	1,3%
Wallets or aggregators	1,7%	3,5%
Payment apps between individuals	5,7%	13,5%

#### **Table 84** Main payment means (evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Cash	18,5%
Physical debit/credit/prepaid card(s) (plastic)	29,3%
Charge to account / transfer / direct debits	20,3%
Virtual card	2,3%
Wallets or aggregators	6,3%
Payment apps between individuals	22,5%

#### **Table 85** Favorite payment means

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Yes	27,0%
No	73,0%

#### **Table 86** Knowledge of the BNPL payment system

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
At least monthly	50,5%	58,6%
Least every 3 months.	15,2%	18,8%
Every 6 months or so	27,1%	21,8%
Never	7,2%	0,8%

**Table 87** Frequency of purchasing products and/or services online (evolutionary 2020-2021)

Population analyzed: Total ABI population that has purchased online.

Source: Own elaboration based on the results of the study

	2021
Yes	50,5%
Not Sure / I don't remember	22,0%
No	27,5%

**Table 88** Use of double authentication factor in online purchases

Population analyzed: Total population ABI Peru that has bought through the internet

Source: Own elaboration based on the results of the study



The Dominican Republic is the only Latin American country that has regressed in multibanking, showing more similar data to European countries in this regard, since 66.8% of the Dominican ABI population that operated with two banks or more in 2021 has fallen to 51.0% (66.8% in 2020).

#### 02

It is the country that experiences a greater decrease in prepaid card ownership (going from 29.0% in 2020 to 19.5% in 2021).

#### 03

Of all the countries analyzed, it is the one who uses the credit card the most for low-value purchases (62.7%), although slightly below 2020, when it reached 66.3% of the ABI population with a credit card. In addition, this year experiences the largest increase in frequent use in high-value purchases (+14.4 p.p. going from 28.6% to 43.0%).

#### 04

Dominican Republic remains the Latin American country that most resembles the European profile in terms of the use of credit, 66.4% of the ABI population uses the payment at the end of the month.

#### 05

In relation to the use of card contactless, Dominican Republic is the country with the least use, only 49.4% of the ABI population that has the card as the main means of payment, uses contactless. In addition, it is the only country where the holding of this type of card has not increased, maintaining an identical percentage to 2020.

#### 06

It is the second country, only behind Mexico, with higher percentage of the ABI population that is a frequent user of cash (46.3% use it at least once a day), which is explained by the restrictions on payment with alternative systems by points of sale, since it is the country with the highest percentages of compulsory use of cash at the most critical points of sale in this regard (76.4% in public transport, 69.6% in small businesses, 53.0% on motorways, 54.0% in professional services for the home and 43.7% in medical services).

#### 07

Regarding the different payment systems with a mobile device, continues to be the country with the highest use of the payment method in-app, being used by 69.4% of the ABI population who use their mobile devices to pay in physical establishments (+9.8 pp compared to 2020).

#### 08

Dominican Republic is the country Latin American with greater knowledge of the BNPL financing system (45.5% of the ABI population knows it). It is also the country that is expected to have the highest growth due to its high intention of future use among those who did not know; or they knew, but had not used the financing system.

#### 09

The Dominican Republic is the country, after Ecuador, with lower percentage of frequent online buyers (only 42.8% buy at least once).

#### 10

It is the country that shows greater confidence, security regarding information, and that would be willing to share data with big tech companies and big telecommunications companies.

	2020	2021
One bank	33,2%	49,0%
Two or more banks	66,8%	51,0%

**Table 89** Number of financial entities with which the ABI population operates (evolutionary 2020-2021)

Population analyzed: Total population ABI Dominican Republic (400 cases) Source: Own elaboration based on the results of the study

	2020	2021
Debit card	90,5%	91,3%
Credit card	63,0%	61,0%
Prepaid card	29,0%	19,5%

**Table 90** Card ownership in the ABI population (2020-2021 evolution)

Population analyzed: Total population ABI Dominican Republic (400 cases) Source: Own elaboration based on the results of the study

	2020	2021
Low value purchases	66,3%	62,7%
High value purchases	28,6%	43,0%
To withdraw money from the ATM	32,9%	31,1%

**Table 91** Frequent use of the credit card according to type of operation (evolutionary 2020 - 2021)

Population analyzed: ABI Dominican Republic population with credit card ownership Source: Own elaboration based on the results of the study

	2020	2021
Pay all my purchases at the end of the month	65,9%	66,4%
No interest, even if that means having to choose a smaller number of instalments	15,5%	15,6%
With interest, since the interest-free option forces me to choose a smaller number of instalments	6,3%	4,1%
Pay using the available credit line of my card paying a part of the debt each month	12,3%	13,9%

<b>Table 92</b> Use of the credit card according to modality
(evolutionary 2020-2021)

Population analyzed: ABI Dominican Republic population with credit card ownership
Source: Own elaboration based on the results of the study

	2020	2021
Physical debit/credit/prepaid card(s) (plasti contactless (or tap and go)	49,7%	49,4%
Physical debit/credit/prepaid card(s) (plasti inserted into the dataphone	c) to be 50,3%	50,6%

