

# Trends in Regional Payments

Inside the Evolving Global Payments Landscape



2024



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## About Ripple

Ripple is the leader in enterprise blockchain and crypto solutions, transforming how the world moves, manages, tokenizes and stores value. Ripple's business solutions are faster, more transparent, and more cost effective—solving inefficiencies that have long defined the status quo. And together with partners and the larger developer community, we identify use cases where crypto technology will inspire new business models and create opportunity for more people. With every solution, we're realizing a more sustainable global economy and planet – increasing access to inclusive and scalable financial systems while leveraging carbon neutral blockchain technology and a green digital asset, XRP. This is how we deliver on our mission to build crypto solutions for a world without economic borders.

Learn more about Ripple at [ripple.com](https://ripple.com).



# Introduction

## Major shifts driven by consumer preferences, regulatory movements, and new technologies have upended payments experiences.

Across the modern arc of payments, McKinsey describes distinct eras marked by paper, plastic, and accounts. Now, a new era is emerging marked by a decoupling where a mix of banks, payment service providers, and fintechs institute new products and technologies to try and keep up with the ever-growing demand for cross-border payments.

While payments trends vary by region, some themes are more pronounced globally. Within each region, modernized payments solutions, including blockchain-enabled payments, are bringing faster, more inclusive, and transparent

experiences. The acceleration of instant payments is paving the way for faster, more efficient payment rails. And the adoption of open banking is paving the way for greater transparency. Stakeholders from central banks and super app providers to rural consumers stand to gain.

This report explores principal payment trends throughout North America, Latin America, Europe, Asia, and Africa. We examine the genesis of these, and spotlight success barriers, opportunities, and potential impacts.



01

# Open Banking on the Rise in North America

Modernized payment systems and financial services are gaining traction across North America as standardized messaging, secure data exchange, and interoperability take shape. Here, we examine how open banking, FedNow, and ISO 20022 have contributed to streamlining the financial landscape in this region.



Banks and fintechs across the region are leveraging alternatives to traditional payment experiences and adopting technologies for real-time payments use cases extending through B2B, B2C, A2A, P2P, G2C, and beyond.

Today, the dynamic of connecting various banking and payment card accounts is leading to more customized payments products, faster access to credit and financing, and greater financial control for individuals.<sup>1</sup>

Research suggests that the global open banking market will eclipse \$130 billion by 2028, driven by rising consumer and institutional preferences for digital payments. In 2022, the market reached \$15.21 billion, but is set to expand at a remarkable 24.6% estimated CAGR due to the growing use of digital payments and mobile wallets.

Additionally, open banking solutions have skyrocketed across myriad industries like financial services, healthcare, retail, and insurance.<sup>2</sup>

## Open Banking 101

### **Open banking takes place when banks and financial institutions give customers and customer-approved third parties digital access to financial data.**

These third parties are often able to initiate payments as well as download and easily share information on account balances, payments, transactions, investments and more.

There are a number of benefits to open banking, such as:

- Broadened revenue streams through new API-enabled products
- Improved customer personalization and satisfaction via increased touchpoints
- Strengthened relevance for financial institutions through diversification of client offerings
- Expanded data transfer capabilities in which competitive third-party providers can access bank account and transaction data through APIs
- Support for financial inclusion as a broader range of data points can be used to assess a customer's creditworthiness

Customers who consent to share information within an open banking system give providers a better understanding of their needs, enabling streamlined payments solutions, personalized products and offerings, and better user experiences.

# \$130<sup>B</sup>

The global open banking market will eclipse \$130 billion by 2028, driven by rising consumer and institutional preferences for digital payments.



## Early, but Eager: Open Banking Trends in North America

Europe and the United Kingdom have historically been the first-movers across open banking adoption, however, rising US-based support is underway. Account to account payments which represent 45% of all electronic payments are growing 280% year over year in the UK. In parallel, 71% of US consumers now say they'd like to make purchases or pay bills directly from their bank account.<sup>3</sup>

The past year has seen an uptick in newsworthy open banking initiatives. Coinbase announced a partnership with an account-to-account infrastructure company to improve deposit and withdrawal experiences in Canada, the world's third-most crypto-aware nation.<sup>4</sup>

Welcoming open banking opportunities can result in a rise in competition and a downward pressure on margins, which drive traditional financial institutions to either find new revenue streams or new cost-saving measures. Companies harnessing the benefits of open banking — particularly those incorporating blockchain innovations — have the opportunity to address both issues.

While the impact open banking has on banks, credit unions, payment service providers, and legacy institutions must be considered, there is ample economic opportunity for consumers and the markets to which these institutions contribute.

Leaders at the Financial Data Exchange (FDX) — a non-profit industry standards body dedicated to unifying the financial services ecosystem — report that open banking initiatives are thriving in the US. Last year, they estimated that over 30 million consumers had converted from credential-based access (ID and password) to the more secure, tokenized API access.<sup>5</sup> Likewise, FDX leaders suggest network effect-led growth from open banking use is imminent in the US.

Two additional forces have supported the growth of open banking in North America: US consumer demand and increased regulatory clarity. In terms of consumer use, Visa notes that 87% of US consumers are using open banking to link their financial accounts to third parties, however only 34% are aware that they are using the technology.<sup>6</sup>

# 280%

Account to account payments which represent 45% of all electronic payments are growing 280% year over year in the UK.



So while open banking advances are broadly considered market-driven, patchwork regulatory frameworks and educational initiatives may be slowing adoption. In Canada, the expected establishment of a country-wide open banking regime remains delayed. Should these forces reverse, more innovation could quickly emerge.

Still, activities from industry vanguards point to open banking momentum. Mastercard recently introduced small businesses to its open banking platform which provides advanced analytics. When business owners give permission to access their financial data via open banking, lenders can use Mastercard APIs to apply cash flow, balance, and payment history analytics to transactions. With improved insights on liquidity, revenue, cash flow, and default risk, lenders can tailor offerings and SMBs with more competitive growth financing.

Importantly, this signifies supply and demand momentum behind an expanding range of spending, financing, and payment tools.

In conjunction, banking-wide system improvements like FedNow®, the Federal Reserve's instant payment service, have allowed financial institutions of varying sizes to develop innovative solutions that can be personalized and data-driven to ultimately deepen customer relationships and strengthen brand loyalty.

## FedNow® Launch and Impact

Towards the middle of 2023, the United States Federal Reserve launched the FedNow® Service to modernize the national payment system and enable faster, more efficient, and more secure domestic transactions.

The instant payment infrastructure is available to US-based depository institutions and allows individuals and businesses to send instant payments through institutional accounts.

While the RTP network was made available across the US prior to FedNow, the latter supports awareness efforts and helps grow adoption of real-time payment systems. As adoption and implementation expands, we anticipate a meaningful reshaping of the US financial landscape.

With this progress, financial institutions, fintech companies, and other stakeholders will have the opportunity to create new products and services that maximize the real-time capabilities offered through FedNow.

