



New paths for sustainable and inclusive economic growth leveraging digital assets

WHITE PAPER

NOVEMBER 2022



Contents

- 2** Introduction
- 4** Latin Americans' rising interest in digital assets offers numerous opportunities
- 8** What are digital assets?
- 13** Mastercard is partnering with the public and private sectors to realize the vision of digital assets
- 15** Mastercard is a leader in the digital assets market

Creating new paths for sustainable and inclusive economic growth

The world has been traveling on the path toward digital payments for many years, as consumers, businesses and governments have sought greater speed, security and convenience in the payments ecosystem. In response to these needs, numerous innovations have brought new capabilities to commercial transactions, cross-border payments, person-to-person transfers and other use cases.

The desire to more readily buy, own and sell assets has given rise to blockchain technology, which is an electronic ledger or database that records ownership of digital assets. As economies evolve, people are increasingly turning to digital assets — cryptocurrencies, asset-backed stablecoins and non-fungible tokens, for example — as a way to own or transfer value. Trends driving the adoption of digital assets include open banking, social networks, digital content, online gaming and gambling, financial inclusion, real-time payments and efforts to streamline supply chains and trade finance. The COVID-19 pandemic has accelerated this movement — spurring the massive development and adoption of digital assets to keep up with the demands of a digital world.

Interest in digital assets is growing because they offer consumers, merchants, businesses and governments new ways to store, use and move value.

While meeting the objectives of digital assets is today still more promise than reality, wide adoption of digital assets is likely given the ambitious benefits they seek to offer:

- **Greater efficiency and lower costs for international transfers**, such as remittances, than today's existing solutions
- Digital assets are technically **capable of being transferred instantly**
- **Expanded financial inclusion** for the unbanked and underbanked
- **More efficient government payments** as central bank digital currencies further digitize the economy, providing more efficient ways to move money and enabling features like traceability and programmability

These and other benefits of digital assets have propelled activity in Latin American and Caribbean (LAC) countries. In a region where currency fluctuations are the norm, the widely understood and expected ups and downs of cryptocurrencies seem acceptable to many.

Confirming this, cryptocurrency transactions in LAC totaled \$353.8 billion in the 12 months ending June 2021 — about 9% of all crypto transactions globally.⁴ In Brazil alone, consumers traded \$11.4 billion in stablecoins the first nine months of 2021 — almost triple the total traded in 2020.⁵

\$393B

Bitcoin's market cap has grown from \$9.4B in 2013 to \$393B in October 2022¹

\$149.2B

The market capitalization of all stablecoins was \$149.2B in October 2022²

90%

of central banks are actively weighing the merits of a central bank digital currency for their economies³

Other movements in LAC:

El Salvador became the first country to accept bitcoin as legal tender in 2021. The Bahamas became the first country to roll out a central bank digital currency (CBDC) nationwide in 2020. Since then, more than 25 countries have launched CBDCs or large scale pilots* (including 8 in the Eastern Caribbean); Brazil, Mexico and Peru have announced plans to develop a CBDC and Chile is evaluating the need to issue a CBDC. One of the largest retailers in Mexico, Grupo Elektra, announced that it would accept bitcoin payments.

These new technological representations of value could redefine value chains, streamline inefficient processes and support efforts to expand financial inclusion. Just as the Internet revolutionized our access to information, our interactions with people and our ability to manage our lives with innovative tools, digital assets may have a wide impact on the world's economies and its people.

Financial industry stakeholders – governments, central banks, financial institutions, merchants/acquirers, crypto-native companies such as crypto exchanges and wallet providers – and Mastercard are working to foster the benefits of digital assets that not only provide more choice – enabling everyone to move digital value however they want – but also provide the consumer protections people have come to expect from government-issued currencies. We at Mastercard are bringing our strategic capabilities, technologies and teams together with an intent to deliver even more security, transparency and trust to digital assets across a multi-rail ecosystem.⁶

Drawing on the strengths of our global businesses – from open banking and identity verification to analytics and fraud monitoring to settlement solutions – Mastercard has been working alongside its customers and partners to bring new services and capabilities that help make crypto more accessible, safe, secure and compliant

68%

of the world's central banks are likely to issue a retail CBDC within the next six years³

We at Mastercard are bringing our strategic capabilities, technologies and teams together with an intent to deliver even more security, transparency and trust to digital assets across a multi-rail ecosystem.

* Atlantic Council, www.atlanticcouncil.org/cbdctracker/

Latin Americans' rising interest in digital assets offers numerous opportunities

While most Latin Americans have heard of cryptocurrencies, the majority admit they don't know much about them. Yet interest is substantial: 19% of consumers have purchased cryptocurrency – 8% are frequent buyers and 11% have purchased crypto at least once, but not often – and 22% are interested but haven't purchased yet.⁷

The increase in consumer demand for crypto services in Latin America has driven Fintechs and digital banks to start deploying services to enable their customers to trade cryptocurrencies. As an example, in