**Table 93** Use of a contactless card or a card that needs to be inserted in a dataphone (progressive 2020-2021).

Population analyzed: ABI Dominican Republic population that indicates the card as the main means of payment.
Source: Own elaboration based on the results of the study

	2021
Public administrations (fines, fees, taxes)	39,4%
Utility bills (water, electricity, gas, internet)	21,1%
Public transport (buses, taxi, train)	76,4%
Small and medium businesses	69,6%
Supermarkets and department stores	15,3%
Petrol Stations	14,8%
Motorways	53,0%
Hotels and plane tickets	9,0%
Bars and restaurants	23,9%
Recreation	24,9%
Professional services for the home (plumbing)	54,0%

43,7%

**Table 94** Points of sale where they have been forced to use cash

Population analyzed: Total ABI Dominican Republic population that has been forced to pay in cash
Source: Own elaboration based on the results of the study

XI Report on Trends in Payment Instruments

Medical services (dentist...)

	2020	2021
Bringing the mobile closer to the POS as if it were a card (NFC)	21,3%	15,7%
Through a QR code or a barcode that is generated on my mobile and I show it at the establishment	25,5%	28,7%
Reading with my mobile a QR code that is in the establishment	21,3%	14,8%
In-App payment	59,6%	69,4%

**Table 95** Payment methods used with a mobile device in physical stores (evolutionary 2020-2021)

Population analyzed: ABI Dominican Republic population that has paid with a smartphone or smartwatch in physical establishments.

Source: Own elaboration based on the results of the study

	2021
Yes	45,4%
No	54,5%

#### **Table 96** Knowledge of the BNPL payment system

Population analyzed: Total population ABI Dominican Republic (400 cases) Source: Own elaboration based on the results of the study

	2021
Definitely yes	24,8%
Probably yes	50,9%
I don't know	18,6%
Probably not	3,8%
Definitely not	1,9%

#### **Table 97** Intention to use future financing system table

Population analyzed: Total ABII Dominican Republic population that did not know or that knew, but has not yet used, the BNPL system.

Source: Own elaboration based on the results of the study

	2020	2021
At least monthly	45,0%	42,8%
Least every 3 months.	20,8%	25,0%
Every 6 months or so	26,6%	23,5%
I have never bought online	7,6%	8,7%

<b>Table 98</b> Frequency of purchase of products and/or
services online (evolutionary 2020-2021).

Population analyzed: Total population ABI Dominican Republic (400 cases)
Source: Own elaboration based on the results of the study

	Trust	Security of your information	Willingness to share data in exchange for benefits
Banks	78,5%	79,5%	64,8%
Neobanks	21,3%	29,5%	27,5%
Physical shops or stores	41,3%	36,3%	33,5%
E-commerce websites	28,5%	32,8%	32,0%
Big tech companies	51,5%	49,0%	44,5%
Large telecommunications companies	51,3%	53,5%	47,3%

**Table 99** Confidence, perception of security and willingness to share data with the different operators of the financial marketdel mercado financiero

Population analyzed: Total population ABI Dominican Republic (400 cases)

Source: Own elaboration based on the results of the study



Spain maintains the same photograph established in 2020, where the same levels of multibanking persist (45.2% of the population works with two or more banking entities), customer loyalty with the main entity (mean 13.4 years) and the same percentages of cardholders, whether debit (89.8%, credit (55.0%) or prepaid (21.2%).

#### 02

Spain continues to be the country with the more frequent use of credit card to withdraw money from ATMs, increasing even more this year (from 47.5% to 53.1%).

#### 03

Spain It is the European country where there have been more restrictions on payment with means other than cash at the most critical points of sale In this regard. Thus, 31% of the ABI population has not been able to use an alternative means of payment to cash in public transport; and in small businesses it has been 45.3%. In addition, with percentages very similar to Italy, 35.8% have not been able to do so in bars and restaurants, and 26.4% in the payment of professional services for the home.

#### 04

In Spain The use of payment apps between individuals continues to increase, coming to be used, during the last month, by 56.6% of the ABI population. However, it does not become the main or favorite means of payment, occupying that position, indisputably, the card (74.1% means of main payment the card, 66.3% means of favorite payment the card).

#### 05

The operation that is carried out the most with the payment apps between individuals is the receiving and sending money to friends, relatives or acquaintances, being the country where it is most performed (81.7%) and the other two operations remain significantly lower (payment of products and services (40.3%) and payment in online commerce (29.3%).

#### 06

Regarding payment with mobile devices, the form of payment through NFC is clearly dominant in Spain (65.8%), although it is down from 2020, when it reached 84.3% of the ABI population. Conversely, raise the payment in-app, going from 15.7% in 2020 to 25% in the current period.

#### 07

Spain is the country with the largest ABI population that you have used a two-factor authentication in any of your online purchases in the last year (75.5%).

#### 08

Although the knowledge and use of the BNPL system is still low in Spain, it is the second country in Europe (behind the United Kingdom) with the highest total percentages of the ABI population (43.1% in knowledge and 34.1% in use). However, among those who did not know or have not used the financing system, the intention to use is the lowest (only behind the United Kingdom): barely 16.1% consider the use of this type of financing.