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**“In the next year, we are likely to see the networking effect — ‘everyone’s on it because everyone’s on it’ — begin to manifest itself in North America.”**

Don Cardinal, Managing Director, FDX



## Examining the Benefits of Real-Time Payments with FedNow<sup>7</sup>

What are the core benefits?	How will financial institutions be impacted?	What are the potential macro effects?
<b>Enhanced accessibility:</b>  Small businesses, corporates and consumers will be able to access instant payments across domestic institutions that are participants of FedNow.	Small banks and credit unions will be able to provide real-time payment services to their customers.	Enhanced accessibility improves financial service offerings for everyone involved which can have a lasting impact on financial inclusion.
<b>Enhanced global competitiveness:</b>  Real-time domestic payments enable US-based businesses to operate on par with others in the global marketplace.	Customers will become accustomed to real-time domestic payments and likely expect the same from international transactions, putting pressure on financial institutions to offer more efficient cross-border payment services.	GDP is expected to increase by \$173 billion with \$184 billion in savings for consumers and businesses as real-time payments take shape.
<b>Improved efficiency:</b>  Payment speed and settlement times will improve dramatically.	Institutions will need to invest in improved tech stacks to support the demand generated by real-time payments.	Financial agility will increase for businesses and consumers alike as barriers to streamlined cash flow are reduced.
<b>Support for innovation:</b>  Real-time payments will increase end-user expectations and push the financial services industry to progress.	Financial service providers will need to develop or adopt solutions that leverage the real-time capabilities of FedNow.	New developments could include innovative payment apps, integrated payment solutions, expanded data and directory offerings—all to serve a superior payment experience.

As customer expectations continue to rise alongside technological advances, depository institutions and their service providers can build on this capability and introduce value-added services to their customers.<sup>8</sup>

Some 25% of financial institutions said they were waiting for FedNow to deploy before finalizing a real-time payments strategy, but major players in the payments space still haven't moved on adoption.<sup>9</sup> Taking a passive approach to innovation could be detrimental to an institution's competitive stance as fintechs fill the gaps with more advanced offerings and global markets leverage progressive solutions.

FedNow will also leverage the ISO 20022 messaging standard, which is designed to be compatible with future iterations of the instant payments infrastructure.

**“The Federal Reserve built the FedNow Service to help make everyday payments over the coming years faster and more convenient.”**

Jerome Powell, Chair, Board of Governors,  
Federal Reserve





## ISO 20022 Goes Live

ISO 20022 serves as a universal language to more efficiently share financial data across the globe. The messaging standard represents the need for modernization and plays a critical role in supporting instant payment capabilities and expanding payment process innovations. ISO 20022 is expected to bring significant changes to how financial services are conducted, improving data quality and reducing errors across cross-border payment flows, while making transactions more efficient and secure.<sup>10</sup>

Specifically, ISO 20022 offers a structured, data-rich common language for corporates and banking systems. This is necessary to move away from end-of-day batch file payments processing to real-time processing. The standard may also provide better analytics using more robust data elements, which could bolster financial institutions in generating new services and product offerings.

For corporates and financial institutions, ISO 20022 adoption will boost operational efficiencies, including the ability to exchange detailed remittance information with a customer payment. In addition, it adds support for straight-through processing and a reduction in errors and manual processing.<sup>11</sup>

Growing adoption of the ISO 20022 messaging standard and the opportunity for highly structured data has led the Federal Reserve to incorporate the framework into its FedNow® service. According to the Federal Reserve's bank services group, this standard will be able to support FedNow as it evolves and adds capabilities.<sup>12</sup>

### Fast Facts: ISO 20022

- An international standard for exchanging electronic messages
- Offers structured, rich data using XML syntax
- This format is already in practice for real-time, low-value and high-value clearing systems around the world.
- Offers richer references and improved remittance information
- Requires planning ahead: multi-year project for financial institutions to implement value-added services to enhance experience

Source: [JP Morgan](#)

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**ISO 20022 offers a structured, data-rich common language for corporates and banking systems.**



# Going Cashless: Spotlight on Stablecoins for Payments

A stablecoin is a type of digital currency designed to make transacting with crypto more practical.

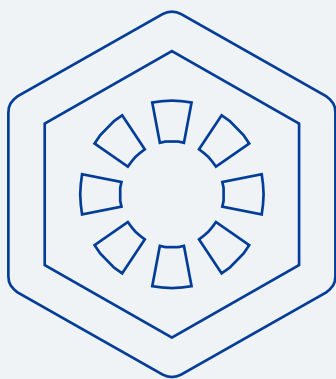
Most stablecoins are pegged to a fiat currency like USD or EUR. Because of this, stablecoins have acted as a gateway into using blockchain and digital assets for payments amongst users concerned with cryptocurrency price volatility.

Like many digital assets, stablecoins can provide broad, inclusive access to the financial system, and enable the fast and efficient movement of value. In 2022, fiat-backed stablecoins transacted \$6.87T, eclipsing both Mastercard and PayPal in terms of moving value across networks.<sup>13</sup>

Using stablecoins for payments combines the benefits of blockchain technology — namely greater security, transparency, cost efficiency, and speed — with the trust and familiarity of traditional fiat.<sup>14</sup>

As demand for stablecoins grows, particularly as cash use is at a historic low, more individuals and businesses are considering these assets as payment alternatives. The number of Americans who say they did not use cash to make a purchase in a typical week is now 41%, up from 29% in 2018.<sup>15</sup> Business owners are increasingly finding the switch to stablecoins advantageous, noting rising consumer demand, faster checkouts, lower labor costs and increased security.<sup>16</sup>

The trend towards stablecoin use is driven by the benefits of blockchain technology that add improvement over credit-card and other traditional payment types.



Stablecoins reduce the role of middlemen in the current financial system and support direct transactions between merchants and consumers, reducing intermediary costs. Since stablecoins are cryptographically secure, users can settle transactions almost instantaneously without double-spending or other problematic settlement facilitation.

Because stablecoins are built on distributed ledger technology, they offer programmability to payments via smart contracts which can inspire useful product or service innovation and link the traditional Web2 economy with the future of finance—Web3.

Adoption of new digital payment methods offer significant benefits to customers and society: improved efficiency, greater competition, expanded financial inclusion, and innovation.

In 2023, PayPal jumped on the stablecoin trend and launched PayPal USD (PYUSD) a stablecoin backed by US dollar deposits, short-term US treasuries, and similar cash equivalents. PYUSD can be redeemed one-to-one for US dollars.

PayPal USD was designed to reduce payments friction in virtual environments, facilitate the fast transfer of value, send remittances or conduct international payments, enable direct flows to developers and creators, and foster the continued expansion of digital assets by the world's largest brands.

On-trend with the rest of the global crypto industry, regulation of this new asset class has already begun to

take shape. According to Bernstein research, stablecoin regulation is quickly progressing across the US, EU, UK, and Asia, and tends to merit more political support than crypto regulation.

The US is witnessing regulatory progress with recent bipartisan support for the 'Clarity of Payments Stablecoin Act'. If passed, the legislation could unlock stablecoin innovation led by private players in the blockchain industry, allowing anyone with consumer distribution (social, commerce, finance) to partner with a regulated stablecoin issuer.<sup>17</sup>

\$6.87T

In 2022, fiat-backed stablecoins transacted \$6.87T, eclipsing both Mastercard and PayPal in terms of moving value across networks.



02

# Asia Pacific: Leading the Way in Instant Payments

The combination of innovative technology, ubiquitous smartphone access, and friendly regulation cements the Asia Pacific region as the global leader in instant payments and enables wide-spread access to real-time settlement. With the vast majority of profitable digital banks based in the region, it's likely that this success will flourish as adoption of new fintech models increases.