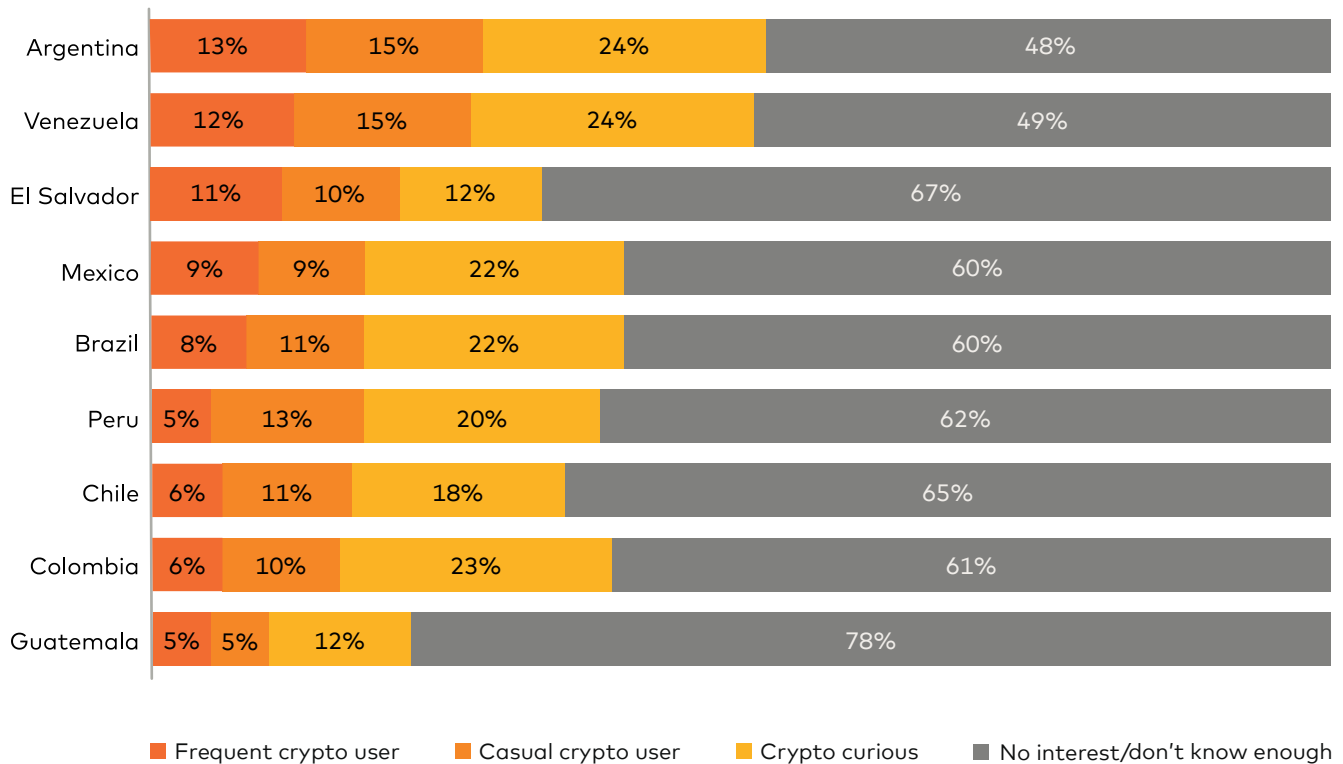
May 2022 Brazilian FinTech Nubank inked a deal with Paxos, a regulated blockchain infrastructure company, to enable its customers to buy, hold and sell crypto assets within the bank's application in Brazil.

Crypto has broad appeal, and not just geographically. While interest in cryptocurrencies is generally higher among men, in some Latin American countries women express greater interest. Among those likely to purchase crypto in the next year, more than half are women in Mexico (56%), Brazil (55%) and Colombia (51%).⁸

19%

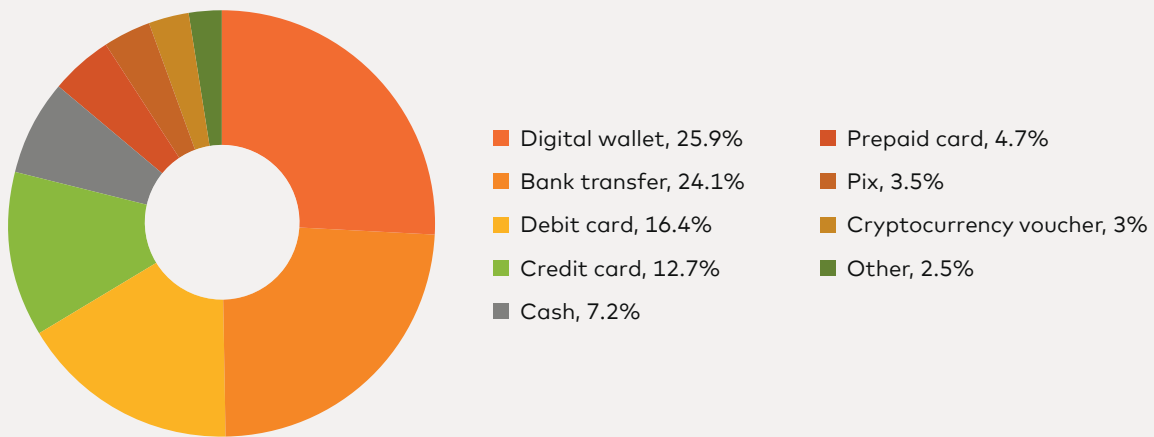
of Latin American consumers have purchased crypto⁷

Cryptocurrency penetration in Latin America



Source: Americas Market Intelligence, Cryptocurrency in Latin America, Feb 2022.

How LAC consumers currently purchase crypto*



*Among frequent and casual crypto consumers
 Source: Americas Market Intelligence, Cryptocurrency in Latin America, Feb 2022.