#### 09

Spain is the country with the least trust, perception of security or intention to share manifest information, not only with the new one operator or entities of the financial field, but also with the banks themselves.

	2020	2021
One bank	33,2%	49,0%
Two or more banks	66,8%	51,0%

**Table 100** Number of financial entities with which the ABI population operates (evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Years of relationship with the main bank	13,7	13,4

**Table 101** Age of the relationship with the main financial institution (average years - evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Debit card	87,0%	89,8%
Credit card	54,8%	55,0%
Prepaid card	23,0%	21,2%

**Table 102** Card ownership in the ABI population (2020-2021 evolution)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Low value purchases	49,3%	43,8%
High value purchases	59,4%	54,9%
To withdraw money from the ATM	47,5%	53,1%

**Table 103** Frequent use of the credit card according to type of operation (evolutionary 2020 - 2021)

Population analyzed: ABI Spain population with credit card ownership Source: Own elaboration based on the results of the study

	2020	2021
Pay all my purchases at the end of the month	75,3%	74,1%
No interest, even if that means having to choose a smaller number of instalments	17,8%	17,9%
With interest, since the interest-free option forces me to choose a smaller number of instalments	1,4%	1,3%
Pay using the available credit line of my card paying a part of the debt each month	5,5%	6,7%

**Table 104** Use of the credit card according to modality (evolutionary 2020-2021)

Population analyzed: ABI Spain population with credit card ownership

Source: Own elaboration based on the results of the study

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	2020	2021
Cash	81,0%	84,5%
Physical debit/credit/prepaid card(s) (plastic)	84,8%	90,8%
Charge to account / transfer / direct debits	59,3%	62,8%
Virtual card	10,0%	11,0%
Wallets or aggregators	12,8%	6,7%
Payment apps between individuals	46,3%	56,6%

**Table 105** Payment method used in the last month (evolving 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Cash	22,0%	15,5%
Physical debit/credit/prepaid card(s) (plastic)	60,3%	74,1%
Charge to account / transfer / direct debits	6,8%	5,5%
Virtual card	0,5%	0,5%
Wallets or aggregators	5,8%	0,7%
Payment apps between individuals	3,3%	3,5%

**Table 106** Means of payment table (evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Cash	19,5%
Physical debit/credit/prepaid card(s) (plastic)	66,3%
Charge to account / transfer / direct debits	4,2%
Virtual card	0,5%
Wallets or aggregators	0,5%
Payment apps between individuals	8,0%

#### **Table 107** Medium of favorite

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Physical debit/credit/prepaid card(s) (plastic) contactless (or tap and go)	78,4%	87,6%
Physical debit/credit/prepaid card(s) (plastic) to be inserted into the dataphone	21,6%	12,4%

**Table 108** Use of a contactless card or a card that needs to be inserted in a dataphone (progressive 2020-2021).

Population analyzed: ABI Spain population that indicates the card as the main means of payment. Source: Own elaboration based on the results of the study

	2021
Public administrations (fines, fees, taxes)	9,3%
Utility bills (water, electricity, gas, internet)	3,3%
Public transport (buses, taxi, train)	31%
Small and medium businesses	45,3%
Supermarkets and department stores	5,8%
Petrol Stations	4,3%
Motorways	6,3%
Hotels and plane tickets	4,3%
Bars and restaurants	35,8%
Recreation	13,1%
Professional services for the home (plumbing)	26,4%
Medical services (dentist)	8,3%

<b>Table 109</b> Points of sale where they have been	
forced to use cash	

Population analyzed: Total ABI Spain population that has been forced to pay in cash.

Source: Own elaboration based on the results of the study

	2020	2021
Bringing the mobile closer to the POS as if it were a card (NFC)	84,3%	65,8%
Through a QR code or a barcode that is generated on my mobile and I show it at the establishment	19,6%	13,6%
Reading with my mobile a QR code that is in the establishment	13,7%	10,1%
In-app payment	15,7%	25%

**Table 110** Forms of payment used with a mobile device in physical stores (evolutionary 2020-2021

Population analyzed: ABI Spain population that has paid with a smartphone or smartwatch in physical establishments.
Source: Own elaboration based on the results of the study

	2021
Yes	75,5%
No	12,1%
Not Sure / I don't remember	12,4%

#### **Table 111** Use of double authentication factor in online purchases

Population analyzed: Total ABI population that has purchased online. Source: Own elaboration based on the results of the study

	2021
Yes	43,1%
No	56,9%

#### **Table 112** Knowledge of the BNPL payment system

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Yes	34,1%
No	65,9%

#### **Table 113** Use of the BNPL payment system

Population analyzed: Total ABI population that has paid with a smartphone or smartwatch in physical establishments.

