XII Report

# Trends in Payment Instruments

In collaboration with



minsait payments

An Indra company



### Table of Contents

1

#### **Digital Payments**

Despite the boom in the digitization of payments, half of the global population cannot access them. The industry must address the challenge and turn it into an opportunity for growth.

2

#### **Digital Experiences**

Being at the top-of-mind of the consumer among the offer of payment models is vital. This is achieved by knowing your profile and status present at the time of the transaction.

3

**BNPL** 

The sector integrates innovative solutions to improve the purchasing process. Its implementation, facilitating adoption, encouraging its use, and trying to eliminate frictions requires the market agility

4

#### **Digital Currencies**

81

Crypto assets are considered as an investment asset. Central bank digital currencies will be a daily means of payment, which will be possible to deploy with the participation of banks.

5

#### **New Payment Flows**

96

In the coming years, innovation in payment methods will focus on meeting the needs of companies, covering massive and diverse payment flows such as recurring, crossborder, and immediate payments.

6

#### **Sustainable payments**

109

The environmental impact of means of payment will soon be a decisive factor in consumer decision-making. The industry is working on transformative solutions to approve it.

XII Report on Trends in Payment Instruments

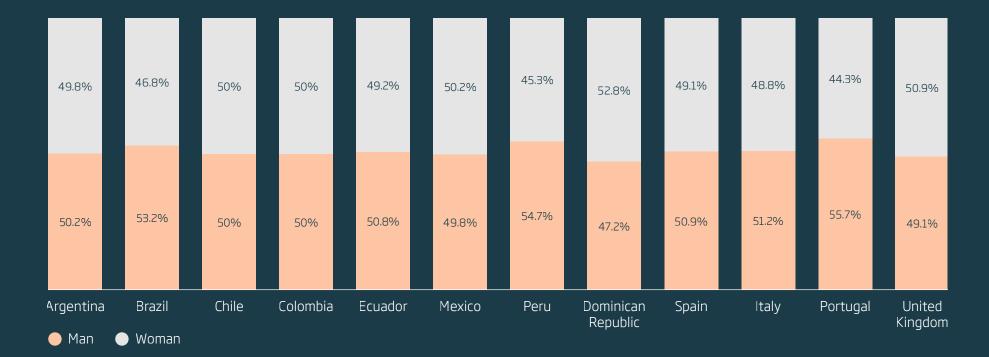
38

66

### A methodological question

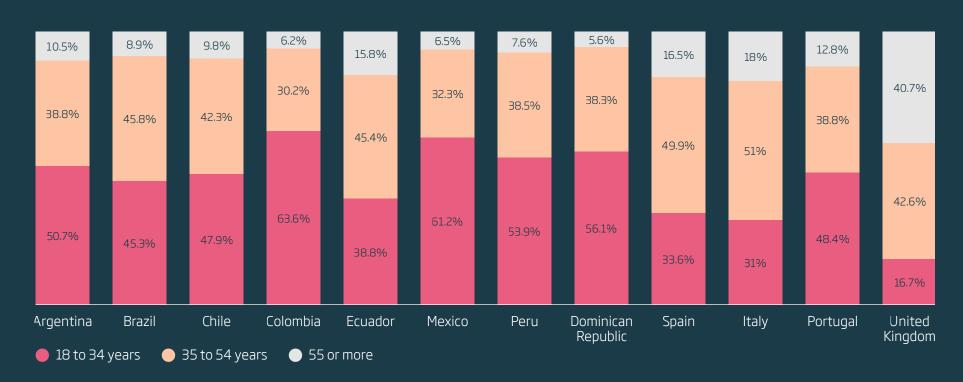


The demographic description of the banking population is relevant because it frames and contextualizes some of the results obtained: while in European countries the banking and Internet population is practically the same as the total population, in Latin American countries the same level of universality has not yet been reached. This, together with the demographic differences between countries, implies that the population in Latin America is younger than in Europe and has a more active digital behavior; and that in the Latin American region there are still important segments of unbanked and undigitized population, a population that is not part of the universe of this Report.



**Figure 3A.** Socio-demographic characterization of the Internet banking population in the study countries by sex

**Source**. Afi and The Cocktail Analysis



**Figure 3B.** Socio-demographic characterization of the Internet banking population in the study countries by age

**Source.** Afi and The Cocktail Analysis

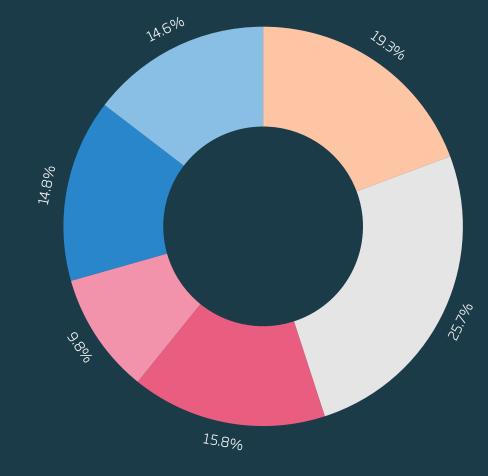
## The typology of users differs according to the country and allows to draw a map of differential behaviors and preferences in relation to the means of payment

Also relevant is the evolutionary analysis on the relationship of the population with the different financial service providers and the possession and use of the different means of payment.

As an additional novelty and to deepen the knowledge of demand, the population has been segmented into different categories based on their behaviors and payment preferences based on different contexts.

The group closest to Cash corresponds to a financially less sophisticated profile, recently banked (during the pandemic) and of lower economic level, which as its relationship with the financial institution and its economic situation progresses, it will acquire more complex financial skills.

The profile of the so-called Flexible, of greater diversity and digitalization in payments, is also a young segment, of a higher socioeconomic level and with more banking time than the Cash profile.



#### Plastic

You prefer to diversify your means of payment depending on the circumstances or context in which the expense is made, but focus your preferences on physical card payment.

#### Diversified

It details a wide variety of means of payment, which it chooses depending on the situation, but opts for payments in cash or from the bank account.

#### Account

Little diversity on the means of payment they prefer and opt for the payment on account for a wide variety of contexts. contextos.

**Figure 4.** Types of users according to preferences

**Source.** Afi and The Cocktail Analysis

#### Digital

Purely trendy and convinced of the digitization of payments by new means, since they opt in the vast majority of contexts for novel digital payment methods, in which they concentrate.

#### Flexible

Greater level of adaptation and specificity in terms of means of payment, and opts for different means depending on the context. However, they prefer to use new modes to a greater extent of digital payment.

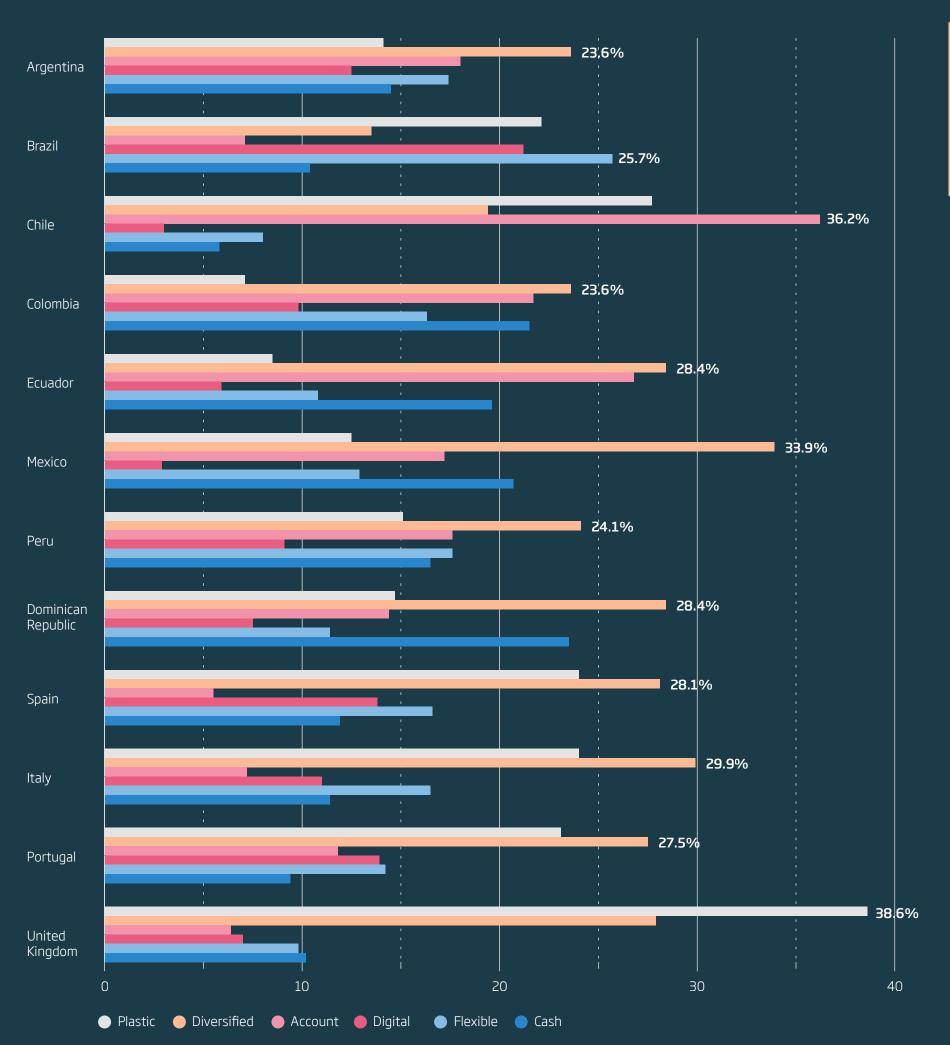
#### Cash

Prefer to use few different means of payment and opt for cash payment for the vast majority of contexts. The most conservative segment.





#### Methodology



**Figure 6.** Average number of contexts in which it is preferred to use each payment method, according to user segment

**Source.** Afi and The Cocktail Analysis. In response to the question: Thinking about the future, if you could pay that way whenever you wanted, regardless of the options that exist today, what would be your favorite means of payment for each situation?

**Note.** The number of contexts ranges from 0 to 12. The closer to zero the average value, the fewer the contexts for which the means of payment is preferred. The closer to 12, the more the means of payment will be preferred for a greater number of contexts.

The research paper also details the behavior of the population in relation to new payment service providers, the use of new tools and their implications, including BNPL, remittance sending or cryptocurrencies.

It also includes a space designed to investigate the interest of the population in environmental sustainability, as far as their payment habits are concerned.

A 360-degree vision that tries to minimize blind spots and offer useful insights with the transparency, solvency and rigor to which we aspire every year with this publication.



### Main keys

In 2022, and globally, more than 2 billion digital retail payments were made per day... a volume that only 50% of the adult population participates in.

If full financial inclusion were achieved, it would be 4 billion digital payments a day, one and a half billion transactions a year. The relevance of the physical debit card as a means of online payment is blurred in terms of preferences.

It is only maintained as a preferred means of payment in Spain and the United Kingdom.

The advantages of biometrics focus on the simplicity of its use.

More perceived in Europe where the impossibility of losing or forgetting the authentication factor is also relevant; while in Latin America the advantages associated with security stand out.

The penetration of the virtual card is concentrated in Latin American countries compared to Europeans.

But above all in a product modality: prepaid cards.

Digital wallets and mobile payment solutions will occupy in five years the first position in the top-of-mind of consumers in their daily payments.

The spectacular adoption of contactless payments has had a necessary ally: tokenization.

Immediate payments are one of the biggest transformations in industry and ecosystems.

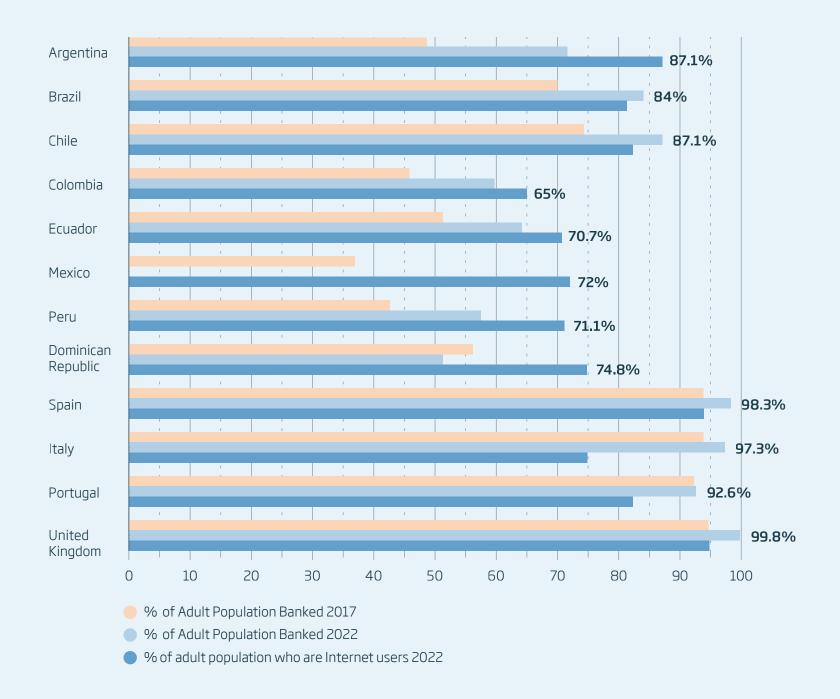
Although, with different speeds of implementation and adoption depending on the country.

Paying and collecting digitally is now a reality for the majority of the population. All the countries included in this report already exceed 50% of the level of banking, while in European countries banking is almost universal, exceeding 90%.

The predominant payment rails today in any country in the world are built on:

- Payment accounts, bank accounts, and more and more of other issuers.
- Payment cards, which meet conditions of universality.
- Cash, protagonist of two simultaneous debates: the right to its access and use and also to dispense with it.

The emergence of new proposals and agents and the determined action of public administrations have made it easier for the population to adopt the digitization of their payments, but the challenge of achieving full financial inclusion persists: for the entire population and for all payment modalities.



**Table 3.** The adult banking population gradually resembles the general population due to the increase in digitization and banking

**Source.** Afi and The Cocktail Analysis from Global Findex 2017 and Global Findex 2022; International Telecommunication Union (ITU 2016-2017-2018-2019-2020-2022).

**Note.** Mexico does not report data for Global Findex 2022. The Dominican Republic shows a drop in the level of banking between 2017 and 2022.

Financial inclusion is a relatively recent concern of authorities and supervisors, who ensure that innovation in digital payments is not only secure, efficient, and open to competition, but also inclusive. Increasingly in more jurisdictions, and in the absence of industry initiatives that remove restrictions on access, coverage, and use through cooperation, the authorities assume a leadership position, whose capacity depends on the regulatory context and its regulatory powers.

The path towards the universality of digital payments in
Latin America has been accompanied by regulatory advances
materialized in three major regulatory waves. It began with the
recognition of the existence of **new non-banking financial agents** participating in the payments industry, with the definition
of rules of the game (rights and obligations) to lay the foundations
of an industry that is no longer exclusively banking.

The recognition of the potential of **immediate payments** as an essential pillar to advance in the modernization of the economy initiated by Brazil and Mexico today begins to change the paradigm in a context of search for interoperability.

And the recent advances in the regulatory enablement of **Open Finance** allow us to intuit greater opportunities and presence of new agents in payment ecosystems, as well as greater requirements for transparency, openness, and interoperability to guarantee the feasibility of innovations and new value-added services such as the initiation of payments.



# We are more and better equipped to pay (and collect) digitally

The availability and adoption of different alternatives to make faceto-face and remote payments has had as a turning point the year 2020, the year of the pandemic.

In 2022, and globally, more than 2 billion digital retail payments were made<sup>1</sup> per day - a volume that only 50% of the adult population participates<sup>2</sup>. If full financial inclusion were achieved, it would be 4 billion digital payments a day, one and a half billion transactions a year.

The industry needs to innovate to channel the nearly \$18 billion in payments that people still make each year in cash and checks into digital cards and accounts<sup>3</sup>.

	Argentina	Brazil	Chile	Colombia	Ecuador	Mexico	Peru	Dominican Republic	Spain	Italy	Portugal	United Kingdom
Cash	85.4%	58.3%	75.7%	91.9%	84.3%	92%	87.9%	81.4%	77.1%	78.4%	74.9%	52.6%
Bank payment	0%	27.9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Transfer	62.1%	49.2%	75.4%	66.6%	67.7%	65.6%	64.9%	57.9%	24.4%	19.9%	37.5%	26.9%
Direct debit	57.1%	49.4%	72.4%	38.1%	44.7%	39.8%	48.6%	42.7%	32.6%	27.3%	37.9%	45.8%
Immediate transfers between individuals and businesses	34.7%	67.7%	36.9%	61.9%	29.9%	26.6%	65.4%	34.9%	39.7%	21.6%	45%	13.4%
Debit card	64.7%	64.4%	83%	48.7%	63.3%	63.5%	65.9%	59.4%	62.1%	52.3%	72.9%	62.8%
Credit card	37.6%	57.6%	33.1%	25.7%	36.1%	44.3%	40.2%	46.3%	30.7%	32.7%	21.2%	38.7%
PrePaid card	16.4%	14.7%	18.9%	11.5%	18.4%	18.1%	22.4%	20.4%	10.8%	28%	9.4%	5.7%
Cryptocurrency	2.2%	3.3%	2%	2.8%	6.5%	2.6%	4.2%	7.5%	1.3%	2.2%	1.5%	1%
Digital wallet	38.9%	21.2%	13.7%	24.6%	21.8%	18.9%	26.4%	22.6%	23.4%	25.3%	16.6%	23.2%
	0% - 19%	20%	6 - 39%	40% -	59%	60% - 79	)% 8	0 - 100%				

**Figure 8.** Means of payment used in purchases or face-to-face payments during the last week **Source.** Afi and The Cocktail Analysis. In response to the question: Of the following means of payment, which/ which of them have you used in purchases/face-to-face payments?

Bank of International Settlements, 2022. Retail payments are those made in the market for goods and services in which at least one of the parties to the transaction, the payer or the payee, is not a financial institution, thus differentiating them from payments made in the market for financial assets.

According to the World Bank's Global Findex 2022.

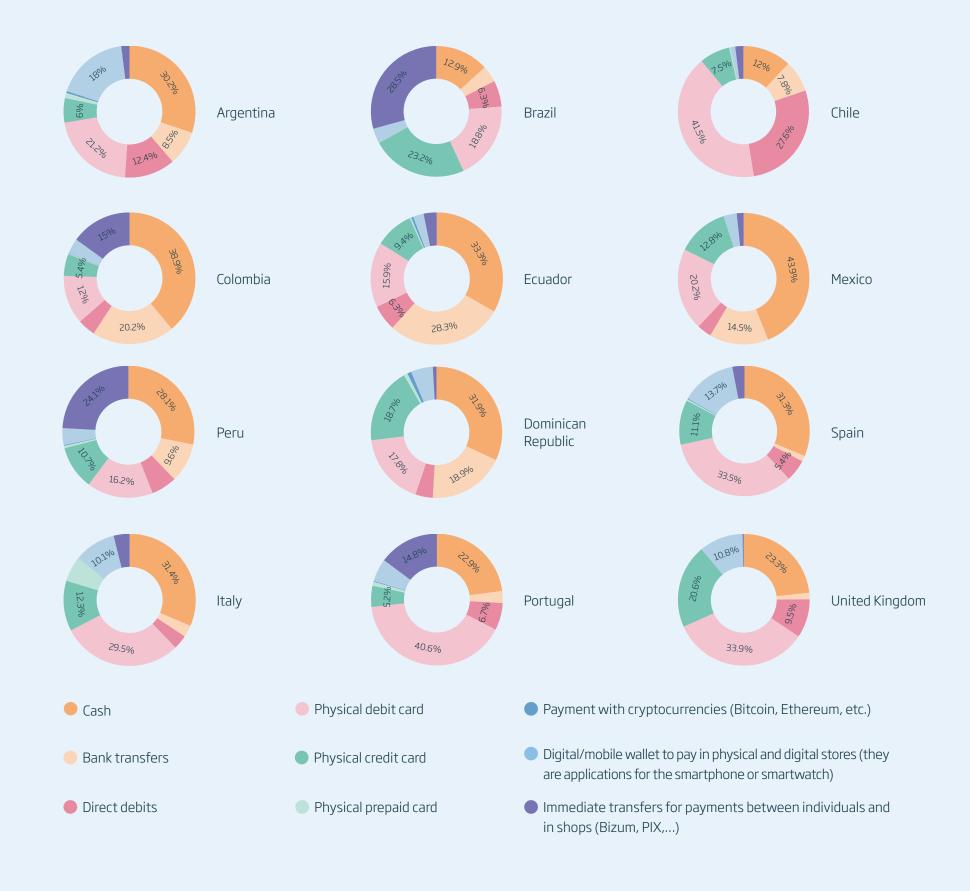
Visa Annual Report.

Cash is still the most used means of payment in face-toface purchases, followed by the debit card. This pattern predominates in countries that concentrate the greatest challenges of financial and digital inclusion.

Cash and debit cards do rival in terms of declared preferences, especially in European countries. And a singularity is observed in the case of Brazil, where preferences are concentrated on the transfer between individuals and on the credit card.

Universal acceptance of cash is the main motivation for those who use it by default. For other means of payment, convenience and ease of use is a transversal reason, together with speed.

The increasing universality of acceptance of physical cards motivates their use in face-to-face payments. In prepaid, the perception of greater control over spending is the differential element.



**Figure 9.** PREFERRED means of payment for purchases or face-to-face payments

**Source.** Afi and The Cocktail Analysis. In response to the question: Of the following means of payment, which/which of them have you used in purchases/face-to-face payments?

**Table 4.** Reasons for choosing the preferred means of payment for purchases or face-to-face payments **Source.** Afi and The Cocktail Analysis. In response to the question: What are the reasons why it is your favorite means of payment for purchases or face-to-face payments?



In online purchases, cards are the main means of payment except in Brazil, Colombia, Chile and Peru where immediate transfers also predominate.

**Digital wallets are growing among online shoppers**. They are recognized for their disruptive capacity since the pandemic and their contribution to the adoption of digital payment instruments and channels, so from the authorities they are asked to be, also, interoperable.

	Argentina	Brazil	Chile	Colombia	Ecuador	Mexico	Peru	Dominican Republic	Spain	Italy	Portugal	United Kingdom
Bank payment	0%	24.9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Transfer	38.1%	29.6%	53.4%	45.5%	53%	49.1%	46.5%	41.2%	13.9%	13.2%	22.4%	15.5%
Direct debit	40.3%	32.2%	54.2%	30%	35.9%	31%	39%	36.6%	19.5%	16.8%	24.5%	28.1%
Immediate transfers between individuals and businesses	25.6%	49.7%	30.3%	52.2%	26.6%	21.3%	57.5%	25.1%	24.3%	15%	33.7%	10.6%
Debit card	48.2%	42.1%	65.4%	37.5%	49.9%	51.6%	47.9%	50.8%	42%	31.5%	41.7%	40.3%
Credit card	32.1%	47.9%	30.2%	21.6%	30.7%	35.7%	33.5%	41.3%	22.1%	22.3%	16.9%	25.9%
PrePaid card	15.2%	12.8%	15.6%	11.3%	18.2%	14.1%	19%	20.5%	9.2%	21.6%	8.3%	5.6%
Cryptocurrency	2%	3.1%	2.4%	2.8%	5.5%	2.4%	4%	7.6%	1.6%	2.4%	1.7%	1.4%
Digital wallet	27.4%	15.8%	13.6%	17.4%	16.2%	19.1%	21.6%	20.9%	18.4%	24.8%	13.4%	20%
Deferred and Split Payment at Retail Stores	12.5%	17.3%	11.6%	11%	11.3%	17.8%	13.1%	13.5%	7.2%	17.1%	8.2%	8.7%
	0% -	19%	20% - 39	)% 4	-0% - 59%	609	% - 79%	80 - 100%				

Figure 10. Means of payment used in purchases or online payments during the last week

**Source.** Afi and The Cocktail Analysis. In response to the question of the following means of payment, which/ which of them have you used in online purchases/payments through the website of the merchant or service, even if you have accessed through the mobile browser, PC., etc?

The relevance of the physical debit card as a means of online payment is blurred in terms of preferences. It is only maintained as a preferred means of payment in Spain and the United Kingdom.

Payment from account is the preferred means in many Latin
American countries for online payments; in its immediate
version it is, after the credit card, the preferred means of
payment in the online world of Brazilians. Emerging payment
modalities such as BNPL or cryptocurrencies are hardly preferred by a
minority.

Whichever online payment method is preferred, ease of use, speed and security come first. For the debit card is the universality of acceptance; for immediate transfers the differential is immediacy.



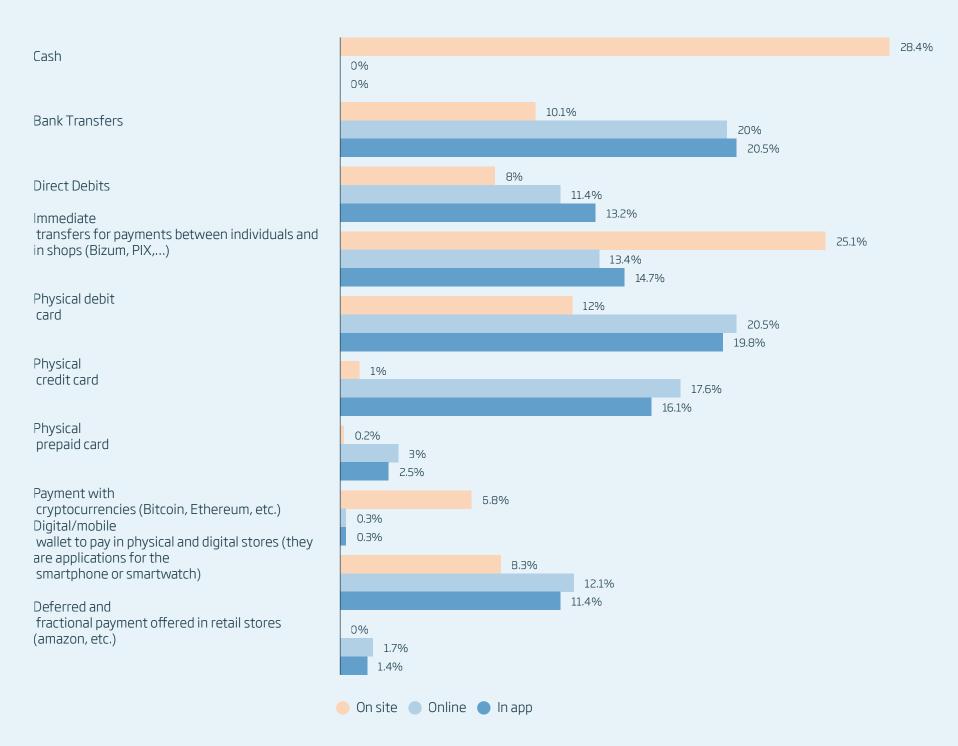
**Figure 11.** PREFERRED means of payment for purchases or face-to-face payments

**Source.** Afi and The Cocktail Analysis. In response to the question of the following means of payment, which/which of them have you used in online purchases/payments through the website of the merchant or service, even if you have accessed through the mobile browser, PC., etc?



**Table 5.** Reasons for choosing the preferred means of payment for purchases or face-to-face payments

**Source.** Afi and The Cocktail Analysis. In response to the question: What are the reasons why it is your favorite means of payment for purchases or face-to-face payments?



**Figure 12.** PREFERRED means of payment according to the way in which the purchase or payment has occurred **Source.** Afi and The Cocktail Analysis.

The context of the payment has a decisive importance in the choice, with spaces (small purchases) where the cash is still well positioned. Recurring and periodic payments are the natural space of payments from account, while cards are transversal and always appear among the preferred.

Perceptions are aligned between users and industry. The majority view is that cash will continue to play a role in small in-person purchases, and that direct debits will focus on scheduled recurring payments, while transfers will focus on sending money to third parties. Debit and credit cards blur their prominence in the face of prepaid and BNPL in high-value purchases in both physical and digital establishments, respectively. Digital currencies, especially CBDCs, will be exclusively niche, in the metaverse.

	Small amounts	Importes grandes	Recibos, facturas	In small shops	Department stores	On Services	Shared costs	In a purchase from an individual	Sending remittances	Taxes, Fees	Subscriptions	Transport and mobility
Cash	40.3%	9%	14.8%	39.6%	13.2%	35.8%	33.1%	39.9%	11.4%	15.5%	9.8%	40.8%
Bank payment*	0.2%	0.4%	1.2%	0.1%	0.5%	0.2%	0.2%	0.3%	0.2%	1.6%	0.8%	0.1%
Payments from account	16.2%	32.2%	42.2%	13.7%	23.1%	16.5%	23.6%	20.7%	49%	43.6%	44.9%	12.9%
Bank transfers	8.9%	23.7%	22.3%	6.6%	14.7%	8.9%	17.5%	15.2%	42.4%	26%	17.6%	5.3%
Direct debits	7.3%	8.5%	19.8%	7.2%	8.4%	7.6%	6.1%	5.5%	6.5%	17.6%	27.3%	7.6%
Immediate transfers between individuals and businesses	7.3%	6%	7.9%	6.5%	6.7%	7.5%	13.1%	10%	13.1%	7.2%	7.1%	6%
Net Cards	25.9%	42.1%	24.7%	30.4%	44.9%	29.7%	19.5%	19.4%	15%	23.8%	26.8%	28.5%
Physical debit card	16.8%	19.2%	14.1%	19.9%	25%	18.2%	10.9%	10.3%	8.3%	13.5%	12.8%	16.4%
Physical credit card	8%	21.2%	8.9%	8.7%	18%	9.2%	7%	7.3%	4.9%	8.4%	11.5%	7.2%
Physical prepaid card	1.2%	1.7%	1.7%	1.8%	1.9%	2.3%	1.6%	1.8%	1.8%	1.9%	2.4%	4.9%
Cryptocurrency payment	0.7%	1%	0.8%	0.6%	0.9%	0.6%	0.7%	0.7%	1.2%	0.8%	1%	0.8%
Deferred and split payment offered in shops	0.7%	2%	0%	0.6%	1.4%	0.5%	0%	0%	0%	0%	0%	0%
Digital/mobile wallet	8.7%	7.2%	8.5%	8.5%	9.2%	9.2%	9.7%	9.1%	10%	7.5%	9.7%	10.9%
0% - 19% 20% - 39% 40% - 59% 60% - 79% 80 - 100%												

**Table 6.** Preferred means of payment according to the context of the expense or purchase

**Source**. Afi and The Cocktail Analysis. In response to the question: Thinking about the future, if you could pay that way whenever you wanted, regardless of the options that exist today, what would be your favorite means of payment for each situation?

	Cash	Bank payment (Brazil)	Ordinary transfer	Immediate transfer	Direct debit	Debit card	Credit card	Prepaid card	Digital and/or mobile wallet	BNPL	Crypto-Currency	CBDC
Purchases of physical establishments - small amounts	28%	0%	2%	6%	0%	12%	4%	5%	15%	0%	3%	0%
Purchases of physical establishments - large amounts	4%	0%	6%	5%	0%	5%	16%	0%	6%	28%	0%	0%
Online shopping - small amounts	0%	0%	0%	6%	0%	10%	12%	13%	10%	3%	15%	0%
Online shopping - large amounts	0%	0%	4%	6%	2%	2%	15%	3%	5%	35%	3%	0%
In a purchase from an individual	28%	17%	10%	17%	3%	6%	3%	3%	4%	3%	3%	0%
Recurring or subscriptions to services	0%	0%	10%	5%	23%	7%	10%	11%	6%	4%	3%	0%
Receipts, invoices, etc.	4%	33%	12%	9%	23%	9%	7%	3%	5%	3%	3%	0%
Taxes, fees, fines, etc. to the public administration	2%	33%	18%	9%	17%	10%	6%	11%	6%	1%	0%	0%
Public transport and urban mobility	12%	0%	0%	3%	8%	11%	6%	18%	12%	4%	0%	0%
Money transfers/remittances	4%	17%	26%	16%	3%	4%	3%	8%	4%	4%	9%	20%
Shared expenses with friends	14%	0%	8%	12%	9%	6%	2%	8%	10%	4%	0%	0%
On-demand services	4%	0%	2%	5%	9%	12%	9%	11%	10%	3%	0%	0%
Metaverse	0%	0%	2%	2%	2%	4%	6%	8%	8%	6%	61%	80%
	0% - 19	9% 2	0% - 39%	<b>4</b> 0%	% - 59%	60% -	79%	80 - 100	%			

**Table 7.** Thinking about the next 5 years, what two means of payment do you think will prevail in the following everyday transactions?

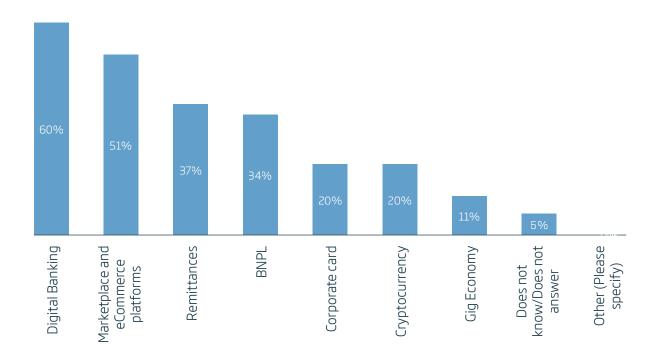
**Source.** Barometer of trends in payment methods



# The card is consolidated in the most innovative transactions

The rise of neobanks, fintech, and digital platforms has led to a wave of new-generation issuers that through open APIs allow customizing, creating, and executing card programs at scale.

The card, far from being a commodity, is leading the creation



**Figure 13.** Which of the following new business verticals represent an opportunity for the growth of card payments?

**Source.** Barometer of trends in payment methods

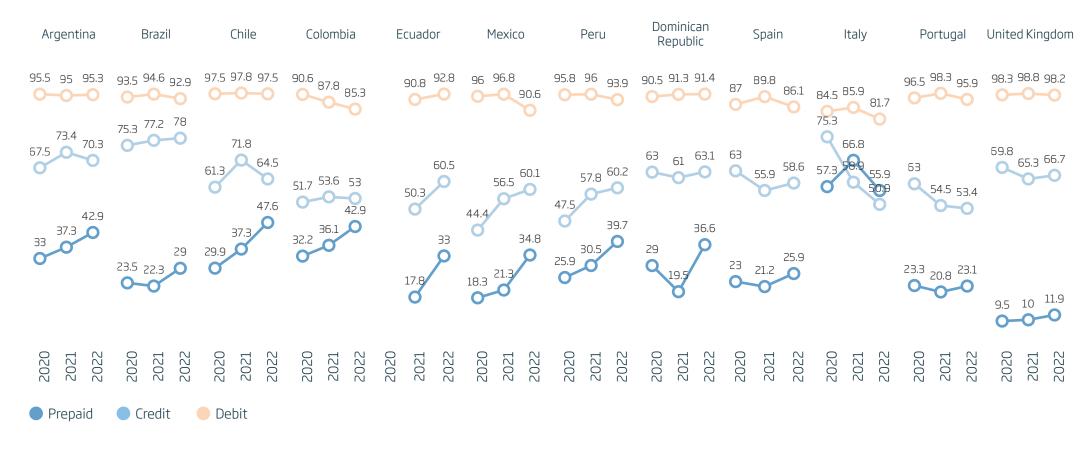
#### of innovative payment experiences in different verticals,

which become opportunities for issuing agents in the industry, in particular:

- For neobanks and digital banks that seek to improve the UX of unattended segments or solve common problems such as travelers.
- For eCommerce platforms and marketplaces with the instant and scale issuance of virtual modalities for payments to multiple suppliers or associated merchants.
- To enable remittance recipients to access their money instantly.
- To equip the B2B and B2C segments with single-use virtual cards in BNPL mode.
- For the B2B segment with automatic and real-time categorization of transactional data as an expense management and control solution
- For holders of crypto-assets.
- To provide flexible access to compensation and other payments to employees or collaborators.

#### The case of prepaid cards is paradigmatic, especially in Latin

America. It facilitates the entry of new agents that rely on the universality of the smartphone, which makes it possible to issue and use virtual cards. It also allows ex ante evaluation of clients with a poor financial track record. In the more mature and less flexible European market, the prepaid card has less presence.



**Figure 14.** Proportion of population with payment card, according to type of card **Source.** Afi and The Cocktail Analysis. Answers to the question: "Below are different types of payment card. Which of them do you have?"