Countries across the Asia Pacific region continue to pioneer instant payment delivery and digital banking innovations. In terms of established global financial systems, the region is relatively new to the banking industry but has grown adept at navigating digital-only financial services. Asia Pacific is home to 10 out of 13 of the most profitable digital-only banks worldwide.<sup>18</sup>

The region's appetite for experimentation with alternative payment rails has led to better cross-border and domestic payment capabilities, access to real-time settlement, opportunities for financial inclusion, and global leadership in financial innovation. By many measures, Asia Pacific operates as the epicenter of digital finance: The region is home to 20% of the world's digital banks, and its citizens are the most enthusiastic adopters of digital payments.<sup>19</sup>

The region's digital banking sector outperforms other markets in part because its culture and processes are rooted in a customer-first ethos. Companies tend to only leverage banking technologies, platforms, and architectures conducive to omni-channel customer experiences and differentiate offerings with proactive customer service.<sup>20</sup>

Sector participants also tend to aggressively evaluate and embrace robust use cases for blockchain, Web3, decentralized finance, and artificial intelligence, particularly around mobile wallets and social apps to facilitate better domestic and cross-border payments.

Digital wallets in Asia Pacific (excluding China) more than doubled their share of e-commerce transaction value in the last five years, and this share is projected to grow over the next three years. Similarly, digital wallets' share of payment transaction value at point-of-sale grew 6x in the last five years.<sup>21</sup>

Southeast Asia in particular has exemplified expansive regional payments progress. Within the market, real-time payments network volume is expected to reach \$2.4 trillion by 2025—a 230% increase from 2020. In terms of technology adoption, consider that over 400 million people in Southeast Asia alone will use mobile wallets by 2026.<sup>22</sup>

## APAC's 'Payments First' Playbook

Over the last year, APAC's digital banking participants made spirited attempts to capitalize on consumer interest in transacting abroad by supporting more affordable, real-time money transfers.

For example, Thunes' [partnership](#) with Tencent Financial Technology introduced wallet and account infrastructure for over one billion Chinese users across Weixin (internationally known as WeChat). The partnership aims to make sending money across borders and sending remittances as easy as sending a message.<sup>23</sup>



**Asia Pacific is home to 10 out of 13 of the most profitable digital-only banks worldwide.**



Elsewhere, Asia's banks and fintechs are recasting how billions of consumers engage with digital finance, including surrounding real-time payment offerings.

Singapore and Thailand, for example, both launched QR code-based real-time retail payment systems, PayNow and PromptPay. Malaysia, Indonesia, and Thailand now have connected networks. And in 2022, Malaysia, Singapore, Indonesia, Thailand, and the Philippines signed a deal to integrate their QR code payment systems. According to ACI Worldwide, growing cross-border QR-code payment linkages forming between Malaysia and Indonesia, Singapore and Thailand drive rapid RTP growth.<sup>24</sup>

India launched its own real-time payments platform, Unified Payments Interface (UPI), in 2016 and just recently eclipsed 10 billion processed transactions.<sup>25</sup> UPI allows instant peer-to-peer and person-to-merchant payments via mobile devices and is expanding internationally through partnerships in several countries including Singapore and the UAE. UPI is expected to support the US dollar to further enhance the mobile payments system. India's digital payments volume grew tenfold over the past five years and is projected to grow at roughly 35% annually over the next five years.<sup>26</sup>

Payments revenues across India have risen by an average of 12% over the past five years, reaching \$64 billion in 2022 when they grew by 38%. India has pulled even with Japan as the fourth largest payments-revenue-generating country—behind only China, the United States, and Brazil.<sup>27</sup>

Between 2021–22, India received \$89 billion in foreign remittances—the highest ever in a year by any nation. That number is projected to rise to \$100 billion in 2024. Leaders across India suggest that the UPI-PayNow linkage (and others to come) will grow in utility and will contribute in facilitating trade.<sup>28</sup>

Even countries that have traditionally remained behind the innovation curve are reassessing payments progress. Cash stands out as the dominant medium of exchange in Japan, however, banking authorities recently announced a “Cashless Vision” to increase digital transactions to 40%, by 2027.<sup>29</sup> While the country lags behind regional, digital-first peers (and still operates the world's oldest payments infrastructure), the labor ministry is backstop-ping this system of e-money salary payments to encourage workers to use digital transactions for daily purchases.<sup>30</sup>

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**“Sustained growth in India, fueled by cash displacement, moved it into the top five countries for payments revenues.”**

McKinsey & Company



## Spotlight on India: Payments Fueling E-commerce Ambitions

In January 2023, The National Payments Corporation of India — an umbrella organization operating payments and settlements systems — announced that it was making UPI available to Indian non-residents of ten countries including Australia, Canada, Singapore, the UK, and the US, paving the way for a global remittance network. Other countries including Bhutan and Nepal are adopting UPI, and the technology is integrating with payment architectures in Singapore and the UAE.

In addition to streamlined remittance networks, UPI and other real-time payment schemes are fueling cross-border commerce in India and providing online merchants with a significant growth opportunity.

For merchants, account-to-account (A2A) payments reduce the cost of payment acceptance while improving cash flow through immediate availability of funds. In India specifically, A2A payments as a percentage of e-commerce transaction value jumped from 12% in 2021 to 19% in 2022—and is projected to reach 24% by 2026.<sup>31</sup>

Given UPI's versatile architecture, the technology connects to a variety of payment sources. Today, nearly every bank in India supports UPI transactions through mobile applications. UPI is also displayed at the checkout page along with other common payment methods. When consumers click on UPI, they are offered several payment options, including using digital wallets (e.g., Paytm, Google Wallet, BHIM, PhonePe, WhatsApp), scanning a QR code, or linking a bank.<sup>32</sup>

Bain estimates that by 2027, there will be more online shoppers in India than there are in the United States. Analysts expect the number of online shoppers in the country to increase from 190 million to 450 million. From a market size perspective, e-commerce volumes are expected to grow by 82% by 2026, likely boosting digital payments activity.<sup>33</sup>

Wider and more robust global payment connections will be key to realizing new revenues and e-commerce volume. A recent study found that 75% of small to mid-sized businesses (SMBs) were dissatisfied with existing cross-border payment solutions, and 27% said the complexity of cross-border payments 'hindered their business growth'.<sup>34</sup>

Research also highlights how digital merchants across Asia Pacific that do not account for local payment capabilities experience underperformance and cart abandonment issues; those that did offer local payment methods saw cart abandonment drop by almost half. Enabling differentiated, local payment methods via payments orchestration — supporting digital avenues like e-wallets, online bank transfers, buy now, pay later (BNPL), crypto, direct debit — can all aid performance.