Source: Own elaboration based on the results of the study

	2021
Definitely yes	2,1%
Probably yes	14,0%
I don't know	35,4%
Probably not	30,1%
Definitely not	18,4%

#### **Table 114** Intention to use future financing system table

Population analyzed: Total population ABII Spain that did not know or that knew, but has not yet used, the BNPL system. Source: Own elaboration based on the results of the study

	Trust	Security of your information	Willingness to share data in exchange for benefits
Banks	41,9%	45,6%	26,2%
Neobanks	17,0%	22,7%	15,5%
Physical shops or stores	20,4%	20,9%	19,7%
E-commerce websites	13,2%	18,5%	18,2%
Big tech companies	17,0%	17,2%	17,7%
Large telecommunications companies	17,0%	16,5%	16,2%

**Table 115** Confidence, perception of security and willingness to share data with the different operators of the financial market

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study



Italy is not only one of the least multibanked countries, along with Spain, but also is the country where there is less multi-card effect. Among the Italian population cardholders of each type of card there is an average of 1.3 debit, 1.2 credit and 1.2 prepaid.

#### 02

Italy continues to be a phenomenon of its own with respect to the possession of prepaid cards. However, this year it experiences a large drop, going from 75.3% of the cardholder population in 2020 to 66.8% this year with a prepaid card.

#### 03

Italy remains among the countries where more ABI population uses the credit card for high-value purchases (63.0%) and as the second country (behind Spain) that uses the card to withdraw money from the ATM (44.1%).

#### 04

Regarding the use of card credit, Italy resembles the European way of proceeding, with most of the ABI population using payment at the end of the month (55.4%). However, it stands out as the country that most uses the credit available on the card itself, paying part of the debt each month (18.5%).

#### 05

Italy is the European country where wallets or aggregators are most used as a means of payment (33.7%); and it is, after Argentina, the one in which the largest ABI population has it as the main one (7.7%) and would choose this system as their favorite payment system (10.1%).

#### 06

Italy is the European country with the highest predisposition to abandon cash (54.2% of the ABI population would completely stop using cash if they could make all payments with an alternative means). However, Italian businesses are not accompanying consumers in this regard, since equals percentages with Spain of restriction to the use of alternative means of payment in critical points (such as bars and restaurants, or professional services for the home). It is also the European country that reaches higher percentages of mandatory cash at payment points that seem to be exceeded by most European countries, such as highways or gas stations (13.0% and 12.8%, respectively), or public administrations (12.8%).

#### 07

Italy continues to be at the head of the countries with higher percentages of ABI population frequent internet buyers (only behind the United Kingdom and Chile), since 66.1% buy at least once a month. Too It is the country that most uses account services or virtual prepaid cards to make these purchases. (30.2%).

#### 08

It is the second country, only after Spain, who have used the double authentication factor the most (71.8%), and stands out for being the one that has made the most use of the combination based on open the mobile payment app and access through facial recognition (17.7%).

	2020	2021
One bank	57,2%	54,2%
Two or more banks	42,8%	45,8%

**Table 116** Number of financial entities with which the ABI population operates (evolutionary 2020-2021).

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Charge cards	1,3
Credit cards	1,2
Prepaid Cards	1,2

**Table 117** Average number of cards among the ABI cardholder population.

Population analyzed: ABI Italy population with possession of each type of card. Source: Own elaboration based on the results of the study

	2020	2021
Debit card	84,5%	85,9%
Credit card	57,3%	58,9%
Prepaid card	75,3%	66,8%

**Table 118** Card ownership in the ABI population (evolutionary 2020-2021).

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Low value purchases	52,0%	51,3%
High value purchases	64,2%	63,0%
To withdraw cash from the ATM	44,5%	44,1%

**Table 119** Frequent use of the credit card according to the type of operation (evolutionary 2020-2021).

Population analyzed: ABI Italy population with credit card ownership. Source: Own elaboration based on the results of the study

	2020	2021
Pay all my purchases at the end of the month	63,3%	55,4%
No interest, even if that means having to choose a smaller number of instalments	17,9%	22,3%
With interest, since the interest-free option forces me to choose a smaller number of instalments	2,2%	3,8%
Pay using the available credit line of my card paying a part of the debt each month	16,6%	18,5%

Table 120 Use of the credit card according to
modality (evolutionary 2020-2021).

Population analyzed: ABI Italy population with credit card ownership.
Source: Own elaboration based on the results of the study

	2020	2021
Cash	19,8%	17,6%
Physical debit/credit/prepaid card(s) (plastic)	61,3%	57,7%
Charge to account / transfer / direct debits	9,0%	9,9%
Virtual card	1,8%	3,2%
Wallets or aggregators	5,3%	7,7%
Payment apps between individuals	4,3%	2,2%

**Table 121** Means of payment used during the last month (evolutionary 2020-2021).

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Cash	79,8%	76,5%
Physical debit/credit/prepaid card(s) (plastic)	81,3%	80,4%
Charge to account / transfer / direct debits	66,8%	63,4%
Virtual card	19,5%	16,3%
Wallets or aggregators	28,5%	33,7%
Payment apps between individuals	23,3%	21,5%

**Table 122** Main means of payment (evolutionary 2020-2021).

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Cash	19,3%
Physical debit/credit/prepaid card(s) (plastic)	53,0%
Virtual card	8,7%
Wallets or aggregators	4,0%
Wallets or aggregators	10,1%
Payment apps between individuals	4,0%