Latin American and Caribbean consumers' interest in cryptocurrencies spans a range of uses and value propositions, opening the door to many opportunities for central banks, commercial banks, Fintechs, merchants, digital players and others to bring new solutions and services to the marketplace.

The vast majority of Latin Americans across all markets see cryptocurrency as an investment option: More than 7 out of 10 consumers (73%) are attracted to its investment potential.⁷

How do consumers purchase cryptocurrency? Currently, about one-fourth of crypto purchases are made with digital wallets (such as Mercado Pago, PayPal) and one-fourth by bank transfer.

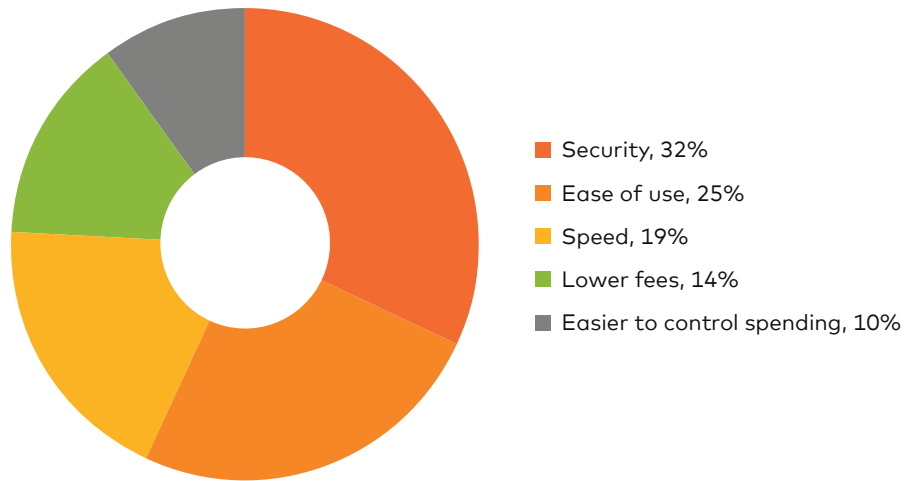
73%

of Latin American consumers are attracted to crypto's investment potential.⁷

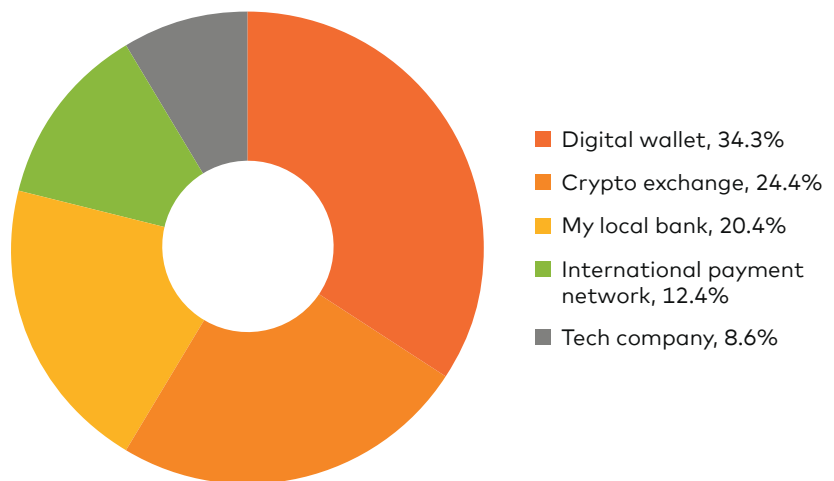
But the greatest number of crypto assets are bought by card: debit, credit and prepaid cards together represent 33.8% of crypto purchases. Those who buy crypto using their cards do so for security, ease of use, speed, lower fees and because it is easier to control spending.

When consumers were asked how they would prefer to access crypto, digital wallets remained on top, but their preferences narrowed. Consumers seem to prefer accessing crypto through the financial tools that they already use and trust.

Benefits of using a card to buy crypto*



How LAC consumers would prefer to access crypto*



*Among frequent and casual crypto consumers
Source: Americas Market Intelligence, Cryptocurrency in Latin America, Feb 2022.

"The potential for digital currencies to change everyday payments is massive. As a leading technology player, Mastercard is helping to shape it, guide it and provide consumer protections and security".

– Walter Pimenta, Executive Vice President, Products and Innovation, Mastercard Latin America and the Caribbean.

Latin American Indicators

Fintech **Bitso**, powered by crypto and serving over 5 million customers in Latin America, is currently operating in Argentina, Brazil, Colombia and Mexico. Bitso offers retail and institutional clients a cheaper and faster alternative for international transfers using crypto – and completed \$2.1 billion in B2B international payments business in 2022. This year the company also announced their partnership with Mastercard to launch their card in Mexico.

Mercado Bitcoin, with almost 4 million customers in Latin America, and a recent acquisition of the exchange CriptoLoja in Portugal, plans to expand from Brazil to Mexico, Argentina, Chile and Colombia. In partnership with several companies in Brazil, it is launching tokens tied in different ways to the real economy.

Bancolombia private bank customers began trading four cryptocurrencies in December 2021 – bitcoin, ether (ETH), litecoin (LTC) and bitcoin cash (BCH) – in partnership with U.S.-based cryptocurrency exchange **Gemini**, in a pilot program sponsored by the Colombian government.

Argentinian cryptocurrency exchange **Ripio** has grown to 4.5 million users in 8 years and operates in 6 countries: Argentina, Brazil, Mexico, Colombia, Uruguay and Spain.