Although popular card networks, including VISA and Mastercard, hold substantial market share in India, a meaningful consumer segment still prefers local payment alternatives. Indian consumers only pay for 28% of all online purchases using a credit or debit card. The remaining 72% of purchases are made via bank transfers, e-wallets, and other types of payment methods.<sup>35</sup>

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**“India & Southeast Asia will see APAC's strongest e-commerce growth through 2026.”**

The Global Payments Report 2023



## Obstacles to Digital Payments Transformation

Despite Asia Pacific's progressive take on digital technology, privacy and security concerns may hamper the adoption of new payment rails. Research suggests that more than 75% of the region's consumers would withdraw support of a brand in the case of a data breach, regardless of the products or services offered.<sup>36</sup>

The World Economic Forum dubs the Asia Pacific region "ground zero for cybercrime incidents." The pace at which the cyber threat landscape is evolving in conjunction with malicious software, the mobilization and organization of cybercriminal groups, geopolitical conflicts, and economic uncertainty have all combined to create the perfect environment for threat actors to flourish.<sup>37</sup> In the region, 60% of surveyed leaders acknowledged a substantial lack of cybersecurity staff in their organizations.<sup>38</sup>

According to CheckPoint Research, APAC witnessed the highest year-over-year increase in weekly cyberattacks during the first quarter of 2023.<sup>39</sup> Observers also express concerns over problems of macroeconomic volatility and uncertainty, and higher cost of funding.<sup>40</sup>

The flipside of the region's dynamism is the lack of predictable and homogenous consumer behavior. Payment behaviors and usage remain fragmented; consumers in Hong Kong and Singapore are historically more receptive to new digital payment methods (e.g. Apple Pay, Google Pay, Samsung Pay), in markets like China, the Philippines, and Vietnam, consumers tend to pay with local and regional wallets out of familiarity and convenience.<sup>41</sup>

As the use of crypto in payments continues to expand in APAC, harnessing that momentum will rely on close collaboration between national governments and private companies to achieve maximum impact and ensure the utmost security for consumers.

# 75%

More than 75% of the region's consumers would withdraw support of a brand in the case of a data breach, regardless of the products or services offered.





03

# Africa: Crypto and Mobile Payments Fuel Financial Inclusion

Across African developing markets, the use of digital payments is expanding well beyond the global average. The mobile-first transformation is so far-reaching that the typically conservative banking sector is actually at the forefront of mobile money technology, and this initiative is reaching individuals who have been historically excluded from traditional financial systems. Consumer behaviors also suggest an optimism for crypto in payments as Africans respond to frustrations with limited banking system access and a need for better cross-border remittance options.



A few reasons for the aforementioned financial exclusion include cost barriers to opening an account, high remittance fees, a lack of identifying documentation, limited access to physical bank branches, and an economy that still largely operates on cash.

Today, the continent accounts for 70% of the world's \$1 trillion mobile money value, and nearly half of registered mobile money accounts. The value of Africa's mobile money transactions edged up 39% to \$701.4 billion in 2021 from \$495 billion in 2020, reinforcing that the future of African financial services is both digital and mobile.<sup>42</sup>

## Bottom Line on Mobile Money

Mobile money refers to electronic payment technology that allows money transfers between mobile devices using a SIM card. This allows users to freely transact without needing to connect to a bank or open a bank account.<sup>43</sup>

This technology has been touted as a tool for broadening access to financial services in areas where financial infrastructure is lacking. Across Africa, SIM cards can be used on both smartphones and non-smartphones, widening the number of mobile money users and improving accessibility. Nearly half of the world's mobile money users are in Africa, making up approximately two-thirds of global mobile money transactions.<sup>44</sup>

Research shows that by 2025, at least 70% of all online transactions will be made with alternative payment methods. In this paradigm, digital wallets, mobile money, and instant payments will hold sway, with card transactions representing only 30% of online volume.<sup>45</sup>

Even as mobile money adoption proliferates, broader financial services are still not reaching the majority of African citizens. Due to the constraints listed previously, consumers are forced to forfeit access to typical legacy banking perks including earning interest on banked savings and building up a credit history.

Interoperability on the continent also remains a major issue amongst banking and payment alternatives.<sup>46</sup> For this, a growing number of network providers are working on near-instantaneous payments technologies built on blockchain.

## Reimagining Remittances

The past few years have seen a steady increase in the use of digital financial services across Africa. After COVID-19 initially disrupted remittance flows, activity surged—in large part, as family members abroad supported African communities. Migrants are actively responding to the needs of their families and taking advantage of improving connectivity as mobile money firms innovate, develop products, and compete to meet the growing demand for broader financial services.<sup>47</sup>

In addition to rising mobile money adoption, inbound remittance payments in Africa surged to over \$100 billion last year reflecting a 12.1% CAGR over the past three years.<sup>48</sup> The World Bank estimates the Sub-Saharan region would receive an estimated \$55 billion in remittances last year.<sup>49</sup> Still, traditional payment rails saddle users with high fees—up to 9% in the Sub-Saharan region.

# 70%

Africa accounts for 70% of the world's \$1T mobile money value.



There is clearly a demand and market for faster, more affordable remittances in the region, and crypto-enabled payments are making this a reality.

## Crypto Use is Catching On

Africa is one the fastest-growing crypto markets in the world, however, it remains one of the smallest. Tech-savvy consumers across Ghana, Nigeria, and South Africa are leading the crypto movement and adopting crypto-enabled payments in lieu of traditional banking services.<sup>50</sup>

Last year, despite the recent bear market environments in crypto, the number of retail transfers of \$1,000 actually increased in Sub-Saharan Africa, bucking global trends.<sup>51</sup> One of the reasons: Africans don't tend to trade crypto speculatively, and instead use digital currencies to solve issues related to financial inclusion and to address limited access to the banking system, including for cross-border remittances.

These behaviors point to resurgent formal and informal dollarization activities. Across developing economies, consumers are showing a preference for digital assets pegged to the dollar (like USDC) to counter economic instability and high inflation.

In Nigeria, Korapay processes billions in cross-border payments via Bitcoin, USDC, and other digital assets while settling transactions in traditional fiat. Forbes highlights how global companies use the company's services to exchange Nigerian naira for US dollars without even knowing they're using cryptocurrencies and stablecoins, suggesting a retooling of traditional financial services.<sup>52</sup>

While mobile money can make domestic payment rails more efficient (and address fragmentation and cost issues associated with physical branches like Western Union and Moneygram), crypto-enabled services can reduce costs, increase security, and streamline international transactions for businesses and consumers alike.

Beyond consumers, across over a dozen African nations, interest in central bank digital currencies (CBDCs) is

growing. African governments see CBDCs as tools to enhance monetary policy effectiveness and add greater payment system efficiency. In addition, based on central banker surveys, authorities also envision CBDCs as promoting superior payments systems compared to existing mobile money alternatives.<sup>53</sup>

## Encountering Barriers to Sustained Success

Africa remains encumbered by a complex, competitive, and fragmented payments landscape resulting in low rates of interoperability. Paradoxically, while the region leads the world in the number of mobile money accounts, compatibility issues mean users must constantly move money in and out of various wallets to complete transactions.<sup>54</sup>

Further, poor interoperability hinders both electronic payments growth and limits enhanced cross-border payment experiences. African Business argues that interoperability also stifles the potential benefits of financial innovation and inclusion.<sup>55</sup> Extending crypto and blockchain technologies into existing mobile money infrastructures — of which there are nearly 150 serving Sub-Saharan Africa alone — is difficult given the prevalence of closed-loop systems. In these systems, available monies have limited use cases.<sup>56, 57</sup>

There is also a significant learning curve for the average person to familiarize themselves with crypto, including using crypto applications and digital wallets. While new technology like mobile money has garnered success, the high rate of adoption may be due to comfort levels with traditional fiat currency.