#### **Table 123** Favorite means of payment.

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Public administrations (fines, fees, taxes)	12,8%
Utility bills (water, electricity, gas, internet)	8,5%
Public transport (buses, taxi, train)	27,5%
Small and medium businesses	36,3%
Supermarkets and department stores	9,5%
Petrol Stations	12,8%
Motorways	13,0%
Hotels and plane tickets	6,0%
Bars and restaurants	35,8%
Recreation	15,0%
Professional services for the home (plumbing)	28,3%
Medical services (dentist)	13,8%

#### **Table 124** Attitude towards the use of cash in the future

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
I would stop using cash altogether if I could make all payments with an alternative means	54,2%
I would not stop using the cash in some way, even If I could pay for everything with other means	45,8%

	2020	2021
At least monthly	68,6%	66,1%
Least every 3 months	23,0%	22,5%
Every 6 months or so	7,6%	10,6%
I have never bought online	0,8%	0,8%

	2021
Yes	71,8%
No	17,5%
Not Sure / I don't remember	10,7%

	2021
Enter your PIN code (or password) + a code that you receive by SMS on your mobile	65,6%
Open the payment app on your mobile + enter your password	33,0%
Open the payment app on your mobile + enter your fingerprint	30,2%
Open the payment app on your mobile + access through facial recognition	17,7%

### **Table 125** Points of sale where they have been forced to use cash

Population analyzed: Total ABI Italia population forced to pay in cash

Source: Own elaboration based on the results of the study

**Table 126** Frequency of purchase of products and/or services online (evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

**Table 127** Use of double authentication factor in online purchases

Population analyzed: Total ABI population that has purchased online

Source: Own elaboration based on the results of the study

**Table 128** Two-factor authentication systems used

Population analyzed: Total ABI Italy population that has used at least a second authentication factor

Source: Own elaboration based on the results of the study



Portugal is the country that experiences a greater decrease in the ABI population with a credit card, from 63.0% to 54.5%.

#### 02

It is the country, only behind Italy, where there is a minor a multicard effect. Among the Portuguese cardholder population of each type of card there is an average of 1.4 debit, 1.4 credit and 1.2 prepaid.

#### 03

Portugal is the country with the lowest population ABI makes frequent use of the credit card for high-value purchases (38.1%) and the European country where the least population makes frequent use for low-value purchases (30.3%).

#### 04

Following the European profile, in Portugal the majority use of credit cards is payment at the end of the month, but it continues to stand out for being the European country that most uses the interest-free credit system (28.0%), with an increase of 6.6 percentage points compared to the previous period.

#### 05

Portugal It is the European country where the largest ABI population used payment apps between individuals during the last month (59.0%), experiencing a increase of 29.7 pp compared to 2020. In addition, 11.5% indicate payment apps between individuals are their main means of payment and almost a quarter of the ABI population (23.8%) indicate it as their favorite.

#### 06

With respect to payment through mobile devices, Portugal is one of the few countries that makes a balanced use of All forms of payment. All are used by very similar percentages, without establishing a payment method as dominant (31.4% dynamic QR, 31.0% payment in-app, 47.9% static QR and 41.7% NFC).

#### 07

Portugal is the European country where there is less knowledge of the BNPL financing system: only 28.8% of the ABI population indicate that they are aware of this financing system.

#### 08

Portugal is the European country with the lowest percentage of frequent online shoppers (47.6% buy at least once a month).

#### 09

It is the European country that experiences the highest growth in mobile device usage for online shopping, going from 56.7% to 65.2%, which makes it the country on the continent that uses the mobile phone the most for this type of purchase.

#### 10

Is the country together with Spain who has less disposition, specifically, to share data with organizations operating in the financial field in exchange for benefits.

	2020	2021
Debit card	96,5%	98,3%
Credit card	63,0%	54,5%
Prepaid card	23,3%	20,8%

**Table 129** Card ownership in the ABI population (2020-2021 evolution)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Charge cards	1,4
Credit cards	1,4
Prepaid Cards	1,2

**Table 130** Average number of cards among the ABI cardholder population.

Population analyzed: ABI Portugal population with possession of each type of card. Source: Own elaboration based on the results of the study

	2020	2021
Low value purchases	34,5%	30,3%
High value purchases	36,9%	38,1%
To withdraw money from the ATM	21,4%	20,6%

**Table 131** Frequent use of the credit card according to type of operation (evolutionary 2020 - 2021)

Population analyzed: ABI Portugal population with credit card ownership Source: Own elaboration based on the results of the study

	2020	2021
Pay all my purchases at the end of the month	65,1%	60,1%
No interest, even if that means having to choose a smaller number of instalments	21,4%	28,4%
With interest, since the interest-free option forces me to choose a smaller number of instalments	2,4%	2,3%
Pay using the available credit line of my card paying a	11,1%	9,6%

**Table 132** Use of the credit card according to modality (evolutionary 2020-2021)

Population analyzed: ABI Portugal population with credit card ownership Source: Own elaboration based on the results of the study

	2020	2021
Cash	83,8%	81,3%
Physical debit/credit/prepaid card(s) (plastic)	83,0%	79,0%
Charge to account / transfer / direct debits	84,3%	75,3%
Virtual card	26,0%	20,5%
Wallets or aggregators	17,8%	5,5%
Payment apps between individuals	29,3%	59,0%