Since 2019, Brazilians have been able to buy, send and receive the BRZ stablecoin, issued by **Transfero**. The stablecoin is the first cryptocurrency backed by the Brazilian real. In 2021, the stablecoin recorded a trading volume of \$1.5 billion, the highest since the coin's launch.¹⁰

The 20 million active users of **99Pay** in Brazil, the digital wallet of ride-hailing company 99, were able to buy or sell bitcoin as of November 2021.

\$51.4B

in remittances flowed into Mexico in 2021 and is expected to grow 9.4% in 2022, reaching \$56.2B⁹

10%

of LAC consumers would like to be able to earn rewards and cash back as cryptocurrency with a rewards card⁷

10%

of LAC consumers would like to be able to spend their crypto balance in stores with a debit card⁷

What are digital assets?

A digital asset is any asset that is available in electronic-only form, underpinned by cryptography.

Among the many forms of digital assets emerging, the focus of this paper is on digital currencies.
There are three primary types in use or development today:

Floating cryptocurrencies

Cryptocurrency typically issued by a decentralized system, their value is often volatile since it isn't tied to an asset or algorithm

Examples

Bitcoin, ether, litecoin

Stablecoins

Any cryptocurrency designed to have a relatively stable price by tying their value to one or more assets, such as fiat currencies, commodities or one or more cryptocurrencies

Examples

USDC, BUSD, SLVT, Dai

Central bank digital currencies

A digital currency issued and overseen by a country's central bank

Example

The Bahamas Sand Dollar

Floating cryptocurrencies

With thousands of cryptocurrencies in circulation, we are seeing a surging interest in digital assets on the Mastercard network as well, with people using cards to buy crypto assets. Amid pronounced volatility, demand increased during the past two years as leaders like bitcoin and ether rose and fell in value. We are also seeing users increasingly take advantage of crypto cards to access these assets and convert them to traditional currencies for spending, as in the **Belo** prepaid Mastercard card, which allows people to transfer their crypto holdings to pay for their

purchases at any physical or virtual store that accepts Mastercard, in Argentina and abroad.

Our support of digital assets for everyday transactions will greatly benefit merchants, since they won't need to change their current operations to accept crypto transactions. The wallet provider converts the cardholder's crypto to fiat currency to complete the transaction. This change will also cut out inefficiencies, letting both consumers and merchants avoid having to convert back and forth between crypto and traditional currencies to make purchases.

Our goal is to give consumers the choice of how to pay in a safe and secure way and to enable merchants to access growing consumer crypto spend. Cryptocurrencies open merchants up to new customers who are already flocking to digital assets, and help sellers build loyalty with existing customers who want this additional option. And customers will be able to save, store and send money in new ways.

Examples of Mastercard efforts

WIREX

Wirex became the first company to issue crypto-enabled payments cards directly to consumers in 2015, making it easier for people to buy, hold and exchange multiple traditional and cryptocurrencies. With the Wirex Card, consumers can instantly convert their cryptocurrencies into traditional fiat currency, which can be spent everywhere Mastercard is accepted around the world.

BITPAY

BitPay partnered with Mastercard to enable owners of cryptocurrencies, including bitcoin, bitcoin cash and ether, to convert into fiat currency (U.S. dollars) seamlessly and instantly and use the BitPay Mastercard debit card to spend their cryptocurrency holdings in the real world at millions of digital and physical points of sale worldwide via PIN or contactless transactions.

NEXO

Nexo and Mastercard partnered to launch the world's first crypto-backed payment card. Linked to a crypto-backed credit line, the card can be used at 92 million merchants worldwide where Mastercard is accepted, allowing investors to spend up to 90% of the fiat value of their crypto assets.

GEMINI

The Gemini Credit Card, launched in April 2022 is available in all 50 U.S. states. When approved, cardholders can earn up to 3% back on dining, 2% on groceries, and 1% on other purchases in any cryptocurrency that can be traded on Gemini's platform.

BELO

Belo is a crypto fiat digital wallet that in 2022 launched the first crypto card with Mastercard in Argentina. The app allows users to buy and sell crypto assets with a simple process as well as providing savings on top of Decentralized Finance (DeFi). The card allows users to spend whatever assets they have in their balance and receive cashback between 2% and 21%.

BITFY

Bitfy, the cryptocurrency wallet that offers ease and security to store and transfer digital assets, today has more than 500,000 customers on its platform. Its Blockchain as a Service offering provides a one-stop hub of infrastructure services for building solutions via blockchain, such as creating wallets, tokens, NFTs, swap, trade and webhook, enabling companies from varied segments to use the product. Bitfy joined the global portfolio of Fintechs supported by the Mastercard Start Path Crypto program in 2022.

BINANCE

Binance, the cryptocurrency exchange and blockchain and infrastructure provider, and Mastercard announced in August 2022 the launch of Binance Card in Argentina. Issued by Credencial Payments,* users of the card will be able to make transactions in which their cryptocurrencies are converted to fiat currency in real-time at the point of purchase. Argentinians will be able to make purchases and pay bills with cryptocurrencies at over 92 million Mastercard merchants worldwide, both in-store and online, earn up to 8% in crypto cashback on eligible purchases and enjoy zero fees on ATM withdrawals.



*Card issuance varies based on local regulations. In many markets, crypto partners work with financial institutions to issue cards. Mastercard can help crypto partners to launch their own branded solutions.