The growing popularity of mobile money services in Africa has also created a new threat vector for criminals to take advantage of. Increasingly, bad actors target victims in cyberattacks, exploit weaknesses in regulations and identification systems, and commit mobile money enabled crimes.<sup>58</sup>

Historically, illicit activity has been an early outcome of mobile payments adoption, and public hesitation may exist



around crypto and other digital payments types if criminality goes unchecked.

More recently, South Africa's financial regulator announced that all crypto exchanges operating in-country need to obtain licenses by the end of 2023. While broader fintech regulation may not be antithetical to digital asset use, it may add initial friction in terms of adoption and innovation.<sup>59</sup>

Elsewhere, Central African countries like Cameroon and Democratic Republic of Congo have been slow to adopt digital payments due to the lack of regulation and poor infrastructure. Even where infrastructure and consumer awareness are high, adoption can take time given the legacy presence of banking institutions.<sup>60</sup>

Last year's move by the Central African Republic's parliament to accept bitcoin as legal tender appeared a meaningful step towards improving the country's payment infrastructure. However, the move embroiled the country's economic and monetary community in controversy and the legislation was just recently reversed.<sup>61</sup>

## Considering What's Next

There is opportunity for Africa's fintechs to piggyback on the success of mobile money to push the adoption of crypto-enabled tools. These tools can make payments even more accessible, approachable and affordable for everyday users. Today, brands like Kotani are pioneering how to use technology like blockchain to reimagine onerous international money transfer and payouts.

Building safeguards like Know Your Customer (KYC) and Anti-Money Laundering (AML) into mobile money transactions that utilize blockchain and crypto technology can grow safe, scalable adoption and address concerns around organized crime. Increasing awareness of these safeguards and educating end-users and institutions on both the benefits and ease of use of crypto is key to gaining trust and buy-in from the public and enabling the successful adoption of this technology.<sup>62</sup>

And as the world's workforce continues a remote or hybrid-first model, this opens up further possibilities for Africa to stimulate its economy with crypto-enabled payments. The African workforce now has the opportunity to go global, uplifting millions from poverty and enabling remote workers to be efficiently paid with crypto via digital wallets on their mobile devices.

Not only will use cases like these provide opportunities for both traditional banking providers and non-banking entities to serve untapped populations at scale, it will also broaden access to financial services for the massive unbanked population across Africa's developing economies.



04

# Latin America: Ditching Cash and Finding Crypto

Throughout Latin America, funded fintechs and progressive governments are embracing digital payments. Continued post-COVID comfort with online experiences, plus unsettling inflationary issues in certain parts of the region are supporting interest in crypto. But enthusiastic consumers may not be enough to bring reimagined payments mainstream.



For the first time in history, cash no longer represents the majority of payment preferences in Latin America. Today, only 36% of consumer transactions are cash-based, and the shift toward digital payments is gaining momentum.<sup>63</sup>

According to a global survey, Latin American respondents were the biggest adopters of alternative payment methods, with research suggesting that they were more likely than their global peers to feel comfortable without physical wallets. They were also the most likely to believe mobile wallets would fully replace cash within the next 10 years.<sup>64</sup>

Going forward, cashless transactions are expected to grow 52% between now and 2025, and then 48% thereafter until 2030.<sup>65</sup>

Post-COVID, millions of consumers moved en masse toward internet-based shopping and banking. The heightened online connectivity led the shift from cash to digital wallets; this adaptability signifies promise for technologies like blockchain and digital currencies.<sup>66</sup>

Still, the region suffers from a fragmented payments landscape resulting in low interoperability and high fees for both payment senders and receivers.

Regulators in the region are working to enable real-time payment options — with varying progress and approaches — that improve interoperability, increase financial inclusion, generate revenue for banks and businesses, and help protect economies from global market volatility. Use cases like inbound remittance flows are still seen as a critical component of GDP for numerous countries across Latin America, so reducing costs associated with those remittances is a key driver of regional growth.

## Interoperability: Insist or Encourage?

Payment apps and services depend on interoperability to maximize their potential. Many providers are encountering regulatory pressure to open their networks, including Yape and Plin in Peru and various P2P apps in Colombia. Brazil has opted for a proactive approach, including launching PIX — the central bank's real-time payment system — that serves over 140 million users and was modeled after popular Asian super apps.

Several instant payment programs are already available in Costa Rica (SINPE Móvil), Argentina (Transferencias 3.0), and Mexico (SPEI and CoDi), but success and adoption levels vary. Notably, the two fully interoperable bank account schemes in the region, Pix and SINPE Móvil, enjoy nearly universal adoption by their nations' respective consumers.<sup>67</sup>

Where interoperability mandates do emerge, improved payments infrastructure tends to appear from marketplace participants. For instance, private efforts were behind building underlying infrastructure in both Colombia (TransfiYa, powered by Minka) and Peru (Yape).

# 36%

of consumer transactions are cash-based, and the shift toward digital payments is gaining momentum.



## Coming Waves of CBDCs and Crypto

Key Latin American markets are showing interest in digital asset adoption, in particular, CBDCs. Currently, Brazil, Argentina, Colombia, and Ecuador rank among the top 20 in global adoption of digital assets. Through CBDCs, these governments likely seek protection against uncertain domestic macroeconomic conditions, circumvention of capital controls, improved financial inclusion for unbanked populations, cheaper and faster payments, and stronger competition.<sup>68</sup>

As national regimes target these benefits, they create an opening for the crypto and blockchain sectors to build payments systems that make low-cost, faster and more seamless transactions a real possibility.

Bitso, Latin America's leading crypto exchange, recently launched a suite of products supporting international crypto payments. The company notes that this new set of products will allow businesses to send and receive payments in crypto or stablecoins in the countries where Bitso operates. With modern APIs, users will be able to make payments in real time, from any country in the world at more competitive costs compared to traditional options.<sup>69</sup>

The various integrations and alliances made by Bitso will allow its institutional clients to access more efficient cross-border payment methods.<sup>70</sup>

Of course, not all crypto assets are created equal. Using a digital asset that was designed specifically for payments will be key to implementing a successful digital payments system that can handle high transaction volumes without the frictions associated with legacy payment rails.

## Surveying Crypto-Positive Trends

Latin America remains highly dependent on the US dollar: from US remittance flows and USD as a reserve currency, to economies like Costa Rica and El Salvador that use dollars interchangeably with local bills. Some regional businesses even use USD as a liquidity source by routing payments through American banks to transfer funds to international accounts within the region. This interconnectivity means crypto adoption in the United States is likely to influence crypto adoption levels in Latin America.

In addition, Latin American workers are opting to receive salary payments in both US dollars and cryptocurrencies.

### BRAZIL

## Travelex Bank Taps into Blockchain for Payments



As the first specialized exchange bank to be approved by the Central Bank of Brazil, Travelex Bank has emerged as a pioneer financial institution in Latin America using blockchain solutions for cross-border payments. By leveraging Ripple Payments — a cross-border payment solution powered by blockchain technology — Travelex can support dramatically more efficient payments. And with Ripple's global payments network that provides around-the-clock access to liquidity, real-time settlement, and local currency payouts, Travelex customers can leapfrog the process of establishing correspondent banking relationships while adhering to global compliance and security standards.