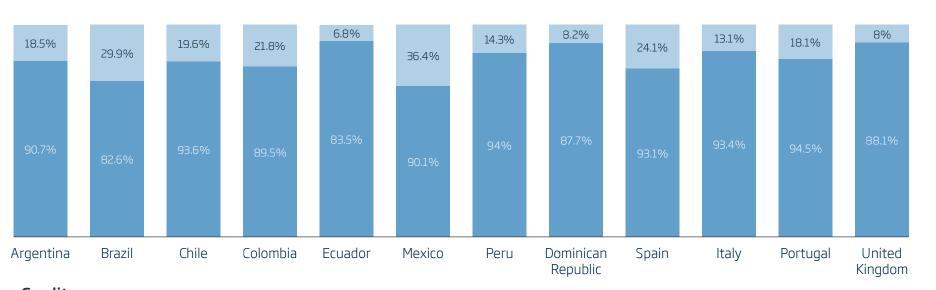
The penetration of the virtual card is concentrated in Latin American countries compared to European ones, but above all in a product modality: prepaid cards.

There are more than 1.6 billion payment cards in circulation at the beginning of 2022 in all the countries that make up this Report, half of which are issued in Brazil. About 1 billion are debit cards, representing about seven out of every ten cards issued in the region.

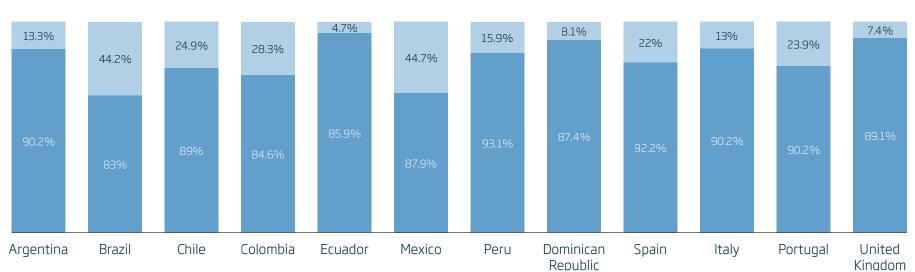
	Debit Cards	Credit Cards	Total	Debit Ratio/Credit
Argentina	56.9	58.3	115.2	49.4%
Brazil	459.1	379.2	838.3	54.8%
Chile	24	14	38	63.1%
Colombia	41.1	15.6	56.7	72.5%
Ecuador	8.7	3.4	12.1	71.9%
Mexico	144.4	34.5	179	80.7%
Peru	29.5	7.9	37.4	78.9%
Dominican Republic	5.8	2.7	8.5	68.5%
Spain	49.4	38.6	88	56.2%
ltaly	22.9	8.1	31	74%
Portugal	96.8	59.9	156.7	61.8%
United Kingdom	60.9	14.1	75.1	81.2%
Total	999.7	636.3	1.636	
	0%-50% 60	- 65% 65% - 75%	5 75% - 100%	

Table 8. Where are the payment cards (debit and credit) issued? Millions, 2021 **Source.** Afi, based on superintendencies and central banks **Note.** Official data on prepaid cards issued in all countries are not available.

#### Debit



#### Credit



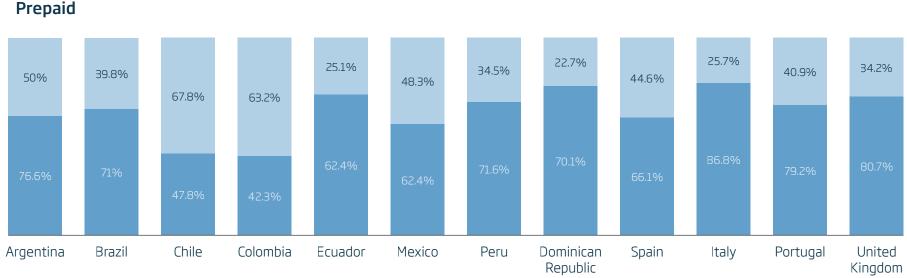


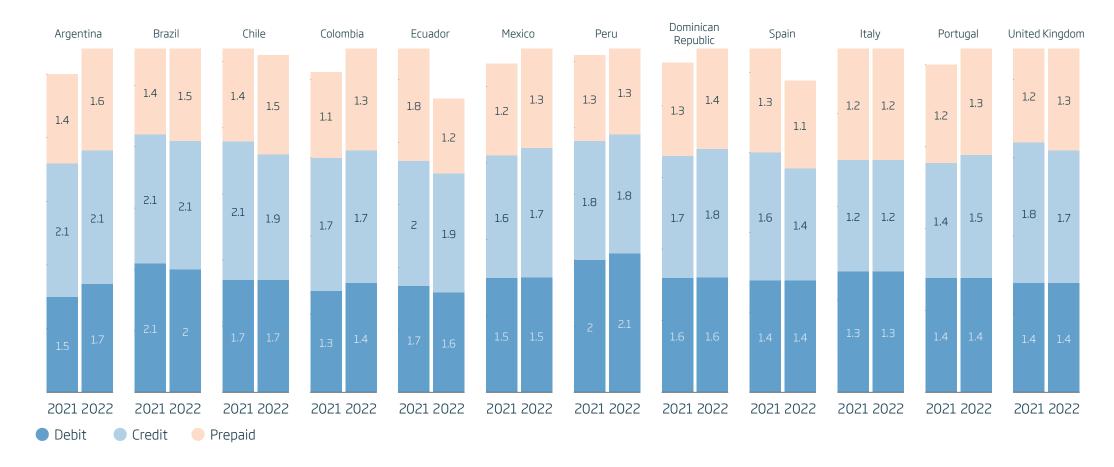
Figure 15. Proportion of Virtual / Physical card by card modality and country

Physical card, in plastic or other materialVirtual card

Source. Afi and The Cocktail Analysis. Answers to the question: What type of payment cards do you have? Are they physical card, plastic or other material or virtual card? Percentage calculated on the basis of the total ABI population of each country.

Regarding the use of cards to make payments in the POS, Chile and Brazil have shown spectacular progress in the last decade in terms of value. Use for cash withdrawals predominates in Ecuador, Colombia, Peru, Mexico and the Dominican Republic.

Progress in Europe has been more gradual except in the United Kingdom where the growth of POS seems to be limitless.



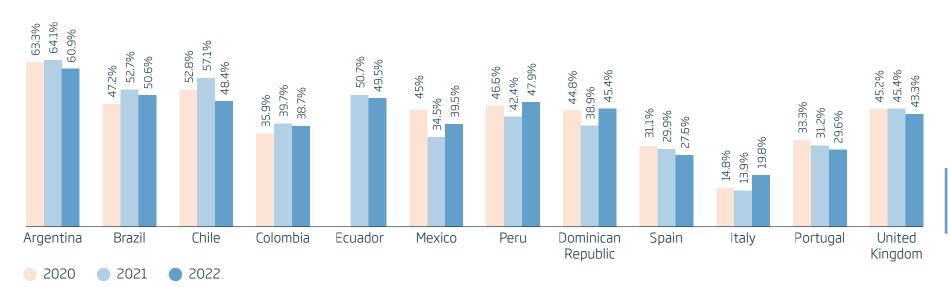
**Figure 16.** Average number of cards held, by type

**Source.** Afi and The Cocktail Analysis. Answers to the question: "How many cards do you have of each type?"

**Note.** Average number of cards calculated with cardholders of each type. For example, 58.6% of the Spanish ABI population that holds a credit card, has an average of 1.4 cards of this type.



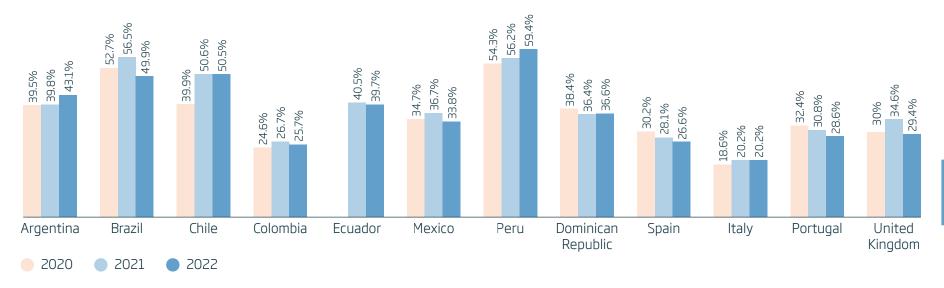
#### Card multi-tenancy is higher in Latin America, materialized especially in the form of credit.



#### Figure 17. Banking population with two or more credit cards

**Source.** AAfi and The Cocktail Analysis. Answers to the question: "How many cards do you have of each type?" Percentage of multitenancy calculated on the basis of individual cardholders of each type

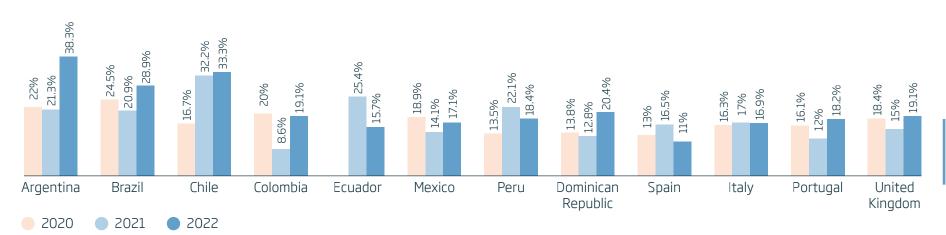
#### Debit card multi-tenancy has remained more stable.



#### Figure 18. Banking population with two or more credit debit

**Source.** Afi and The Cocktail Analysis. Answers to the question: "How many cards do you have of each type?" Percentage of multitenancy calculated on the basis of individual cardholders of each type

#### And multitenancy of prepaid cards is growing in Latin America.



#### Figure 19. Banking population with two or more credit prepaid

**Source.** Afi and The Cocktail Analysis. Answers to the question: "How many cards do you have of each type?" Percentage of multitenancy calculated on the basis of individual cardholders of each type

In terms of transactionality, only Ecuador records a higher frequency of ATM cash withdrawals than card payments in the POS. On the opposite side, the UK records more than 19 card payments for every ATM cash withdrawal.

In terms of the value of card payments over GDP, the UK, Portugal and Chile are above 30%.

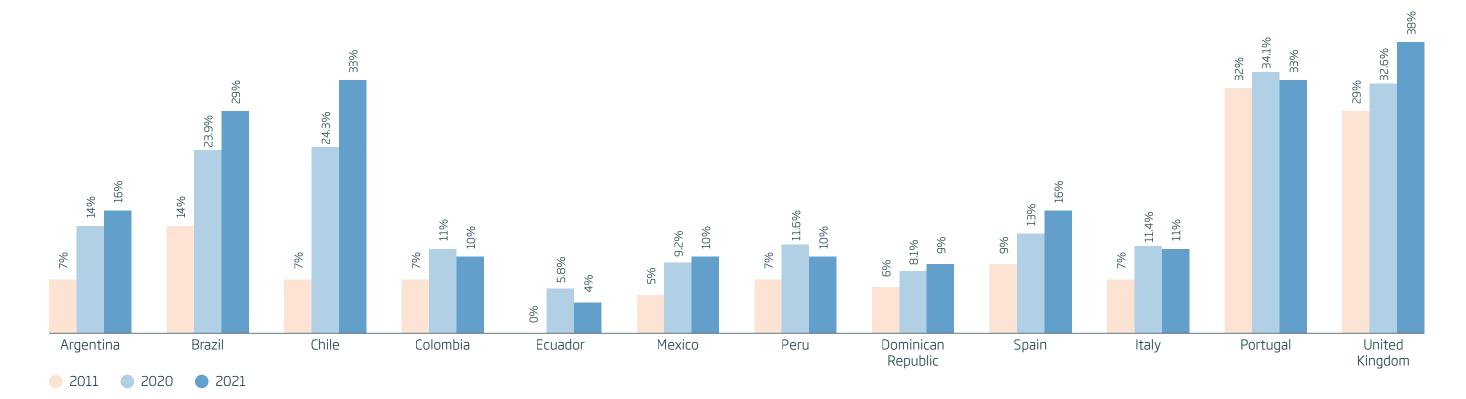


Figure 22. Value of card payments to GDP, 2011, 2020 and 2021

Source. Afi, based on superintendencies and central banks

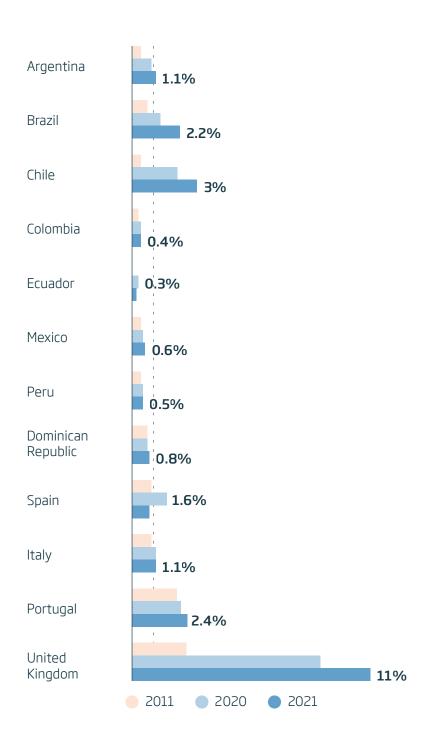
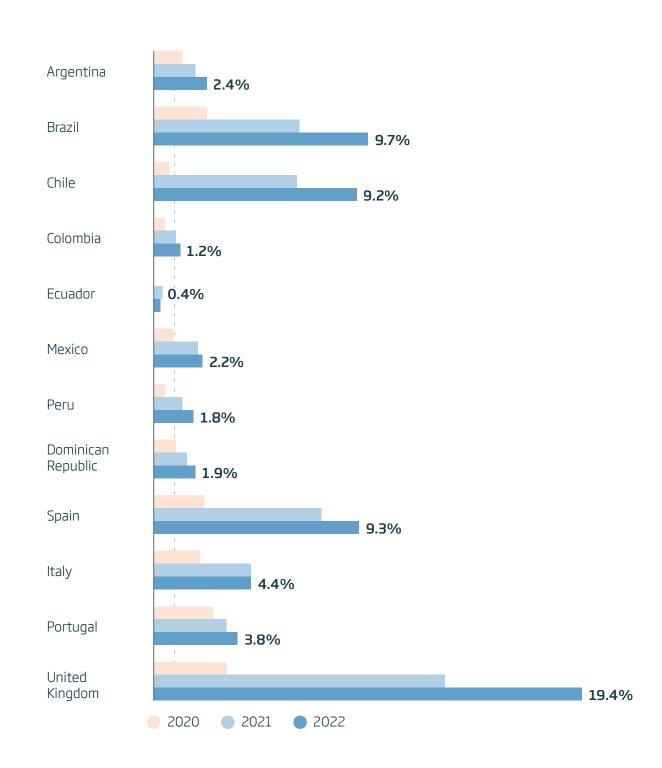
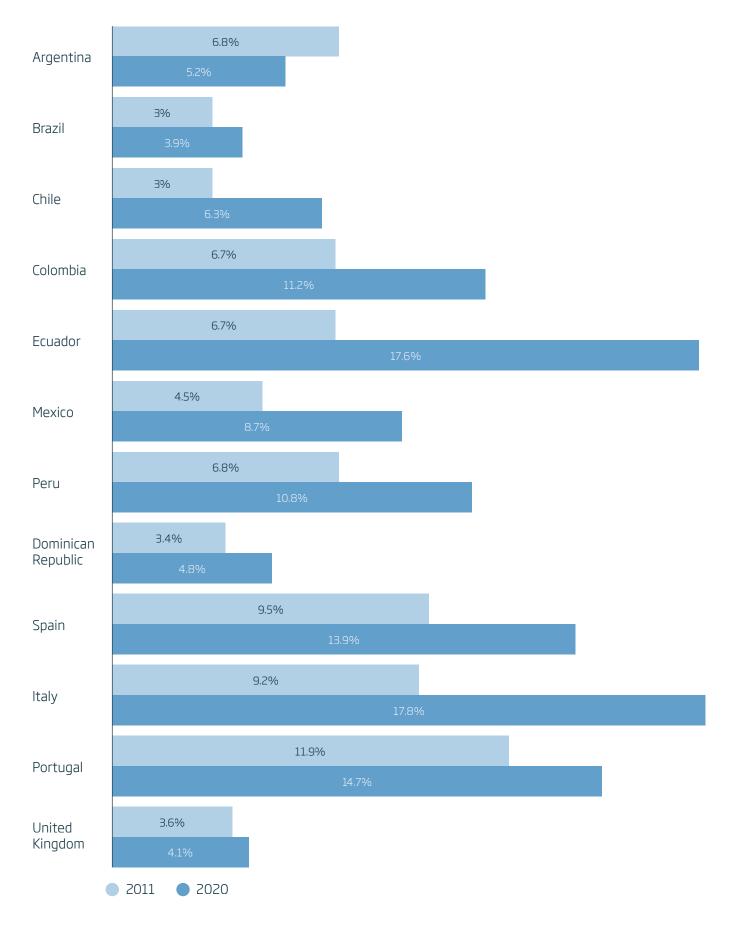


Figure 20. Value of card payments in POS vs cash withdrawal in ATM, 2011, 2020 and 2021 **Source.** Afi, based on superintendencies and central banks



**Figure 21.** Volume ratio of card payments in POS vs cash withdrawals in ATM, 2011, 2020 and 2021 **Source.** Afi, based on superintendencies and central banks



**Figure 23.** Cash in circulation, % GDP, 2011 and 2021 **Source.** Afi, based on superintendencies and central banks



### The Age of Tokenization

The convergence between digital payment and the enabling technology of **mobility**, **ubiquity**, and **invisibility** is expanding the possibilities of paying among all types of agents.

New digital environments require also digital payment functionalities, such as ecommerce, social networks and, eventually, the Metaverse, that are safe, comfortable and omnichannel; every payment experience, whether by any channel, must be similar.

The spectacular adoption of contactless payments has had a necessary ally: **tokenization**. The token is the element that travels (not the data of the means of payment) providing security and confidence to payments, essential attributes that the consumer values despite being less visible.

**Digital wallets and mobile payment solutions** will occupy in five years the first position in the top-of-mind of consumers in their daily payments.

Which payment method do you think will be the main (most frequently used) of consumers within 5 years?

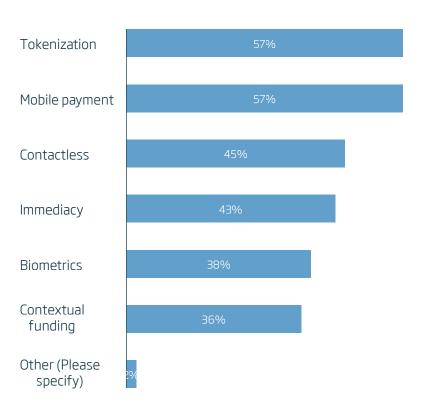
of experts consider that they will be digital and/or mobile wallets (Paypal, Apple Pay, Google Pay, etc.)

experts believe that it will be the

experts believe that it will be the immediate transfers

experts believe that it will be

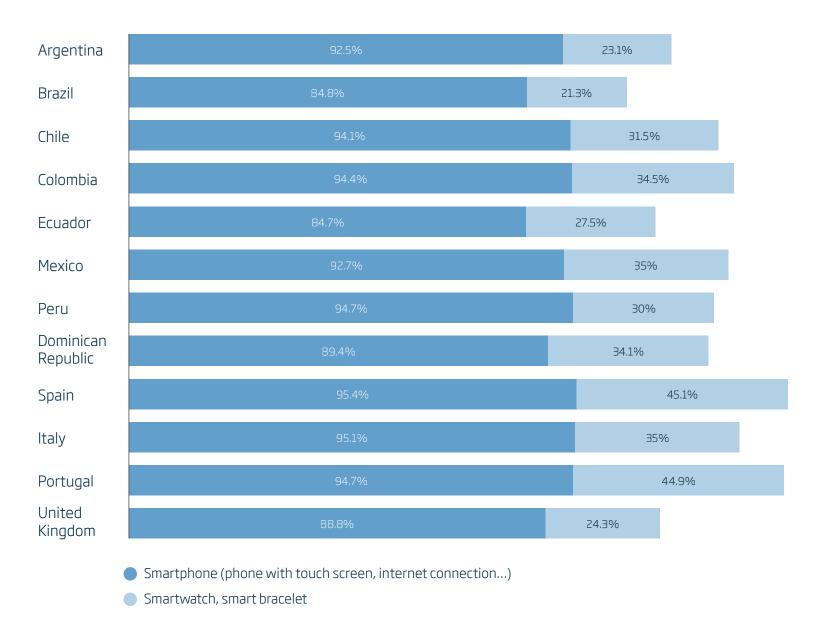
The massive adoption of tokenization and mobile payment are the trends with the greatest impact in the next 5 years accompanying the growth of eCommerce and wearables. Channels and devices, by the way, called to drive the next wave of adoption of contactless payment.



**Figure 24.** Which of the following trends do you think may have the greatest impact on how consumers will pay over the next 5 years?

**Source.** Barometer of trends in payment methods

### The smartphone is already a practically universal device among the population of all countries.

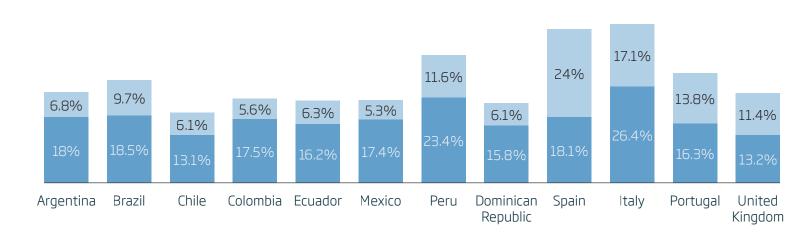


**Figure 25.** Banking population with mobile or smartwatch

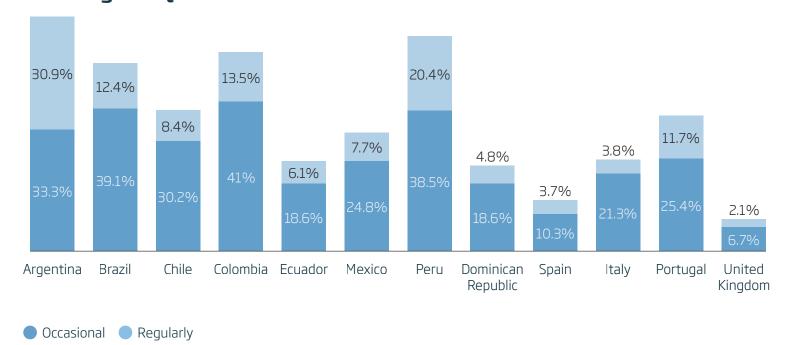
**Source.** Afi and TCA. In response to the questions: Do you have these technological equipment for your personal use?

The use of mobile as a payment device in Europe focuses on the potential of NFC technology, while in Latin America mobile payments predominate through the reading of QR codes, access links or in-app payment.

#### Bringing mobile closer to POS

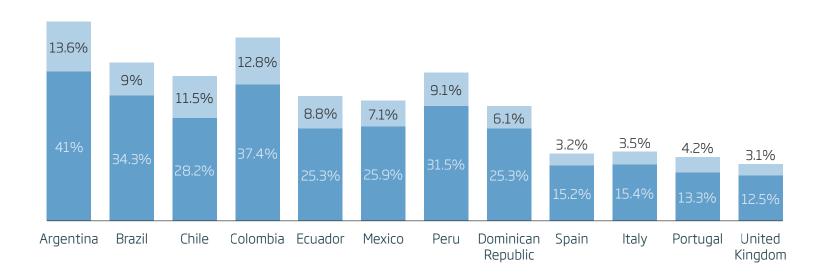


#### Reading the QR

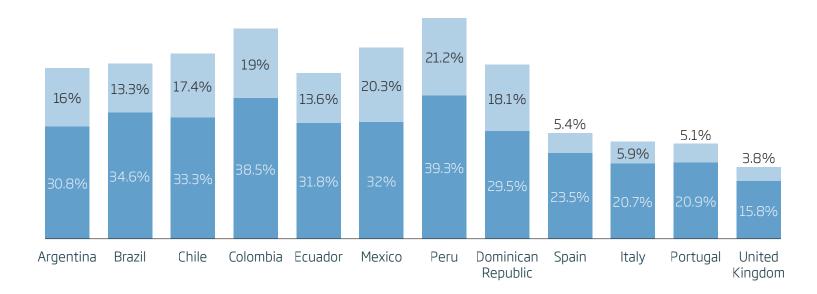


**Figure 26.** Patterns of mobile phone use as a payment device **Source.** Afi and The Cocktail Analysis

#### **Payment links**

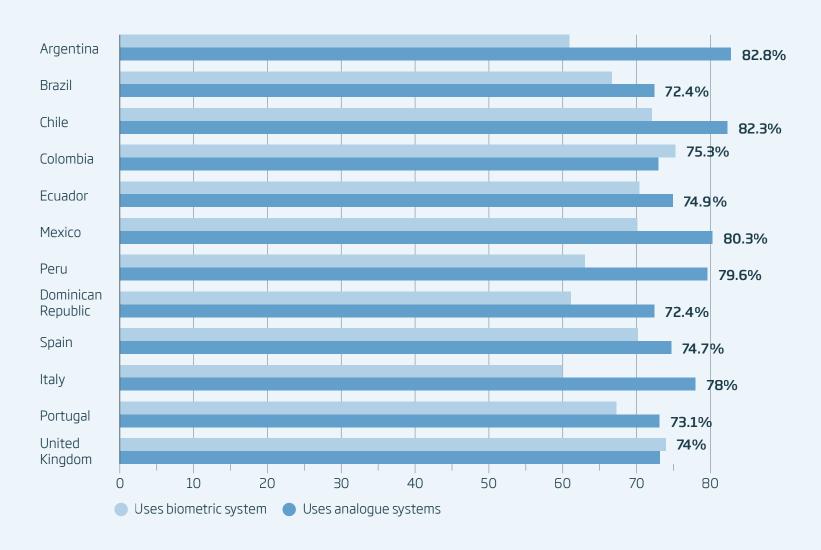


#### Service App



# Biometrics: simple, secure, and invisible authentication solution

The slight predominance of the use of analog identity verification methods over biometric methods is fading in both Europe and Latin America and has already been reversed in the UK and Colombia.



**Figure 27.** Use of identity verification systems

**Source.** Afi and The Cocktail Analysis. In response to the question: When you pay with your smartphone or smartwatch, which of the following ways to authenticate your identity and verify that it is you who is paying are the two that you use most often?

**Devices with built-in biometric methods predominate**. The most commonly used authentication methods as a first choice are fingerprint reading and facial recognition. The pin or password is the employee as a second choice.

The advantages of biometrics focus on the simplicity of its use, more perceived in Europe where the impossibility of losing or forgetting the authentication factor is also relevant. In Latin America, those associated with security stand out.

However, biometric authentication is not without disadvantages, highlighting as the main barrier the failures at the time of identity verification, especially in Latin America, to which is added the lack of dexterity in its use. In Europe, there are also reasons related to data privacy.

	. Fingerprints	. Voice	Facial recognition	. Eye Scan	. PIN Number	Password	Security Questions	Signature	. 2ª option
1st option -	39.2%	15.5%	2.6%	2.5%	17.2%	16%	4%	3.1%	100%
Fingerprint recognition	/	3.7%	0.6%	0.5%	2.7%	2.4%	0.3%	0.2%	10.3%
Facial recognition	4.5%	/	0.4%	0.5%	0.5%	0.5%	0.1%	0%	6.4%
Voice recognition	0.5%	0.5%	/	0.2%	0.1%	0.2%	0.1%	0%	1.5%
Scanning -	0.7%	0.7%	0.3%	/	0.1%	0.1%	0%	0%	2%
PIN number ·	11.6%	3.4%	0.3%	0.4%	/	4.4%	0.8%	0.5%	21.5%
Password ·	11.1%	3.3%	0.4%	0.5%	6.2%	/	1.2%	1%	23.6%
Signature ·	1.4%	0.7%	0.3%	0.3%	1.5%	1.3%	/	0.6%	6%
Answering security questions	1.1%	0.4%	0.1%	0%	0.8%	1.4%	0.2%	/	4.1%
No more	8.3%	2.7%	0.2%	0.2%	5.4%	5.8%	1.3%	0.8%	24.6%

**Table 9.** Use of identity authentication systems

**Source.** Afi and The Cocktail Analysis. In response to the question: When you pay with your smartphone or smartwatch, which of the following ways to authenticate your identity and verify that it is you who is paying are the two that you use most often?

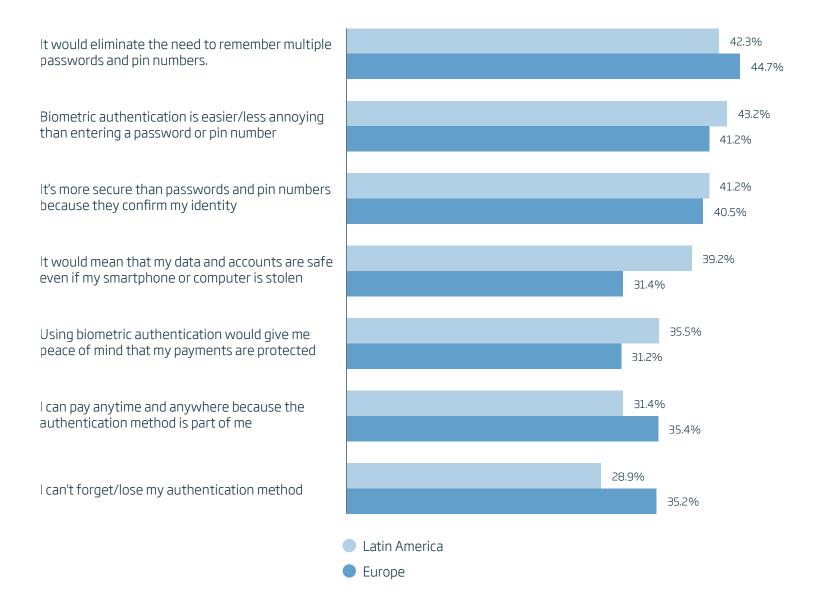
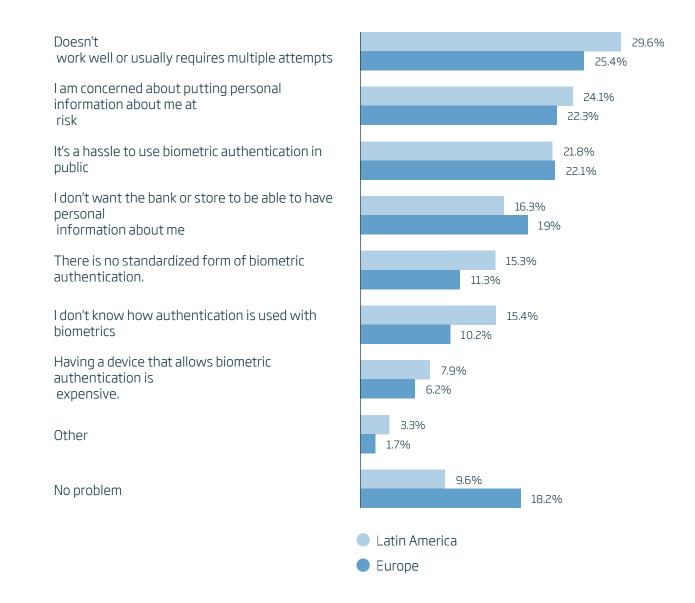


Figure 28. Main Benefits of Biometric Authentication

**Source**. Afi and The Cocktail Analysis. In response to the questions: What would you say are the main advantages of using biometric authentication (facial recognition, fingerprint, etc.) for payments? And what are the reasons why you do not use biometric methods more often to authenticate your identity (facial recognition, fingerprint reading, etc.)?



**Figure 29.** Main Disadvantages of Biometric Authentication

**Source.** Afi and The Cocktail Analysis. In response to the questions: What would you say are the main advantages of using biometric authentication (facial recognition, fingerprint, etc.) for payments? And what are the reasons why you do not use biometric methods more often to authenticate your identity (facial recognition, fingerprint reading, etc.)?

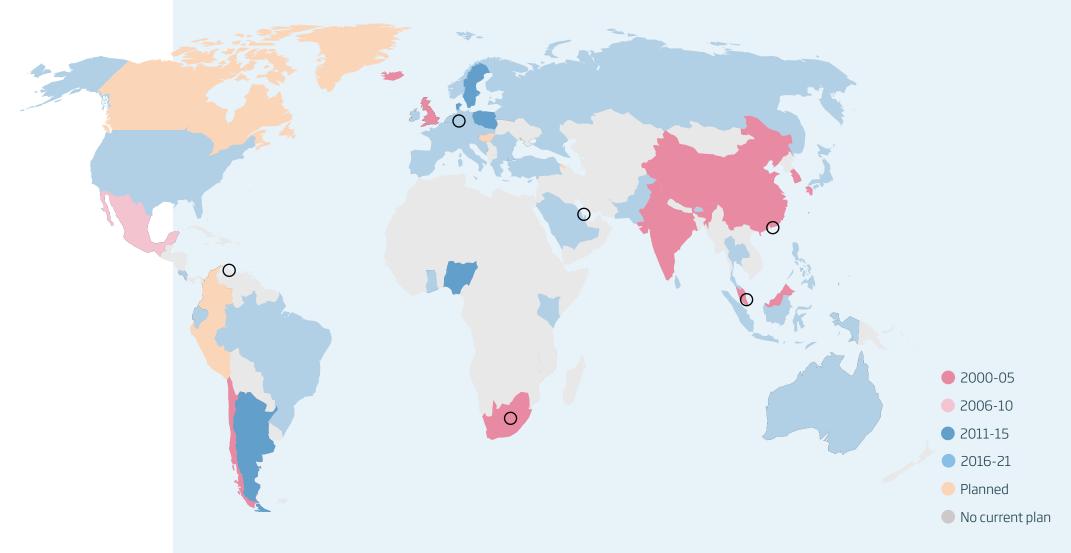
# I want it here and now: the power of immediacy and ubiquity

Immediacy is a demanded attribute for all means of payment, in all environments and at any time and context.

Immediate payments are one of the biggest transformations in industry and ecosystems, albeit with different speed of implementation and adoption depending on the country.

In Europe, the creation of a pan-European network of immediate payments on account aims to complement card networks, dominated by non-European actors, which is part of the European Union's Retail Payments Strategy to ensure, among other objectives, European payment sovereignty. The complete deployment of the system requires the accession of all PSPs, which to date has not reached the minimum established by the Regulation to consider it, effectively, a system.

Changing continent, **PIX is already a benchmark for Latin America** (and global), for the penetration, impact, speed of growth and transactionality it has reached since its inception in November 2021.

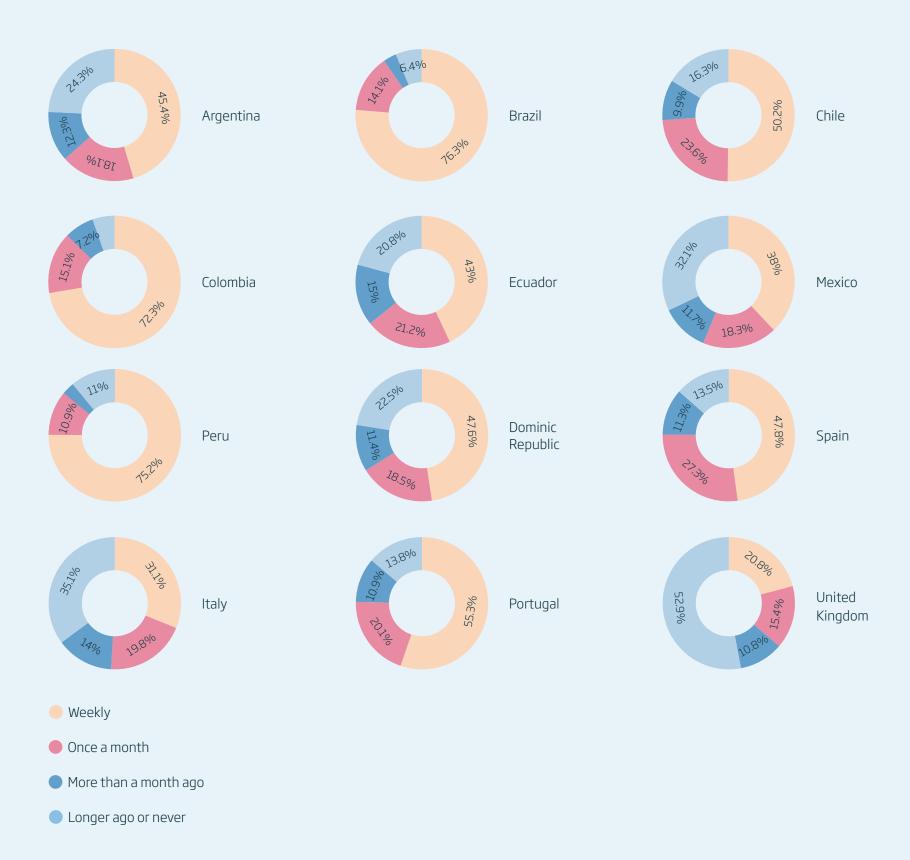


**Figure 30.** Countries with immediate payment solutions (Fast Payment Systems-FPS)

Source. BIS (2021) Developments in retail fast payments and implications for RTGS systems

**Note.** Circles represent SPF in the Eurozone, Aruba, Bahrain, Hong Kong SAR, Singapore and the SADC region.

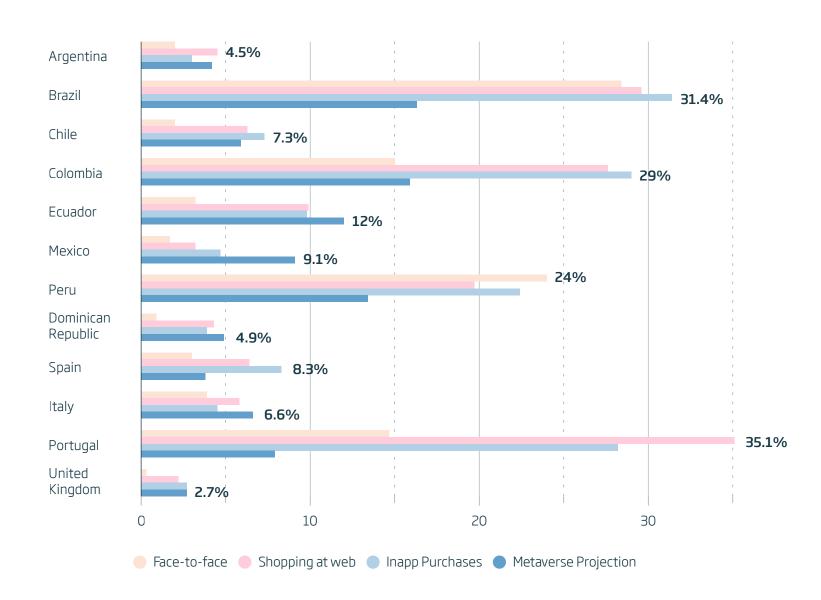
#### 1 Digital Payments



**Source.** Afi and The Cocktail Analysis. And of the following means of payment, which/which of them have you used in purchases/ face-to-face payments/ in purchases/online payments through the website of the merchant or service, even if you have accessed through the mobile browser, PC, etc./ in purchases/payments from the application of the merchant or service you have contracted?

