

Trends, technology, and transformation in global commerce



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Oxford Economics was founded in 1981 as a commercial venture with Oxford University's business college and has become one of the world's foremost independent global advisory firms, providing reports, forecasts and analytical tools on more than 200 countries, 250 industrial sectors and 7,000 cities and regions.

# Introduction

Fintech 2025+ dives into the dynamic, disruptive world of financial technology and its profound impact on global commerce — both today and in the future. The report offers a comprehensive exploration of the cross-border payments landscape, which is an integral component of international trade and finance. As global commerce evolves in the digital era, alongside rapidly shifting consumer and business expectations, the need for innovative, efficient and secure payment methods that cater to an interconnected world becomes ever more urgent.

A key finding is a surge in cross-border payment flows, anticipated to reach \$290 trillion by 2030. This growth in cross-border payments is fueled by the rise of international e-commerce, globalized workforce mobility, and transformative digital payment solutions that make sending money faster, easier and more transparent. The sector's rapid growth highlights the pivotal role of advancing technology to support the opportunities, and challenges, that arise from such volume.

The fintech ecosystem is core to this booming market, shaping its future through advancements such as the integration of blockchain technology, the rise of real-time payments (RTP), global financial messaging standards such as ISO20022 and strategic movements toward open banking frameworks. These developments not only facilitate smoother transactions but also promise enhanced security and greater financial inclusion.

Additionally, we assess the regulatory landscape that supports these technological shifts, examining the implications of new regulations and the challenges they pose to traditional banking systems and emerging fintech platforms.

Fintech 2025+ serves as a crucial resource for stakeholders across the financial spectrum, providing insights into the opportunities for innovation and the strategies required to navigate the complexities of the modern financial world. By 2030, cross-border payment flows are anticipated to reach

з<mark>290т</mark>

By 2030, cross-border payment revenues to reach

**280B** 

## PART I

# Analysis of the cross-border payments market in 2024 and beyond

# Sizing the cross-border payments market

## WHAT DOES THE CROSS-BORDER PAYMENT ENVIRONMENT LOOK LIKE?

The wholesale market amounted to \$146 trillion in 2023 and comprises high-value transactions between commercial banks, typically FX trading and related activities. Non-wholesale cross-border payment flows (sometimes known as the retail market) comprise the following segments:

- Business-to-business (B2B): Dominates the market and includes trade-related payments (open account and trade finance) and the international transfer of funds by multinational corporations. B2B e-commerce transactions also represent a significant share in this category.
- **Consumer-to-business (C2B):** Includes both e-commerce purchases by consumers and offline consumer payments to businesses, which are largely related to tourism.

- Consumer-to-consumer (C2C): Mainly relates to remittance flows.
- Business-to-consumer (B2C): The smallest segment, this represents business disbursements to individuals including payroll and marketplace payments for sales (e.g., Airbnb paying a host in another country).

Most new entrants are focused on low-value transactions, in terms of sizing, in the C2C, B2C and B2B segments, which are currently underserved by banks and traditional payments providers.



## THE ASSOCIATED REVENUE POOL AMOUNTS TO AROUND \$193 BILLION

Cross-border payment revenues refer to the fees associated with the underlying payment flow. Total international payments revenues of \$193 billion are split between transaction fees and FX revenues. McKinsey estimates the average revenue per transaction (across all segments) to be over \$20.

However, margins vary significantly across segments, impacting total revenue shares:

- B2B transactions often involve direct bank transfers or in-house processing, resulting in lower revenue compared to consumer transactions, which frequently involve intermediaries and value-added services.
- The B2B segment represents around 80% of global revenues and includes both wholesale and retail market payments. Banks handle most high-value payments with comparatively low margins while low-value B2B transactions are often underserved by banks. Significant growth potential remains in this segment, which has been comparatively slow to digitize.
- It is estimated that the pandemic accelerated the shift to online shopping by as much as five years. This has boosted C2B payments, which account for 10% of cross-border payment revenues.





## **REVENUE MARGIN (REVENUE ON FLOW)<sup>3</sup>**

	CONSUMER	BUSINESS	
CONSUMER	6.0%	3.5%	
BUSINESS	1.5%	0.1%	

- The majority of B2C transactions tend to be low value and traditionally dominated by banks, but new entrants are disrupting this segment with faster and more transparent services.
- The C2C segment has slowed recently, as economic activity in remittance source countries has softened, limiting employment and wage gains for migrants.