**Table 133** Means of payment used in the last month (evolving 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Cash	11,3%	13,5%
Physical debit/credit/prepaid card(s) (plastic)	58,8%	52,0%
Charge to account / transfer / direct debits	20,3%	20,0%
Virtual card	1,3%	1,5%
Wallets or aggregators	3,0%	0,8%
Payment apps between individuals	2,3%	11,5%

**Table 134** Main payment means (evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
Bringing the mobile closer to the POS as if it were a card (NFC)	54,9%	41,7%
Through a QR code or a barcode that is generated on my mobile and I show it at the establishment	38,0%	31,4%
Reading with my mobile a QR code that is in the establishment	49,3%	47,9%
In-app payment	39,4%	31,0%

**Table 135** Payment methods used with a mobile device in physical stores (evolutionary 2020-2021)

Population analyzed: ABI Portugal population that has paid with a smartphone or smartwatch in physical establishments.

Source: Own elaboration based on the results of the study

	2020	2021
At least monthly	50,3%	47,6%
Least every 3 months.	25,0%	29,0%
Every 6 months or so	21,8%	20,3%
I have never bought online	2,9%	3,1%

**Table 136** Frequency of purchase of products and/or services online (evolutionary 2020-2021)

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Cash	11,8%
Physical debit/credit/prepaid card(s) (plastic)	45,8%
Charge to account / transfer / direct debits	16,5%
Virtual card	1,0%
Wallets or aggregators	0,5%
Payment apps between individuals	23,8%

	2020	2021
Personal computer or laptop	81,4%	81,4%
Smartphone (smartphone)	56,7%	56,7%
Tablet	12,1%	12,1%

<b>Table 138</b> Devices used to buy products and/or
services online (2020-2021 evolution)

Population analyzed: Total ABI population that has purchased online. Source: Own elaboration based on the results of the study

	2021
Yes	28,8%
No	71,2%

**Table 139** Knowledge of the BNPL payment system

Population analyzed: Total ABI population that has purchased online.

Source: Own elaboration based on the results of the study

	Trust	Security of your information	Willingness to share data in exchange for benefits
Banks	58,3%	58,3%	33,8%
Neobanks	20,3%	25,3%	17,8%
Physical shops or stores	26,5%	25,0%	17,8%
E-commerce websites	15,3%	18,8%	17,5%
Big tech companies	22,5%	22,5%	20,3%
Large telecommunications companies	23,5%	20,8%	18,3%

**Table 140** Confidence, perception of security and willingness to share data with the different operators of the financial market

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

**Table 137** Favorite payment means

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study



UK experiences a decline in the percentage of multibankers, going from 63.5% in 2020 to 50.0% in 2021. On the other hand, remains the country with the most faithful relations with the main bank (19.9 years on average).

#### 02

Furthermore, it is the country where the highest proportion of the population ABI indicates that its main financial institution is a bank (94.2%), leaving the rest of financial service providers in minimal percentages.

#### 03

It is the second country, only behind Portugal, to experience a largest decline in ABI population with credit card, going from 69.8% in 2020 to 65.3% in 2021.

#### 04

It is the country where the credit card is least used to withdraw money from the ATM (10.3%).

#### 05

Due to the fact that its ABI population is slightly older than that of the rest of the European countries and, especially, Latin American countries, the United Kingdom It is the country where the most digital means of payment are used to a lesser extent (7.5% have used payment apps between individuals in the last month and 10.5% wallets or aggregators).

#### 06

His most used means of payment is the card (81.5% of the ABI population used it in the last month) and this card is contactless, since it is the country with the highest percentage of the population with this type of card (90.2% of the population that has the card as their main payment uses it contactless).

#### 07

The United Kingdom is the country that manifests a less frequent use of cash: Barely 10.2% use it on a daily basis, due, in part, to the fact that establishments in the United Kingdom impose fewer taxes on the use of cash and offer alternative payment systems.

#### 08

But nevertheless, is the country that shows more resistance to the complete abandonment of this means of payment: barely 16.9% would leave it completely if they could make the payments with an alternative means.

#### 09

United Kingdom It is the country where the use of digital means of payment is seen as most unnecessary by those who do not use it (41.2%), and this becomes the first barrier for them.

#### 10

The United Kingdom is the only country with high levels of knowledge and use of the BNPL financing system (68.6% of the ABI population know it and 41.8% among the connoisseurs have used it at some time). Although, it presents a very low future use intention among those who do not know it or, knowing it, have not used it.

#### 11

It is the European country where a double authentication factor has been used the least (56.7%).

#### 12

Although the United Kingdom behaves in a similar way to the rest of the European countries regarding low trust, security and willingness to share data with financial service providers, it stands out for being the best is positioned in these terms Regarding the banks, generating a big difference between these and the neobanks, shops or physical stores, e-commerce websites, large technology companies, and large telecommunications companies that operate in financial terms.