Immediate transfers between individuals are in fact more settled in Spain or Portugal by the European side, while in Latin America it is Brazil, Colombia and Peru that have adopted them with more intensity.

However, immediate transfer is still far from being one of the preferred means of payment. Only in Brazil and Peru it is in any of the three contexts of use (face-to-face, via web or in-app).



**Figure 32.** Percentage of banking population that would prefer to pay by immediate transfer between individuals or businesses according to payment context

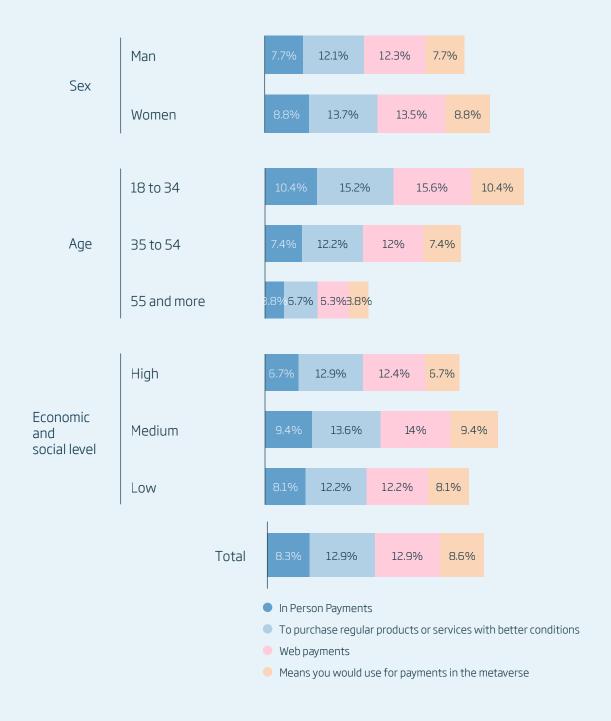
**Source.** Afi and The Cocktail Analysis. In response to questions: Preferred medium for in-person purchases/Preferred medium for web purchases/Preferred medium for in-app purchases/What payment methods do you think you would use for your metaverse purchases?

The use of instant transfers is expected to increase as younger population cohorts are incorporated, with preferences for use among those under 35 tripling those of those over 55.

Although the main use of immediate transfers is between individuals, they are already beginning to be used for face-to-face or online purchases, in particular in Brazil, Colombia, Portugal and Peru.

The Spanish Bizum is an example of universal service of immediate transfers that began in 2016 with individuals, advances in ecommerce and will eventually be a payment option at the physical point of sale. It is a candidate to be part of a pan-European solution for immediate mobile payments, alternative (or complementary) to the currently paralyzed European Payment Initiative (EPI).

A relevant aspect for the advancement and universalization of immediate transfers is the access of PSPs to the ACHs and interbank infrastructures that enable them, of which there are public and private.

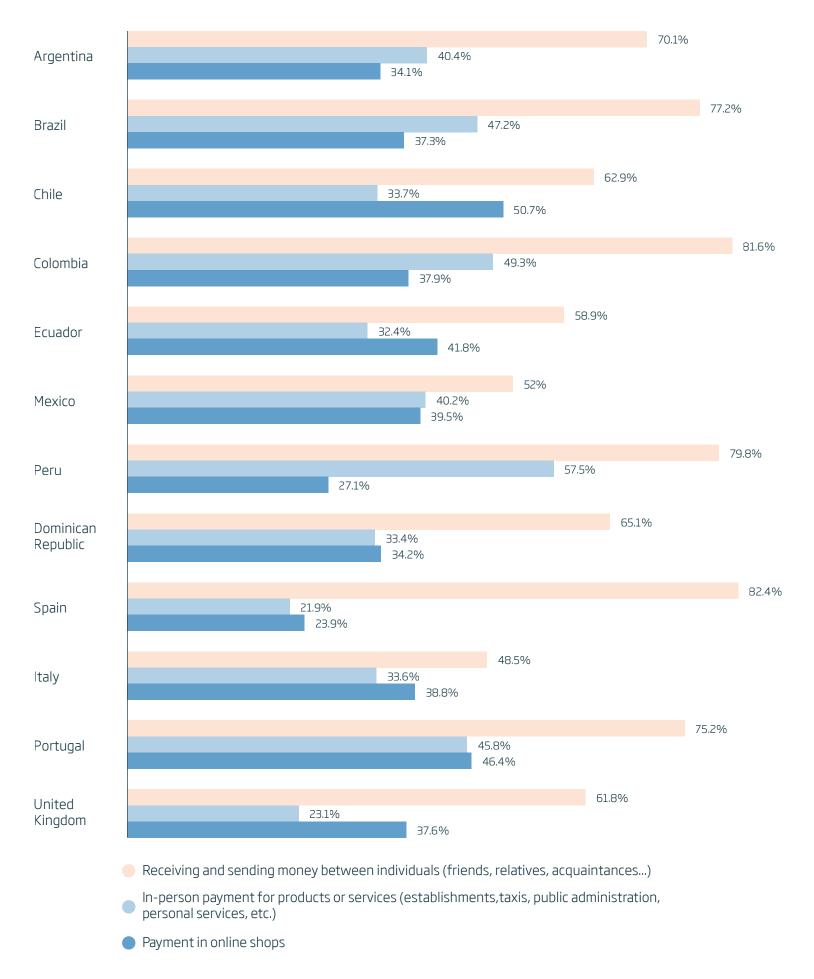


**Figure 33.** Percentage of banking population that would prefer to pay by immediate transfer between individuals or businesses according to payment context

**Source**. Afi and The Cocktail Analysis. In response to questions: Preferred medium for in-person purchases/Preferred medium for web purchases/Preferred medium for in-app purchases/What payment methods do you think you would use for your metaverse purchases?

Payment initiation progresses slowly, unlike new services such as account information and aggregation. The delay responds largely to the need to adapt the market to new solutions that enable payments from account. But it also responds to competition that may arise, in Europe, with Request-to-Pay (RtP), a new messaging functionality approved by the European Payments Committee. RtP, instead of ordering a payout on account (pull), requests an authorization to initiate a transfer through banking systems, instead of via APIs such as payment initiators.

Payment initiation and RTP are competing a priori solutions that need to define the most appropriate use cases. RTP would be called upon to modernize transactionality in the public sector payments segment, in the corporate sphere (invoices, collection orders and payments between companies), and in some commercial contracts such as earnest money, reserves and sale of capital goods in which irrevocability and immediacy offer essential guarantees for both parties; while the initiation of payments, native in the field of ecommerce with the segment of individuals, would have to focus on said space and segment.



**Figure 34.** Types of payments you have made with applications for instant transfers between individuals

**Source.** Afi and The Cocktail Analysis. In response to the question: What kind of payments have you made with peer-topeer transfer applications?



## Main keys

Over the past decade, fintech has emerged to provide better user experiences and more value at lower cost.

They usually target areas previously unattended by traditional providers.

The bank remains the main financial institution of reference in all countries.

The predominance of the bank in the top of mind of the population is compromised in some countries by the emergence of new entities such as neobanks. 38% of industry experts believe that banks need to move towards a superapp model to protect their market share.

31% believe, however, that banks should focus on converting to BaaS providers for superapp ecosystems.

The decline of multibanking continues and is intensely extended in Europe.

A phenomenon more European than Latin American, where the general trend draws an upward curve. In almost all Latin American countries there is a predisposition to use preferential apps for other functions and services for which they are designed.

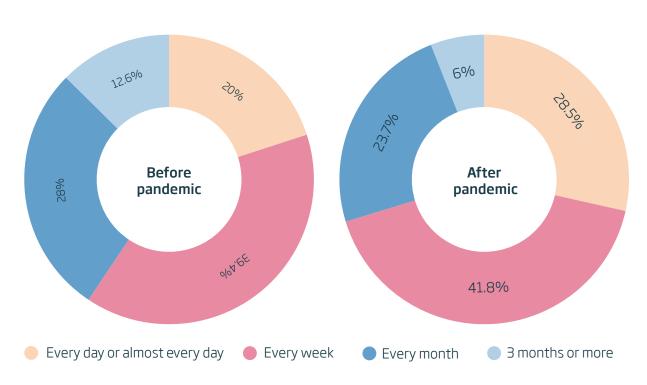
In European countries the predisposition is lower, especially in the United Kingdom.

Digital wallets and mobile payment solutions will occupy in five years the first position in the top-of-mind of consumers in their daily payments.

The spectacular adoption of contactless payments has had a necessary ally: tokenization.

# We are undoubtedly more digital

The pandemic has meant that the consultations and financial transactions carried out by the population are now more digital and frequent. Payments in the P2P segment show the highest growth in the period since the pandemic.



**Figure 37.** Frequency of use of apps or financial services before and after the pandemic

**Source.** Afi and The Cocktail Analysis. In response to questions: How often did you use these types of digital financial applications or services (to manage money, make payments, etc.) before the pandemic? And how often do you use these types of applications or financial services today?

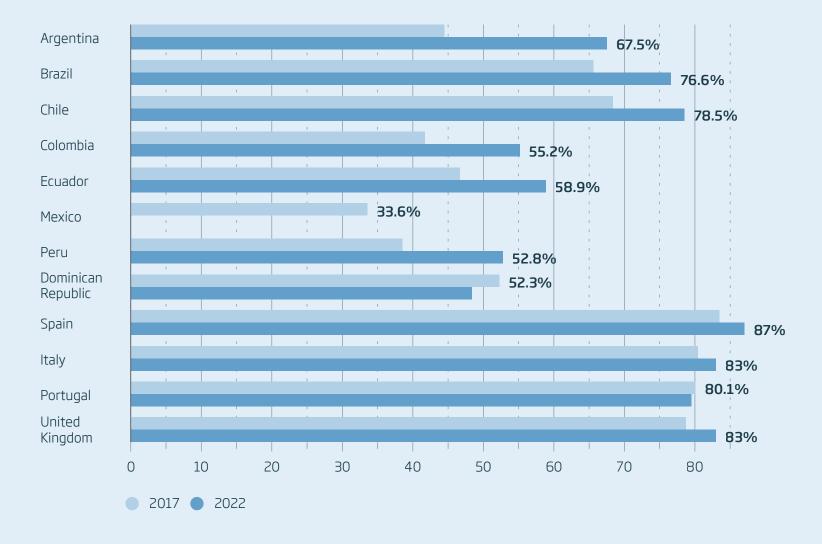


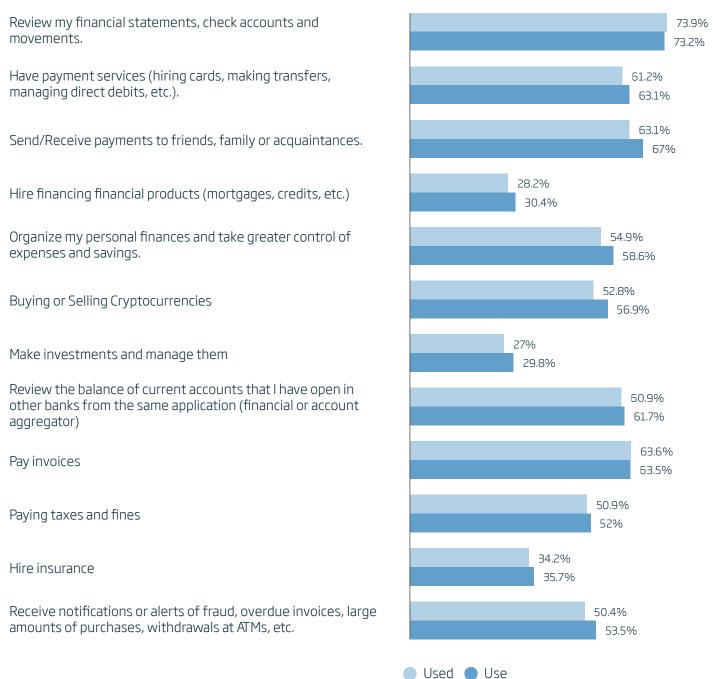
Figure 35. Estimate of total population using digital apps or services in 2017 and present

**Source.** Afi and The Cocktail Analysis. In response to questions: Were you using apps or online financial services (whether from a bank or other financial institution) for any of the following tasks prior to the pandemic? Do you currently use apps or online financial services (whether from a bank or other financial institution) for any of the following tasks?

**Note.** Base on total population, based on the percentage of population banked and the use of digital services before and after the pandemic. In the case of Mexico, this estimate could not be made due to the lack of updated data on the banking population.

The use of digital applications for the control and management of finances is growing more intensely in Latin America. Some exceptions are taking out insurance through apps and paying taxes and fines remotely.

#### Europe



**Figure 38A.** Percentage of population using apps or financial services before and after the pandemic

**Source.** Afi and The Cocktail Analysis. In response to questions: Were you using apps or online financial services (whether from a bank or other financial institution) for any of the following tasks prior to the pandemic? Do you currently use apps or online financial services (whether from a bank or other financial institution) for any of the following tasks?

#### **Latin America**

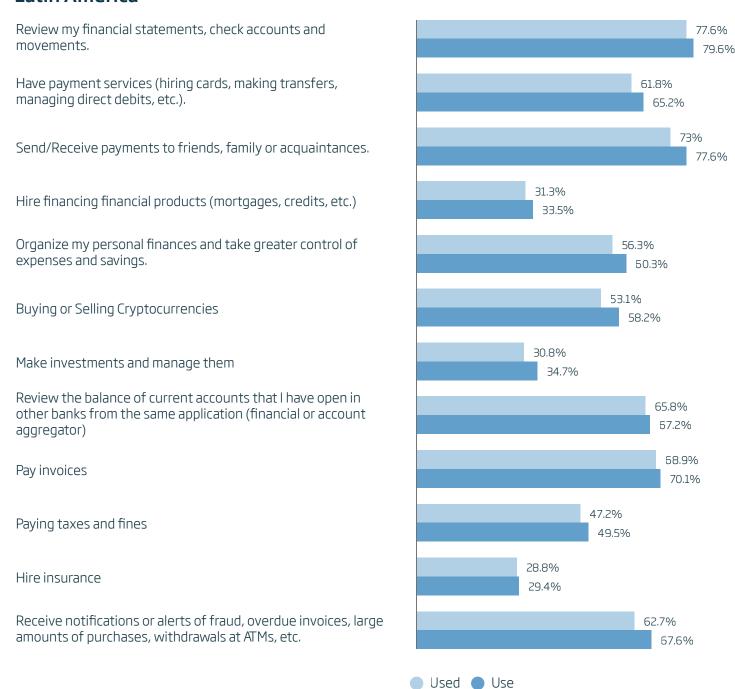


Figure 38B. Percentage of population using apps or financial services before and after the pandemic

**Source.** Afi and The Cocktail Analysis. In response to questions: Were you using apps or online financial services (whether from a bank or other financial institution) for any of the following tasks prior to the pandemic? Do you currently use apps or online financial services (whether from a bank or other financial institution) for any of the following tasks?

The increase in the frequency of use of digital apps and services is also greater in Latin America, where a third of the population that used digital financial services before the pandemic, now does so almost daily.

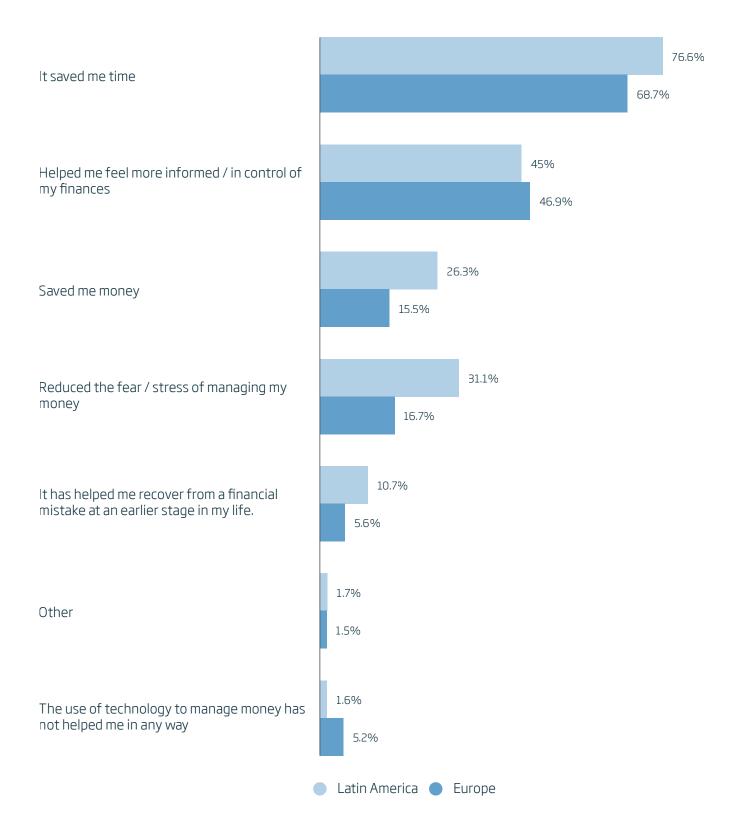
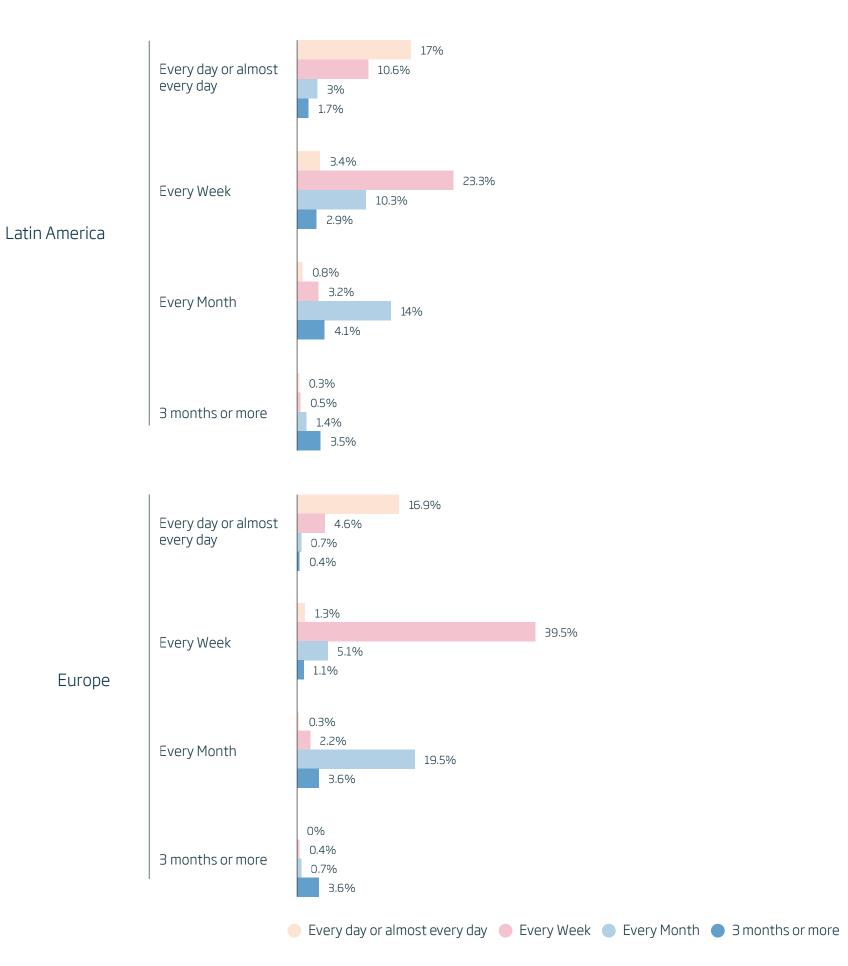


Figure 40. Benefits of Digital Finance Management

**Source.** Afi and The Cocktail Analysis. In response to the question: What do you think are the main benefits of using those digital financial applications or services?



**Figure 39.** Modification of frequency of access to digital services before and after the pandemic

**Source.** Afi and The Cocktail Analysis. In response to questions: How often did you use these types of digital financial applications or services (to manage money, make payments, etc.) before the pandemic? And how often do you use these types of applications or financial services today?

The greater use of digital financial services in Latin America corresponds to a greater perception of the benefits of their management, among which time savings stands out, followed by the feeling of control and information materialized in a reduction of the stress involved in managing personal finances. Also relevant is the money savings associated with digital finance management.

Over the past decade, fintech has emerged to provide better user experiences and more value at lower cost and is typically targeted at areas previously neglected by traditional vendors.

The fintech ecosystem has also revolutionized the back-office, has dismantled value chains, provided dedicated solutions with different flavors (Baas, Paas) and created, supported by Open Banking, more modular ecosystems.

But the context that has been so favorable for fintech in recent years is changing. The war and the recession warning have triggered falls in valuation in technology companies, which reflect the skepticism that investors now show towards companies with losses that promise future returns, a valuation model that has prevailed in previous years and that today demands profitability in the short term.

In turn, traditional payment service providers are under increased pressure to better serve the needs and expectations of their customers, increasingly served by a multitude of large technology and fintech companies.

In the midst of this wave, prioritizing innovation is essential to anticipate and adapt to customer expectations. And doing so without distracting from the priority demands of business continuity - managing operations, protecting assets and complying with regulations - is a major challenge, especially for entities operating with legacy, non-natively innovation-oriented technology systems. Reaching this balance with the current pace of technological innovation is easier for agile companies, which offer products as services, capable of being adjusted, updated or completely eliminated from the technological legacy, practically in real time.

Artificial intelligence is a good example of the speed of production of emerging and disruptive technologies, considered as the main vector of growth and impact in the payments industry in the next ten years. It is followed by the digitization of new payment flows and the rise of integrated payments, as well as new businesses around Open Banking.

That banks cooperate in consortia and invest together, especially in IA and blockchain / DLT in the field of payments and Open Banking is a consolidated trend. And that the foray of GAFAM in short-term financial services is not at its core business, and is limited to cooperating with pre-established financial agents, focused on the UX, interfaces and data management, so it is.

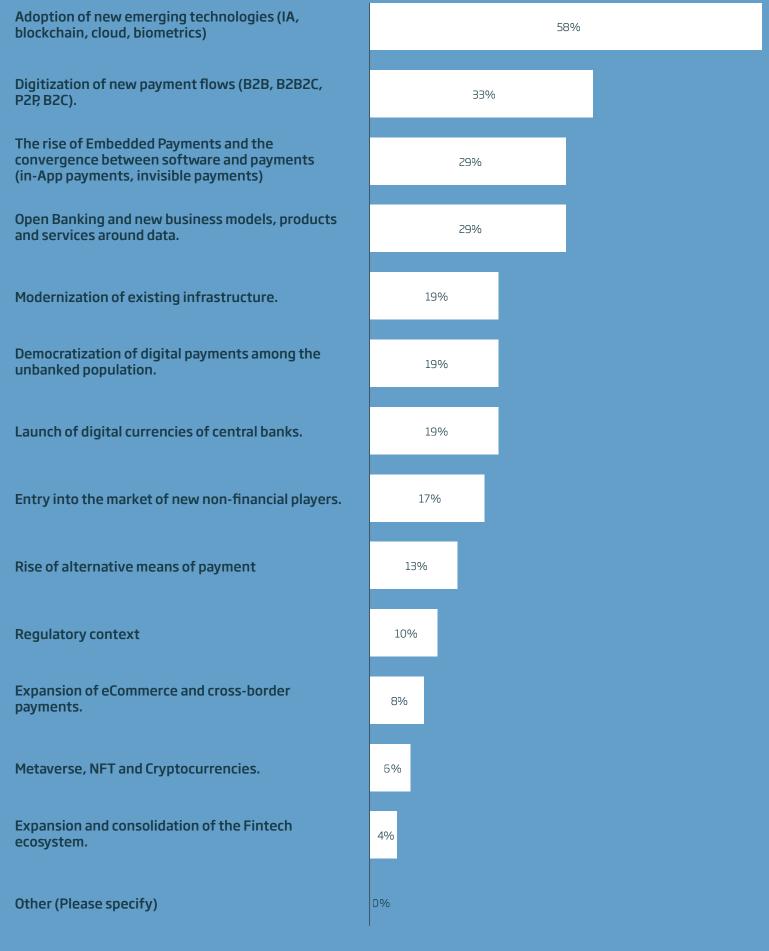


Figure 41. Which of the following growth vectors do you think may have the greatest impact on the payments industry in the next 10 years?

Source. Barometer of trends in payment methods

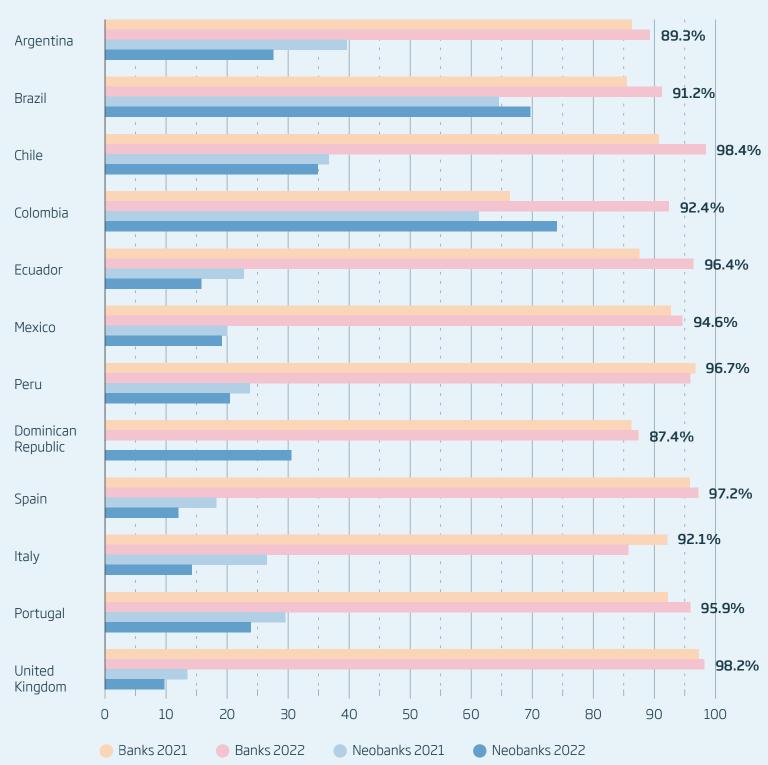
## Neobanks and non-financial institutions

The discourse of collaboration between industry agents is transforming, especially in Latin America, where banks respond with digital versions of their own banks and fintechs evolve from their original status of single-product wallets, to multi-product suppliers.

The diversity of payment ecosystems is also evident from the user's perspective, which begins to diversify the type of entity with which it contracts financial services. High banking in Europe has not prevented the emergence of new operators, and in Latin America, even where the hiring of financial products was not traditionally so high, it increases with both banks and neobanks.

Neobanks in Brazil and Colombia are already competitors to banks.

Payments technology shows uneven penetration, but already exceeds 50% in many countries. Retail and/or eCommerce platforms are relevant in Chile, Ecuador, Mexico and Peru, while telephone operators are relevant in the Dominican Republic, Ecuador, Peru and Brazil.



**Figure 42.** Proportion of banking population with at least one contracted financial service in each type of payment service provider

**Source.** Afi and The Cocktail Analysis. Answers to the question: "How many banks or other providers do you oper ate/have contracted some type of service or financial product or payments/collections currently?"

The bank remains the main financial institution of reference in all countries, with a generalized increase in contracting while falling, in relative terms, with the rest of the operators.

The predominance of the bank in the top of mind of the population is compromised in some countries by the emergence of new entities such as neobanks in Brazil and Colombia, or otherwise as in Italy and the Dominican Republic.

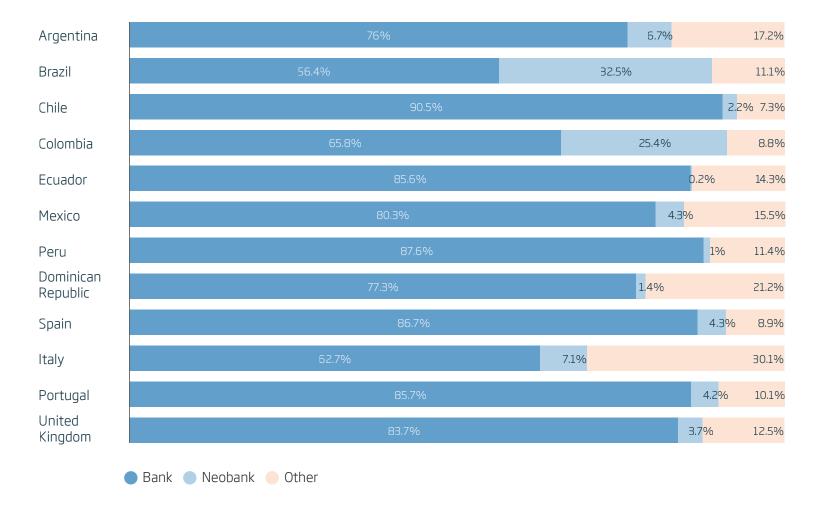


Figure 44. Entity you would use to request a financial product or service

**Source.** Afi and The Cocktail Analysis. In response to the question: What type of company would you turn to first when considering a new financial product or service?

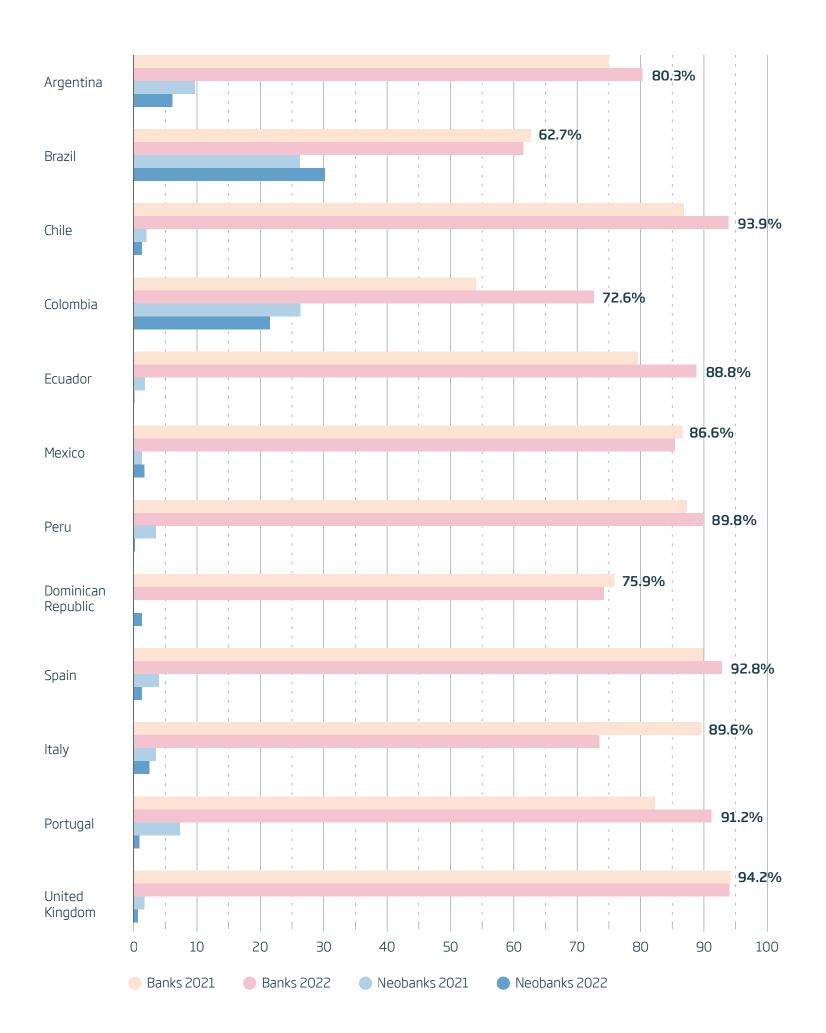


Figure 43. Main financial and payment services entity

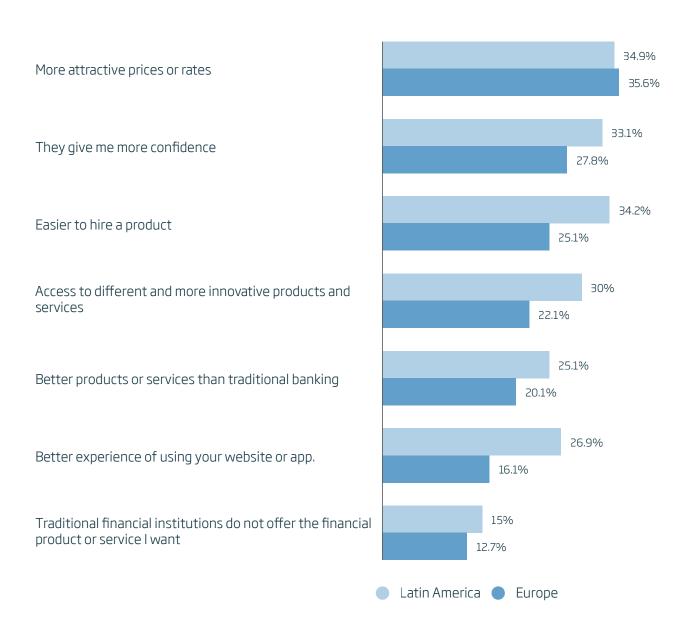
**Source.** Afi and The Cocktail Analysis. Answers to the question: "And what do you consider the main one?"

The advantages of fintech are more appreciated by the Latin

American population than by the European one, with price as the

main advantage in both markets. In Latin America there are also other

possible advantages, among which the ease of use stands out.



**Figure 45.** Reasons to hire a service with a Fintech

**Source.** Afi and The Cocktail Analysis. In response to the question: What would be the three main reasons for you to use this type of fintech companies?

But along with the advantages of fintech, the Latin American population also finds reasons to continue with traditional banking, highlighting the fear of losing personal contact, the greater confidence aroused by what is considered the best offer of products and services.