## NORTH AMERICA LEADS THE MARKET FOR CROSS-BORDER REVENUES

There are several defining characteristics at the regional level:

- North America represented roughly 28% of total revenue in 2023. The market benefits from a favorable environment. (e.g., good technology infrastructure, supportive legal framework) and strong growth drivers (e.g., widespread use of e-commerce).
- However, Asia-Pacific (26% of global revenues) is closing the gap, with rapid developments in infrastructure and increased digital adoption.
- In Europe (20% of global revenues), implementation of the Single Euro Payments Area (SEPA) across the EU in 2016 has been instrumental in supporting cross-border payments growth through lower fees and shorter clearing times.

- · Cross-border payments have also gained momentum in Latin America (16% of global revenues), as the pandemic forced cash-dependent economies in the region to go digital.
- The Middle East and Africa account for 10% of the market. Remittances are particularly important in the Middle East, while Africa remains constrained by lack of digital infrastructure and availability of safe and cost-effective options for transferring money.

See page 13 for regional revenue forecasts.

## **CONV**<sup>2</sup>RGE PODCAST



Tune in to our conversation with Benjamin Fernandes, CEO of Nala, for more on payments in the African continent and how his company is solving remittance challenges for workers and businesses in one of the world's largest emeraina economies.

## 



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Real-time payments

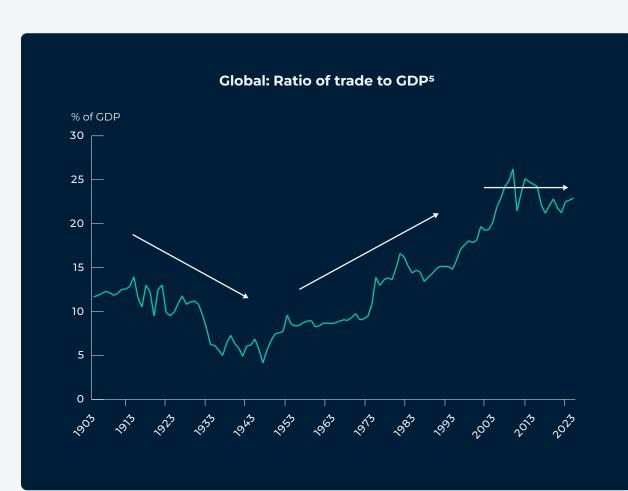
Market outlook

**Market sizing** 

## **EXPANDING PAYMENTS REFLECT GROWING TRADE AND CAPITAL** MARKETS ACTIVITY

There is a close correlation between SWIFT payments (electronic payments through the SWIFT banking system) and global trade flows:

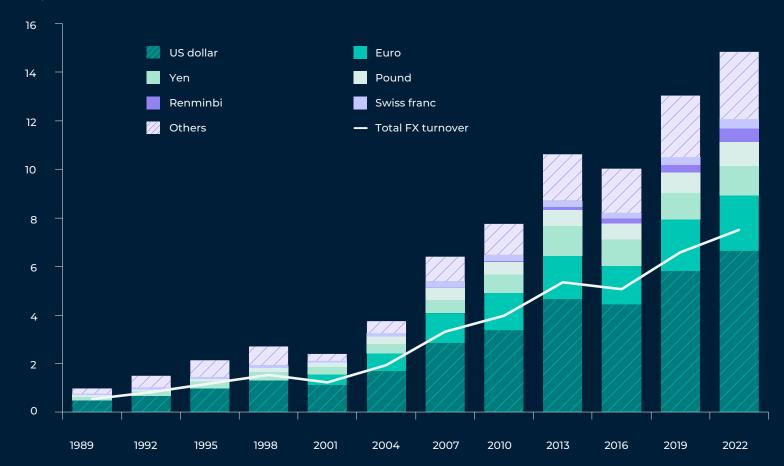
- Cross-border payments surged during the "hyper-globalization" of the 1990s; however, the Global Financial Crisis contributed to a leveling-off of the share of world trade in GDP at a historically high level.
- Nevertheless, trade flows have continued to expand at a rate that broadly tracks GDP growth.
- Cross-border capital markets activity has also expanded rapidly, with the FX market valued at around 17x the value of global GDP.
- The US dollar is on one side of almost 90% of all FX trades.