Deel, a Latin American HR firm partnering with Coinbase, reported a nearly 30% increase in crypto withdrawals in the first six months of 2023. According to company leadership, the region's existing banking systems present challenges — particularly around transaction speeds — which have driven consumers to crypto.<sup>71</sup> Persistent inflation issues and variation in banking processes among Latin American countries are also behind crypto adoption, as this payment technology offers needed stability and accessibility.

Many see Brazil as the de-facto fintech pioneer in Latin America, and it's worth noting the intensity with which the country is pushing smart and progressive crypto use and regulation.

In August of 2023, IMF officials praised Brazil's CBDC, calling it the regulator's "flagship initiative" to deepen the reach of digital financial services in the region. Dubbed DREX, the Digital Real is set to launch at the beginning of 2025.

Importantly, Brazil's CBDC project is distinct from many others worldwide. While regulators in emerging markets tend to prioritize financial inclusion, the IMF contends that the Pix system already addresses this. The real significance of the Digital Real is the additional innovation layer; the "smart platform" which seeks to harness the benefits of a public blockchain in a safe and reliable environment.<sup>72</sup>

From a compliance perspective, businesses in the region are able to use the same fiat compliance measures, like Know Your Customer (KYC) and Anti-Money Laundering (AML), for crypto transactions to ensure the safety of these flows and help protect the integrity of the financial system.

## Barriers to Digital Payments Progress

Many in the established bank sector perceive crypto as a threat, and unfortunately, sector incumbents still exert influence in the financial markets and among regulatory and legal structures in the region.

Thus, any major shift towards crypto is likely to encounter some structural resistance. This may mean incumbents lean on cozy governmental relationships to slow upstart innovations and enact favorable regulatory rulings. In addition, unless required by law, financial institutions may also choose to curb interoperability and maintain closed ecosystems to inhibit competition.

Further, banking institutions are for-profit businesses, and many struggle to adapt product and service availability for lower income citizens. In many countries, a few national banks still hold the majority of deposits within a given nation, and thus can control related payments, borrowing, or lending services. These large banks often impose high, excessive fees on individuals in order to open an account.<sup>73</sup>

While digital and so-called "neobanks" add an important counterforce, their banking models aren't invincible.

Regional central bankers have noted how neobanks' credit segment is under tremendous pressure, since fintechs tend to concentrate on high-risk unsecured loans like credit cards or personal loans. Brazil's central bank reported that neobank credit delinquencies rose over 10% at the end of 2022 as inflation pressures mounted, increasing from 6% the year prior.<sup>74</sup>





Separately, regulators took measures to boost financial services availability via fintechs. These include facilitating the implementation of some AML/CFT requirements using digital tools. Other measures included permitting electronic-KYC (eKYC), facilitating digital onboarding, and even waiving of transaction fees for payments and remittances and the increase of transaction limits/thresholds.<sup>75</sup>

Should these measures expire or change, fintech companies—including crypto or mobile payment providers—may experience system shock and some unpredictable impacts.

Due to the region's dependency on USD and US-clearing institutions, as costs rise in the United States, fear and volatility seep into the Latin American market.

Adding insulation from others' financial swings underscores why achieving interoperability across Latin America is so critical.

While the crypto-winter dynamic has unfortunately cast doubt, education will be integral for hundreds of millions of consumers to grasp the distinctions between crypto as a store of value and crypto enabling better payment methods.<sup>76</sup>



05

# Europe: No Time Like the Present for Instant Payments



Instant payments continue the forward march as the transaction method of choice for consumers and businesses across the European Union and the United Kingdom. Entities like the European Commission (EC) are behind the progress, working to build more resilient financial infrastructure and make instant payments universally available. But ambitious projects still come with formidable challenges.



In June 2023, the EC published proposals for the Payment Services Directive 3 (PSD3) and the Payment Services Regulation (PSR) in an attempt to keep pace with the rapid developments in the electronic payments market.

Minimally, the financial data access and payments package seeks to sustain an efficient market for retail financial services that ensures:<sup>77</sup>

- the same rules across the EU
- clear information on payments
- fast and instant payments
- consumer protection
- a wide choice of payment services

Today, one in three EU payment service providers does not offer instant euro payments, and up to 70 million payment accounts in the euro area do not allow holders to send and receive instant payments. In many cases, instant payments cost much more than traditional money transfers—often as much as €30 per payment.<sup>78</sup>

PSD3 and PSR measures emphasize creating a better environment for digital transformation including reducing fraud, improving open banking functions, and harmonizing administrative rules for over 270 e-money institutions and 800 payment institutions.

The efforts establish clear rights and obligations to manage customer data sharing in the financial sector, even beyond payment accounts. In practice, this should lead to more innovative financial products and services for users and stimulate competition in the financial sector.<sup>79</sup>

The EU also aims to support a single payment area which lets citizens and businesses make cross-border payments as easily and safely as they would in their home country, and subjects cross-border payments to the same charges as domestic payments.<sup>80</sup>

## Payments Proposals Signal UK Progress

In the UK, the Faster Payments System enables payments to move quickly and securely to and between UK bank accounts, 24 hours a day. In 2022, Faster Payments saw massive processing growth.

In Q2 of 2023, the system saw 1.2 billion payments processed, a 14% increase over the amount processed at the same time the year prior. The total amount of payments processed during this quarter was £914 billion, a 15% increase on total payments processed in Q2 of 2022.<sup>81</sup>

These impressive volumes prove that change is imminent for financial institutions with implications across products and services strategy, cash-flow, compliance, and customer retention. Through a variety of public-private development initiatives, all payment service providers, including banks and other financial institutions, will have easier access to real-time capabilities.<sup>82</sup>

# 1.2B

The UK's implementation of the Faster Payments System resulted in a 14% YoY increase in total payments processed between 2022 and 2023.



Although the UK has long been considered a pioneer in real-time payments, urgency still exists to stay ahead of other G7 economies with respect to payments architecture. Notably, The UK's Payment Systems Regulator (PSR) is advancing its New Payments Architecture (NPA) program, an initiative designed to better accommodate interbank payments, including the clearing and settlement of payments from one account to another. The initiative also aims to consolidate current systems used for processing payments like Faster Payments, Cheque, and Credit Clearing.<sup>83</sup>

The NPA will drive adoption of the ISO 20022 financial messaging standard and deliver new real-time payment products. Moving to the messaging standard allows richer data to accompany transactions, supporting faster allocation and reconciliation of incoming payments.

The expectation is that NPA helps support infrastructure which reduces the cost to serve, reduces the fraud endemic, and lays out the framework for an eventual replacement to the Faster Payments Scheme.<sup>84</sup>

## Highs and Hiccups with New Payments Systems

Frustration with traditional correspondent banking models — especially when juxtaposed against the world of always-on, domestic P2P payment services — has catalyzed other payments systems and providers to improve their efforts.

According to a PwC survey, 42% of respondents felt strongly that there would be an acceleration of cross-border, cross-currency, instant B2B payments in the next five years.<sup>85</sup>

However, ambitious pan-European payments collaborations often face challenges, punctuated by the European Payment initiative and the more recent P27 initiative. Even across well-intentioned campaigns, conflicting interests and misalignment among coalitions, plus a lack of critical mass participants, are problematic.