Stablecoins

Unlike floating cryptocurrencies, stablecoins aim to maintain a stable value by pegging their value at a fixed ratio, often 1:1, with one or more underlying assets, such as fiat currencies (the U.S. dollar or the Euro, for example) or other assets, such as precious metals like gold or other cryptocurrencies. Although stablecoins have been circulating since 2014, the demand for them has exploded over the past three years, reaching transaction volume of \$765 billion in September 2022.¹¹

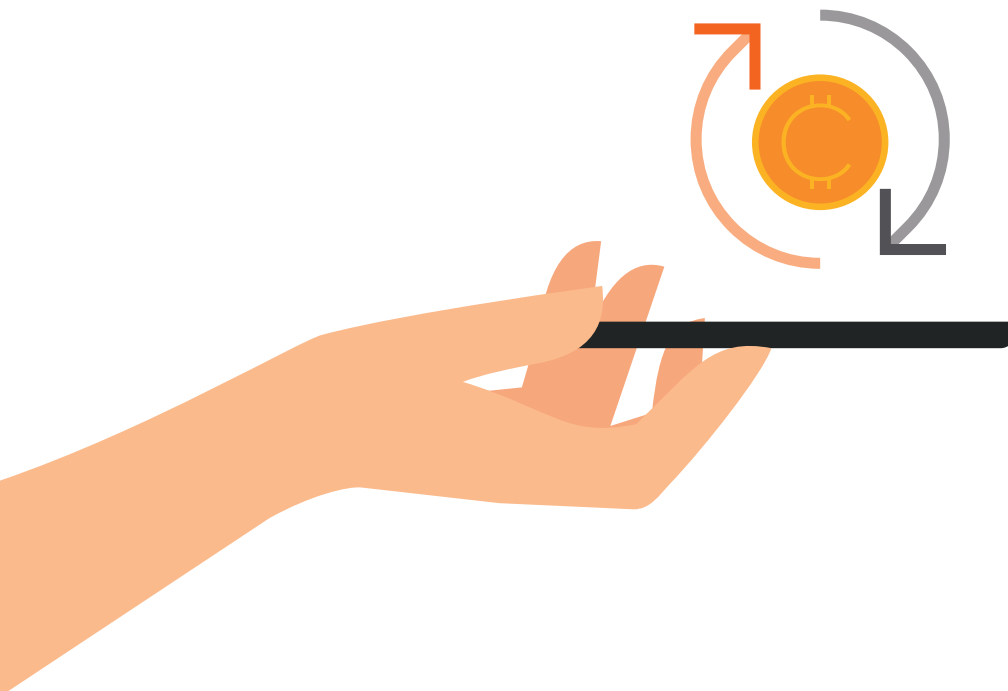
In 2021, Mastercard announced our intention to start supporting select cryptocurrencies directly on our network. We are developing a framework on the type of stablecoins we work with based on stability, compliance and consumer protections, among other factors.

We expect consumers and the ecosystem as a whole will start to rally around the crypto assets that offer reliability and security. It's those very same stablecoins that we expect to bring onto our network. We are actively working to partner with stablecoin issuers toward our ultimate objective to provide direct support for stablecoins in the Mastercard payment network, as the regulatory environment permits.

With this backdrop, regulators and legislators around the world are evaluating how to regulate stablecoins and ensure they are adequately collateralized to justify their namesake.

Example of Mastercard efforts EVOLVE BANK & TRUST, PAXOS AND CIRCLE

Working with Evolve Bank & Trust, Paxos and Circle, Mastercard is enhancing our Crypto Card Program for cryptocurrency wallets and exchanges, making it simpler for partners to convert cryptocurrency to traditional fiat currency. This new capability will help enable more banks and crypto companies to offer a card option to people wanting to spend their digital assets anywhere Mastercard is accepted.



↑59%

The monthly transaction volume of stablecoins rose 59% between September 2021 and September 2022, reaching \$765 billion¹¹

Central bank digital currencies

With the global economy racing to embrace digital assets, central banks have their eyes firmly on the future and how to support innovation, while keeping a grip on monetary policy and financial stability. This has led to a global interest by certain nations to issue CBDCs, providing the same government-backed guarantees as a nation's paper currency. In fact, 90% of central banks report that they are actively weighing the merits of a CBDC for their economies.³

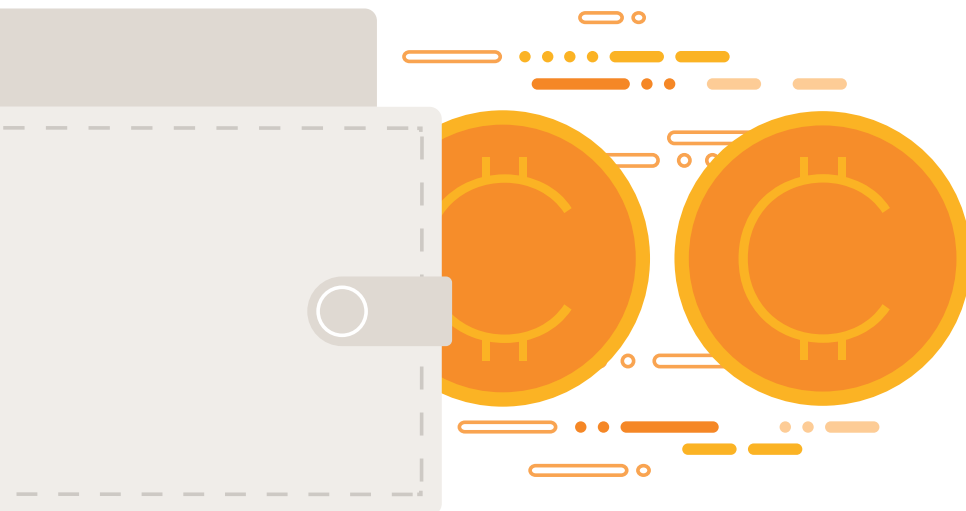
Their reasons are varied, including:

- To **modernize national payment systems** with innovative solutions, while maintaining monetary policy and financial stability
- To **deal with inefficiencies** associated with the printing and movement of money
- To **accelerate financial inclusion**, particularly as cash is being used less and less

Central banks representing more than 60% of the world's population and 72% of economic output are engaged in some level of official exploration of CBDCs and in the next six years, 68% of the world's population is likely to be issued a retail CBDC.³ In Latin America, Belize, Brazil, Chile, Colombia, Guatemala, Haiti, Honduras, Mexico, Paraguay, Peru, Trinidad and Tobago, and Venezuela are in various stages of evaluating a CBDC.

Mastercard can help central banks assess the suitability of CBDCs for their market against other possible solutions, including real-time payments.* Central banks considering CBDCs can benefit from many of the hard-won lessons and sophisticated tools that private payment networks have developed for their retail payment systems over the past half-century. Mastercard is committed to helping central banks capture the opportunities CBDCs present, while protecting consumers' interests and giving them confidence for in-person and online transactions.

Mastercard sees itself playing a critical role in testing, enabling and supporting new digital networks like CBDCs from an infrastructure, applications and services level. As an example, in the Caribbean Mastercard collaborated with a local provider and the Central Bank of The Bahamas to launch the world's first prepaid CBDC-backed card that gives Bahamians even greater flexibility in how they shop and pay using the world's first CBDC – The Bahamas Sand Dollar.



*Real-time payments are transactions that take place in real-time and use a clearing house to clear and settle with a central bank.

Its Sand Dollar is a digital version of the Bahamian dollar, introduced to expand access to digital payments to its citizens, as well as to micro, small and medium-sized businesses.

The Sand Dollar also is designed to enhance the government's disbursements programs and lower the costs of cash usage. With a prepaid Mastercard, people of The Bahamas can instantly convert their digital Sand Dollars to traditional Bahamian dollars to pay for goods and services anywhere Mastercard is accepted on the Islands and around the world.

Mastercard is actively engaging with several major central banks as they review plans to launch new digital currencies to offer their citizens a new way to pay. We also bring to these conversations our experience running complex, interdependent global payment ecosystems, including multi-rail and real-time payments networks.

Digital currencies increasingly show potential to become a part of everyday commerce, and we are committed to supporting the industry to realize the benefits of this potential and to support the future of payments.





Example of Mastercard efforts

MASTERCARD CBDC SANDBOX

To help central banks explore how proposed national digital currencies might work in a simulated environment, Mastercard has created an API-based testing environment. The CBDC Sandbox enables central banks to quickly conduct a feasibility assessment, including CBDC issuance, monitoring, distribution and technology designs, for example, and determine the potential value to their countries – with no technology investment on their part.

Delivering scale and standards to CBDCs and regulated currencies

Governments should evaluate a CBDC holistically along key principles:*

A CBDC that...	Ensures payments are...
 <p>Exists within a broader payments toolbox</p>	Inclusive
 <p>Embraces private sector participation</p>	Innovative and valuable
 <p>Delivers interoperability and open acceptance</p>	Ubiquitous
 <p>Safeguards consumers' interests</p>	Consumer-centric

*For full version of these principles, see [Central Bank Digital Currencies](#)

Mastercard is partnering with the public and private sectors to realize the vision of digital assets

"We are here to enable customers, merchants and businesses to move digital value — traditional or crypto — however they want. It should be your choice, it's your money."

– Raj Dhamodharan, Global Head of Crypto and Blockchain, Mastercard

Even before the COVID-19 pandemic — and certainly since — consumers have been moving away from physical cash. The time is right to look to the future and support innovative, sustainable digital currencies that are stable, regulatorily compliant and offer consumer protections. Introducing new technology that will enable consumers to access their money through a variety of digital assets will take time and needs careful planning.

Mastercard is ready to work with all stakeholders to maintain and strengthen trust in the payment ecosystem by championing strong know your customer (KYC) and anti-money laundering (AML) standards, by protecting consumers and their data and by maintaining a level playing field for all. We are also focused on supporting the critically needed interoperability between physical cash, bank deposits and any future digital asset.

We bring invaluable expertise and experience to help assess what can be best achieved building on existing and emerging private sector infrastructure. Together with institutions in the public and private sectors that seek to operate by a similar set of principles, we can shape the next generation of payments by working together on rules and standards through shared engagement with regulators and policymakers.

Our approach to digital currencies will be evaluated against the principles that guide our activities



STABILITY

For a digital asset to be suitable for payments, it must provide reliability and assurance, starting with greater price stability



FULL COMPLIANCE

With regulations, including whether they are permitted as a medium of exchange, and strict KYC/AML and sanctions procedures



STRONG CONSUMER PROTECTIONS

To earn and maintain consumer trust requires a framework of standards and rules that safeguard the security of every transaction, consumer data and privacy

Recently Mastercard introduced a new program to enable financial institutions to bring secure crypto trading capabilities and services to their customers, Mastercard Crypto Source™. In partnership with regulated and licensed crypto custody providers, Mastercard's financial institution partners will gain access to a comprehensive suite of buy, hold and sell services for select crypto assets, augmented with proven identity, cybersecurity and advisory services. These new capabilities are complemented by Mastercard Crypto Secure™ to bring additional security to the crypto ecosystem and support card issuers in their compliance efforts.