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Global foreign exchange turnover by currency, daily averages, net-net basis<sup>6</sup>

US\$ Trillions



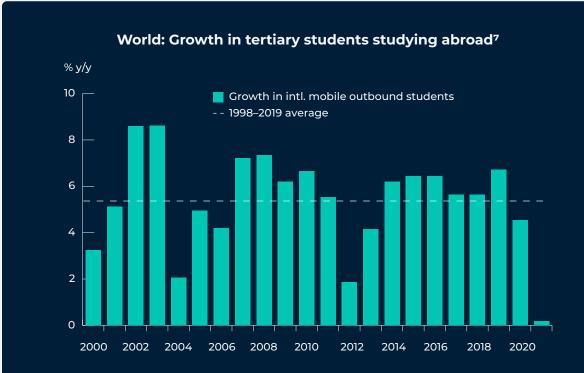
Market sizing

# Market outlook: Cross-border flows headed for \$290 trillion

## EDUCATION: STRONG INTERNATIONAL STUDENT GROWTH HAS DRIVEN RELATED PAYMENTS

Strong growth in international students indicates that this has been a rapidly growing segment:

- In 1998, when UNESCO records began, there were just under \$2 million international students enrolled globally. By 2020, this number had more than tripled to \$6.4 million.
- Growth in outbound students has exceeded global (real) GDP growth.
   However, if we construct an alternative GDP measure weighted by outbound students, there is a strikingly close correlation. This indicates that when analyzed through a more nuanced lens, macroeconomic conditions in sending countries have been very strongly correlated with international student volumes at the global level since UNESCO records began.
- That said, the economic shocks of the past few years have had an impact.



The world's largest outbound student markets have faced a considerable slowdown in real household disposable income growth in the 2021–23 period compared to the average rate of growth over the last two decades. This implies a recent slowdown in growth in outbound students from these key markets. The slowdowns have been most pronounced in China, South Korea, the US and Nigeria, and less severe in other major outbound markets such as India and Vietnam.

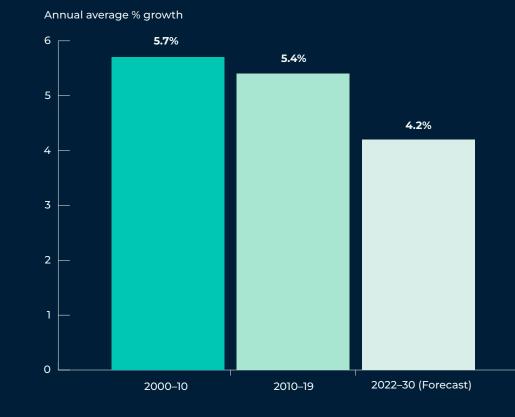
## CONTINUED ROBUST GROWTH EXPECTED IN INTERNATIONAL STUDENTS

Education-related cross-border payments should continue to grow at a solid pace, given robust (albeit moderating) growth in international students.

The period to 2030 will likely be characterized by moderately slowing growth, consistent with projections for our bespoke outbound student-weighted GDP measure. It's expected that in the period to 2030, global outbound student volumes will grow at a rate of around 4–4.5% per year on average.

- There is likely to be significant variation in the rates of outbound student growth at an individual country level, reflecting differing macroeconomic and demographic conditions.
- It is likely that the increased cost of international study in major host countries, geopolitics and immigration policies applicable to international students will also dampen demand, particularly from more price-sensitive, emerging economies.

## Global outlook for growth in outbound student numbers<sup>8</sup>



Global outbound weighted GDP is set to slow in the period to 2030, which is expected to lead to a moderation in growth of the international student market.

Market sizing

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## CROSS-BORDER PAYMENT FLOWS TO REACH \$290 TRILLION BY 2030

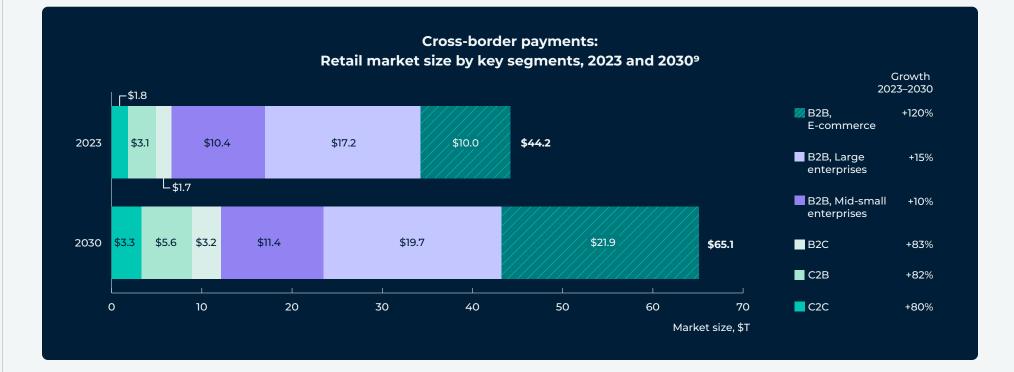
The wholesale cross-border payments market, which covers transactions for currency trading and related activities, is set to increase by 54%, from \$146 trillion in 2023 to \$225 trillion in 2030.