In the case of P27 — a Nordic-led, highly-anticipated cross-border payments initiative — none of the scalable mobile payment schemes (e.g., MobilePay and Vipps) were supported and project complexities eventually doomed the operating model.<sup>86</sup>

## Trends Supporting Instant Payments

A few key trends have buttressed the accelerated adoption of instant payment methods across Europe. First, both the B2B and B2C payments landscape is rapidly modernizing. There is increased expectation from both consumers and businesses that international payment rails function as seamlessly as domestic rails.

The European Central Bank is well-underway exploring a digital euro — or some equivalent digital means of payment — that is universally accepted throughout the euro area. According to the ECB, a digital euro would offer a pan-European payment solution under European governance that would help make the European payments landscape more resilient, competitive, and innovative. The European Central Bank is on track to begin its digital euro pilot ahead of a possible launch in 2028.<sup>87</sup>

# 42%

of respondents felt strongly that there would be an acceleration of cross-border, cross-currency, instant B2B payments in the next five years.



Financial institutions will need to move quickly to onboard and implement institutional-grade digital asset software infrastructure in order to keep up with demand and offer digital euro services to their customers. Otherwise, they risk the ECB likely overtaking the market and enabling direct to consumer digital euro apps.

Also encouraging the shift to digital is bullishness around more efficient distributed ledger technology, such as blockchain. Moreover, sovereigns everywhere are expressing a desire to break dependency from international card schemes for on- and offline payments.

Over 90% of central banks globally are researching or piloting CBDCs, including Swedish central bank Riksbank which started investigating digital currencies in 2017. The country is well-ahead of global peers, and in 2023, the Riksbank revealed they would be testing the technical solution for the e-krona, performing studies aimed to capture end user feedback, and preparing for the possible procurement of an issuable e-krona.<sup>88</sup>

So while Europe is already making headway with new payment rails to bolster the region's economies, their technological lead and digital-first approach stand to put them at an even greater competitive advantage.



## Conclusion

These trends mark an era of streamlined payment experiences that are faster, more inclusive, and transparent for both businesses and individuals. Advancements are constant, and each turn of innovation uncovers new fronts for growth. For ecosystem players today, the imperative is to just get started—creating, building, trialing, or exploring payment solutions that will satisfy modern needs and expectations.

For more than a decade building blockchain solutions for finance, Ripple has had its sights on enabling the world to move value as seamlessly as information moves today—starting with a payments solution that makes global transactions vastly more efficient.

To learn more about how you can expand your reach and accelerate your payments with Ripple Payments, [contact our team today](#).



## Endnotes

1. <https://insights.discoverglobalnetwork.com/global-trends/how-open-banking-is-changing-financial-services>
2. <https://www.globenewswire.com/en/news-release/2023/01/19/2591894/0/en/Open-Banking-Market-to-Hit-131-3-Billion-by-2028-Thanks-to-Rising-Preference-for-Digital-Payments-Globally.html>
3. [https://www.paymentsed.org/wp-content/uploads/2023/08/2023\\_Payment-sEd\\_Link\\_FedNow\\_-\\_updated\\_7.25.2023-Open-Banking.pdf](https://www.paymentsed.org/wp-content/uploads/2023/08/2023_Payment-sEd_Link_FedNow_-_updated_7.25.2023-Open-Banking.pdf)
4. <https://thefintechtimes.com/coinbase-officially-expands-into-canada-following-interac-e-transfer-integration/>
5. <https://thepaypers.com/interviews/open-banking-is-thriving-in-north-america-as-open-finance>
6. <https://navigate.visa.com/na/money-movement/unlocking-the-opportunities-of-open-banking/>
7. <https://www.paymentsjournal.com/6-ways-fednow-will-transform-the-payments-industry/>
8. [https://www.federalreserve.gov/paymentsystems/fednow\\_about.htm](https://www.federalreserve.gov/paymentsystems/fednow_about.htm)
9. [https://www.fisglobal.com/en/-/media/fisglobal/files/campaigns/global-payments-report/FIS\\_TheGlobalPaymentsReport2023\\_May\\_2023.pdf](https://www.fisglobal.com/en/-/media/fisglobal/files/campaigns/global-payments-report/FIS_TheGlobalPaymentsReport2023_May_2023.pdf)
10. <https://www.pymnts.com/news/banking/2023/2023-looms-as-big-year-for-iso-20022-according-to-wells-fargo/>
11. <https://www.frb.services.org/financial-services/fednow/instant-payments-education/what-is-iso-20022-why-does-it-matter.html>
12. <https://www.frb.services.org/financial-services/fednow/instant-payments-education/what-is-iso-20022-why-does-it-matter.html>
13. <https://cryptoslate.com/stablecoin-volume-outpaced-mastercard-paypal-in-2022-as-digital-payments-wars-loom/#>
14. <https://www.fidelity.com/learning-center/trading-investing/what-is-a-stablecoin>
15. <https://www.pewresearch.org/short-reads/2022/10/05/more-americans-are-joining-the-cashless-economy/>
16. <https://www.nytimes.com/2023/07/14/business/small-business-cashless-digital-payments.html>
17. Bernstein research. Global Digital Assets: Primer 1.0 on Stablecoins: The ~\$3Tn digital currency market
18. <https://ciosea.economictimes.indiatimes.com/news/strategy-and-management/emerging-digital-banks-in-apac-and-their-prospects/99051063>
19. <https://www.asiafundmanagers.com/us/digital-banks-in-asia-the-next-frontier-in-finance/>
20. <https://ciosea.economictimes.indiatimes.com/news/strategy-and-management/emerging-digital-banks-in-apac-and-their-prospects/99051063>
21. [https://www.fisglobal.com/en/-/media/fisglobal/files/campaigns/global-payments-report/FIS\\_TheGlobalPaymentsReport2023\\_May\\_2023.pdf](https://www.fisglobal.com/en/-/media/fisglobal/files/campaigns/global-payments-report/FIS_TheGlobalPaymentsReport2023_May_2023.pdf)
22. <https://go.2c2p.com/2c2p-infobrief/>
23. <https://thefintechtimes.com/thunes-latest-partnership-bridges-payments-between-china-and-the-rest-of-world/>
24. <https://www.businesswire.com/news/home/20230529005014/en/Asia-Pacific-Continues-Growth-Trajectory-in-Real-Time-Payments-Market-Leads-the-Way-in-Cross-Border-Payment-Linkages>
25. <https://business.outlookindia.com/banking/upi-records-10-billion-transactions-learn-about-recent-innovations-in-digital-payment>
26. <https://www.mckinsey.com/industries/financial-services/our-insights/the-2023-mckinsey-global-payments-report#/>
27. <https://business.outlookindia.com/banking/indias-upi-transaction-volume-surged-62-yoy-in-hi-2023know-trends-in-digital-payments>
28. <https://www.reuters.com/technology/india-singapore-launch-real-time-link-cross-border-payments-2023-02-21/>
29. <https://www.equinix.com/resources/whitepapers/non-cash-payments-in-japan>
30. <https://www.kapronasia.com/asia-payments-research-category/will-japan-achieve-its-cashless-vision-target.html>
31. <https://economictimes.indiatimes.com/tech/technology/indias-ecommerce-market-to-reach-150-billion-by-2026-fuelled-by-rise-in-upi-transactions-report/articleshow/98933077.cms?>
32. <https://www.fisglobal.com/en/global-payments-report>
33. <https://economictimes.indiatimes.com/tech/technology/ecommerce-user-base-in-india-to-outpace-us-in-two-years-bain-report/articleshow/94767324.cms>
34. <https://www.pymnts.com/smb/2022/75-percent-of-small-businesses-dissatisfied-with-cross-border-payment-solutions/>
35. <https://www.ppro.com/countries/india/>
36. <https://datastorageasean.com/news-press-releases/79-apac-consumers-according-recent-f5-research-are-willing-sacrifice-data>
37. <https://www.weforum.org/agenda/2023/06/asia-pacific-region-the-new-ground-zero-cybercrime/>
38. <https://techwireasia.com/2023/09/how-can-ai-and-cybersecurity-bridge-apacs-talent-gap/>
39. <https://blog.checkpoint.com/research/global-cyberattacks-continue-to-rise/>
40. <https://www.jpmorgan.com/payments/paymentsunbound/volume-2/whats-next-for-asia-pacific>
41. <https://thepaypers.com/interviews/digital-transformation-and-the-power-of-payments-in-apac-interview-with-joseph-chan-1262567>
42. [https://www.connectingafrika.com/author.asp?section\\_id=761&doc\\_id=784458#close-modal](https://www.connectingafrika.com/author.asp?section_id=761&doc_id=784458#close-modal)
43. <https://www.povertyactionlab.org/blog/10-22-20/rise-mobile-money-sub-saharan-africa-has-digital-technology-lived-its-promises>
44. <https://www.gsma.com/sotir/#download>
45. <https://blog.ebanx.com/en/mobile-money/>
46. <https://www.cnn.com/2023/03/26/bitcoin-is-poised-to-blow-up-africas-86-billion-banking-system.html>
47. <https://www.dw.com/en/how-digitalization-improves-remittances-to-africa/a-65052455>
48. <https://remitscope.org/africa/>
49. <https://techcrunch.com/2023/09/04/kotani-pay/>
50. <https://bitpay.com/blog/africa-embracing-crypto/>
51. <https://african.business/2022/10/finance-services/africa-crypto-transactions-increase-despite-bear-market>
52. <https://fortune.com/crypto/2023/10/08/stablecoins-dollarization-global-south-bitcoin-usdc/>