With this addition, Mastercard's suite of crypto-related offerings for banks and Fintechs includes:

Technology and partnership support to enable consumers to buy, hold and sell select crypto assets.

Security management, including Mastercard's identity solutions, crypto analytics, transaction monitoring, anti-money laundering, 'Know Your Business' and life cycle stages, cybersecurity and biometrics.

Crypto spend and cash out capabilities offered through a range of products, including crypto cards, open banking and cross-border services. Financial institutions will also be able to offer additional functionality using Mastercard's technology, such as digital receipts and loyalty solutions.

Crypto program management, including program design, product development and technology implementation, as well as go-to-market optimization and marketing consultancy services, providing end-to-end support for banks, Fintechs and issuers to offer crypto programs at scale.

To support the Crypto Source program, Mastercard is expanding its work with **Paxos**. The partnership aims for Mastercard's service providers to provide crypto-asset trading and custody services on behalf of clients, while Mastercard will leverage its technology to integrate those capabilities into clients' interfaces, resulting in a seamless experience for the consumer.

Digital assets matter to us because:

They expand consumer payments choice. We are here to enable customers, merchants and businesses with more choice in how they move digital value – traditional or crypto. Our multi-rail strategy is designed to enable consumer choice; digital assets are an important piece of this effort.

Interest in digital currencies is growing in Latin America. In just the last few years, the digital assets market has grown remarkably. We are working to strengthen the crypto ecosystem by leveraging our network, technology, relationships and brand.

People looking for more payment choices are turning to digital assets. By adding digital assets to our multi-rail capabilities, we can extend safe, seamless and secure payments to other payment options and use cases.

Success is best achieved through partnerships between the public and private sectors. Partnering with institutions in the public and private sectors offers the best opportunity for innovation, interoperability and sustainability. We can shape the next generation of payments by working together on rules and standards through shared engagement with regulators and policymakers.

Mastercard is a leader in the digital assets market

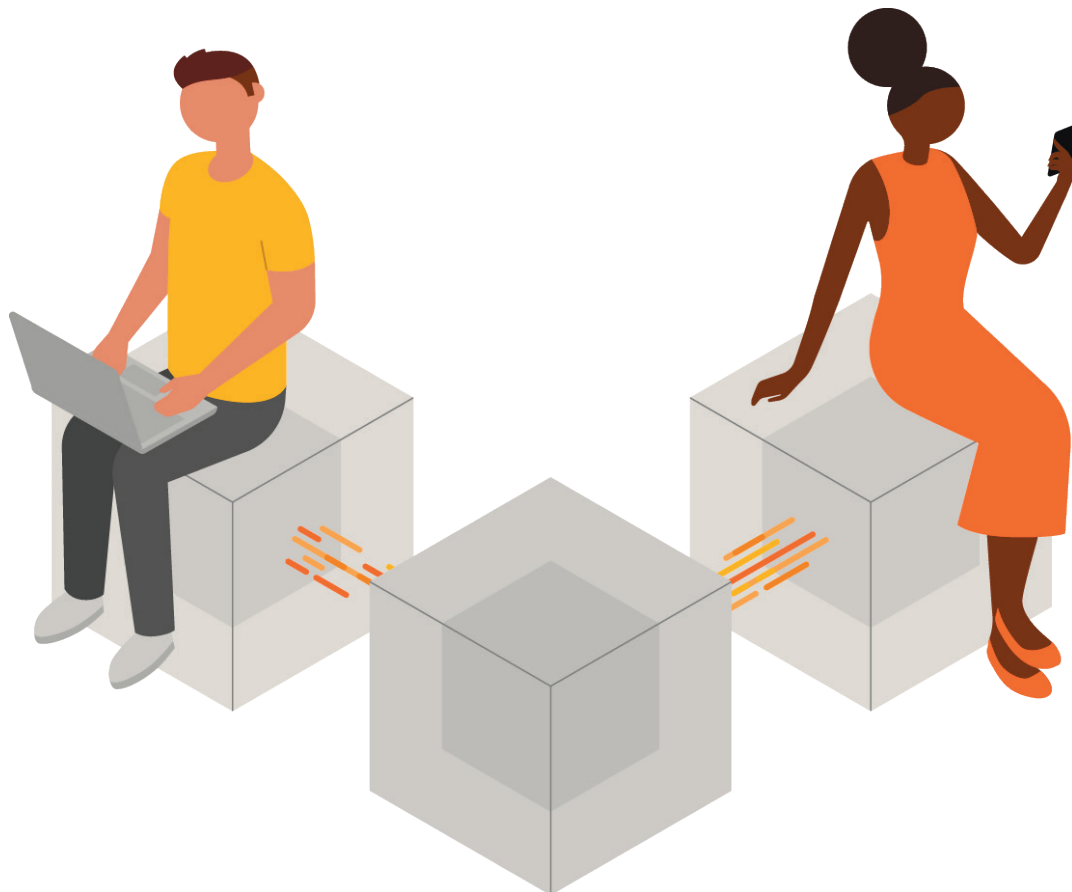
With Mastercard's worldwide network, we are helping to secure digital currencies for consumers, businesses and governments. Our goal is to ensure that payments with digital currencies are imbued with the same level of trust currently experienced across more traditional payment methods and interactions. From gaining visibility into third-party risks, to combating cryptocurrency fraud and money laundering, validating people and devices using

real-time biometrics and linking digital interactions to the people behind them, we never stop innovating to keep digital currency connections safe.