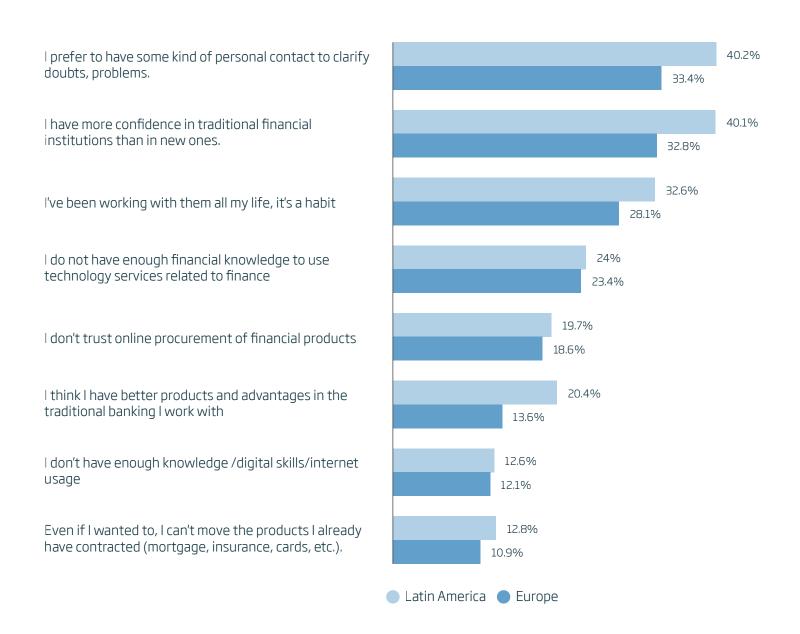
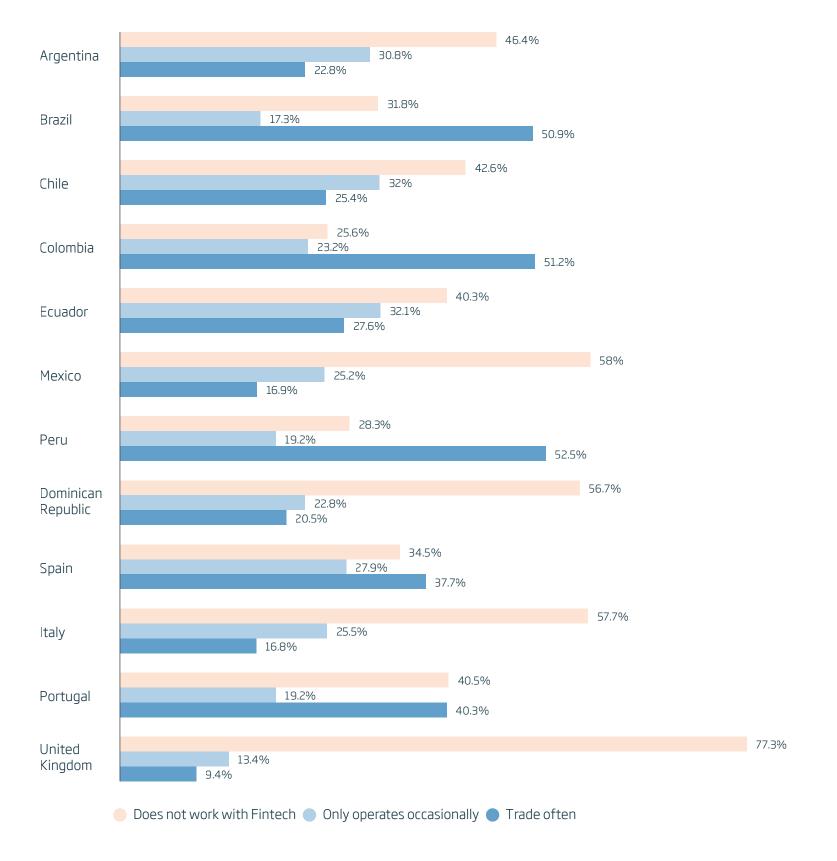


Figure 46. Reasons to continue with traditional banking

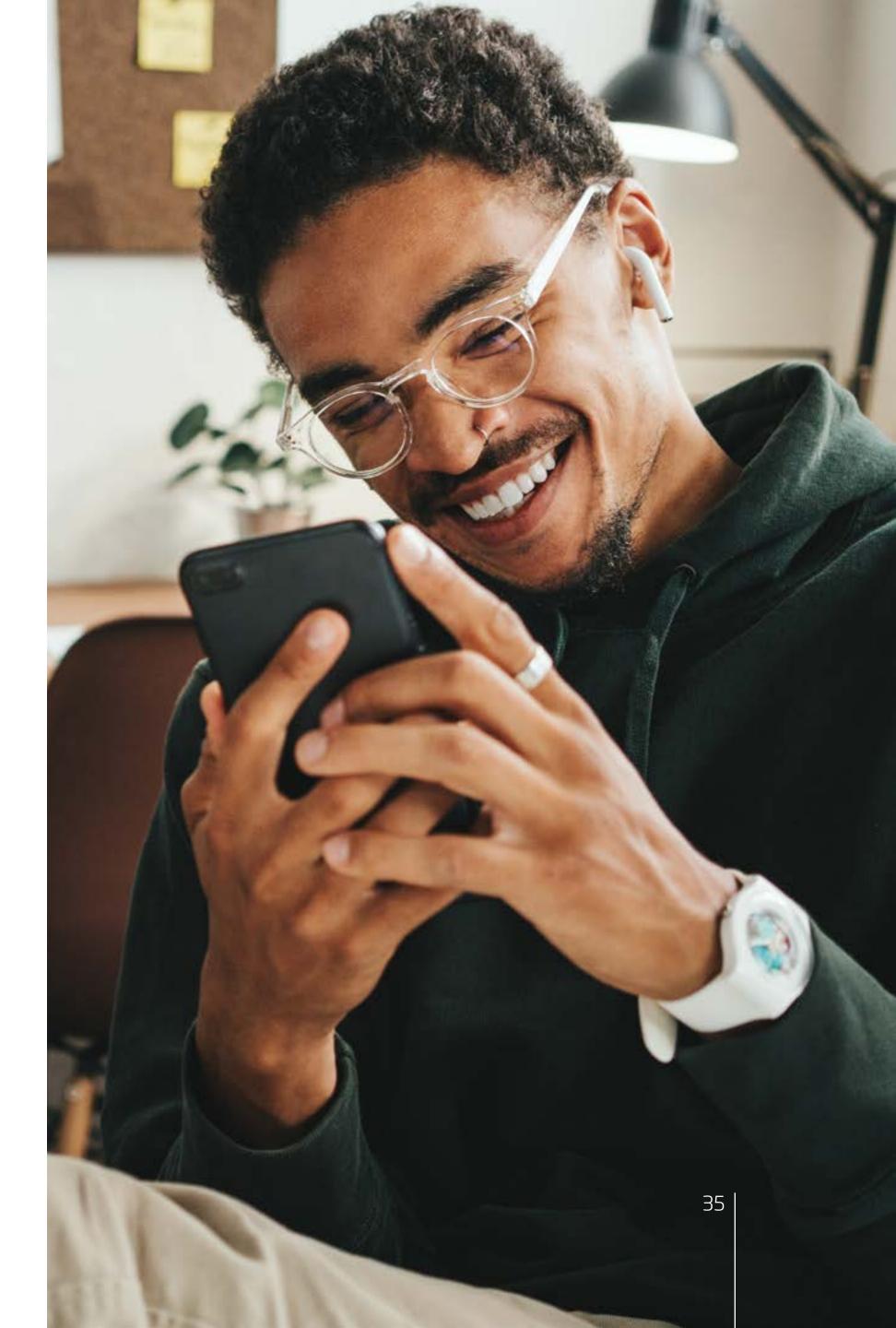
**Source.** Afi and The Cocktail Analysis. In response to the question: What are the three main reasons for you to continue using traditional financial institutions?

The penetration and regular use of fintech services is uneven depending on the country. In Brazil, Colombia or Peru, regular use of fintech services is observed, while it is incipient in others.



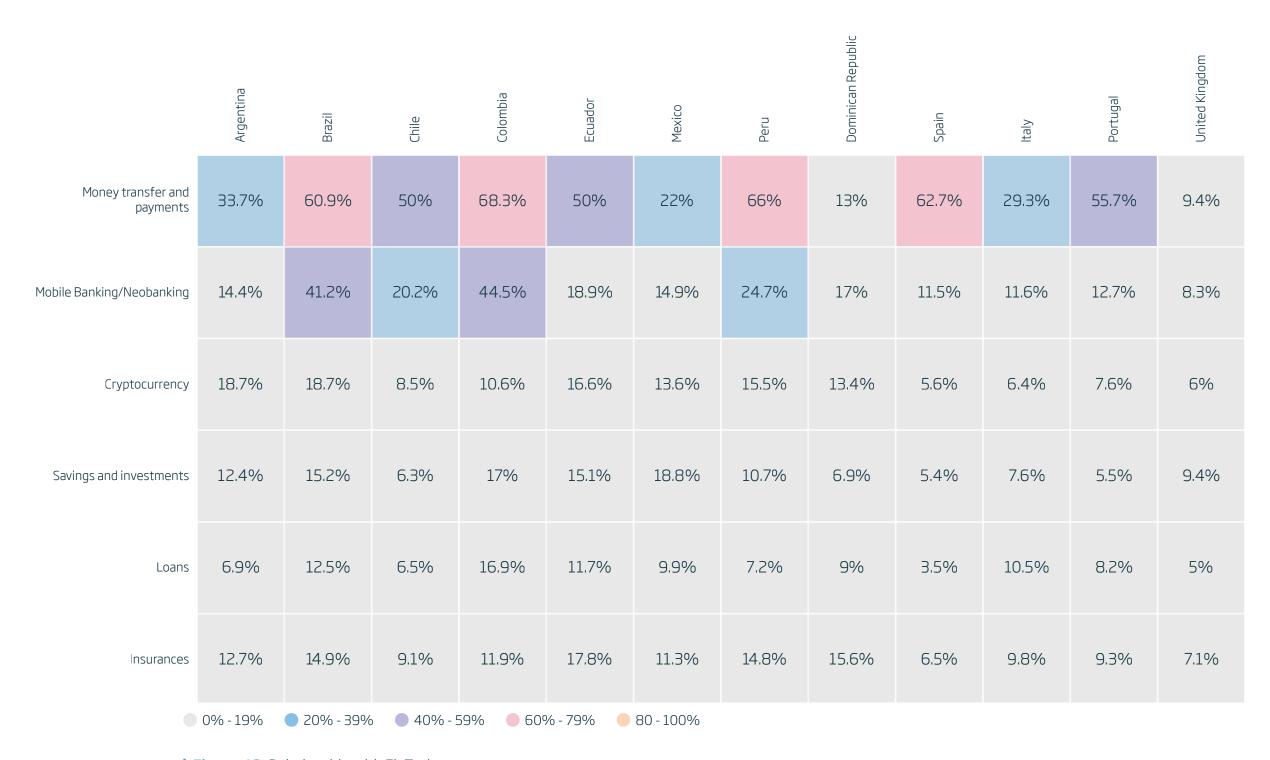
**Figure 47.** Relationship with FinTech

**Source.** Afi and The Cocktail Analysis. In response to the question: Do you know any Fintech linked to any of the following categories? Have you used any of them? Do you use it regularly?



#### Payment services are the generalized way of entry of fintech. Where the

penetration of fintech is greater, it is found that its greatest application is in the field of payments and money transfers.



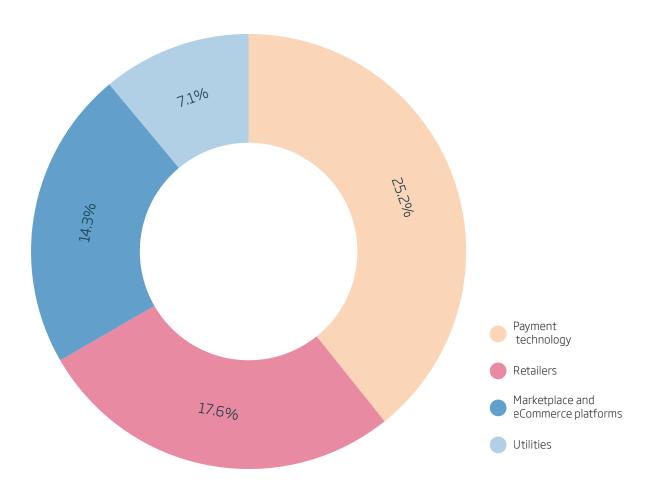
**Figure 48.** Relationship with FinTech

**Source.** Afi and The Cocktail Analysis. In response to the question: Do you know any Fintech linked to any of the following categories? Have you used any of them? Do you use it regularly?

**Note.** The percentage indicates the ABI population that operates both occasionally and usually with a Fintech. This is the population that in the graphs on the previous page were detailed with the colors green and blue

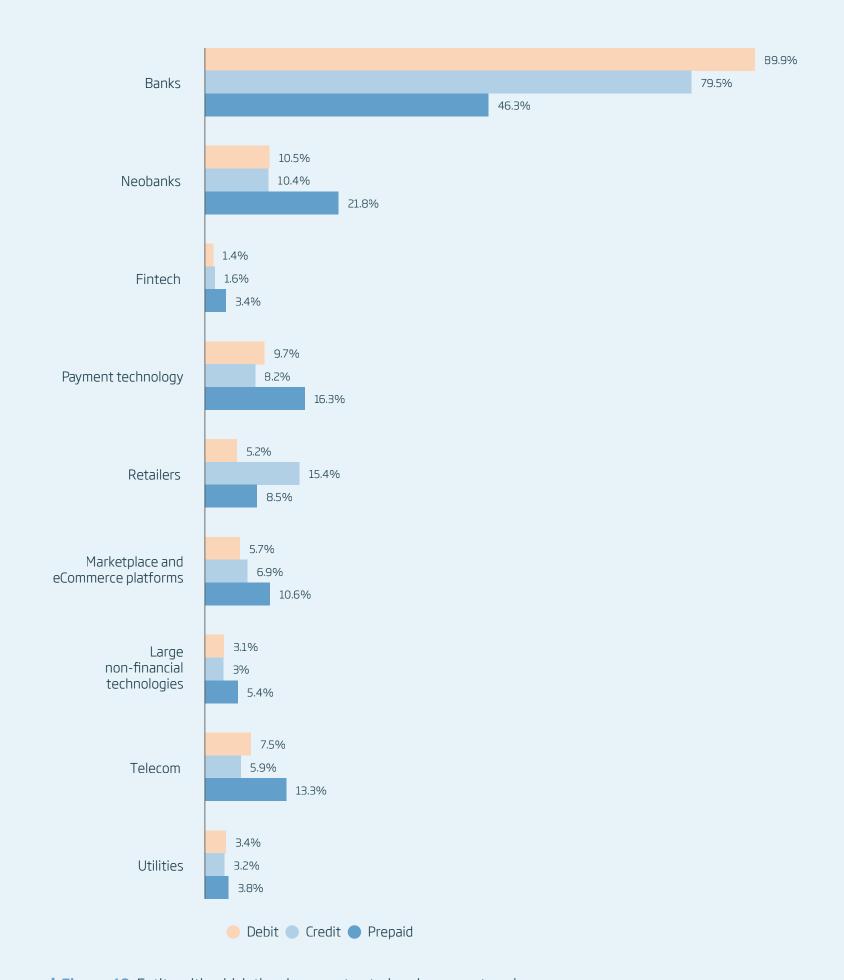
The hegemony of the bank as a card provider is threatened in the field of prepaid cards, which are a gateway for new entities. Although bank issuers concentrate the provision of credit and/or debit cards, for prepaid ones there are a myriad of different entities as suppliers. For neobanks, e-commerce websites, telecommunications and payment technology companies, the issuance of prepaid cards is the contracted star payment product.

Payment technology also captures much of the issuance of loyalty cards that incorporate payment functionalities, followed by retailers and marketplaces.



**Figure 50.** Loyalty card that allows you to make payments

**Source.** Afi and The Cocktail Analysis. Answers to the question: And specifically, with which of the following providers do you have at least one loyalty card that allows you to make payments?

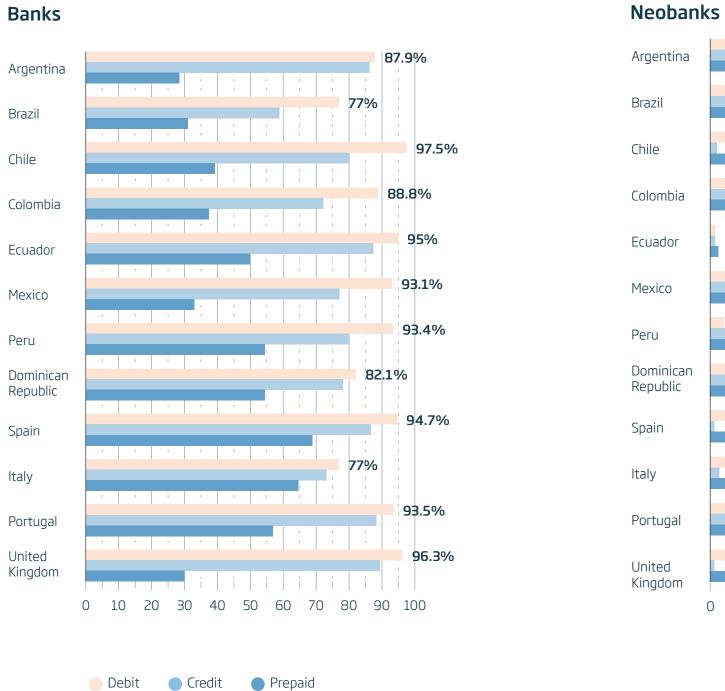


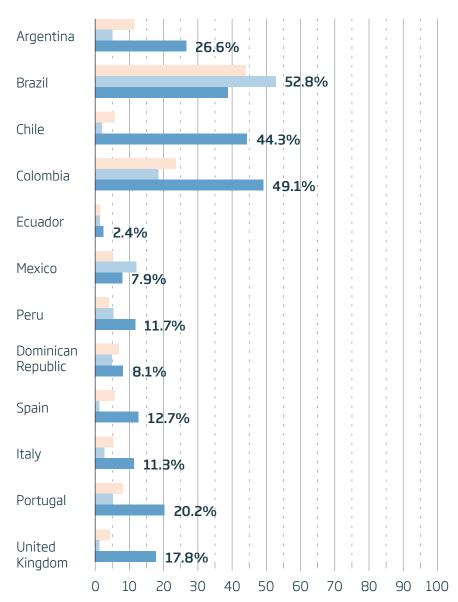
**Figure 49.** Entity with which they have contracted each payment card

**Source.** Afi and The Cocktail Analysis. Answers to the question: And specifically, with which of the following providers have you contracted at least one card of the following types... Debit, Credit and Prepayment.

#### The hiring of cards with non-financial entities is higher in Latin American

**countries**. Neobanks capture a significant share of credit and debit cards in Brazil, Colombia and Mexico. In other countries, the bank's issuing hegemony is only compromised in the prepaid modality.





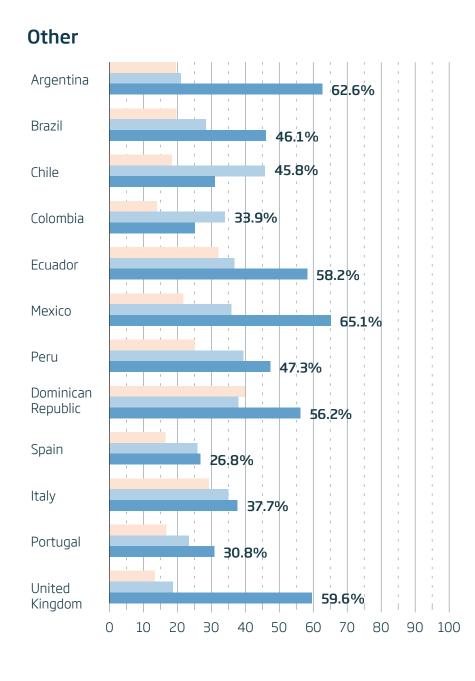
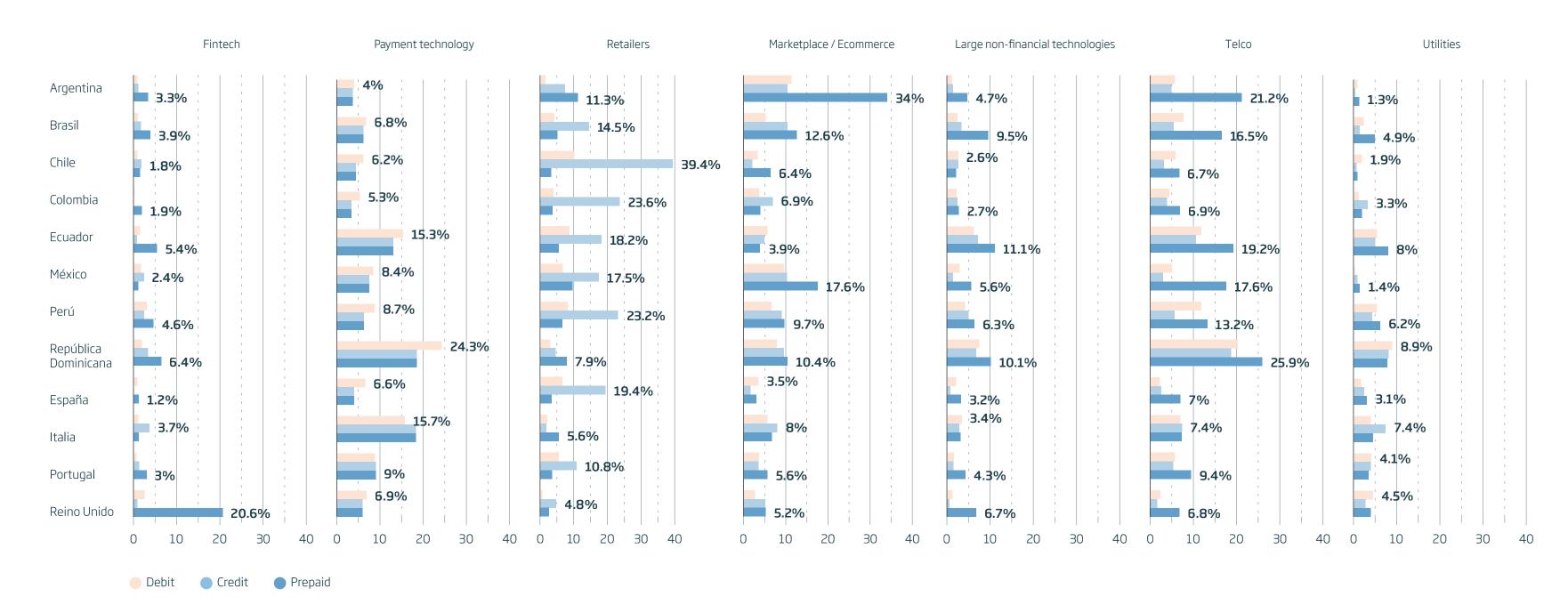


Figure 51. Percentage of population banked with cards contracted by type of entity

**Source.** Afi and The Cocktail Analysis. Answers to the question: And specifically, with which of the following providers have you contracted at least one card of the following types... Debit, Credit and Prepayment.

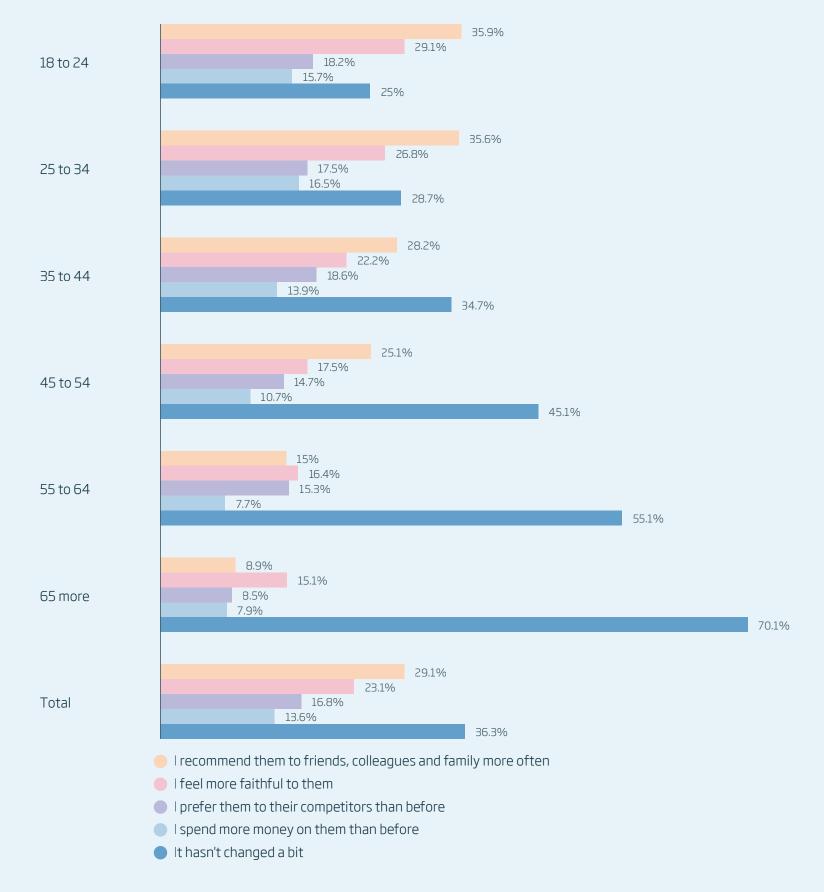
**Note.** Percentage calculated on the basis of individuals having at least one card for each type.

# **Physical and online stores are the main non-financial card providers**. While in Chile, Colombia, Peru and Spain the retailer is a relevant supplier of credit cards, in Argentina it is the ecommerce that stands out, in prepaid in this case. In the Dominican Republic, telephone operators predominate as providers of cards of all kinds, and together with Italy they also give prominence to payment technology.



**Figure 52.** Percentage of population banked with cards contracted by type of entity **Source.** Afi and The Cocktail Analysis. Answers to the question: And specifically, with which of the following providers have you contracted at least one card of the following types... Debit, Credit and Prepayment.

Young people and people from Latin America are the ones who perceive the greatest benefits, the best attunement and the greatest loyalty they declare, with the new bidders. Only among those over 55 and in Europe is a majority greater immobility in the relationship with the neobanks or non-financial entities with which they contracted.



**Figure 53.** Influence of obtaining financial products (with non-bank entities) on your relationship with the brand **Source.** Afi and The Cocktail Analysis. In response to the question: How has obtaining these financial products/

payment systems (with entities other than banks) influenced your relationship with the brand?

**Note.** Porcentaje calculado sobre la base de los individuos que tienen contratados productos financieros o sistemas de pago con alguna entidad diferente a los bancos convencionales (neobancos, retailers, Fintech, etc.).

The main reasons for hiring financial products with nonfinancial entities in Latin America are associated with obtaining rewards and greater ease of access than that experienced with traditional banks, in addition to comfort. In

Europe it is the prices and conditions of use.

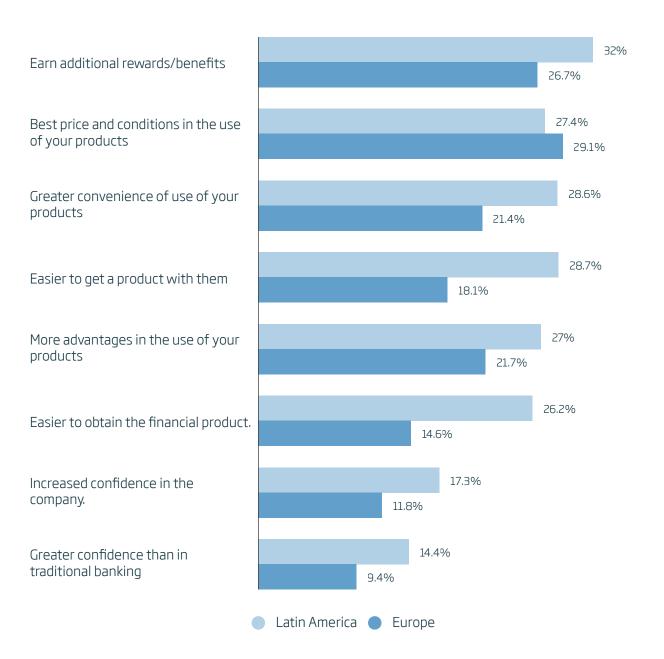
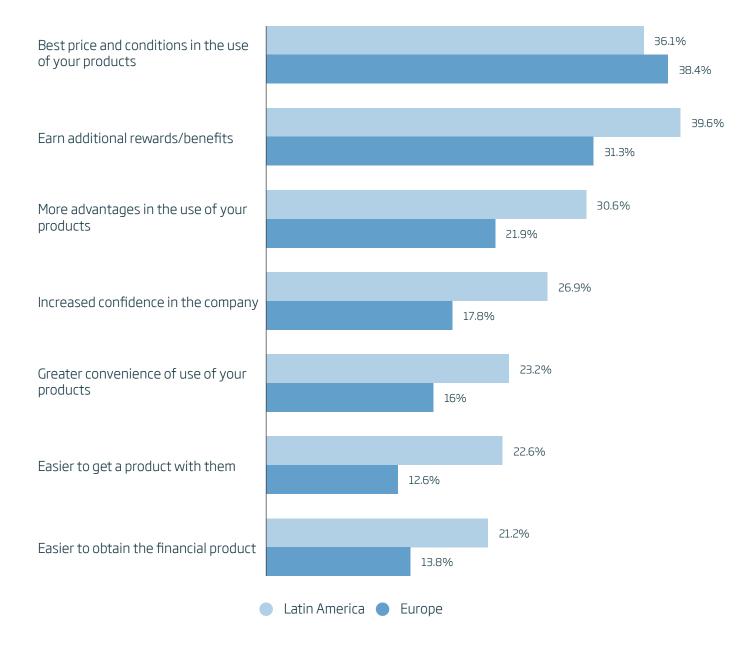


Figure 54. Reasons why you acquired a financial product with a non-financial entity

**Source.** Afi and The Cocktail Analysis. In response to the questions: What are the three main reasons that led you to acquire a financial product from a non-financial entity? And what are the three main reasons that would lead you to acquire a financial product from a non-financial entity?

**Note.** Percentage calculated on the basis of individuals who have contracted financial products or payment systems with an entity other than conventional banks (neobanks, retailers, Fintech, etc.)./Right Chart: The base is the rest of the individuals not included in the left chart.



**Figure 55.** Reasons that would lead you to acquire a financial product with a non-financial entity

**Source.** Afi and The Cocktail Analysis. In response to the questions: What are the three main reasons that led you to acquire a financial product from a non-financial entity? And what are the three main reasons that would lead you to acquire a financial product from a non-financial entity?

**Note.** Percentage calculated on the basis of individuals who have contracted financial products or payment systems with an entity other than conventional banks (neobanks, retailers, Fintech, etc.)./Right Chart: The base is the rest of the individuals not included in the left chart.

## Superapps

Technology companies and non-financial agents seek to merge the payment experience with that of their business with sophisticated value propositions in which payment is conceived as a critical aspect of the relationship with the user. Many of these agents move towards superapp models so that the user can access a closed ecosystem of different everyday applications through a more fluid, integrated, contextualized and efficient experience. They compete to become one-stop shops for access to a wide range of services and designed to entrench their own app in people's daily lives.

Some technology companies enjoy a privileged position to establish and colonize the home screens, in addition to having a varied offer of services with wide and diverse functions through apps.

In the specific financial field, two approaches are identified to reach the aspiration of being a superapp. Neobanks (such as Revolut) that seek to create a superapp that offers the user any financial and payment service without having to leave the app; and other neobanks (such as Tinkoff) that move towards a "Daily life superapp" model more similar to the Chinese model in which the ecosystem offers a full range of financial and lifestyle services at the core of which Tinkoff Bank is located. Other payment companies that evolve in this line are PayPal or Klarna, the Colombian Rappi and the Argentine Mercado Libre.

The superapp aims to be a single point of access for consumers in a scenario in which "the winner takes all", whose success depends

on the chosen market: potentially greater where individual or single product solutions are scarce, unlike markets with a more fragmented and diverse offer where it is more difficult for there to be space for "all-in-one" proposals.

38% of industry experts believe that banks need to move towards a superapp model to protect their market share. 31% believe, however, that banks should focus on converting to BaaS providers for superapp ecosystems.



**Figure 56.** Do you think the time has come for banks to move towards a Superapp model to protect their market share and keep their customers?

**Source.** Barometer of trends in payment methods

	Argentina	Brazil	Chile	Colombia	Ecuador	Mexico	Peru	Dominican Republic	Spain	Italy	Portugal	United Kingdom
Stores and retailers	61.1%	72.3%	79.5%	72.8%	81.3%	76.6%	78%	83.1%	74.4%	61.6%	58.4%	41.7%
Finance & Payments	65.6%	72.4%	86%	81.3%	85%	75.9%	85.7%	85.1%	71.4%	58.4%	57.3%	41.8%
Social media and messaging	62.7%	69.5%	81%	75.8%	83.2%	71.5%	82.7%	83%	69.1%	54.5%	50.6%	25.7%
On-demand services (delivery, mobility)	60%	72.7%	59.5%	60.3%	74.2%	42.8%	70.6%	72.9%	53.9%	62.2%	50%	32.3%
Entertainment (audiovisual platforms, video games)	48.5%	59.7%	77.9%	67.6%	72.1%	63.5%	75.1%	70.7%	63.9%	53.5%	48.1%	30.4%
Travel and Tourism	66.7%	69.7%	68.3%	70.3%	74.5%	55.6%	74.6%	74.9%	67.1%	61.8%	63.7%	39.8%
Services (telephony, electricity, etc.)	57.1%	67.4%	68.8%	62.5%	77.3%	63.3%	76.6%	78.7%	60.7%	60.4%	56.7%	35.2%
Grade Point Average	60.2%	69.1%	74.4%	70.1%	78.2%	64.2%	77.6%	78.3%	65.8%	58.9%	55%	35.3%
○ 0% - 19% ○ 20% - 39% ○ 40% - 59% ○ 60% - 79% ○ 80 - 100%												

Figure 57. Percentage of population that would use their preferred app of for at least one other function or service

**Source.** Afi and The Cocktail Analysis. In response to the question: Would you be willing to use your favorite app of these categories for other functions or services?

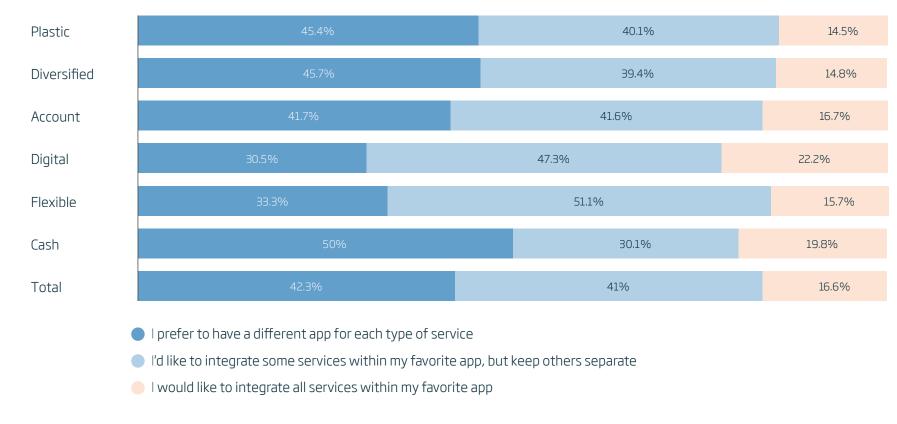
**Note.** The percentage indicates the ABI population (in each country) that would use this type of apps for at least another of the functions and services asked in H4. Refer to these features and services on the previous slide.



In almost all Latin American countries there is a predisposition to use preferential apps for other functions and services for which they are designed. In European countries the predisposition is lower, especially in the United Kingdom.

**But integrating all services into a single app sparks widespread rejection**. Most users would consider using their favorite app for two other features or services from the proposed ten categories.

The segment most predisposed to the use of a superapp would be the Digital segment, followed by Cash, although in the latter the predisposition is concentrated on using a different app for each type of service.



**Figure 58.** Willingness to use a single app for several or all services

**Source.** Afi and The Cocktail Analysis. In response to the question: To what extent would you like to have several or all of these services integrated into your favorite app?

#### Finance and payments apps would be best positioned to **extend to additional services**, followed by store and social media apps.

	Stores and retailers	Finance & Payments	Social media and me	On-demand services (delivery, mobility)	Entertainment (audi video games)	Travel and tourism	Services (telephony, electricity, etc.)	
Financing purchases in better conditions	26.5%	0%	14.3%	15.6%	13.5%	16.9%	17.2%	
To make purchases with better prices	0%	32.8%	22%	26.6%	20.7%	25.8%	22.1%	
Communicate with your acquaintances (family, friends, etc.)	12.7%	14.1%	0%	13.6%	23.4%	12.9%	18.5%	
Accessing a vehicle for city commuting	12.7%	15.8%	14.4%	0%	10.3%	23.6%	12.3%	
Request a home delivery	30%	18.2%	22.3%	0%	13.7%	12.2%	14.9%	
Access audiovisual content of your interest (video, music, video games, etc.)	20.6%	15.1%	28.3%	14.4%	0%	12.5%	15%	
Book trips, hotels, flights in better conditions	17.7%	20.9%	18.9%	0%	12.7%	0%	13.8%	
Review your accounts and financial products	15.6%	0%	14.6%	13.9%	12.3%	11.3%	20.8%	
Payment of Invoices, taxes, etc	15.1%	38.2%	13.4%	14.5%	13.4%	10.7%	0%	
None of the above	29.9%	27.6%	32.3%	41%	38.4%	34.5%	35.8%	
	0% - 19% 20% - 39% 40% - 59% 60% - 79% 80 - 100%							

Figure 59. Percentage of population that would use their preferred app of for other functions and services

**Source.** Afi and The Cocktail Analysis in response to the question: Would you be willing to use your favorite app of these categories for other functions or services? Percentage calculated on the basis of each column, which corresponds to the respondents who used such applications.