	2020	2021
One bank	36,5%	50,0%
Two or more banks	63,5%	50,0%

**Table 141** Number of financial entities with which the ABI population operates (evolutionary 2020-2021)

Population analyzed: Total UK ABI population (400 cases) Source: Own elaboration based on the results of the study

	2020	2021
Years of relationship with the main bank	19,6	19,9

**Table 142** Age of the relationship with the main financial institution (average years - evolutionary 2020-2021)

Population analyzed: Total UK ABI population (400 cases) Source: Own elaboration based on the results of the study

	2020	2021
Debit card	98,3%	98,8%
Credit card	69,8%	65,3%
Prepaid card	9,5%	10,0%

**Table 143** Card ownership in the ABI population (2020-2021 evolution)

Population analyzed: Total UK ABI population (400 cases) Source: Own elaboration based on the results of the study

	2021
Banks	94,2%
Neobanks	1,7%
Physical shops/stores	2,2%
E-Commerce	0,2%
Big tech companies	0,7%
Large telecommunications companies	1,0%

	2020	2021
Low value purchases	41,6%	42,7%
High value purchases	61,3%	59,9%
To withdraw money from the ATM	11,5%	10,3%

	2020	2021
Cash	66,5%	68,1%
Physical debit/credit/prepaid card(s) (plastic)	84,5%	81,5%
Charge to account / transfer / direct debits	76,5%	71,6%
Virtual card	7,8%	7,5%
Wallets or aggregators	19,0%	10,5%
Payment apps between individuals	8,5%	7,5%

	2020	2021
Cash	11,8%	14,5%
Physical debit/credit/prepaid card(s) (plastic)	57,5%	58,4%
Charge to account / transfer / direct debits	21,3%	21,2%
Virtual card	1,8%	1,5%
Wallets or aggregators	5,3%	1,7%
Payment apps between individuals	0,8%	0,5%

**Table 145** Frequent use of the credit card according to type of operation (evolutionary 2020 - 2021)

Population analyzed: UK ABI population with credit card ownership

Source: Own elaboration based on the results of the study

**Table 146** Means of payment used in the last month (evolving 2020-2021)

Population analyzed: Total UK ABI population (400 cases) Source: Own elaboration based on the results of the study

**Table 147** Means of payment table (evolutionary 2020-2021)

Population analyzed: Total UK ABI population (400 cases) Source: Own elaboration based on the results of the study

**Table 144** Banks or other main providers with which it operates/has contracted some type of financial service or product

Population analyzed: Total UK ABI population (400 cases) Source: Own elaboration based on the results of the study

	2020	2021
Physical debit/credit/prepaid card(s) (plastic) contactless (or tap and go )	85,2%	90,2%
Physical debit/credit/prepaid card(s) (plastic) to be inserted into the dataphone	14,8%	9,8%

**Table 148** Use of contactless card or card that needs to be inserted in a dataphone (evolutionary 2020-2021)

Population analyzed: ABI United Kingdom population that indicates the card as the main means of payment. Source: Own elaboration based on the results of the study

	2021
At least once a month	10,2%
At least once a week	29,9%
Less often	59,9%

#### **Table 149** Frequency use of cash

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
I would not stop using cash to some extent, even if I could pay for everything by other means	73,1%
I would stop using cash altogether if I could make all payments with an alternative means	26,9%

#### **Table 150** Attitude towards cash

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2020	2021
In-app payment	35,5%	54,3%
Through a QR code or a barcode that is generated on my mobile and I show it at the establishment	14,5%	25,7%
Reading with my mobile a QR code that is in the establishment	7,9%	22,9%
Bringing the mobile closer to the POS as if it were a card (NFC)	64,5%	45,7%

<b>Table 151</b> Means of payment through mobile devices	
used in the last month	

Population analyzed: Total UK ABI population that has paid with a smartphone or smartwatch in physical establishments
Source: Own elaboration based on the results of the study

	2020	2021
Cause it's not something I find necessary	42,1%	41,2%
Because it doesn't give me confidence	23,6%	26,3%
Because I do not have a permanent Internet connection on my smartphone or smartwatch	7,1%	7,5%
Because my smartphone or smartwatch does not have that technology	5,7%	5,1%
Because that way I have less control over what I spend	4,6%	4,2%
Because I didn't know that you could	4,3%	3,9%
I find it very complicated	0,0%	7,2%
Because in the establishments they do not give me that option	2,1%	3,9%

**Table 152** Barriers to the use of mobile devices as a means of payment in physical stores

Population analyzed: ABI UK population in possession of a smartphone or smartwatch that have not used it as a means of payment in physical establishments.

Source: Own elaboration based on the results of the study

	2021
Yes	56,7%
No	18,9%
Not Sure / I don't remember	24,4%

**Table 153** Use of double authentication factor in online purchases.

Population analyzed: Total ABI population that has purchased online. Source: Own elaboration based on the results of the study

	2021
Yes	68,6%
No	31,4%

**Table 154** Knowledge of the BNPL payment system

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	2021
Yes	41,8%
No	58,2%

**Table 155** Use of the BNPL payment system

Population analyzed: Total ABI population (400 cases per country) Source: Own elaboration based on the results of the study

	Trust	Security of your information	Willingness to share data in exchange for benefits
Banks	65,6%	67,6%	48,1%
Neobanks	18,7%	25,9%	20,0%
Physical shops or stores	24,4%	30,4%	23,9%
E-commerce websites	18,0%	26,9%	20,9%
Big tech companies	21,4%	28,9%	23,4%
Large telecommunications companies	21,9%	26,7%	21,9%

**Table 156** Confidence, perception of security and willingness to share data with the different operators of the financial market

Population analyzed: Total UK ABI population (400 cases) Source: Own elaboration based on the results of the study

# Conclusions and final reflections



During 2020, unprecedented dynamics were generated linked to the outbreak of COVID-19 and the restrictions associated with it. New purchasing habits and the use of new, more digital means of payment were driven by these circumstances.