We are focused on compliant enablement of crypto use cases for both traditional financial institutions and crypto Fintechs across different asset types. We will be very thoughtful about which assets we support based on our principles, focusing on consumer protections and regulatory compliance.

Our efforts are focused on these areas:

1. Enabling flows between crypto and fiat currencies and rewards
2. Services to help financial institutions, merchants, governments and crypto Fintechs launch consumer and merchant solutions



1

Enabling flows between crypto and fiat currencies and rewards

Buy cryptocurrency

Facilitate consumers' purchase of cryptocurrency using Mastercard-issued cards or rails – a top opportunity for issuers, acquirers and crypto wallets and exchanges.

Spend with crypto card

Enable consumers to use their crypto wallet balances of digital assets for everyday transactions.

Cash out with Mastercard Send™ platform

Enable consumers to cash out from crypto exchanges to their eligible Mastercard card account.

Earn rewards with crypto

Empower consumers to earn rewards in crypto for specific purchases with card-based products.

2

Services to help financial institutions, merchants, governments and crypto Fintechs launch consumer and merchant solutions

Identity solutions

Best-in-class identity verification services from Finicity and Ekata can help wallet providers validate consumer identity during account opening and when topping up assets in wallets on an ongoing basis.

Fraud management

CipherTrace is a leader in crypto risk intelligence and compliance. CipherTrace uses blockchain analytics and crypto intelligence to deliver cryptocurrency risk and compliance solutions, including investigation and training services, for some of the largest banks, crypto exchanges, law enforcement and government agencies and other financial institutions in the world.

Advisory services

Mastercard Advisors' Crypto and Digital Currencies Consulting Practice advises customers, merchants, governments and other partners on how to incorporate digital assets into their long-term strategies. Advisors' consultants help central banks explore and define CBDCs, including through use case design and testing using our CBDC Sandbox. They are helping banks build a business case and market entry strategy as they seek crypto partners, as well as perform risk assessments and bank-wide crypto and NFT strategy development, and consider introducing crypto cards and crypto loyalty programs. And Mastercard is helping blockchain and crypto firms in startup phase come to market and expand into new markets.

Enhanced value across the ecosystem

Fifty years of expertise running retail payment infrastructure around the world has provided Mastercard with deep insights into what it takes to deploy safe, resilient and sustainable payment networks. We continue to invest in innovative approaches to payment infrastructure and services — including the use of blockchain — and we are eager to leverage that expertise to support the design, testing and deployment of new payment infrastructure around the world.

Mastercard is also committed to building a digital economy that works for everyone, everywhere. Forging new paths for sustainable and inclusive economic growth improves the quality of life and the financial security of all segments of society. We share central banks' goal to ensure the public trust in the global financial system as we help transform it to better serve the world's people.

One way we can do that is by sharing the tools and expertise needed to deliver this vision, so everyone can benefit from enhanced value, security and scale. As with any innovation, the best solutions are built with customers at the center of the equation and that meet real needs. We believe the best path to meeting these objectives is to integrate with existing infrastructure that consumers, banks and governments already trust.

Forging new paths for inclusive economic growth improves the quality of life and the financial security of all segments of society.

1. <https://coinmarketcap.com>
2. CoinGecko.com, October 3, 2022.
3. Bank for International Settlements, BIS Papers No. 125, "Gaining momentum – Results of the 2021 BIS survey on central bank digital currencies," May 2022.
4. Bloomberg Línea, "Tax Authorities Wake Up to LAC's Increasing Crypto Adoption," December 18, 2021.
5. CoinDesk, "Why Brazilians Are Turning to Stablecoins Like Tether," January 12, 2022.
6. Mastercard News Brief, October 17, 2022. <https://www.mastercard.com/news/press/2022/october/mastercard-to-bring-crypto-trading-capabilities-to-banks/>
7. Americas Market Intelligence, survey of 2,755 consumers during January 2022, sponsored by Mastercard, Cryptocurrency in Latin America, February 2022.
8. Data Driven Consulting Group, 2022 Global State of Crypto Report, sponsored by Gemini, February 2022.
9. Insider Intelligence, December 2021.
10. Cointelegraph, "Cointelegraph's Brazilian version unveils top 10 people in crypto and blockchain," February 23, 2022.
11. The Block, Adjusted on-chain volume of stablecoins, October 2022. <https://www.theblockcrypto.com/data/decentralized-finance/stablecoins/adjusted-on-chain-volume-of-stablecoins-monthly>



Designed by Mastercard Creative Studio

This document is proprietary to Mastercard and shall not be disclosed or passed on to any person or be reproduced, copied, distributed, referenced, disclosed, or published in whole or in part without the prior written consent of Mastercard. Any estimates, projections, and information contained herein have been obtained from public sources or are based upon estimates and projections and involve numerous and significant subjective determinations, and there is no assurance that such estimates and projections will be realized. No representation or warranty, express or implied, is made as to the accuracy and completeness of such information, and nothing contained herein is or shall be relied upon as a representation, whether as to the past, the present, or the future.