## Embedded Finance

Integrated finance is the frictionless integration of financial services into the business processes of non-financial companies, including payment processing, financing, insurance contracting and even investments. Integrated payments simplify transactions that take place within apps or other online channels.

The integration of financial and payment services by companies of all types and levels of maturity is possible because technology has evolved into models of Banking-as-a-Service, Payments-as-a-Service, Fintech-as-a-Service or License-as-a-Service, enablers of the phenomenon of Embedded Finance in general, and Embedded Payments in particular. Integrated finance is the next evolutionary step in banking outside the banking environment.

Integrated finance allows non-financial companies to take control of the entire end-to-end customer experience, as well as partner with financial institutions. They allow financial institutions to create alternative distribution channels to deliver their products and services. All this is possible thanks to the prominence of APIs, whose integration is much simpler than previous technological processes in entities with legacy technological infrastructures ill-equipped to manage payments in this new integration context, which before the incursion of fintech

involved long purchasing processes, technological reforms and regulatory compliance.

Banking as a Service (BaaS) is an outsourcing model whereby banking services are offered as a white label for use by non-financial companies, whose customers are unaware that there is a third party involved in the transaction. Despite its name, BaaS services are not necessarily provided by banks.

It contemplates new business models for financial institutions as technology providers and not only financial services, allowing third parties who want to issue payment solutions without incurring in obtaining a license, to do so. License as a Service, or third-party BIN sponsor, is a rising practice.

The relevance of this trend is enormous. According to Juniper Research, the integrated payments industry will reach \$138 billion in 2026 from \$43 billion in 2021, half of which will be BNPL services, one of the main functionalities of integrated payments today (see chapter 3). Not surprisingly, IDC anticipates that by 2030 74% of consumers' digital payments will be made through platforms owned by non-financial institutions. And this prediction does not include a trend that is already beginning to glimpse the growth of integrated payments in the B2B segment. Among others, there are already marked trends in invoice financing services and BNPL for working capital.

From the perspective of the industry, it is expected that the main agents that will compete directly with the traditionally exclusive payment service providers will be, practically on equal terms or strength, fintech and paytech, followed by ecommerce platforms and marketplaces; neobanks and/or challenger banks.

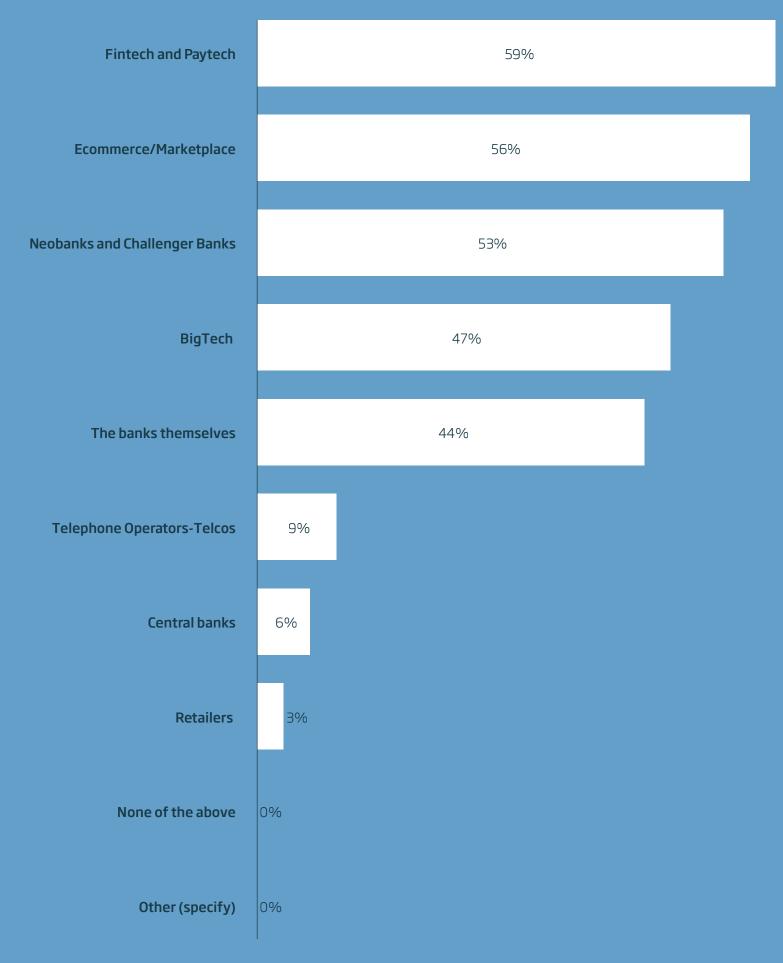


Figure 60. Who do you think will be the main players competing with banks for control of the customer relationship at the end of the decade (2030)?

Source. Barometer of trends in payment methods

The industry perceives fintechs as the agents that will achieve greater success in generating business as providers of new payment solutions for companies, public administrations and individuals, as well as the guarantors of a better UX. Banks are perceived as promoters of competition regulation and the most willing to enter into alliances with third parties.

Big tech is supposed to be successful in delivering new valueadded services around payments, while the future of ecommerce will be about cross-selling payment products and services.

As the demand for integrated financing accelerates, financial institutions will have to offer new products (own or white label) so that non-financial companies can integrate financial services for their customers. This will require, in addition to new basic technologies, cloud capabilities and flexible APIs, greater collaboration with fintech that can be owners or intermediaries of the relationship with the customer and an infrastructure that supports new business models, such as monetization of pay-per-use, among others.

	Fintech	Bancos	Retails	Ecommerce	Bigtech			
New payment solutions for SMES, large companies and public institutions	70%	47%	3%	23%	17%			
New payment solutions for individuals	67%	40%	7%	27%	27%			
New value added services	43%	47%	3%	20%	60%			
Inorganic Growth	53%	37%	23%	20%	30%			
Improving customer experience	67%	20%	13%	27%	43%			
Partnerships with other industry players to expand customer reach	53%	57%	20%	20%	23%			
Cross-selling of payment products and services	27%	47%	20%	47%	27%			
International expansion	50%	27%	13%	37%	43%			
Modernization of technological and infrastructural capacities	50%	40%	17%	27%	37%			
Splitting the payments business into a separate entity focused on payments	33%	43%	23%	23%	33%			
Promotion of digital competition regulation	40%	73%	23%	10%	13%			
0% - 19% 20% - 39% 40% - 59% 60% - 79% 80 - 100%								

**Table 11.** In the next 5 years in your market/geography, which strategies do you think will be most successful in generating business around payments from the following market players? **Source.** Barometer of trends in payment methods

## Open banking, Open Finance or Open Economy

Open Banking is increasingly popular worldwide, more economies adopt it regulatory, understood as the right of consumers to share their financial data with third parties of their choice so that they can offer value-added services.

The relevance of Open Banking has gone by cycles, accelerating and slowing down according to the hype of the moment, but undoubtedly latent. Its impact in the short term has been overestimated, and is possibly underestimated in the long term, as it is an evolution that requires time to crystallize the deployment of banking experiences outside the traditional ecosystem.



From a consumer perspective, it is found that the multi-tenancy of bank accounts is higher among the Latin American population than in the European one.

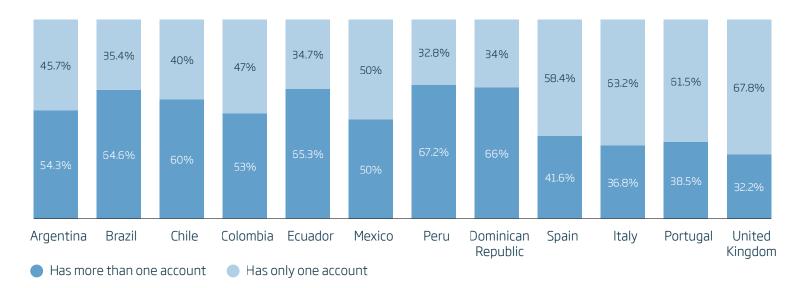


Figure 61. Percentage of population with more than one bank account

**Source.** Afi and The Cocktail Analysis. In response to the question: Do you currently have several bank accounts with different financial institutions?

The decline in multibanking observed in 2021 in the United Kingdom continues and is intensely extended in Europe. A phenomenon more European than Latin American, where the general trend draws an upward curve.

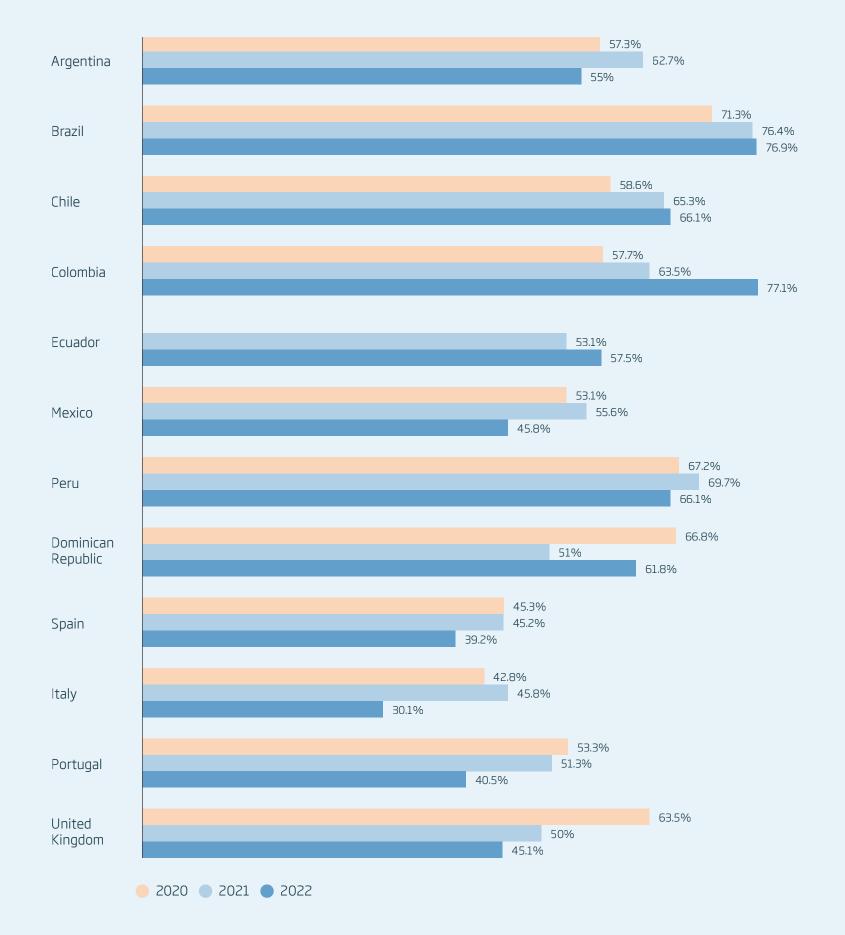


Figure 62. Percentage of people with contracted services in two or more banks/ neobanks

**Source.** Afi and The Cocktail Analysis. Answers to the question: "How many banks or other providers do you operwith one service with a bank and another with a neo bank counts as multibanked.

**Note.** Percentage of ABI population with more than one service contracted with banks or neo banks. An individual with one service with a bank and another with a neo bank counts as multibanked.

### The use of financial aggregation tools is present especially among multi-account people in Latin American countries. In

Europe there is a lower propensity to use this type of tools, especially in the United Kingdom.

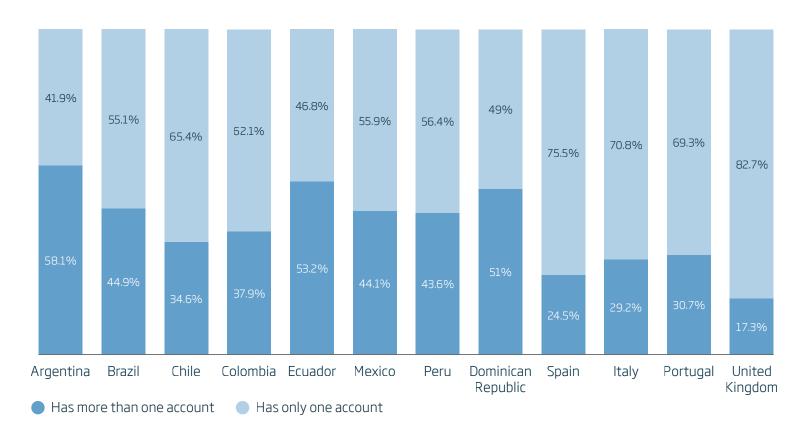


Figure 63. Percentage of population using financial aggregation tools

**Source.** Afi and The Cocktail Analysis. In response to the question: And, do you use financial aggregation tools that allow us to group the banking products we have contracted in different banks and visualize them more effectively through mobile and from the same place (application or web)?

The benefit that would act as the main driver to share bank account information with other entities is to eliminate commissions and management expenses, followed by obtaining better financing of purchases.

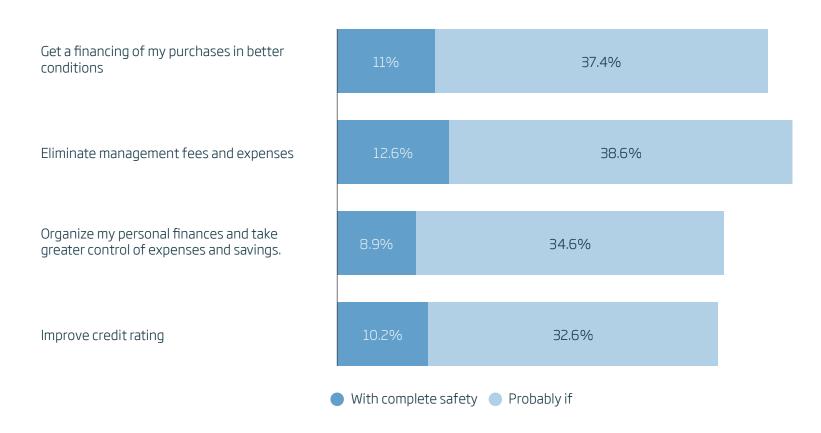


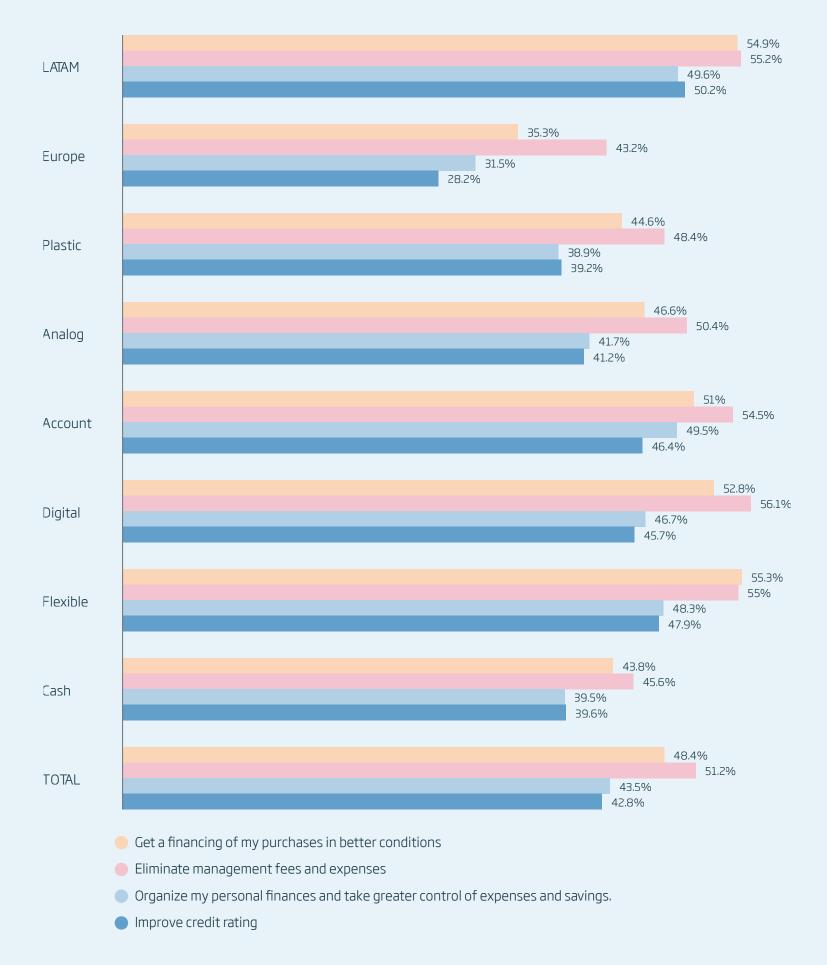
Figure 64. Percentage of population willing to share bank statements in exchange for the following benefits

**Source.** Afi and The Cocktail Analysis. In response to the question: What kind of benefits or advantages would motivate you to share your bank statement with entities or companies other than your bank with which you currently have a relationship?relación actualmente?

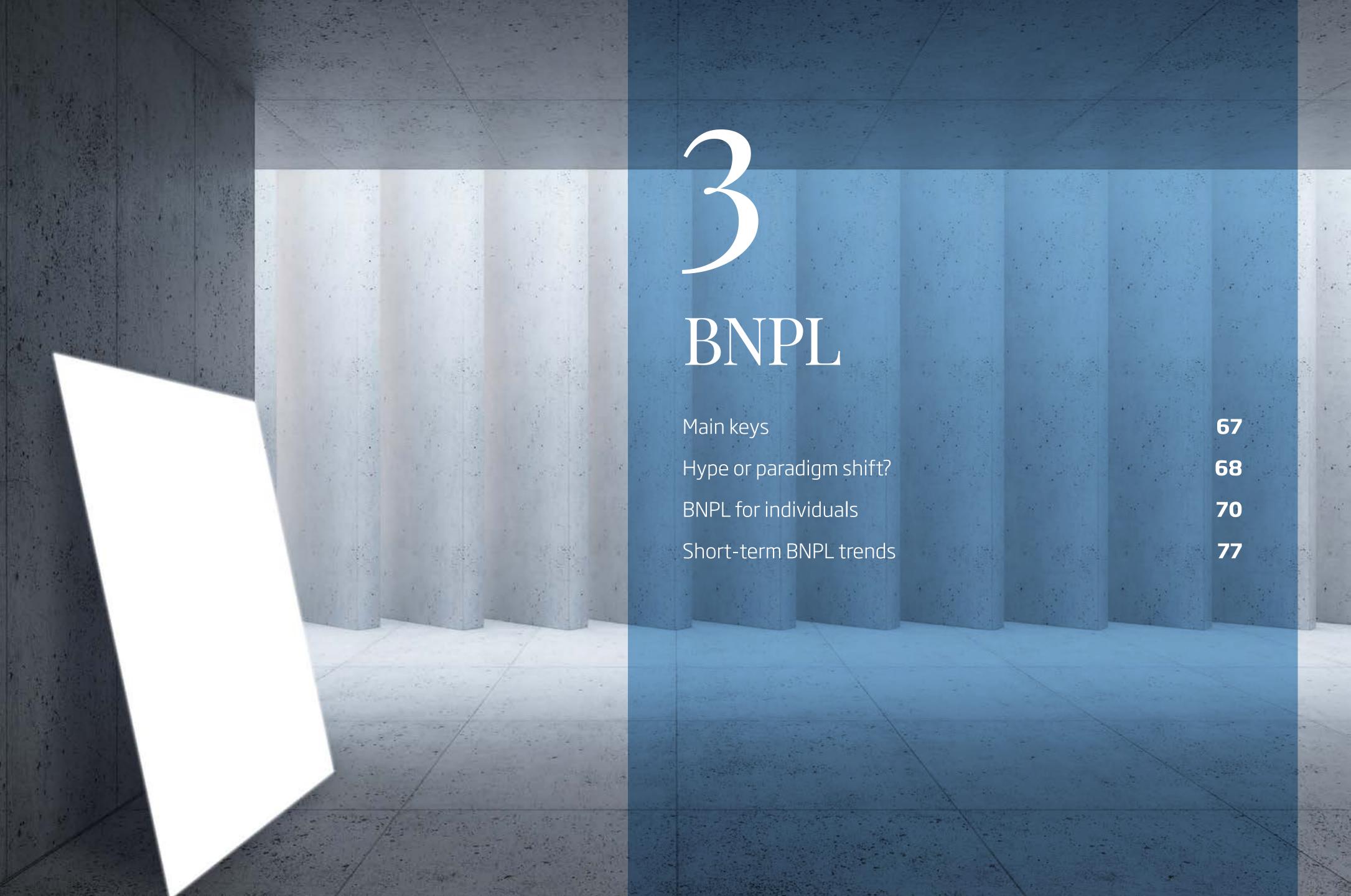
In Latin America, all the benefits shown are important levers that would motivate sharing bank data with other entities. In Europe, the main one is the elimination of commissions and management expenses. In Latin America, the improvement of the credit rating and better financing are also important.

From an industry perspective, there is a majority view that Open Banking will be a standard by 2030, because there will be both a regulatory framework and appetite in the market.

The most veteran regulatory framework, PSD2, is scheduled for review and eventual transformation into PSD3 because its implementation has not been easy. The imprecision of some extremes has made it difficult to interpret rights and obligations in a space called to open up to competition.



**Figure 65.** Percentage of population willing to share bank statements in exchange for the following benefits **Source.** Afi and The Cocktail Analysis. In response to the question: How has obtaining these financial products/ payment systems (with entities other than banks) influenced your relationship with the brand?



## Main keys

### Online shopping is an established practice for a large majority of the population.

With the exception of Portugal and Ecuador, the population that buys in e-commerce increases and exceeds 80%, with Argentina, Mexico, Spain and Italy above 90%.

#### Whoever tries BNPL... repeats

Postponement using integrated services in online commerce is preferred by the entire population. It is maximized among those who have already agreed to the postponement.

The acceptance of BNPL at the point of sale is increasing, with the rise of e-commerce as the main growth vector.

BNPL already exceeds 2% of e-commerce transactions globally, with a forecast to reach 4% by 2024. In Europe it exceeds 7% daily.

48% of experts believe that BNPL solutions will be susceptible to greater regulation in the near future.

Motivated by an eventual risk of overindebtedness that is already beginning to be observed. Two thirds of people in the UK who have deferred payment on occasion have done so through the deferred payment service offered directly by the establishment.

The BNPL phenomenon acquires the greatest relevance in a country more inclined to prefer payment by credit card. Spain follows.

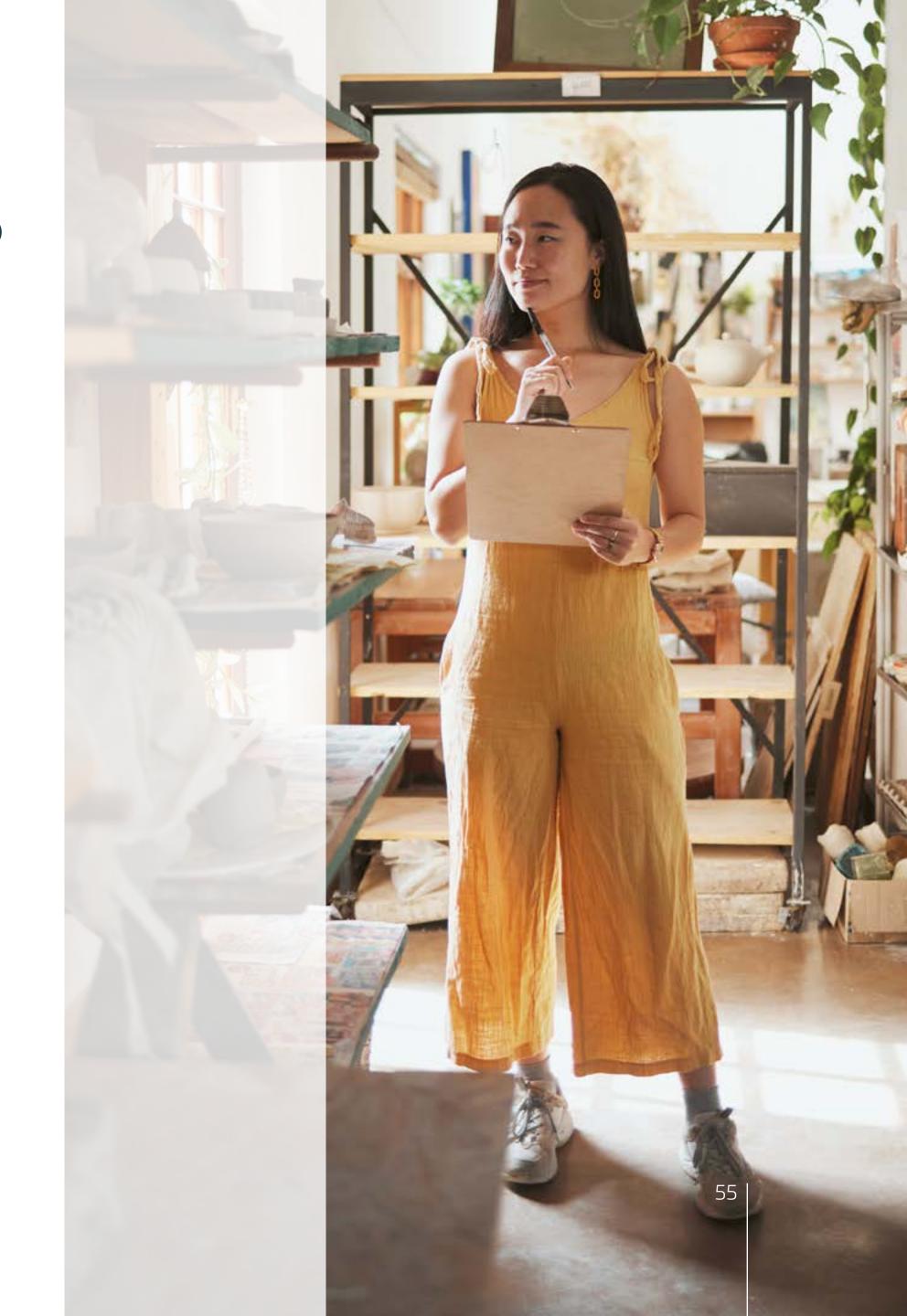
Competition around BNPL's services intensifies. More and more large technological, e-commerce and fintech platforms are incorporating them into their value proposition.

## Hype or paradigm shift?

**Buy Now, Pay Later (BNPL)** is a payment and financing option at the point of sale that usually offers an interest-free payment period, which only applies if customers do not comply with the agreed payment plan.

In the method of installment payment, the first payment is made in advance and the rest in fixed intervals (weekly, biweekly or monthly). In the "Pay Later" mode, the payment of the total purchase price is delayed for a certain period (normally 14 or 30 days). Generally, the point of sale receives the full payment in advance less a commission charged by the BNPL provider in return for the enablement of the service and, where appropriate, the management of customer refunds.

Merchants value the benefits of offering alternative payment options to their customers as consumers' shopping habits evolve, and find that BNPL services allow consumers to spread the cost of their purchases over time without requiring strict credit checks or altering their credit rating, leading to an increase in the conversion rate and average ticket.



BNPL is an evolution to a responsible financing model by way of payment splitting, especially in environments where credit buying has historically generated some aversion.

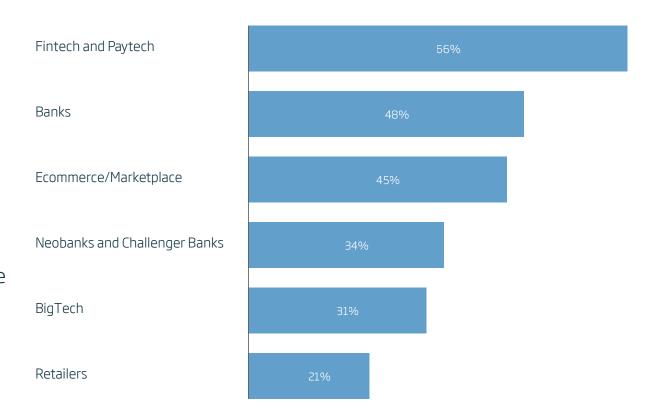
BNPL's services are not recognized as a great innovation in its aspect of consumer financing in installments, despite the fact that it promotes the financial inclusion of people with limited access to credit, especially in online stores, and because in more advanced markets it can be conceived as an alternative to overdraft or the use of revolving.

Innovation is materialized by being a perfectly integrated service adapted to the experience demanded by an increasingly digital consumer, without delays or formalities. The main strength of BNPL is the simplicity and convenience of use, which have placed it as an exponent of a new trend framed in contextual financing (embedded lending).

Its purpose is not necessarily to replace credit cards, but to attract new customers who do not have them for their risk profile, because they lack a formal credit history. Shortages that today are filled with alternative data sources that allow identifying the ability and willingness to pay of buyers without the possibility of recourse to financing, which have remained invisible to traditional credit scoring and who usually pay by debit.

While banks, which maintain their alliances with credit cards, have not yet seen the potential of this financial service, fintech of all sizes have occupied the space and enabled new solutions to the consumer, increasing their ability to choose.

In fact, 66% of industry players believe that fintech and paytech are the best positioned players to capture the market opportunity that BNPL represents. Almost half consider that it is banks (48%) or ecommerce/marketplaces (45%), while the opinion that it is bigtech and retailers that hold that best position is minority (31% and 21%, respectively).



**Figure 66.** The credit business has traditionally fallen to financial and credit institutions until the arrival of the new BNPL service providers. Which players are best positioned to grab this market opportunity?

**Source.** Barometer of trends in payment methods

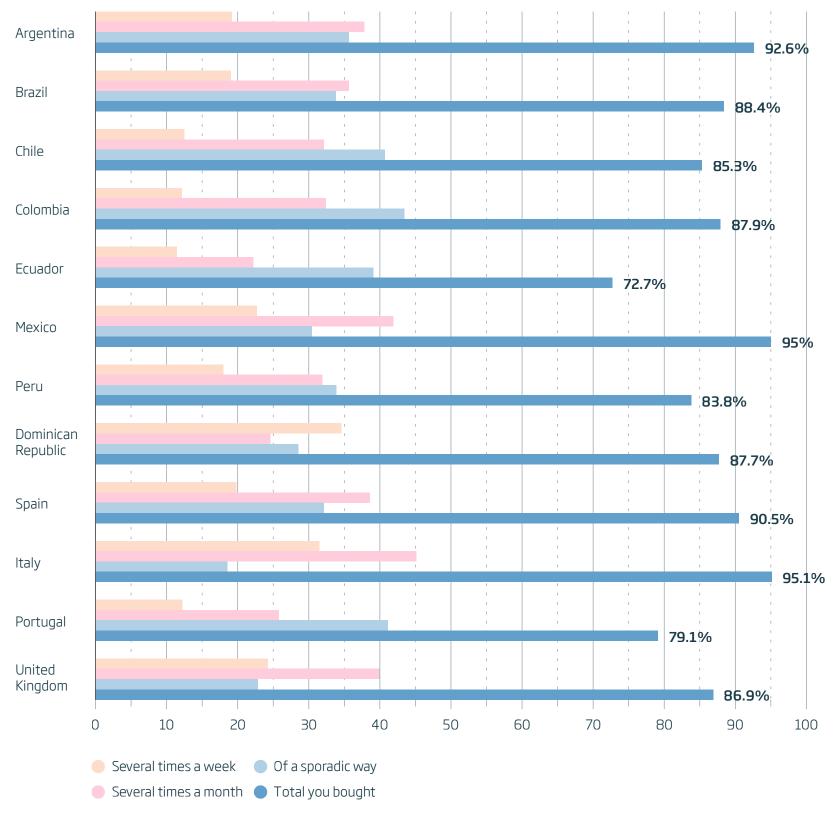
## BNPL for individuals

Juniper Research estimates that the global number of BNPL users will exceed 900 million in 2027 from 360 million in 2022, and that e-commerce BNPL transactions will total 700 billion in 2026, up from nearly 100 billion e-commerce transactions using BNPL in 2020.

It is noted that the acceptance of BNPL at the point of sale is increasing, with the increase in e-commerce as the main growth vector. Rita Camporeale of the ABI notes that BNPL already exceeds 2% of e-commerce transactions worldwide (and will reach 4% in 2024), and that in Europe it exceeds 7%.

Online shopping is an established practice for a large majority of the population. With the exception of Portugal and Ecuador, the population that buys in e-commerce increases and exceeds 80%. Above 90% are Argentina, Mexico, Spain and Italy.

The Dominican Republic shows a higher frequency of online purchases, followed by Italy. In contrast, the lowest online shopping frequencies are recorded in Ecuador, Colombia, Portugal and Chile.



**Figure 67.** Percentage of population that buys from ecommerce **Source.** Afi and The Cocktail Analysis. In response to the question: Do you use any of the following applications or services? Apps or e-commerce websites.

**BNPL** 

Deferring payment when buying in an ecommerce is a less recurrent practice in European countries, although Spain registers a higher percentage. It is, however, an especially relevant practice in Ecuador and Mexico, where more than half of online shoppers practice it.

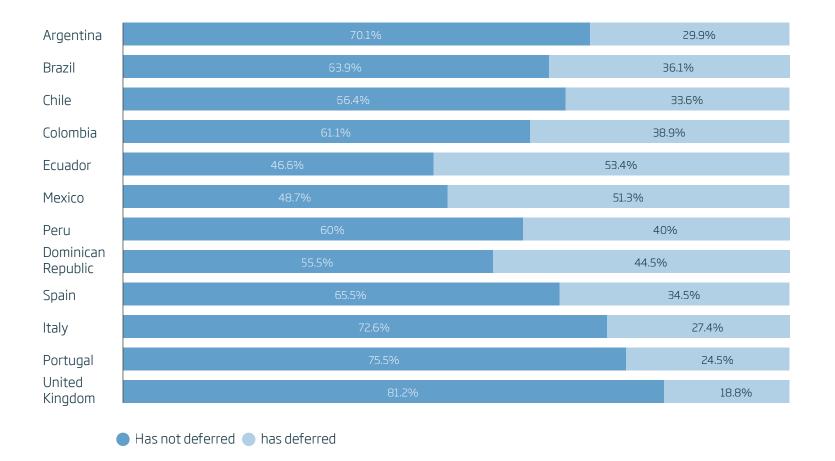
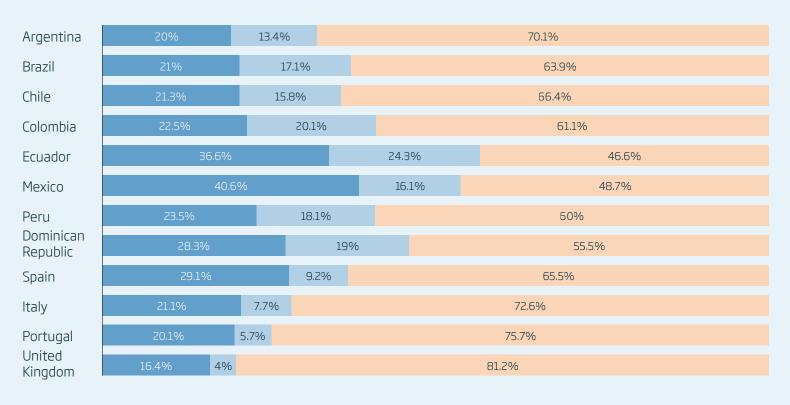


Figure 68. Percentage of population that has deferred payment when shopping in an ecommerce **Source.** Afi and The Cocktail Analysis. In response to the question: Have you ever postponed the payment of any purchase made in an e-commerce?

Interest-free deferment prevails in all countries when buying in an ecommerce, although its modality with interest is especially relevant in Ecuador, Colombia and the Dominican Republic.



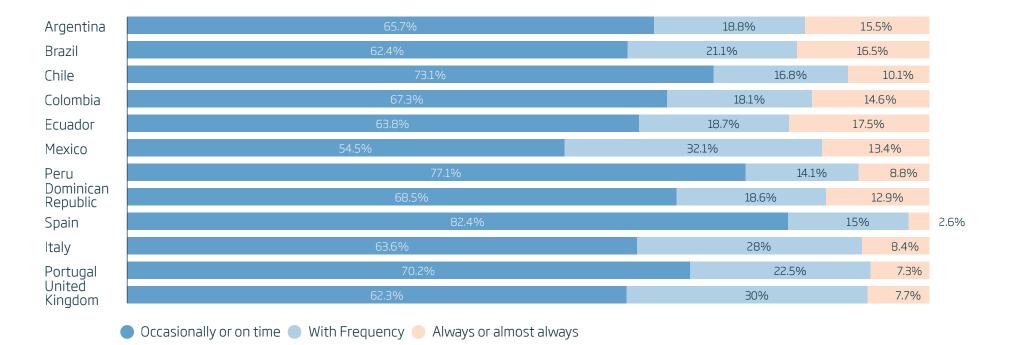
Yes, I have deferred payment WITHOUT interest
Yes, I have deferred interest payments No, I have not postponed any online purchases

**Figure 69.** Percentage of ecommerce shoppers who have deferred payment with interest **Source.** Afi and The Cocktail Analysis. In response to the question: Have you ever postponed the payment of any purchase made in an e-commerce?