2021 is a time of restructuring those changes, where some continue to grow and others stagnate or contract slightly. Thus, we see how The percentages of the population that operate with neobanks increase, but also with physical stores or e-commerce. There is also a new increase in the number of payment methods used (especially due to the adoption by more of the ABI population of more digital payment methods).

However, we find a certain stagnation in the frequency of online purchases, which had experienced great growth during 2020 and, although it did not decrease in 2021, did not register large increases.

On the other hand, there is the case of cash. During COVID-19, there had been a general decline in both the population that had used cash and the frequency of use among those who had used it. During 2021, the percentages of the population that use this means of payment are recovered (data more similar to pre-pandemic moments in 2019), and although in general terms the population will tend to use it less frequently, it is far from being considered a means of payment to abandon in the short term.



# Banks continue to be the leading payment providers in the financial sphere, but new operators are beginning to take up positions and attract bank users

Although banks continue to be the reference entities in all the countries analyzed, new financial service providers (neobanks, shops or physical stores, e-commerce websites, large technology companies and large telecommunications companies) are beginning to offer services and recruit bank users by offering them products that cover specific financial needs.

Among all the new operators, the neobanks are the ones with the greatest prominence, especially in Brazil and Colombia, where a quarter of the banked population considers them their main or reference financial institution.

Latin America in general, as seen in previous studies and in this research, is more open to working and operating with new players in the financial field, and it is a reality that will take on more and more weight, predictably in Brazil. Colombia and the Dominican Republic.

In Europe, however, the population is more restrained in their trust or willingness to share data with these new financial service providers.



# The number of payment methods used simultaneously continues to increase for the second consecutive year, but there are no plans to abandon any in the short term

The number of means of payment used by the banked population continues to increase in practically all countries (with the exception of the specific case of the United Kingdom). In 2020, and due to the pandemic, more digital means of payment were promoted, which seemed to start an escalation that could affect the use of other types of more common means of payment; specifically, cash.

However, once the toughest phase of the pandemic has been overcome and in a gradual process of "returning to normality", a resistance to abandoning more classic means of payment is evident. Thus, although in all countries the banking population anticipates a decrease in the frequency of use of cash, its disappearance is not so close. However, although the abandonment of cash is not on the minds of the banking users, the more digital means of payment, which began to be used more widely as a result of the pandemic, are not being abandoned either.

In this case, wallets or aggregators, and payment apps between individuals are gaining ground, becoming means of payment used by more than a third of the banked population of some countries (43.8% of the ABI population of Argentina, 31.0% of Chile, 31.1% of Colombia, 37.8% of Peru and 33.7% of Italy used wallets or aggregators in the last month. 61.5% of the ABI population in Brazil, 37.0% in Chile, 55.0% in Colombia, 61.0% in Peru, 56.6% in Spain and 59.0% in Portugal used the apps payment between individuals during the last month).



## There are multiple means of payment, but there is an undisputed protagonist: the card

The card is placed at the head of all the rankings: as the most used means of payment, as the main payment method, favorite and also as a means of payment for Internet purchases.

Regardless of the country (except for particular cases such as Colombia, due to the great use of payment initiators), the card is the leading means of payment. This is especially relevant in those countries where the card is used massively contactless, as in Spain and the United Kingdom. In these countries, moreover, it is found that the possession of this type of card is playing against the adoption of wallets or aggregators, since no added advantages are perceived to these means of payment compared to cards, contactless.



### The financing system Buy Now Pay Later meets a first challenge: make yourself known

This new funding system meets a first major hurdle, and that is a general lack of awareness, with the sole exception of the UK. Once that first barrier has been overcome, it can be seen that Latin America is a friendlier space for action than Europe. The type of use of the credit card that they carry out in the different Latin American countries, which is much more diverse in terms of formulas, seems to fit better than the European one, which manages the credit modality using a single formula: payment to finish of month



# The great growth experienced by e-commerce during the pandemic currently has an uneven evolution with slight increases or stagnation depending on the country

After the great growth in the percentage of frequent buyers in the middle of the pandemic during the year 2020, in 2021 a slight stagnation is observed in Europe, and slight increases in Latin America. The opening of physical stores and a "desire" of the population to return to normality and to more experiential purchases, have generated a stagnation in the frequency of Internet purchases.

The only exception to this has been Chile, which experienced an increase similar to that of the rest of the Latin American countries during 2020, but this year not only has it not stagnated, but the percentage of frequent online buyers has increased outstandingly.

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