53. <https://african.business/2023/08/african-banker/improving-interoperability-for-increased-transaction-flows-in-africa>
54. Ibid
55. Ibid
56. <https://www.statista.com/topics/6770/mobile-money-in-africa/#topicOverview>
57. <https://clearbridgemobile.com/open-vs-closed-loop-mobile-payments/>
58. <https://enactafrica.org/research/interpol-reports/mobile-money-and-organised-crime-in-africa>
59. <https://cointelegraph.com/news/crypto-exchange-licences-south-africa-by-year-end>
60. <https://www.gfmag.com/magazine/march-2023/africa-digital-payments-progress#>
61. <https://www.centralbanking.com/central-banks/currency/digital-currencies/7956294/car-to-drop-crypto-as-legal-tender>
62. <https://www.dowjones.com/professional/risk/glossary/anti-money-laundering/kyc-vs-aml/>
63. [https://americasmi.com/wp-content/uploads/2023/03/digital-payment-trends-in-2023\\_kushki.pdf](https://americasmi.com/wp-content/uploads/2023/03/digital-payment-trends-in-2023_kushki.pdf)
64. <https://www.paysafe.com/en/lost-in-transaction-2023-download/>
65. <https://www.pwc.com/gx/en/industries/financial-services/publications/financial-services-in-2025/payments-in-2025.html#macro2>
66. <https://www.jpmorgan.com/solutions/treasury-payments/insights/four-trends-latin-america>
67. [https://americasmi.com/wp-content/uploads/2023/03/digital-payment-trends-in-2023\\_kushki.pdf](https://americasmi.com/wp-content/uploads/2023/03/digital-payment-trends-in-2023_kushki.pdf)
68. <https://www.imf.org/en/News/Articles/2023/06/22/cf-interest-in-cb-digital-currencies-picks-up-in-latam-the-caribbean-while-crypto-use-varies>
69. <https://www.latamrepublic.com/bitso-the-mexican-startup-leading-the-cryptocurrency-revolution-in-latin-america/>
70. <https://ffnews.com/newsarticle/cryptocurrency/bitso-will-connect-latin-america-with-companies-around-the-world/>
71. <https://www.bloomberglines.com/english/latin-american-workers-are-opting-for-payment-in-us-dollars-and-crypto-deel-says/>
72. <https://www.fintechx.com/imf-praises-digital-real-brazils-cbdc-expected-for-2024/>
73. <https://jsis.washington.edu/news/digital-banking-and-economic-development-inclusion-and-exclusion-in-latin-america/>
74. <https://www.fintechx.com/neobanks-expand-their-share-in-brazils-1-trillion-credit-market/>
75. <https://www.imf.org/en/Publications/fintech-notes/Issues/2023/03/28/The-Rise-and-Impact-of-Fintech-in-Latin-America-531055>
76. <https://www.rsm.global/latinamerica/en/insights/where-crypto-can-pay-stablecoins-digital-dollars-latin-america>
77. [https://finance.ec.europa.eu/consumer-finance-and-payments/payment-services/payment-services\\_en#strategy](https://finance.ec.europa.eu/consumer-finance-and-payments/payment-services/payment-services_en#strategy)
78. [https://finance.ec.europa.eu/system/files/2022-10/instant-payments-factsheet\\_en.pdf](https://finance.ec.europa.eu/system/files/2022-10/instant-payments-factsheet_en.pdf)
79. [https://finance.ec.europa.eu/publications/financial-data-access-and-payments-package\\_en](https://finance.ec.europa.eu/publications/financial-data-access-and-payments-package_en)
80. [https://finance.ec.europa.eu/consumer-finance-and-payments/payment-services/payment-services\\_en#strategy](https://finance.ec.europa.eu/consumer-finance-and-payments/payment-services/payment-services_en#strategy)
81. <https://newseventsinsights.wearepay.uk/data-and-insights/faster-payment-system-statistics/>
82. <https://www.electronicpaymentsinternational.com/comment/faster-payments-and-future-growth-for-corporates-charles-bennett-expert-comment>
83. <https://www.fintechfutures.com/2023/07/psr-delivers-update-on-progress-of-new-payments-architecture/>
84. <https://www.finextra.com/blogposting/24078/new-payments-architecture-infrastructure-must-drive-innovation-and-reduce-costs>
85. <https://www.pwc.com/gx/en/industries/financial-services/publications/financial-services-in-2025/payments-in-2025.html#macro2>
86. <https://insights.flagshipadvisorypartners.com/insights/p27-lessons-learned-from-the-latest-failure-in-pan-european-payment-collaborations>
87. <https://www.reuters.com/markets/currencies/study-shows-130-countries-exploring-central-bank-digital-currencies-2023-06-28/>
88. <https://www.finextra.com/newsarticle/41859/cbdc-in-the-nordics-what-is-the-status-in-sweden-denmark-norway-finland-and-iceland>