#### The deferral or splitting of the payment is an occasional resource that is usually used in a timely manner. It highlights

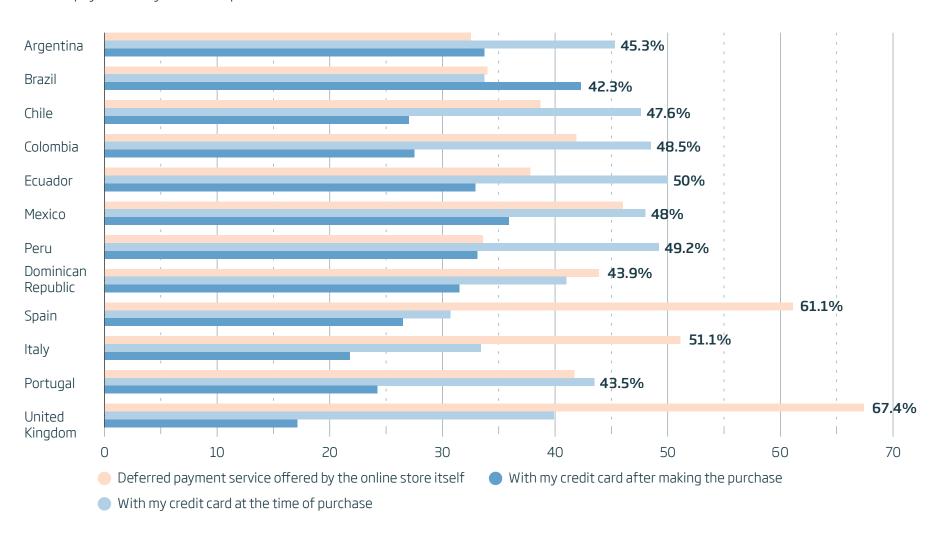
the case of Mexico where the fractional payment is used more frequently. Another extreme behavior, but to the contrary, constitutes Spain, with the least declared frequency of use of the fractionation or deferment of payment.

Among people who resort to deferral or fractionation of payment in e-commerce, the integrated payment method in commerce is the most used in European countries, while in Latin America deferment by card is common. In the United Kingdom, two thirds of people who have deferred payment on occasion have done so through the deferred payment service offered directly by the establishment, a phenomenon that becomes more relevant in a country more inclined to prefer payment by credit card. Spain follows.



**Figure 70.** Frequency of deferred payment in ecommerce

**Source.** Afi and The Cocktail Analysis. In response to the question: Approximately how many times do you usually defer payment on your online purchases?



**Figure 71.** Methods used to defer payment in ecommerce

**Source.** Afi and The Cocktail Analysis. In response to the question: What methods have you used to defer payment?

The aversion to credit and debt marks the type of deferral that is most often requested when a purchase is split or deferred in an ecommerce. Fractionation in the medium term and paying interest is the least common of the possible models of postponement in e-commerce, although in Chile, Peru and Mexico it has a greater roots. Interest-bearing instalments are less frequent in Europe, where interest-free short-term instalments are chosen with the only exception of Portugal, where half of the population

that has deferred a payment in an ecommerce store has opted to

pay in the same month.

#### 60.6% Argentina Brazil 48.4% Chile 51.8% Colombia 50.8% Ecuador 58.8% 67.9% Mexico 60% Peru Dominican 47.6% Republic Spain 74.6% Italy 75.4% 52.9% Portugal United Kingdom 80 by end of monthShort termMedium or long

**Figure 72.** Type of term used in payment splittings

**Source.** Afi and The Cocktail Analysis. In response to the question: What kind of postponement have you used? Percentage calculated on the basis of individuals who have purchased on ecommerce and have deferred on at least one occasion.

#### The possibility of postponing the payment through the ecommerce itself is the option that awakens least rejection,

while the use of the credit card after the purchase is the one that generates the most.

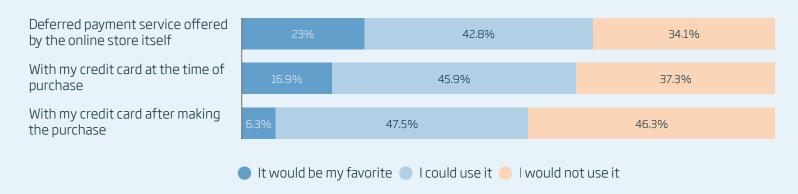


Figure 73. Degree of acceptance of the different methods to postpone payment in ecommerce

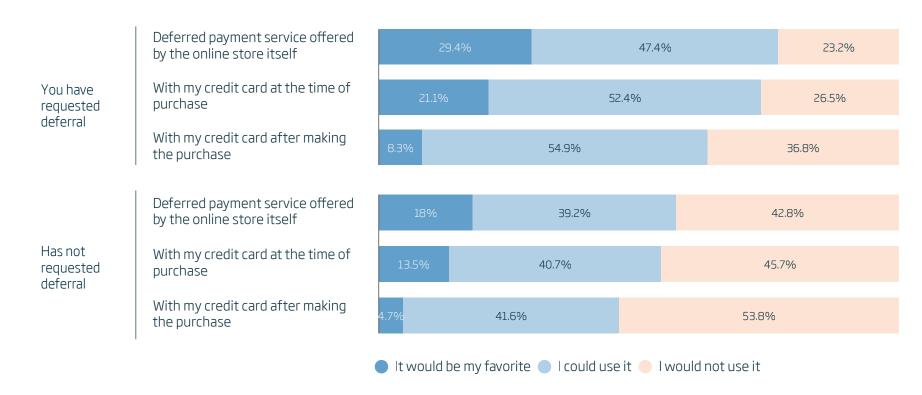
**Source.** Afi and The Cocktail Analysis. In response to the question: In case you were interested in postponing the payment of a purchase, which system would be your favorite and which would you consider using.

### Postponement using integrated services in online commerce is preferred by the entire population, and is maximized among those who have already accessed the postponement.

Postponing the payment of purchases by credit card is not only the option of least acceptance, but the one that generates the greatest rejection. On the contrary, the postponement thanks to the services provided by the ecommerce itself records the highest acceptance rates, whether you have already experienced the postponement of payments in purchases or not.

The main reasons for using BNPL differ depending on the reference region. While in Europe the main reasons are the cost of financing (without interest or with low interest) and the ease and speed of use, in Latin America the BNPL offers, above all, an alternative of postponing the payment of purchases to a population that could not postpone otherwise, together with the ease and speed of its execution.

The benefits that would motivate a greater adoption of BNPL lie above all in increasing the attributes of ease, speed and flexibility in the deferment of payments; that is, the user experience.



**Source.** Afi and The Cocktail Analysis. In response to the question: In case you were interested in postponing the payment of a purchase, which system would be your favorite and which would you consider using.

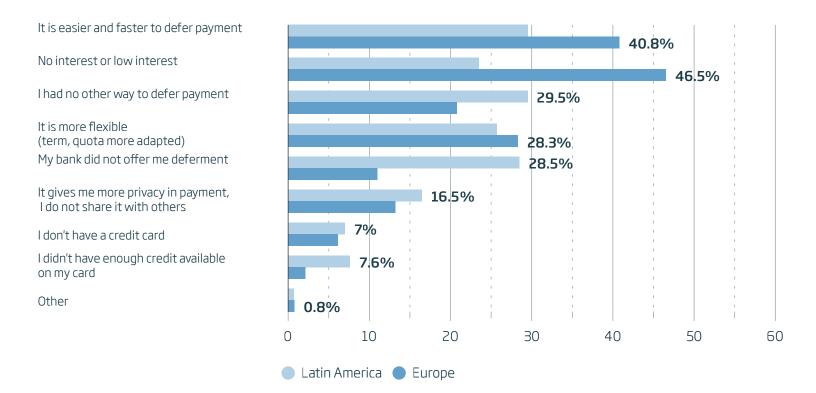


Figure 75. Reasons why I would use BNPL

**Source.** Afi and The Cocktail Analysis. In response to questions: When you have deferred payment through the service of the store itself, why you preferred to defer payment through the service offered by the page and not by other means and why you would consider deferring payment through the service offered by the page.

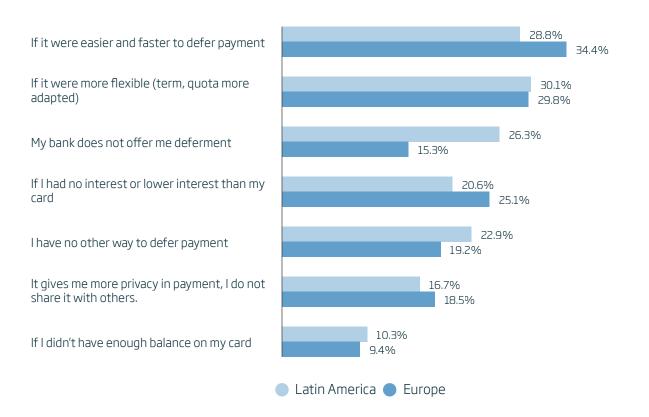


Figure 76. Reasons why I would use BNPL

**Source.** Afi and The Cocktail Analysis. In response to questions: When you have deferred payment through the service of the store itself, why you preferred to defer payment through the service offered by the page and not by other means and why you would consider deferring payment through the service offered by the page.

The economic and social level of the population affects both the need for postponement and the modality and reason why it opts for such postponement. Among the population of lower economic level there is a lower tendency to postpone purchases in e-commerce, but when it occurs, it is more likely that they opt for the system provided by the trade itself, due to the greater difficulties faced to access more traditional sources such as the credit card.

In fact, for people of lower socioeconomic status, the main reason for using BNPL is precisely not having another way to postpone payment. For people of high socioeconomic status, ease and speed of use, together with the absence or reduced size of the interests associated with the postponement, are the main motivations referred to.

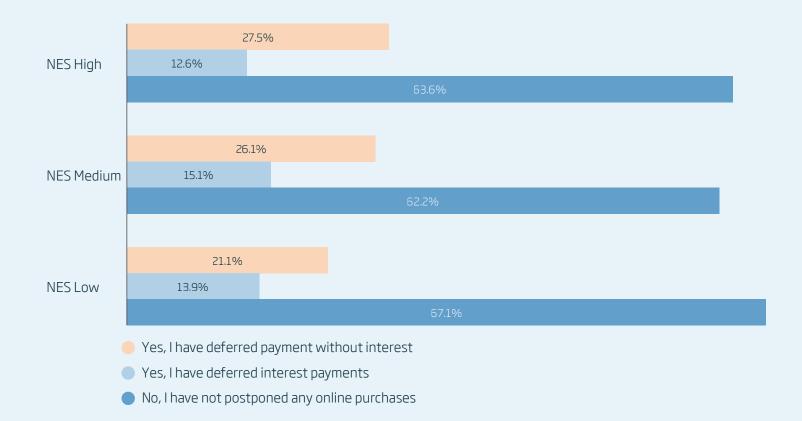


Figure 77. Percentage of population that has deferred payment

**Source.** Afi y The Cocktail Analysis

Note. NES es nivel socioeconómico.



Figure 78. Postponement mode

**Source.** Afi y The Cocktail Analysis.

The situation of the BNPL or payment with contextual financing offered by the ecommerce itself is somewhat paradoxical and, at present, is more developed where less recourse is made to the fractionation of payment, that is, among the European population. There are therefore two types of behavior patterns: the European one, with less tendency to split the payment and that opts for splitting without interest; and the Latin American one, which opts more for deferment and that, although it also prefers without interest, opts more for splitting with interest.

It could therefore seem that contextualized financing has a greater predicament in the Latin American market, something congruent with the other behaviors revealed, of more agile adoption of new digital solutions related to financial and payment services.

Although it is in the European market, less predisposed to the splitting of the payment, where greater acceptance has found, for the moment, the BNPL.

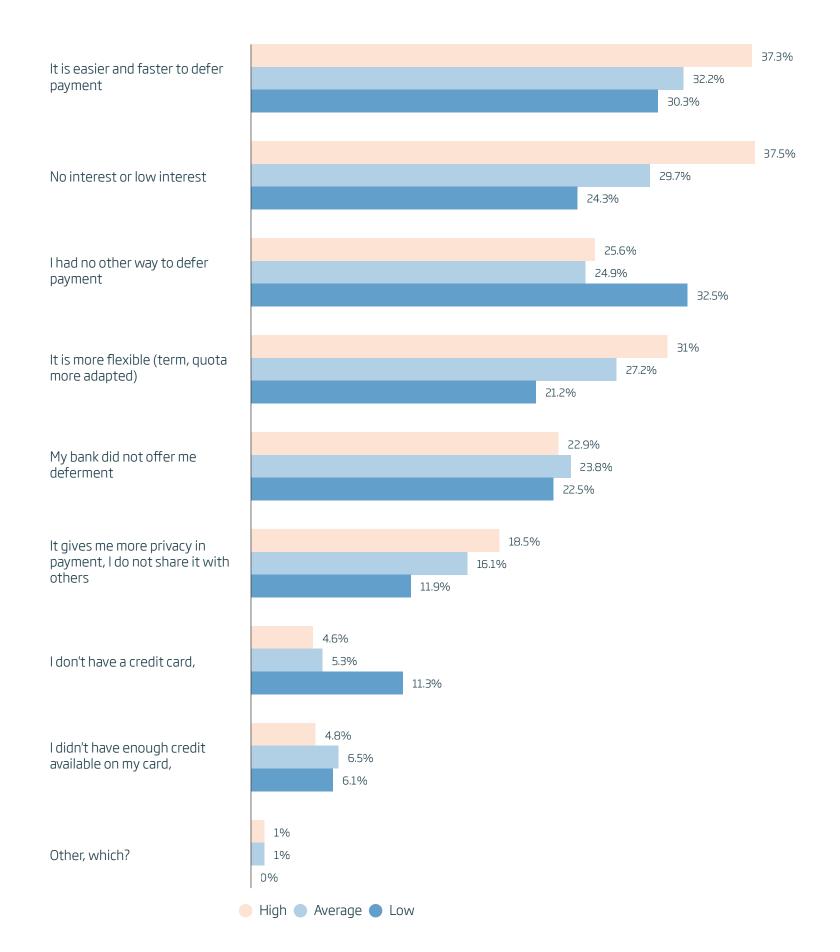


Figure 79. Reasons why you used BNPL

**Source.** Afi and The Cocktail Analysis. In response to the question: When you have postponed the payment through the service of the store itself, for what reasons did you prefer to postpone the payment through the service offered by the page and not by other means.

Note. High, medium or low in reference to the socioeconomic level of the respondent.

# Short-term BNPL trends

Competition around BNPL services intensifies. More and more large technological, e-commerce and fintech platforms are incorporating them into their value proposition. Proposal that extends in an incipient way to companies, especially in the B2B segment, as well as in business niches such as travel, insurance and health services.

Swedish fintech Klarna has achieved undisputed global leadership. It is followed by the American Affirm and the Australian Afterpay (Clearpay in Europe). In the US market, leadership is held by PayPal Credit. These big players are joined by Apple with its announcement of Apple Pay Later.

Zip, Sezzle and Italy's Scalapay are later entrants gaining market share at high speed in the countries where they operate.



In Latin America, the fintechs Addi (Brazil) and Atrato (Mexico) are pioneers of a digitized model of payment in installments that, in its traditional format, was already deeply rooted in the region. In Mexico, next to Atrato are Kueski Pay, Nelo, Circulo de Crédito, Graviti, Aplazo (which launched with Mastercard the first BNPL virtual card in the region), Wenance and Zip.

In Argentina, Wibond, which began as a digital wallet, offers fees with and without interest, depending on the credit risk analysis carried out by the system and the agreement they have with the commercial establishment. Mercado Pago launched Mercado Crédito for customers who do not have a credit card. In Chile, Cleo, Venti Pay and Zinia (from Santander) lead; in Colombia Addi and PoiPago; and in Peru, Keo.

In Brazil, PayHop, Sezzle, Cleo, Addi, DiniePay, RechargePay, and Nubank are the leaders in BNPL, but it is the Pix instant payments service, managed by the Central Bank, that has been the most significant disruption with the incorporation of a very similar functionality to BNPL: **Guaranteed Pix**, also known as **Pix Credit** and operational since 2022.

In Spain, Banc Sabadell was a pioneer with Instant Credit; Santander launches Zinia, Caixabank inaugurated Finonline and iZZinow and BBVA launches a new BNPL card within its Aqua range.

In addition, through the System of Cards and Means of Payment (STMP)¹, a set of banks² launch TermX. Other solutions that operate in Spain are Aplázame (fintech created in 2014 and acquired in 2018 by the WiZink Bank group), Sequra, Clearpay (which acquired the Pagantis platform), Oney, Cofidis (with two services, 4xcard and Cofidis Pay), Viabill, e·Credit Now from Cetelem, Payin7, and FLOA Pay. In Portugal Parcela Jà, and in Italy Scalapay is the Italian unicorn of the BNPL. In the UK, in addition to multinationals, Payl8r, LayBuy, and Curve Flex are relevant.

<sup>&</sup>lt;sup>1</sup> Sistema de Cards y Medios de Pago S.A. is the unified Spanish payment system, born from the merger of the three previously existing card schemes: ServiRed, Sistema 4B and EURO 6000.

<sup>&</sup>lt;sup>2</sup> To date: BBVA, Santander, Unicaja Banco, Caja Rural, Kutxabank, Bankinter, Grupo Cooperativo Cajamar, Ibercaja, Cajasur and Eurocaja Rural.

The proliferation of BNPL services is raising the demand for consumer protection controls in the event of over-indebtedness. The authorities consider that the risks posed by BNPL are similar to those of consumer credit and are therefore willing to extend the scope of the regulation.

The regulation will motivate banks to join through partnerships, acquisitions or with their own solutions. With a multi-million dollar customer base, banks have little to lose and much to gain as their status as a leading financial institution allows them to present their clients with BNPL options at the most appropriate time.

Banks can also leverage their relationship with points of sale to build together value propositions for all parties. And count as more and better information for their future proposals expanding their ability to compete with BNPL service providers such as Klarna, PayPal or Affirm, which evolve towards super-app models to become the default preferential access from which to offer consumers an integrated and personalized shopping experience, financial services and payments.

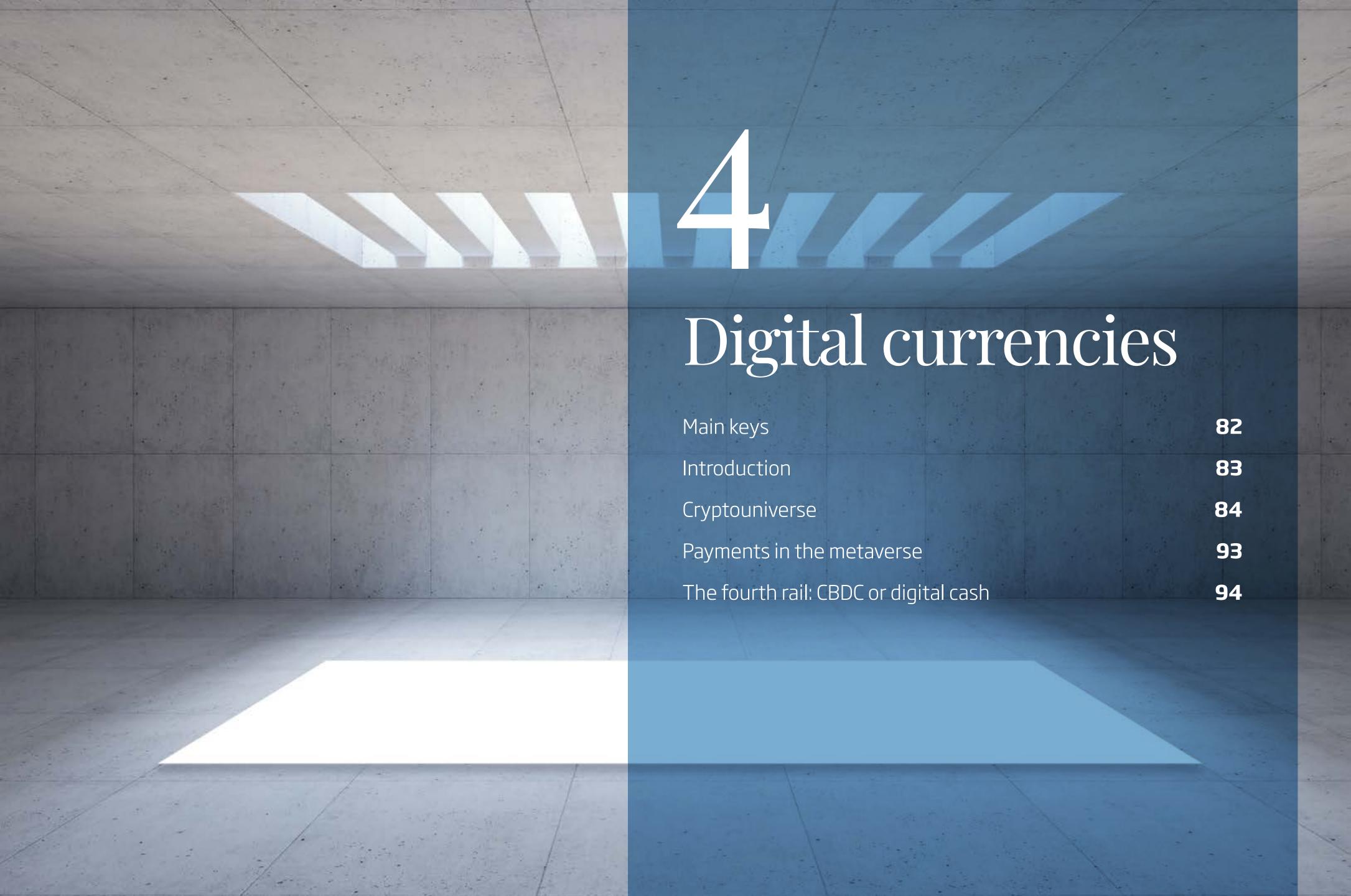
48% of experts believe that BNPL solutions will be susceptible to greater regulation in the near future precisely motivated by an eventual risk of overindebtedness that is already beginning to be observed.

The authorities consider that the risks posed by BNPL are similar to those of consumer credit and are therefore willing to extend the scope of the regulation. The regulation will motivate banks to join through partnerships, acquisitions or with their own solutions. With a multi-million dollar customer base, banks have little to lose and much to gain as their status as a leading financial institution allows them to present their clients with BNPL options at the most appropriate time.

Banks can also leverage their relationship with points of sale to build together value propositions for all parties. And count as more and better information for their future proposals expanding their ability to compete with BNPL service providers such as Klarna, PayPal or Affirm, which evolve towards super-app models to become the default preferential access from which to offer consumers an integrated and personalized shopping experience, financial services and payments.

What about SMEs? There is no doubt about the emerging boom in BNPL services for companies, specially to cover the B2B or business-to-business purchasing segment, with the emergence of suppliers seeking to extend the model that was born to meet the needs of individuals, to SMEs, which often do not have easy access to financing. In addition, more and more are venturing into other industries (travel, insurance, healthcare, etc.) to leverage their growth due to the difficulty of differentiating themselves.





## Main keys

#### Consumers don't see cryptocurrencies as a payment method... for now.

Experts agree that payments with cryptocurrencies are still small and niche (38%) and there is no acceptance network at the local level (35%).

### Cryptocurrencies face the challenge of everyday payments.

Incipient increase in the degree of adoption of cards linked to cryptocurrencies and crypto rewards. One in three young crypto buyers already has one.

### CBDC: construction of the fourth payment rail for... 2030

45% of experts believe that CBDCs will see the light before the end of the decade, although 21% reject the idea that they are adopted by the population as a means of daily payment.

#### Financial institutions will be key to achieving greater acceptance of cryptocurrencies among the public.

72% of Latin Americans and 87% of Europeans consider banks their main financial institution of reference.

### The acceptance of payments with cryptocurrencies, still incipient.

The spectacular adoption of contactless payments has had a necessary ally: tokenization.

#### Payments in the Metaverse.

One third of the population would be willing to purchase products and services within this new dimension.



Digital currencies are in the process of maturing, with enormous potential once the numerous questions surrounding them have been resolved. Innovation has accelerated with the rise of non-expendable tokens (NFTs), the metaverse, and decentralized finance (DeFi); stablecoins; and the advancement of central banks in issuing their own digital currencies.

Are we at a turning point, at the dawn of something new? The fourth payment rail under construction will have to converge and interoperate with the current payment rails.

### Cryptouniverse

**Crypto-assets**, not gathering enough attributes to be considered currency or currency, have reached relevance since in 2009 bitcoin burst as a proposal for decentralization of payment systems globally, as a digital modality of private money.

The volatility experienced in the last year and the consequent loss of value of crypto-assets have not contributed to solving the questions for consideration as a universal means of payment. Its consideration as an investment asset is the one that undoubtedly prevails.

720/o of the agents in the industry consider that they are mainly used as an investment asset

of industry agents consider them to be irrelevant today

of industry agents consider that they are increasingly used as means of payment

<sup>&</sup>lt;sup>1</sup> El Salvador (2021) and the Central African Republic (2022) are two exceptional cases because there are no precedents of countries with two legal tender currencies, let alone one of them being a crypto-asset.

# Consumers see cryptocurrencies as an asset, not a means of payment... for now

The phenomenon of cryptocurrencies is a minority, but with signs of growth in the short term; 14% have already bought some type of crypto-asset, 7% have made the decision to do so and 39% are considering them.

**The upward trend is now more visible in Latin America than in Europe**, where the declared purchase and purchase intention is greater, possibly related to the also greater confidence aroused by digital currencies as a refuge asset to protect themselves from processes of intense devaluation of the fiat currency.

#### general knowledge

of the banked in Latin America and Europe know of the existence of cryptocurrencies

### Purchase and Intent to Purchase Cryptocurrencies

#### Latin America

16% of the banked has bought cryptocurrencies

8% the bankers have decided

46% of the bankers admits that they are considering it

#### Europe

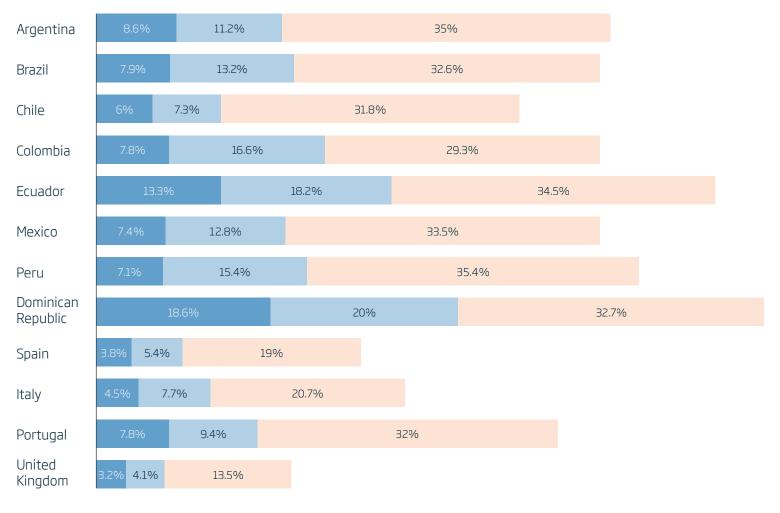
10% of the banked has bought cryptocurrencies

4% the bankers have decided.

24% of the bankers admits that they are considering it

In some Latin American countries such as the Dominican Republic and Ecuador, three out of ten bankers have bought some type of cryptocurrency. In Europe the proportion falls to one in ten.

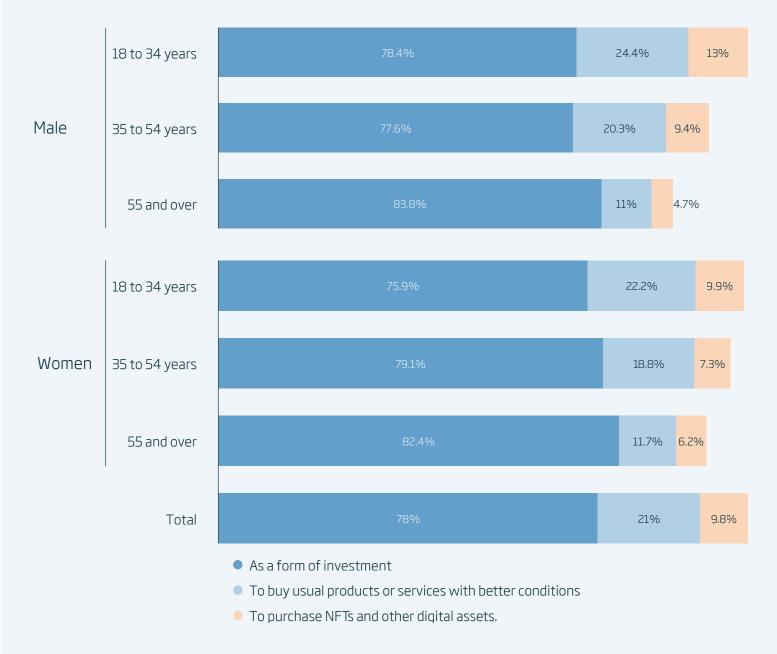
Although the fundamental reason for purchase is investment (72%), those associated with a more utilitarian and everyday component (21%) or the purchase of NFTs (9.8%) are incipient, especially among younger men.



- I have decided to buy/invest in cryptocurrencies
- I am seriously considering buying/investing in cryptocurrencies
- You may consider buying/investing in cryptocurrencies

**Figure 80.** Percentage of Banked Population Considering Buying or Investing in Cryptocurrencies in the Near Future

**Source.** Afi and The Cocktail Analysis. In response to the question: Do you consider buying or investing in cryptocurrencies in the near future?



**Figure 81.** Percentage of Banked Population Considering Buying or Investing in Cryptocurrencies in the Near Future

**Source.** Afi ySource: Afi and The Cocktail Analysis. In response to the question: Why do you consider buying/bought cryptocurrencies?

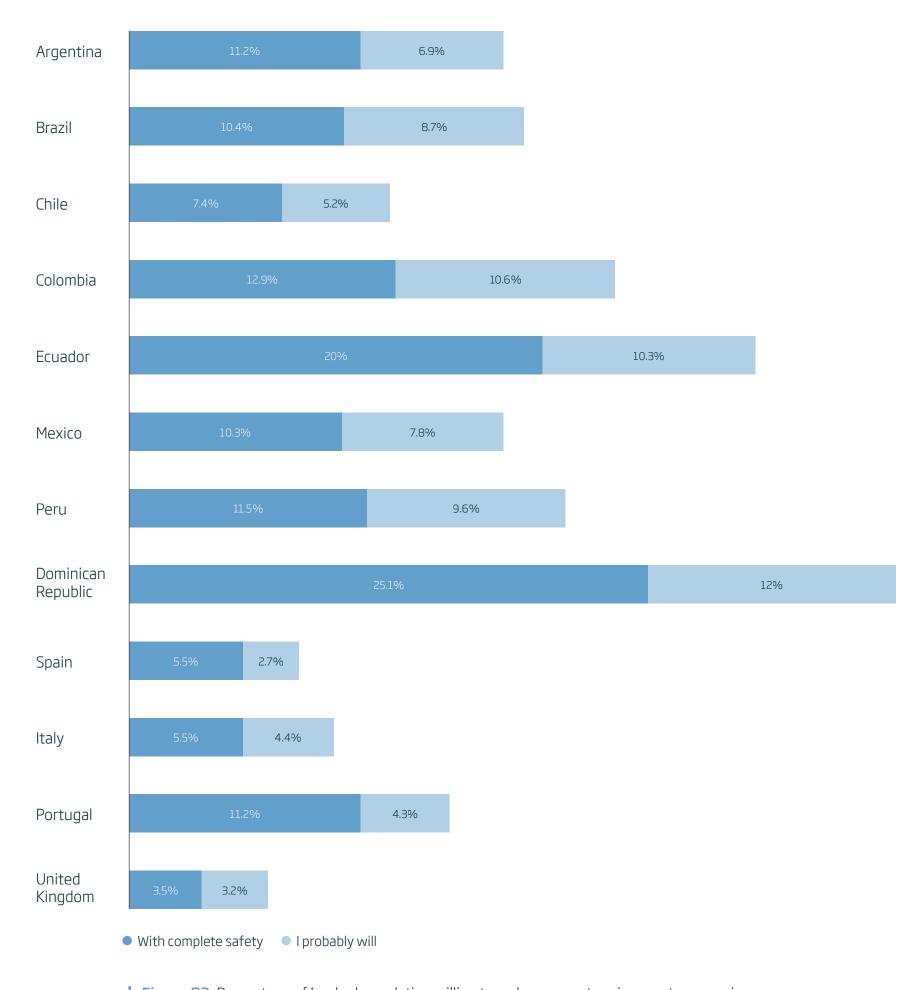
**Cryptocurrency payments are few and niche**. The rapid growth of acceptance that conditions its use remains an element of uncertainty.

Agents of the industry agree that the offer of payment solutions based on cryptocurrencies is residual and niche (in opinion of 38%) and/or that it lacks an acceptance network (35%). 10% consider that it does not exist because it is prohibited and only 3% recognize card schemes as providers of payment solutions based on crypto-assets.

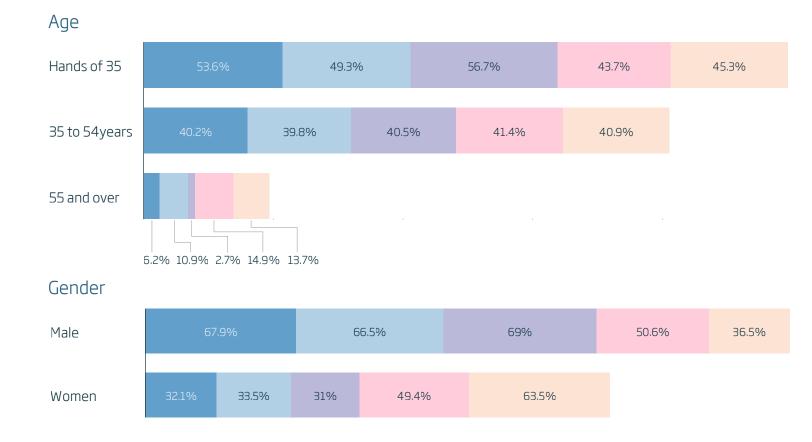
Young men of high socioeconomic status, and more Latin American than European, define the profile of the crypto-asset holder.

The predisposition to make payments using cryptocurrencies is especially high in the Dominican Republic and Ecuador, followed by Colombia, Brazil and Argentina, with the exception of Chile which shows a more "European" disposition.

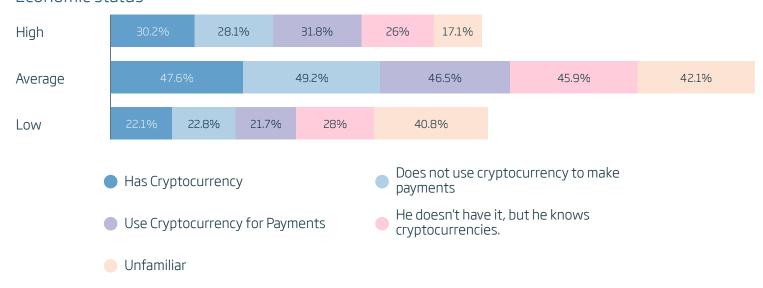
These socio-demographic and economic characteristics intensify among crypto-asset holders who use them to make payments. The tendency to acquire crypto-assets and use them as a means of payment is framed within predominantly digital behaviours in other aspects of daily life, such as the possession and use of digital devices equipped with greater functionalities (e.g. NFC mobile payment) and the intensity of online purchase.



**Source.** Afi and The Cocktail Analysis. In response to the question Would you be willing to make payments using cryptocurrencies?



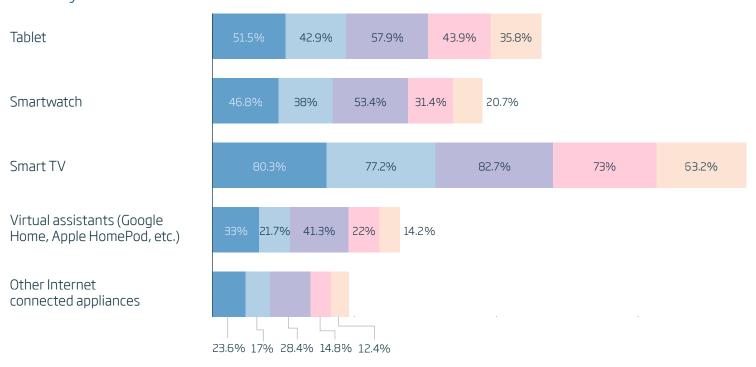
#### Economic status

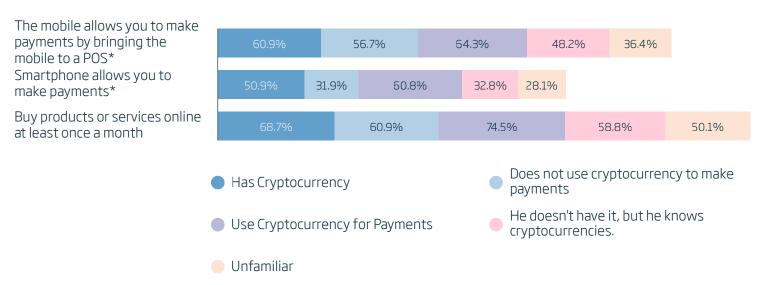


**Figure 103.** Digital Profile of Individuals with Cryptocurrencies

**Source.** Afi and The Cocktail Analysis. In response to questions: Have you ever bought cryptocurrencies? And of the following means of payment, which/which of them have you used in purchases/face-to-face payments/ in purchases/ online payments through the website of the merchant or service, even if you have accessed through the mobile browser, PC, etc./ in purchases/payments from the application of the merchant or service you have contracted?

#### Devices you own





**Figure 104.** Digital Profile of Individuals with Cryptocurrencies

**Source.** Afi and The Cocktail Analysis. In response to the questions: Do you have these technological equipment for your personal use? Of the following means of payment, which one (s) have you used in purchases/face-to-face payments?/You told me you have a smartwatch. Could you tell me if you allow payments in establishments by bringing the device closer to a POS/Dataphone? How often do you buy products or services online?

## Cryptocurrencies face the challenge of everyday payments

The nuance of usefulness for daily life that cryptocurrencies are acquiring is offered by **cards linked to cryptocurrencies**, practically essential in everyday environments.

The difficulty of creating a global acceptance network where consumers can exchange cryptocurrencies for goods and services has led crypto providers and wallets to lean on Visa and Mastercard's current payment rails.

Linking cryptocurrencies to a conventional and mostly accepted form of payment like cards allows digital asset holders to transact as they would with any other digital payment instrument.

The largest holdings of such cards are currently concentrated among the younger population, anticipating an incipient increase in the degree of adoption. Three out of ten crypto buyers already own a crypto card, with the exception of Argentina where almost half of crypto buyers have one.

The lack of familiarity with this card modality may explain that five out of ten who already use or own cryptocurrencies do not yet have a cryptocurrency card, despite the fact that the declared ignorance of its existence is limited to two out of ten.

**Crypto rewards programs** linked to the commonly used card can be a first step in encouraging its adoption, beyond the redemption of miles or points in closed circuits.

#### 18 to 34 years Male 49.3% 16.2% 48.9% 18.2% Women 35 or more Male 57.3% 20.8% 49.8% 27.4% Women Continent average 18.6% Latin America 52.1% 22.8% 51.3% Europe Total 51.9% 19.6% Yes No, but I know they exist No comments yet

**Figure 83.** Percentage of cryptocurrency buyers who have a cryptocard **Source.** Afi and The Cocktail Analysis. In response to the question: Do you have a

cryptocurrency card with which to make payments in cryptocurrencies?

# The acceptance of payments with cryptocurrencies, still incipient

Cryptocurrency payments are still a low-impact phenomenon, both in face-to-face and online and in-app payments.

The current volume of payments with cryptocurrencies comes mostly from specific verticals such as online gaming, entertainment and digital services. The acceptance of payments with cryptocurrencies, still incipient.

Despite initiatives to extend acquisition such as virtual cryptocurrency POS, lack of regulatory clarity, friction in the shopping experience, volatility, and concerns over privacy and security remain major obstacles to adoption.

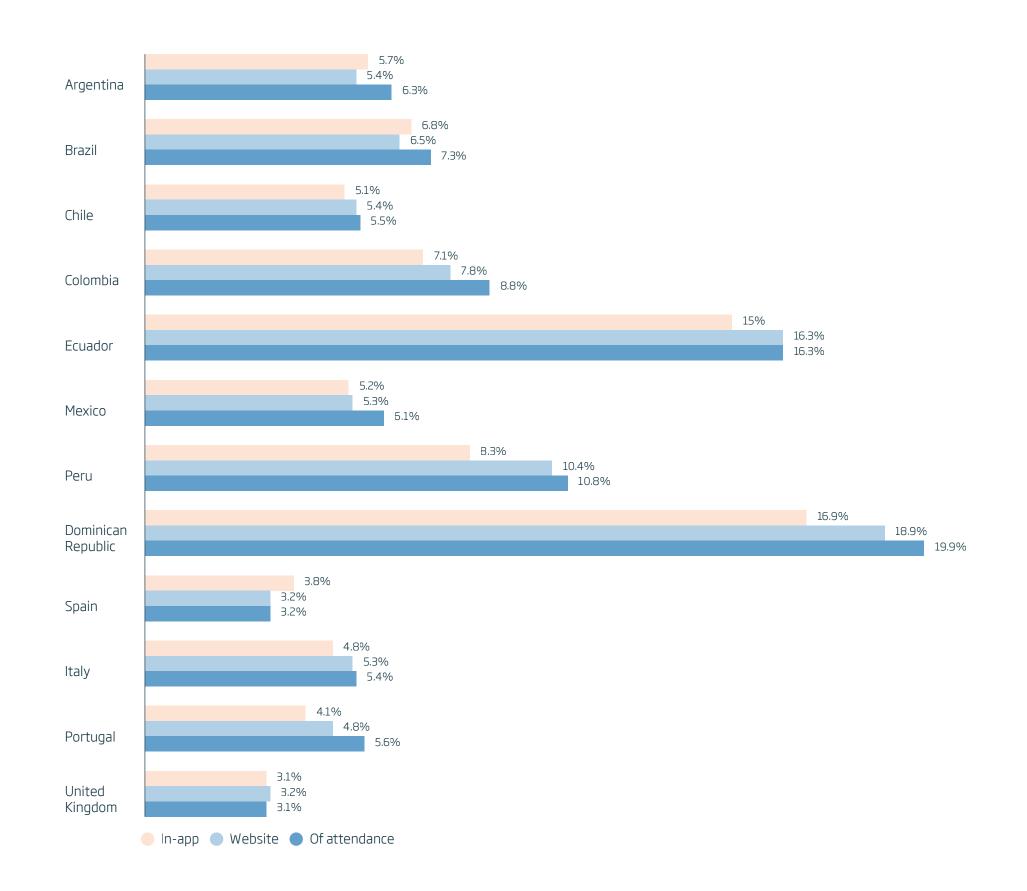


Figure 84. Percentage of ABI population that paid with cryptocurrencies last year

# Financial Institutions, Key for Cryptocurrencies to Achieve Greater Acceptance

Card schemes continue to expand the ability to execute transactions with cryptocurrencies on their rails. The establishment of agreements with cryptocurrency exchanges for the issuance of crypto cards in prepaid mode is a newly inaugurated trend.

Large technology and e-commerce platforms are positioned to lead the development of crypto proposals integrated into the experience they offer their users. After a phase of learning and experimentation, the adoption of loyalty programs that promote the redemption of own utility tokens are postulated as catalysts of future open proposals not yet widely deployed.

That cryptocurrencies achieve greater acceptance among the public needs the participation of banks, which maintain their position as the main financial institution.

of the banking population in Latin Americ considers the bank its main entity

87% %

of the banking population in Europe considers the bank its main entity

There is also a general increase in the contracting of its services and financial products, while that of the rest of the operators stagnates.

The status of the main financial institution enjoyed by banks is compromised in some Latin American countries by the increasing relevance of neobanks, which have incorporated traditionally underserved population segments and more prone to acquire new services and products linked to cryptocurrencies.

The issuance of crypto cards is a future trend that some of the global financial institutions have joined, but have not aroused the interest of most banking operators. As the involvement of **banks grows, which still enjoy a hegemonic position as issuers of credit, debit and prepaid cards**, the adoption of crypto cards will be greater, although those of prepaid modality are increasingly associated with new agents.

## The regulatory landscape for crypto-assets is nascent and diverse

Regulatory uncertainty around cryptocurrencies is a major barrier to their development.

The European Regulation on crypto-asset Markets (MiCa) will be the first comprehensive legal framework concerning issuers of crypto-assets, exchange platforms and cryptocurrencies; it will mark a before and after and will be inspiring for regulators in other countries. The new Fintech Law of Chile and the enabling regulation of the use of virtual assets adopted in Brazil provide a degree of regulatory certainty that will undoubtedly mobilize crypto innovation in these countries.

The growing experimentation of crypto solutions and pilot projects in regulatory-enabled sandboxes is also a sign of the interest of the regulator and operators to embrace innovation, with guarantees.



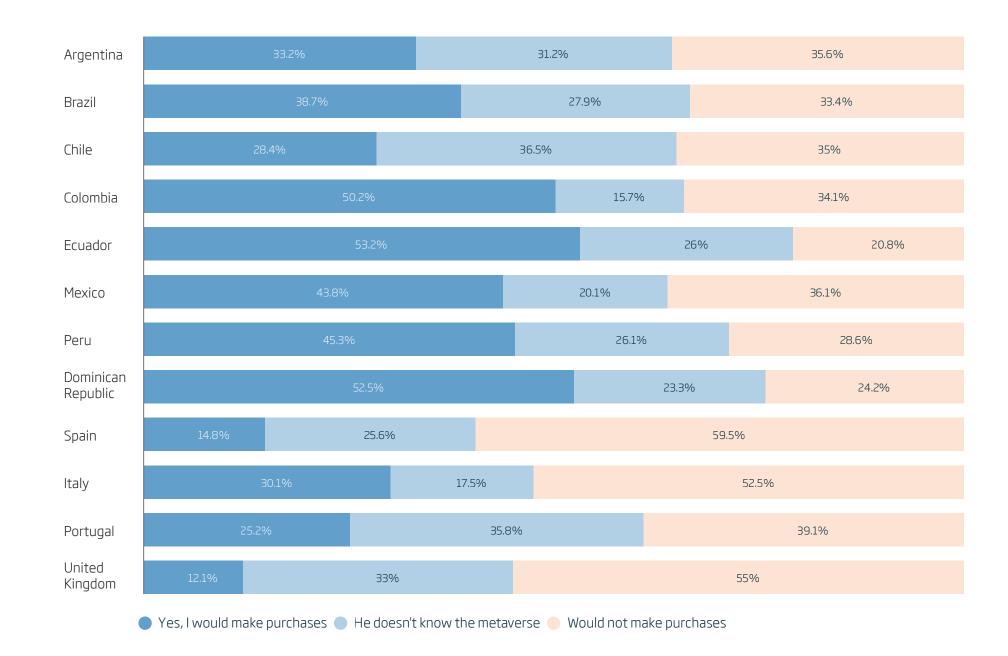
### Payments in the metaverse

Even without having full knowledge, vision and opinion about the Metaverse, already a third of the population would be willing to make purchases within this new dimension.

The disposition is higher (> 40%) among the younger population (< 35 years), while the declared rejection (around 40%) is very similar in all age groups. At an older age there is also greater ignorance of the Metaverse as well as the tendency to reject it when it is known.

By geography, there are also differences in the willingness to buy in the Metaverse: Europe, and especially Spain and the United Kingdom, show a higher rejection (59.5% and 55.0% respectively) and a much lower acceptance (14.8% and 12.1% respectively) than in other countries.

In Latin America, the predisposition is very high (around 50%) in most countries, although it is lower in Argentina (33.2%), Chile (28.4%) and Brazil (38.7%).

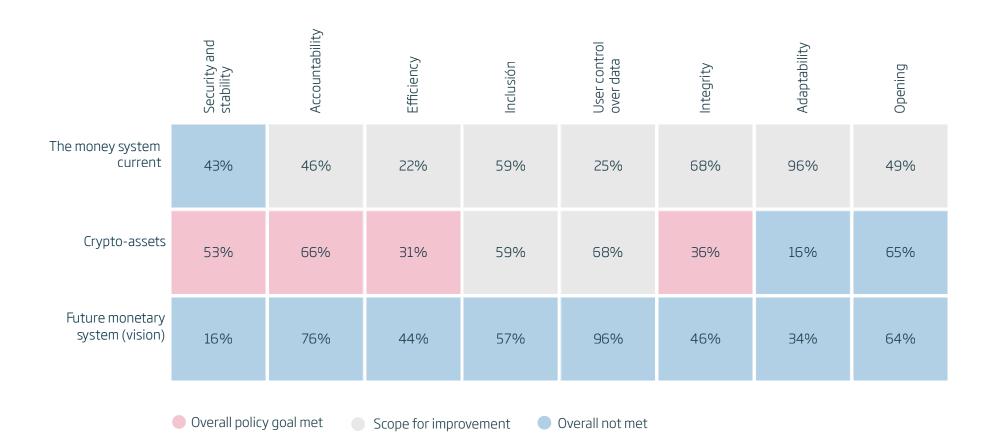


**Figure 85.** Percentage of ABI population that would be willing to make purchases within the Metaverse **Fuente.** Afi and The Cocktail Analysis. In response to questions: Have you ever heard of the "metaverse" or "Goal"? And would you be willing to make purchases of products and services within the Metaverse?

## The fourth rail: CBDC or digital cash

The characteristics of money issued by central banks lie in the lead-up to a change that could affect the true nature of money as well as the position of issuers and payment solution providers, even if they continue to participate in the retail distribution of digital cash or Central Bank Digital Currencies (MDBC/CBDC).

CBDCs will coexist with other forms of money; they are not conceived as substitutes for cash or the solutions developed by the industry. Consideration by central banks of addressing digital currency issuance has been a reactive effect in the face of the emergence of various niche solution-generating technologies that have led to competition with fiat currency in some dimensions, as well as an acknowledgement that some of the basic conditions of the current payments system are not being met.



**Table 12.** The payment system of the future may be better than the current one and the cryptouniverse

**Source.** Banco de Pagos Internacionales (BIS)

That large multinationals take positions in the Metaverse and that countries work on their respective digital currencies augurs an early materialization of CBDCs. And although it is still early to predict its establishment and degree of adoption, it does anticipate **necessary** attributes in terms of interoperability and interconnection between different CBDCs at cross-border level so that they fully develop their potential and additionality. Not surprisingly, 21% of the industry agents consulted show doubts about the adoption of CBDCs as a means of daily payment among the population. However, becoming a daily means of payment is considered more likely in economically advanced countries.

of industry stakeholders believe that CBDCs will be a daily means of payment by 2030

of industry players consider higher likelihood of occurrence in economically more advanced countries

of industry agents consider that CBDCs will not be adopted by the population as a means of daily payment

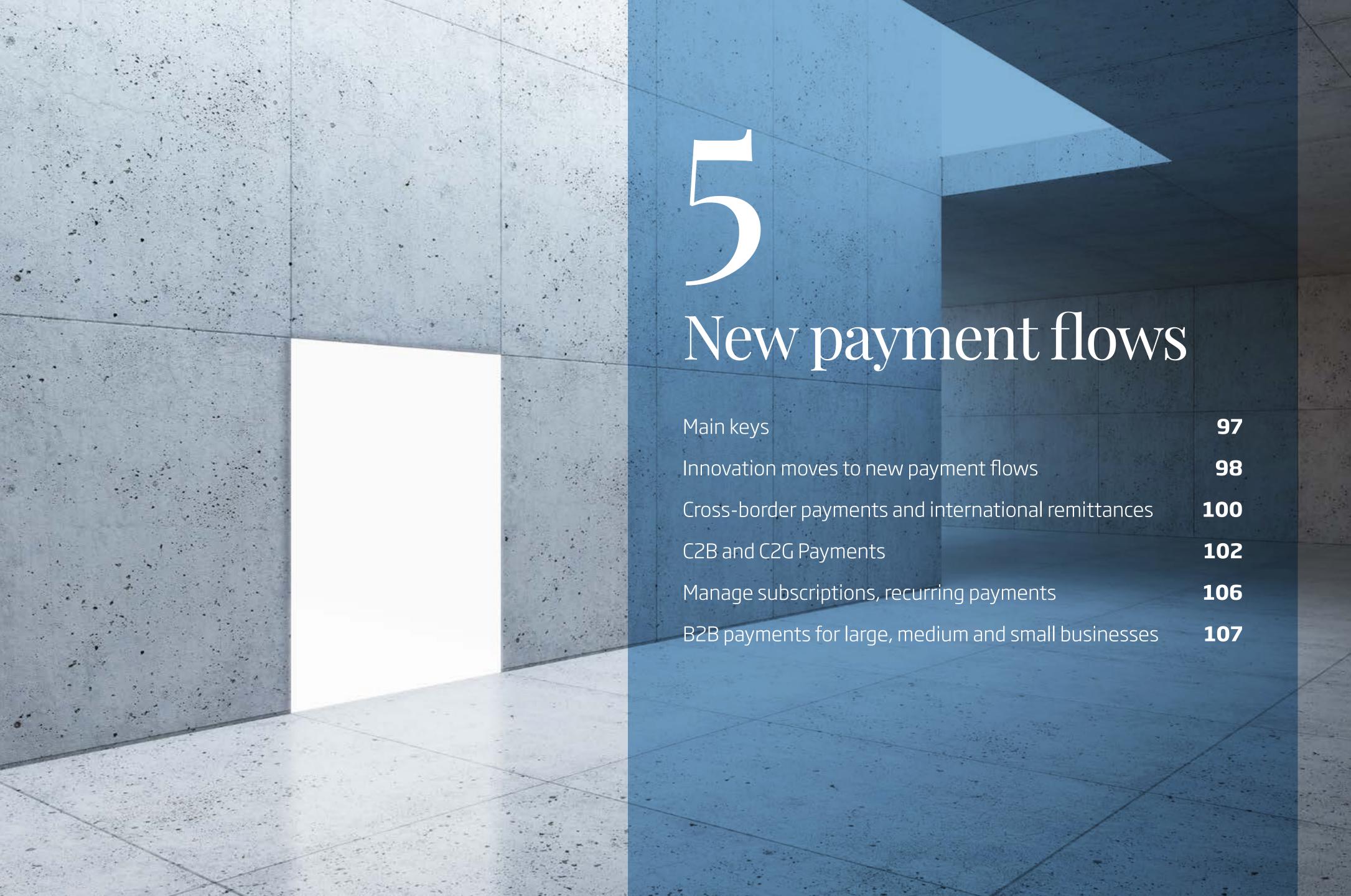
Immediate payments and the digital euro are the two major projects of the European Payments Strategy. The first is already a reality and the second, after the first phase of experimentation concluded (2021), is finalizing the research that will provide it with an initial design to start the construction of the digital euro in 2023.

CBDCs are a response to threats of competition and sovereignty in means of payment.

of industry stakeholders believe that CBDCs are useful to ensure full financial inclusion

What factors can speed up the launch of the digital euro? A drastic fall in the use of cash; a new movement of Bigtech that threatens the ability of central banks to control the money supply in Europe (a threat of sovereignty that does not weigh on the United States due to the reference to the dollar of stablecoins, in addition to having the hegemonic Visa and Mastercard); and the advancement of another relevant monetary area such as China and its digital yuan, are.

CBDC construction is a trend present on the agendas of many countries; in emerging and developing ones with additional purposes of full financial inclusion.



## Main keys

Consumers don't see cryptocurrencies as a payment method... for now.

Experts agree that payments with cryptocurrencies are still small and niche (38%) and there is no acceptance network at the local level (35%).

In Latin America, the international remittance ecosystem is eminently receptive.

It is on the verge of becoming independent from traditional money transfer solution providers.

72% of industry professionals recognize that the P2P segment enjoys greater capacity and diversity of choice of means of payment and collection.

Less diverse are the physical (24%) and virtual (21%) business outlets in their paying agent dimension, as well as public administrations in their collection agent role (21%). The latter are recognized the worst endowment in their role as paying agent.

If the first immediate payment solutions were born in Europe to serve the segment of individuals, they are already demanded and used by companies.

The large ones, more than the immediacy of the payment, value its interoperability and the secure integration of approval mechanisms, electronic signature, and approval flows between stakeholders.

Acceptance at the point of sale remains an area in which solutions can be deployed and incentives established to conquer more space for cash.

The areas that generate recurrence and habit such as small commerce, public transport, catering establishments and public administrations, are called to expand the acceptance of digital payment.

Digital wallets and mobile payment solutions will occupy in five years the first position in the top-ofmind of consumers in their daily payments.

The spectacular adoption of contactless payments has had a necessary ally: tokenization.

# Innovation moves to new payment flows

New payment flows include both those that are genuinely new and those that have traditionally been resolved with cash or through solutions provided by a reduced supply of suppliers with a reduced intensity (not capacity) innovative.

In the next decade, the focus of payments innovation will shift from being almost exclusively focused on individuals to catering to businesses. Four clear spaces of opportunity are identified. First, payments between companies, whether they are large corporations, SMEs or marketplaces and/or eCommerce platforms. The second, the internationalization of commerce (B2C/C2B) as cross-border payments gain popularity and subscription models become widespread, with the corresponding adoption of recurring payments.

The third are P2P remittances and B2E (business-to-employee) On-Demand payments. And a fourth, in the field of public administrations.

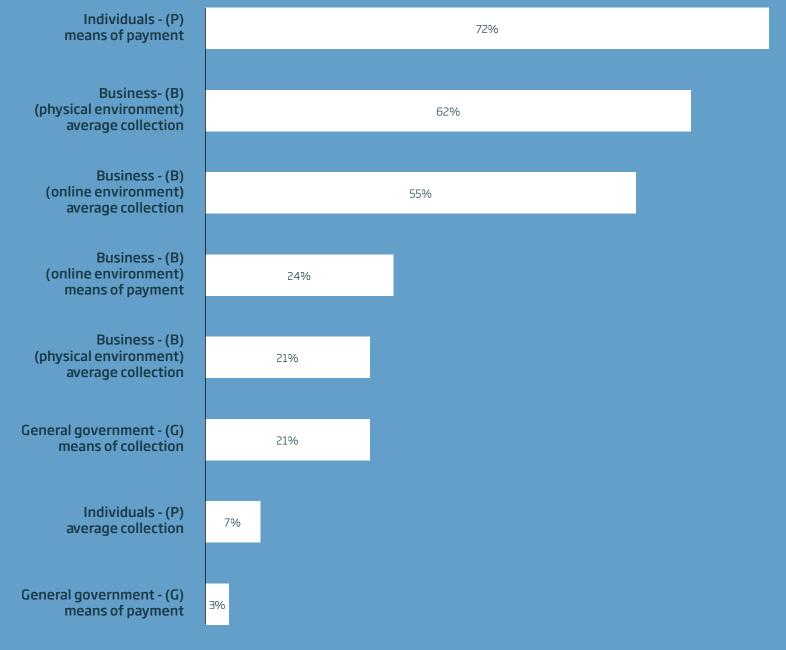


Figure 86. Of the following segments [(P): Individuals, (B): Business, (G): Public Administrations], which do you consider to have the greatest capacity and diversity of choice of means of payment/collection in your country?

Source. Barometer of trends in payment methods

In all the spaces where payment transactions take place there is room to make a great leap of modernization, digitization and automation in both directions: new ways of paying and charging.

72% of industry professionals recognize that it is precisely the P2P segment that enjoys a greater capacity and diversity of choice of means of payment and collection, followed by points of sale that receive payments both off-line (62%) and in ecommerce (55%).

Less diverse are the physical (24%) and virtual (21%) business outlets in their paying agent dimension, as well as public administrations in their collection agent role (21%). The latter are also recognized for the worst endowment of diversity and choice in their role as paying agent.

The willingness of SMEs to digitize has changed very quickly with the pandemic in terms of omnichannel, payments to suppliers, stock control, sales forecasting and access to financing. Payments and collections between businesses, in addition to those ordered and received by administrations and public service providers, are also susceptible to receiving the adoption of innovative digital payment solutions. There is still space in those that materialize between individuals, whose usual means of payment has always been, often by inertia, but not only, cash.

Wherever there is a point of sale, whether physical or virtual, that relates to businesses and/or people, there is an opportunity for the digital payments industry to make the monetary flows that occur there more efficient, traceable and secure.

The global opportunity associated with the attention of these new payment flows reaches \$185 billion, of which \$40 billion would be located in Europe and \$8 billion in Latin America.

**Figure 87.** Which payment flows do you consider to represent a greater opportunity today?

**Source.** Barometer of trends in payment methods

<sup>66% 69% 52% 24% 28% 28% (</sup>B2C/C2B) (B2B) (B2B2c o B2b) (B2E) (P2P) (G2C/G2B)

<sup>&</sup>lt;sup>1</sup> Visa Annual Report 2021..

# Cross-border payments and international remittances

Cross-border payments are, by their very nature, more complex than domestic payments, and involve differential difficulties for users (costs, conditions of access, timescales) due to compliance checks, money laundering prevention, local operating hours, or use of systems that process in batches.

They are, therefore, the solutions that address those weaknesses where opportunities to generate a greater impact in the field of cross-border payments and international remittances are concentrated.

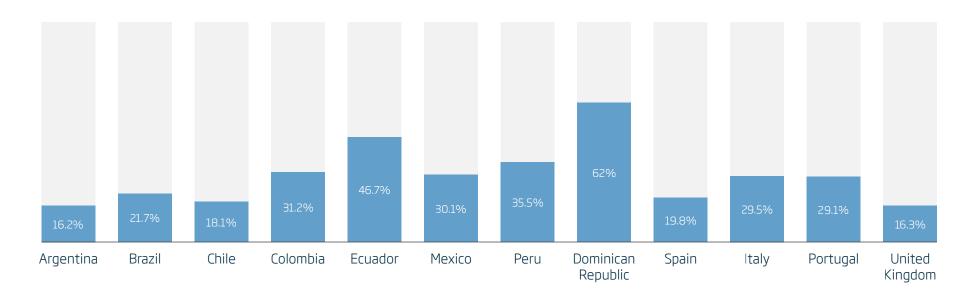
In Latin America, the remittance ecosystem is eminently receptive and is on the verge of becoming independent from traditional providers of money sending solutions through certification with brands to adopt solutions such as Visa Direct and Mastercard Send. The flow of international remittances - or any payment in cross-border mode - is a flow that needs to be perfected and include more groups, such as migrants and online content creators.



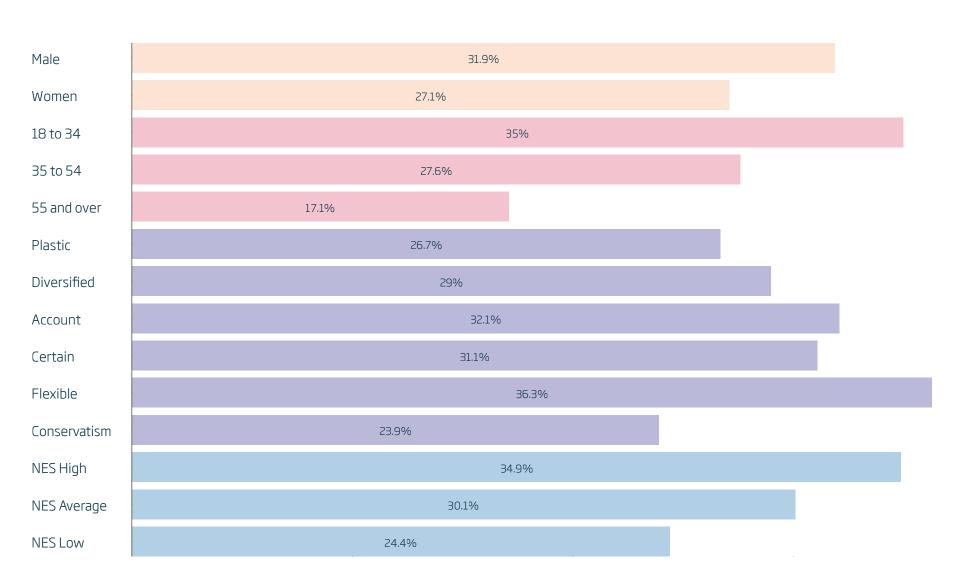
The use of digital applications for sending and receiving international remittances shows a different implementation map than other payment flows, since remittances are more due to countries' socio-economic realities and available alternatives than to the active intention of digitizing these flows.

Thus, the use of apps for sending and receiving international remittances shows reduced levels of use in the Dominican Republic and Ecuador, the two countries with the lowest deployment and adoption of digital payment solutions (see chapter 1). They are followed by Peru, Colombia and Mexico, countries also with great challenges of financial inclusion and important and traditional emigration flows to third countries.

Technologically equipped young men of high economic level is the main user profile of apps for sending or receiving remittances. envío o recepción de remesas.



**Figure 88.** Percentage of the banking population that has used apps for international remittances **Source.** Afi and The Cocktail Analysis. In response to the question: Have you used international money transfer/ remittance apps to family or friends?

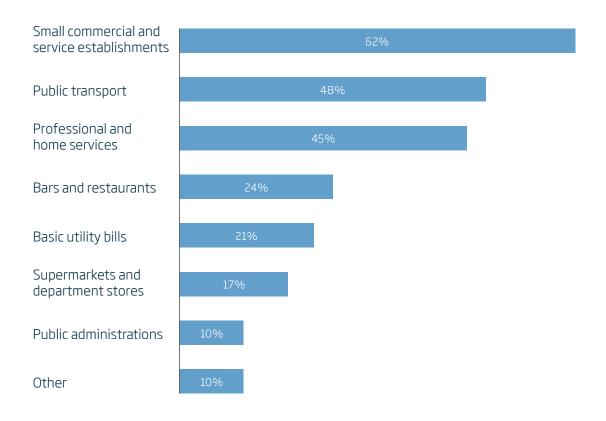


**Figure 89.** Percentage of ABI population that has used apps for international remittances Very confusing. **Source.** Afi and The Cocktail Analysis. In response to the question: Have you used international money transfer/remittance apps to family or friends?

## C2B and C2G Payments

The acceptance of alternative means of payment to cash at the point of sale remains an area in which solutions can be deployed and incentives established to conquer more space for cash. Although the pandemic energized the digitization and acceptance of digital payments, the challenges continue.

The areas that generate recurrence and habit such as small commerce, public transport, catering establishments and public administrations, are called to expand the acceptance of digital payment.



**Figure 90.** Acceptance of digital payment at the point of sale is not resolved in some countries, despite the reduced resistance of small businesses to digital payment.

**Source.** Barometer of trends in payment methods

Main reason for the majority use of cash at certain points of sale, according to industry experts:

considers that it is due to the preference for cash collection by the point of sale

considers that the use is motivated by the customer's preference to pay in cashen

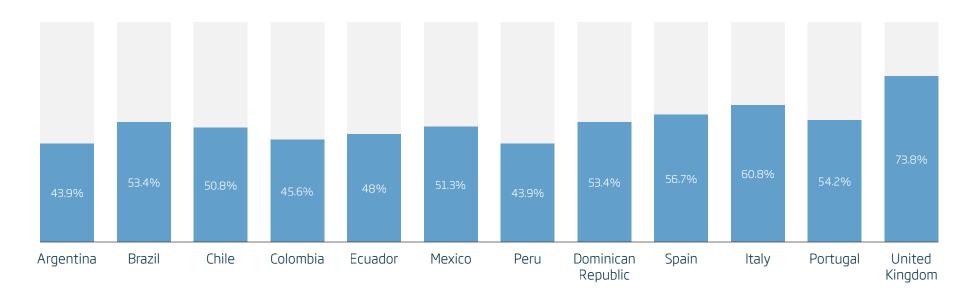
means of payment for both parties (who pays and who collects)

The preference of the point of sale for cash collection is the main reason that it continues to be used by the majority in small businesses. Half of the banked population claims to have had to make a payment there by a means other than the one they would have preferred. It stands out, on the positive side, United Kingdom, where three out of four Britons declare to always be able to pay in the way of their preference. The almost universal introduction of the card as a means of payment means that only a minority has experienced difficulties. The UK is followed by Italy, Spain and Portugal. In Latin America it is Brazil, Mexico and Chile that register a majority choice capacity, above fifty percent.

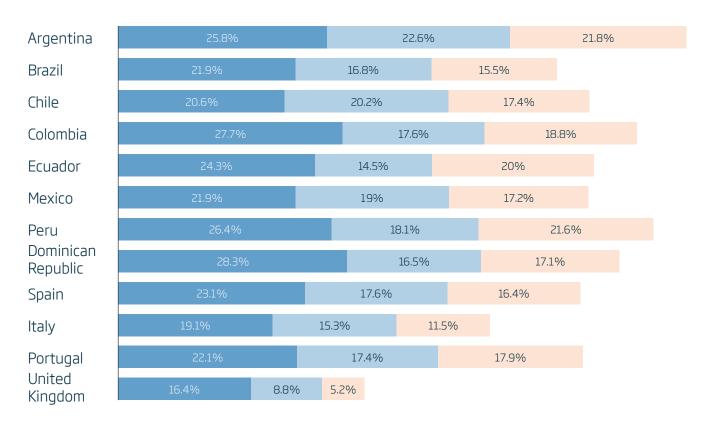
The main reason declared as difficulty to pay with the preferred means of payment is that the point of sale does not accept it. In the Dominican Republic, Colombia and Argentina, this difficulty is declared by more than 25% of those banked. And the country where this incidence is least present is the United Kingdom.

That the choice of the means of payment has an associated cost for the customer is also presented as an obstacle to payment with the preferred means. In Argentina, Peru and Ecuador, surcharge is a common impediment for more than 20% of the banked population. Again, the UK is in an advantageous position.

Another of the reasons mentioned that hinder the choice is the malfunction of the means of payment, relevant for more than 20% of Argentines and Chileans. The rest of the countries, except Italy and the United Kingdom, the incidents of operation or error in the operation of the means of payment are declared by between 15% and 20% of the population.



**Figure 91.** Percentage of the banking population that has been able to choose the preferred means of payment **Source.** Afi and The Cocktail Analysis. In response to the question: In the last year, have you had to pay with a different means of payment than the one you would have preferred?



- Yes, at least on occasion they did not offer the means of payment that I wanted to use
- Yes, at least on some occasion it did not work or gave error the means of payment I wanted to use and I had to use another means of payment
- Yes, at least on some occasions I have not been able to choose the payment method I would have preferred because I had some condition of the trade (an associated cost, a minimum amount to be able to use it, etc.).

Figure 92. Percentage of the banking population that has been able to choose the preferred means of payment

**Source.** Afi and The Cocktail Analysis. In response to the question: In the last year, have you had to pay with a different means of payment than the one you would have preferred?

### Smaller transactions concentrate most situations in which difficulties have materialized, regardless of the type of incident.

They are, above all, payments in small establishments, less equipped to offer a greater availability of means of payment, which accumulate the most incidents at the time of payment. Together with those that occurred in small purchases or payments for personal services, a scenario is drawn in which smaller transactions concentrate the incidents.

### The greater the digital profile of the population, the greater the likelihood of facing difficulties in its use at the point of sale.

A majority of the population categorized as Digital has resorted to means of payment different from those of their preference, soaring the reasons related to the difficulties imposed by the point of sale, mostly for not offering the preferred means of payment.

In contrast, the banked population most likely to continue with the use of cash (Analog segment) declares a lower incidence rate.

The segment closest to cash payment suffers fewer incidents when

making payments in small purchases, but faces more difficulties to pay in those spaces where it has evolved towards the abandonment of payment by analog means.

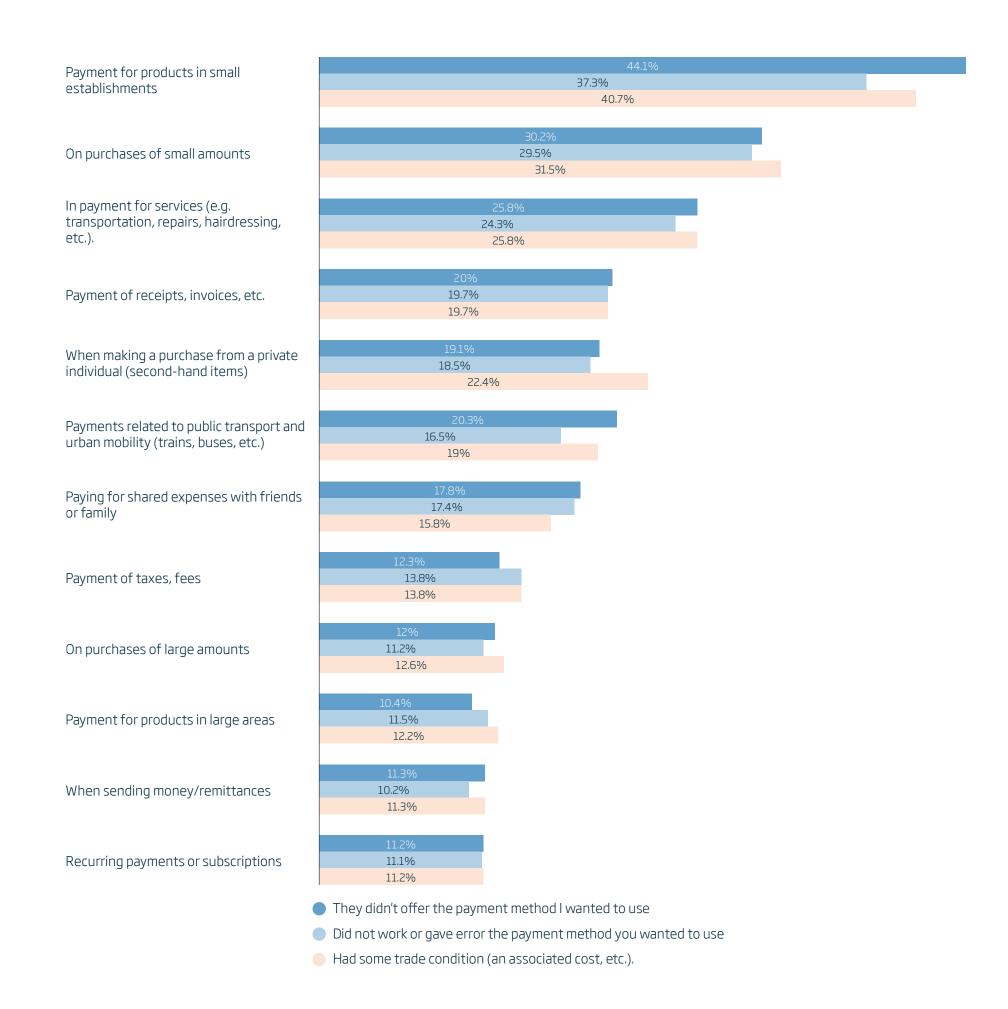


Figure 93. Contexts in which you have not been able to pay in the way you would have preferred

**Source.** Afi and The Cocktail Analysis. In response to the question: In the last year, in what types of situations have you been forced to use a means of payment different from the one you would have preferred?

#### 5 New payment flows

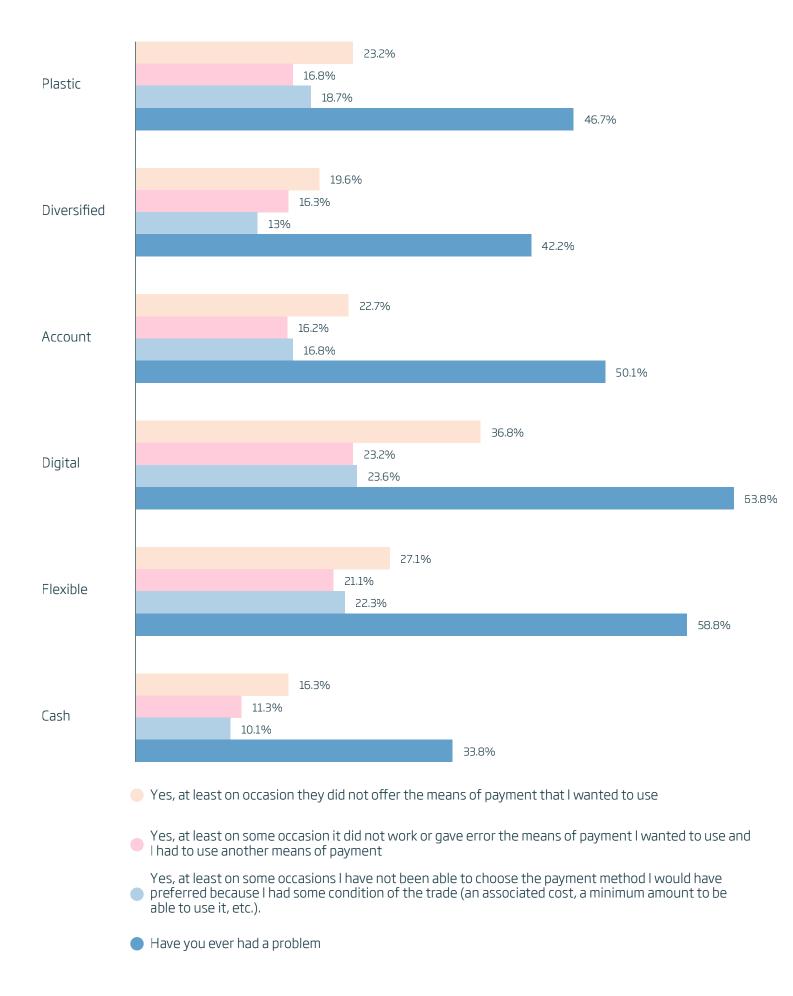
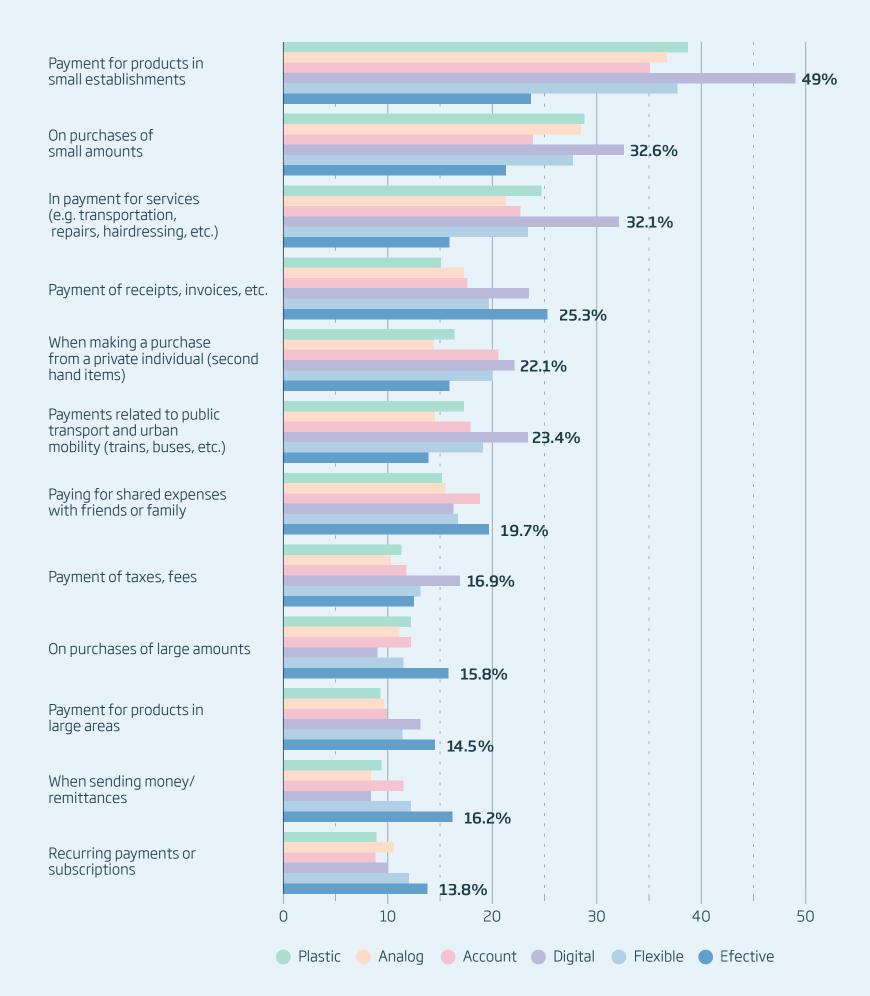


Figure 94. Contexts in which you have not been able to pay in the way you would have preferred

**Source.** TAfi and The Cocktail Analysis. In response to the question: In the last year, have you had to pay with a different means of payment than the one you would have preferred?



**Source.** Afi and The Cocktail Analysis. In response to the question: In the last year, have you had to pay with a different means of payment than the one you would have preferred?

# Manage subscriptions, recurring payments

Subscription payment will most likely be a consolidated trend in the next 5 years for 55% of the experts asked.

From the perspective of the provider of the good or service, the elimination of the ease of retrocession (friend fraud) stands out among the advantages of subscribing to payments on the card versus direct debit, especially after PSD2 whose obligation to the express authorization of the user demonstrates the voluntariness of the payment.

From the user's perspective, convenience prevails, such as the possibility of activating notifications that improve the ability to react and control the payment of recurring receipts.

The brands consider the subscription market key and have issued the **scheme token** so that, when a charge is made, it is not the card but the token generated, different in each trade and individually linked to each service, which is saved and which the card issuing bank can cancel at the request of the cardholder without the need to cancel the card. Payment cards can thus have a longer life because the token is linked individually to each service, an innovation that, already operational in the US, facilitates long-term relationships, different from one-off payments in an

ecommerce.

Another important advantage of the card subscription is for those people who travel to other countries where they do not have a bank account (for example, long-term tourists or digital nomads), who do not have a domestic IBAN, but a telephone and a card where they can domicile receipts.

In countries where there is no custom of managing receipts from a bank account (direct debits or bank debits are not used), it is already common to direct payments and subscriptions on the card.

## B2B payments for large, medium and small businesses

End-to-end business transactions, including payments, are being disrupted as manual and paper-based processes are abandoned to other data-rich digital ones.

Each company, depending on its size, countries where it operates, diversification of its supply chain and customers and segment it serves, has different needs and concerns in terms of payment management associated with the volume and type of transactions it has to manage.

Medium and large companies need to automate the management of payments, which in some of their modalities are still ordered manually (via fax or web). Automation and integration allows companies to transmit payment orders to their bank or banks, directly and massively from their enterprise resource planning (ERP) systems.



If the first immediate payment solutions were born in Europe to serve the segment of individuals, they are already demanded and used by companies to overcome the traditional way of sending remittances in batches, and do so massively and immediately. Companies, rather than immediacy, value the interoperability of immediate payments, which securely integrate approval mechanisms, electronic signature, and approval flows between stakeholders.

Likewise, the paradigm of Open Banking and PSD2 regulations, which were initially conceived more for the segments of individuals and SMEs, once the innovations they enable are maturing and banks are more interoperable through standardized APIs, companies explore the integration of these new channels of transmission of transactional information.

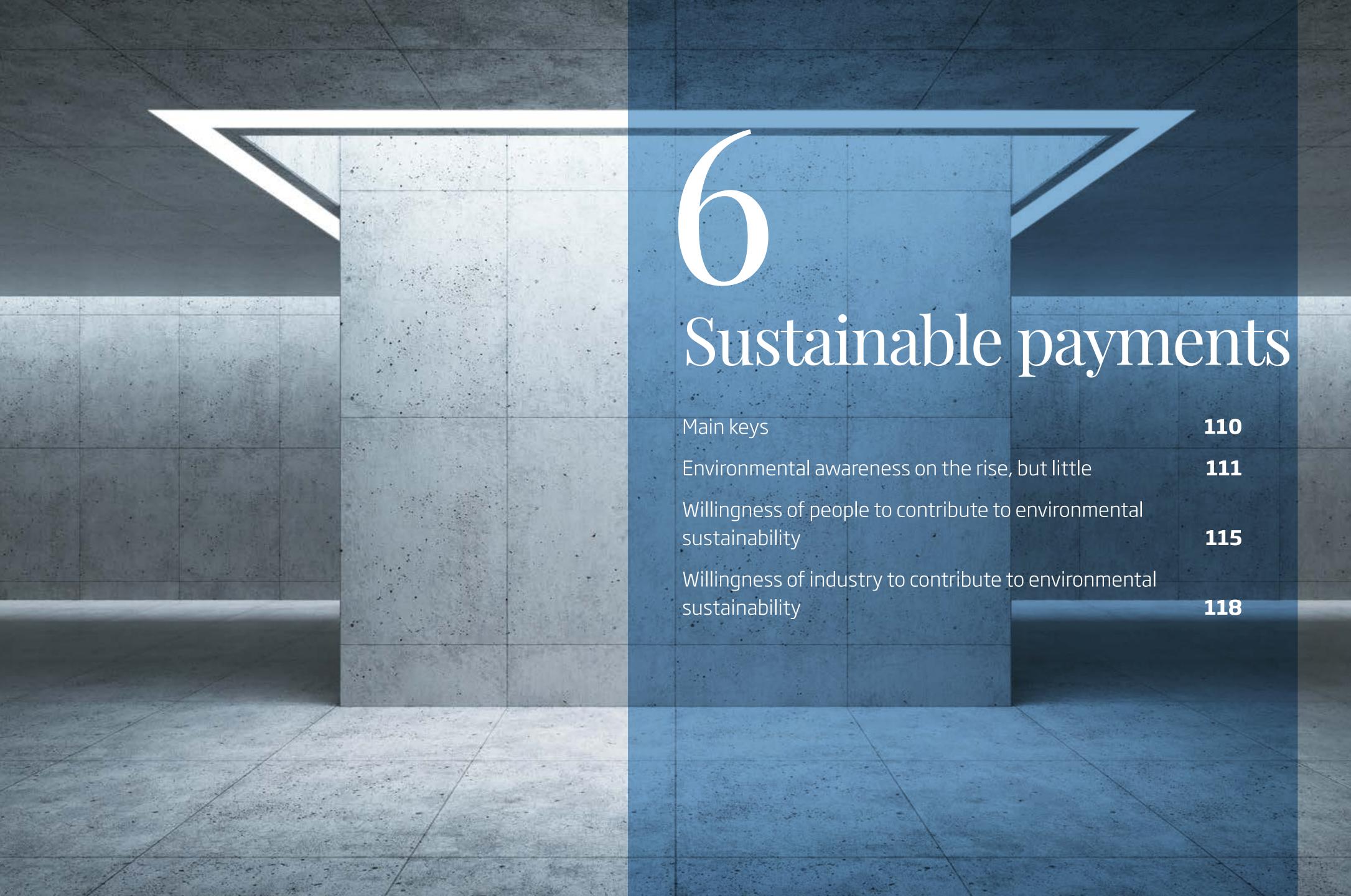
Despite the fact that APIs reduce the technological cost of integrations, the lack of regulations (for example, on the adoption of ISO 20022 messaging, whose format enables additional fields and contributes to standardization) and sufficient demand on the part of companies, which bet on innovation in payments and dispense with old systems, are necessary conditions for banks to move faster towards interoperability, facilitating multibanking.

The adoption rates of innovations in the corporate sphere are different geographically: higher in the US than in other countries. United States, northern Europe and the United Kingdom; lower in the rest of Europe and Latin America.

The banking map is very relevant for large companies, which require a pool of interoperable banks spread around the world that offer the same standard and provide the same services.

Thus, the greater the number of banks with which a company operates, the lower the speed of adoption of innovations, to the extent that it has to operate its technology with all of them.

For their part, SMEs and self-employed or self-employed workers integrate payment systems to collect. In this sense, the main innovations rest on the development of digital network services, banking and payments, integration of fintech or Baas services and embedded finance, which come from API-based technology and are integrated into management and billing systems, much more online and with less dependence on the bank.



### Main Keys

Digital payments are considered environmentally sustainable by the population Digital payments are considered environmentally sustainable by the population.

Much more than cash and physical cards, mainly in Brazil, Chile, Colombia and Portugal.

#### Concern for the environment is a generational issue.

By user profile, the Digital segment, the Flexible segment and the banked under 35 are the most willing to eliminate the use of cash for environmental sustainability reasons.

#### The false environmental safety of cash payments.

On the basis that all means of payment have some associated environmental cost.

#### Environmental sustainability does not yet condition consumer choice.

Environmental awareness is on the rise, but there is still work to be done to recognize the environmental implications of different means of payment.

## Environmental sustainability is an emerging material issue for the payments industry.

The industry is in a phase of reflection and exploration of transformative initiatives beyond those already consolidated.

# Environmental awareness on the rise, but little

Consumers are increasingly aware of the environmental impact of their decisions and actions, which, together with increasing regulatory and market demands, means that not having a clear sustainability strategy becomes a reputational risk for payment service providers.

People's concern about climate change, indeed, exists, more in Italy and Colombia; less in the United Kingdom and Argentina.

#### However, there is no recognition of the environmental implications of the use of different means of payment.

Colombia, Mexico and Chile show a greater perception of the impact of the use of means of payment on the environment; in the United Kingdom and the Dominican Republic the perceived association between both factors is lower.

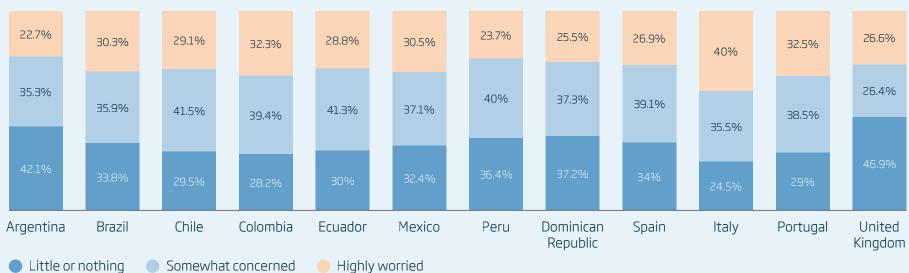
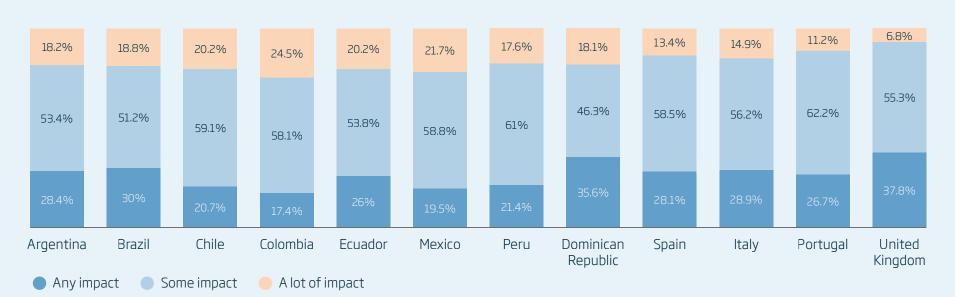


Figure 96. Climate change and the environment

Source. Afi and The Cocktail Analysis. In response to the question: To what extent are you concerned about climate change and the environment?



**Figure 97.** Perception of the impact on the environment of the means of payments they use de pagos que utilizan

Source. Afi and The Cocktail Analysis. In response to the question: To what extent do you think the means of payment you use have an impact on the environment?

Based on the fact that all means of payment have some associated environmental cost, there is a prioritization in the collective imagination of which imprint a greater negative impact, either in terms of CO2 emissions into the atmosphere, energy consumption or waste generation, among others. The declared prioritization does not seem to be based on scientific evidence but on biases, beliefs, inertia and preferences settled between people. Proof of this is the opinion aroused in this regard by payments with cryptocurrencies: despite being demonstrably unsustainable in terms of energy consumption, they are perceived as moderately sustainable.

The positive reading of market research is that online payments and mobile payments are considered the most environmentally sustainable, and much more so than cash and physical cards, especially in Brazil, Chile, Colombia and Portugal. In Mexico and Italy, however, the most traditional means of payment (cash and plastic card) are not considered as unsustainable as in other countries.

The negative reading of market research is the widespread (and erroneous) view that card payments are less environmentally sustainable than cash payments. However, there is an interesting difference according to age: those under 35 consider cash and card payments less sustainable than 100% digital payments, while those over 55 associate less environmental sustainability with online and mobile payments.

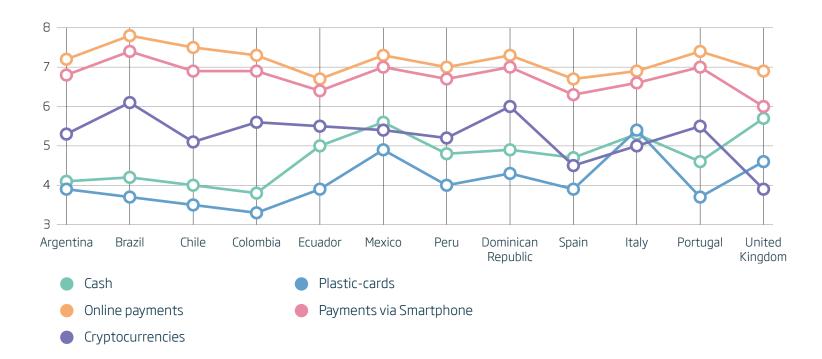


Figure 98. Perceived level of sustainability for each means of payment

Source. Afi and The Cocktail Analysis. In response to the question: How sustainable for the environment do you consider them to be Note. The data in the chart and table is the average rating given on a scale of 0 to 10 where 0 is "not sustainable" and 10 is "fully sustainable".

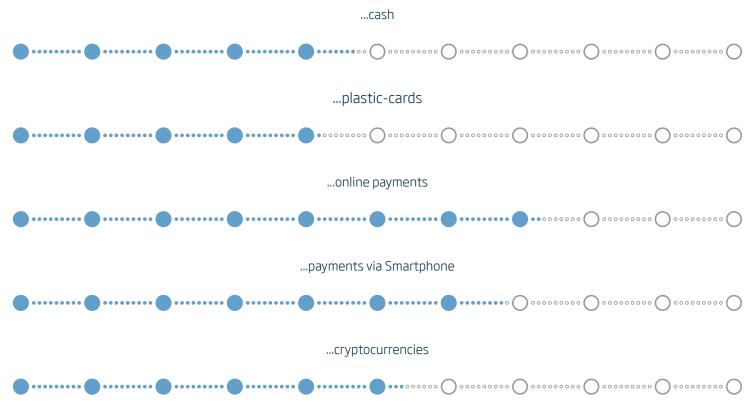


Figure 99. Perceived level of sustainability for each means of payment

Source. Afi and The Cocktail Analysis. In response to the question: How sustainable for the environment do you consider them to be?

Note. The data in the chart and table is the average rating given on a scale of 0 to 10 where 0 is "not sustainable" and 10 is "fully sustainable".

Industry agents, on the other hand, do place cash as the means of payment with the greatest negative impact on the environment, even greater than that associated with cryptocurrencies. The average environmental impact¹ of a cash transaction is estimated to be 36% higher and its global warming potential 21% higher than that of an average debit card transaction, so, on average, each payment made by card instead of cash would save 0.8 grams of CO2 equivalent emissions".

Why does this perception asymmetry occur? People perceive that the access and management of cash, compared to other means of payment managed by payment service providers such as the card, does not have an associated cost, in addition to considering that its use is harmless with the environment. In this reasoning, people do not consider that the manufacture of banknotes needs resources that are not friendly to the environment, and their distribution and management requires an intensive use of transport, energy and physical security. In addition, the combination of a lower generalized use of cash and the guarantee of access to this means of payment as a public good imply an increase in its management in unitary terms, even more so in geographies with great dispersion of the population.

#### The experts' view

considers that cash has a negative impact

believes that physical cards have a negative impact

66% considers that payments with cryptocurrencies have a negative impact

240/0 believes that CBDCs will have a negative impact

considers that payments from account have a negative impact

1006 Virtual and digital cards have a negative impact

<sup>&</sup>lt;sup>1</sup>Lifecycle assessment of cash payments (2018)

With all this, it is expected that the environmental impact associated with the means of payment is a factor that transcends awareness to decision and action.

However, the industry considers that although consumers value initiatives such as carbon offsetting based on information associated with payment transactions, or the issuance of sustainable cards, none of them are still critical elements to condition the choice of the means of payment. Moreover, one in three experts consider that the influence of environmental factors is zero because consumers are not yet aware that the choice of means of payment can have a significant impact on the environment.

of experts value it positively, and it influences their choice quite a lot.
Consumers are aware of the impact on the environment.

experts say it has no influence. The consumer is not yet aware of any negative impact on the environment when he pays, and if he has it, he considers it very residual..

9/0

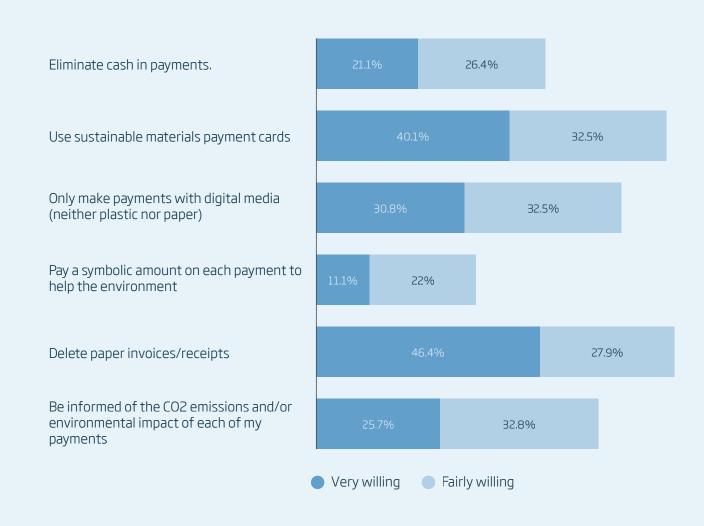
experts value it positively, but it is not a critical factor in their choice..

# Willingness of people to contribute to environmental sustainability

With the purpose of advancing environmental sustainability, although two thirds of the population is quite or very willing to make payments with digital media, there are many fewer (48%) who declare themselves in agreement with the total elimination of cash.

The measure that arouses the highest level of acceptance in the population in this regard is the elimination of paper invoices and receipts (74%), followed by the use of payment cards made with sustainable materials (73%) and making payments only with digital means (63%).

The issuance of virtual cards, whose main motivation is not associated with the search for environmental sustainability but for efficiency and innovation purposes resulting from digitalization, brings with it a positive indirect effect, not sought, of reducing emissions. Something similar happens with mobile payment solutions such as Bizum, which has unintentionally contributed to environmental sustainability by making many payments digital (2 million a day in 2022) that were previously made exclusively in cash.



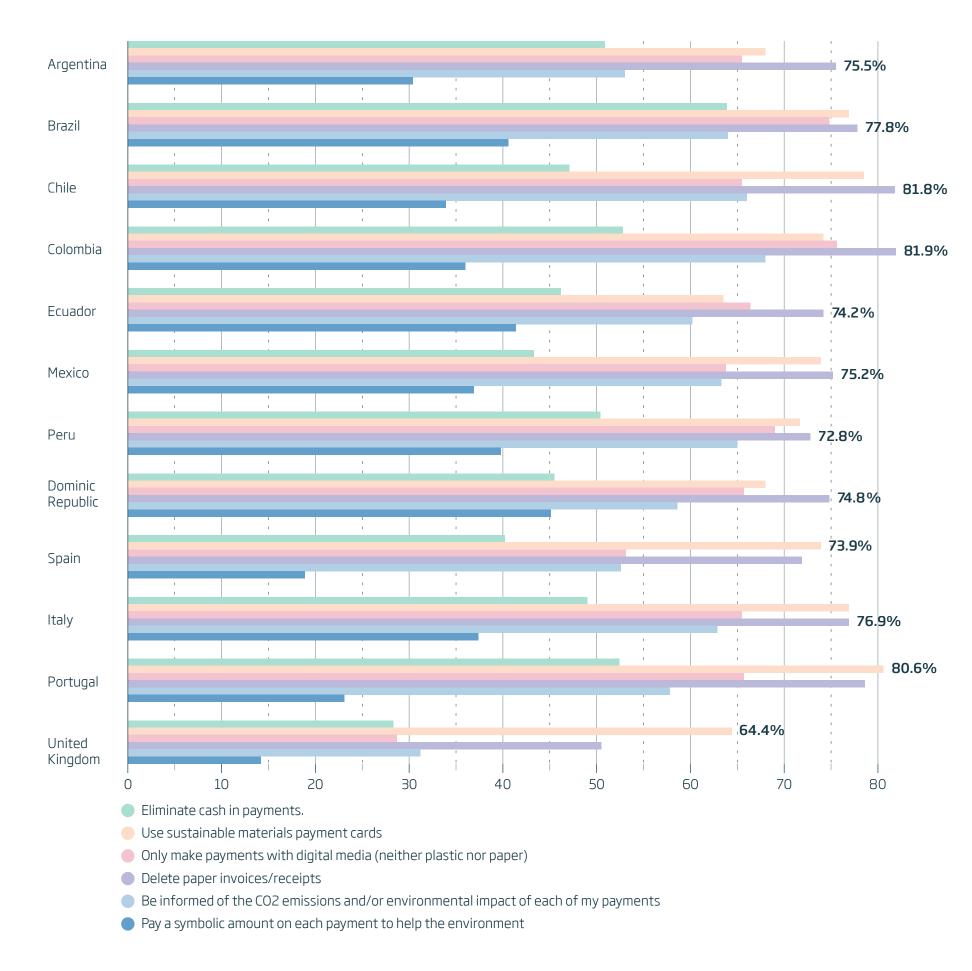
**Figure 100.** Proportion of bankers willing to take the following measures to improve the sustainability of means of payment

Source. Afi and The Cocktail Analysis. In response to the question: To what extent would you be willing to take the following measures to improve the sustainability of means of payment?

Most payment cards are made of non-biodegradable synthetic plastic (PVC) and some issuers are exploring more sustainable alternatives even though mobile-based solutions herald the end of physical cards. The virtual ones not only save the production cost associated with their physical alternative; also paper, energy and CO2 emissions associated with their distribution. Savings that can be calculated, reported and become a tool for raising awareness and motivating changes in habits in the population.

The predisposition to use exclusively digital means of payment again reflects the different speed at which the population is adopting the digitization of their payments. They are precisely the two countries that have developed the most in the field of digital payments in recent years (Brazil and Colombia) where there is a majority of the population willing to adopt exclusively digital means of payment. The most reluctant are the United Kingdom, Spain and Mexico.

Being informed of the CO2 emissions emitted by paid purchases is a measure appreciated by the majority of the population in all countries (especially in Chile, Colombia and Peru) except in the United Kingdom where it barely arouses the interest of 30% of the population.

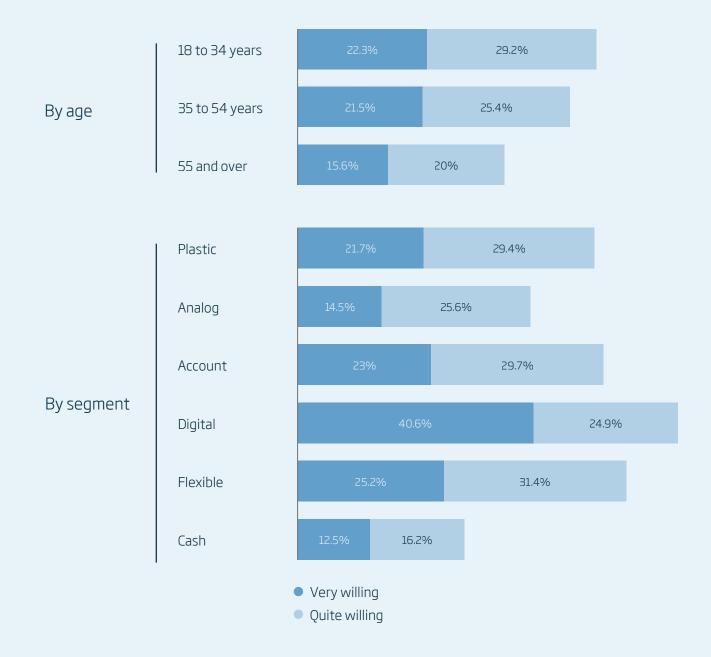


**Figure 101.** Proportion of bankers willing to take the following measures to improve the sustainability of means of payment

Source. Afi and The Cocktail Analysis. In response to the question: To what extent would you be willing to take the following measures to improve the sustainability of means of payment?

The least valued measure of the proposals is to add a symbolic amount in each payment transaction to contribute to the preservation of the environment.

By user profiles, the Digital, Flexible and Banked segments are the most willing to eliminate the use of cash for environmental sustainability reasons. On the contrary, those over 55 and the Analog and Cash segments are the least willing to resign.



**Figure 102.** Proportion of ABI population willing to eliminate cash to improve the sustainability of means of payment

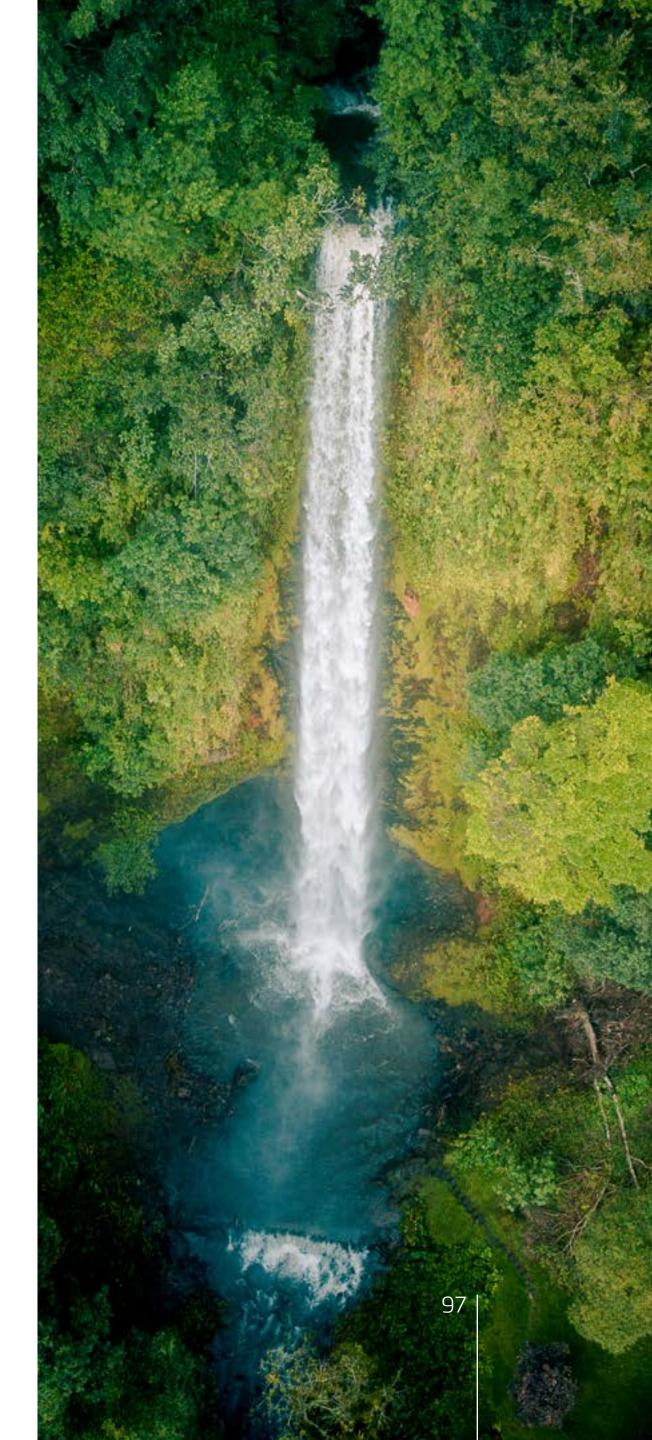
Source. Afi and The Cocktail Analysis. In response to the question: To what extent would you be willing to take the following measures to improve the sustainability of means of payment?

# Willingness of industry to contribute to environmental sustainability

Environmental sustainability, despite being a material issue for the payments industry, is still very few agents that have given signals through their corporate strategies. The largest players, either because of their status as listed companies, their exposure to investor pressure, their global presence accentuated by M&A movements, place them in a position with capabilities and incentives to meet the challenges and lead this still nascent trend in the industry. Global initiatives such as the Net Zero Banking Alliance or the Network For Greening the Financial System of Central Banks begin to scale to the world of payments from other verticals of the financial business such as credit, investment and insurance where ESG considerations are more established.

The industry is in a phase of reflection and exploration of transformative initiatives beyond those already consolidated (use of recycled materials, reduction of paper use), such as giving more visibility to businesses with sustainable practices in marketplaces; incorporating in loyalty plans the formation of networks of sustainable establishments in which to redeem tokens, points or miles; facilitate the contracting of climate insurance; or the disclosure of the carbon footprint associated with consumption and habits.

The risk of greenwashing is a very relevant challenge for the industry and requires greater coherence and caution in the design and launch of products and solutions linked to ESG purposes or factors.





#### Dominican Republic

Ángel Antonio González

Banco Central de la República Dominicana

Yilmari Rosario

Banco Central de la República Dominicana

Alejandro Ramos

Asociación Dominicana de Fintech

Jorge Mancebo

Ecollect

Alan Muñoz

Banco FiHogar

Mite Nishio

GCS International

Peru

Amparo Nalvarte

B89

Milton Vega

Banco Central de Reserva del Perú

Italy

Rita Camporeale

Associazione Bancaria Italiana

Netherlands

Jeron de Bel

Fincog

Spain

Alicia Escriba

Google Wallet

Fernando Merino

Sage

Juan Luis Encinas

Iberpay

Javier Bartolomé Guarido

Kineox

Carmen Alonso

Visa

Herminio Fernández de Blas

EurocoinPay

Carlos Sanz

Banco de España

Ángel Nigorra

Bizum

Rubén González

Swift

Ecuador

Sebastián Quevedo

Produbanco

Rodrigo Andrade

Peigo

Colombia

Dionisio Valdivieso Urbano

Banco de la República

Edwin Zácipa

Colombia Fintech Lab

Juan Pablo García

Asobancaria

Lina María Jaime

Asobancaria

Chile

Ángel Sierra

Finte Chile

Natalia Jocelyn Herández Pérez

Banco Estado

Brazil

Layon Costa

Clara

Argentina

Paula Arregui

Mercado Pago

### minsait payments

An Indra company