Non-wholesale (retail market) payment flows are forecast to expand by 45%, from \$44 trillion in 2023 to reach \$65 trillion by 2030. Key trends in the retail market include:

• The B2B segment will make the largest contribution to this growth, increasing

from \$39 trillion to \$56 trillion. This reflects significant digitization of the B2B payments market. While consumer payments had a digital surge during the pandemic, B2B has so far lagged.

- B2B growth will be led by e-commerce, such that it becomes the largest sub-sector by 2030. The rise in B2B e-commerce is supported by the ongoing proliferation of online marketplaces and platforms specifically targeting businesses the same way consumers engage in e-commerce.
- While growth in other B2B categories will be far more modest, cross-border business services will increase more than goods, reflecting higher potential to benefit from digitization and services trade growing faster than goods trade.
- Rapid growth in e-commerce will also be a key driver of B2C and C2B payments.
- Meanwhile, growth in the C2C market will be aided by increasing migrant flows and more mobile affluent classes.



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Real-time payments

Market outlook

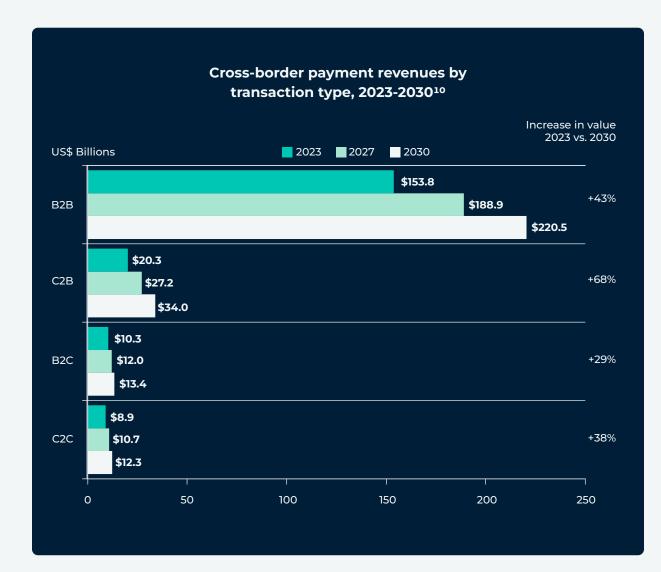
Market sizing

## CROSS-BORDER PAYMENT REVENUES TO REACH \$280 BILLION BY 2030

Judging future revenue forecasts is not entirely consistent with the flows from the previous pages due to different sources. However, some key trends and drivers are evident:

- The outlook for revenues will depend on future trends in both the number and average size of transactions, as well as any changes in how transactions are charged or the cost of transactions.
- Headline growth prospects for revenues from B2B transactions are robust, despite being constrained by the fact that most payments are high-value transactions processed through the correspondent banking network at already-thin margins.
- Price competition will intensify elsewhere

   especially for smaller payments
   in the B2B segment, which is currently
   underserved by banks, but also in
   consumer-related segments. Tightening
   margins will constrain revenue growth
   prospects relative to the underlying rate of
   expansion in cross-border payment flows.



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## ASIA-PACIFIC TO BECOME THE LARGEST GLOBAL MARKET BY 2030, B2B TO DRIVE

Regional breakdowns of revenues are based on destination of payment flow.

Growth in cross-border payments will vary by region, with prospects brightest for payment corridors in Asia:

 Asia-Pacific is forecast to be the fastest-growing region, reflecting rapid economic growth and advances in infrastructure and payments technologies. Increased collaboration between regional governments is also facilitating growth.

- Prospects for Latin America are also bright, as the region's economies increasingly go digital and investments in fintech unlock opportunities.
- Growth prospects are more modest for
   North America and Europe, being more

mature markets, although these regions will still benefit from the presence of key players and government policies that facilitate competition and innovation.

 Growth in Africa will lag given the region's relative lack of technology infrastructure.

# Cross-border payment revenues growth by region, 2023-30: Breakdown by segment<sup>11</sup>





## Cross-border payment revenues by region, 2023-2030<sup>12</sup>

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# GENERATIVE AI HAS CAUGHT THE ATTENTION OF PAYMENTS COMPANIES

Recent earnings call transcripts from 16 major publicly traded payments companies show a significant increase in AI discussion, with a particular focus on future applications, especially around customer experience and productivity.

Applications of AI to cross-border payments can be generally categorized into three areas:

## **Risk management**

The most traditional area of focus, associated with areas such as Know Your Customer (KYC) and identification of other security issues.

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## **Customer service**

Applications such as chatbots are already well established, but generative Al is providing potential ways to enhance this process.



## Productivity

Using AI to find efficiencies across operations.

## Applications of AI for payments: Share of focus on different applications by current and future initiatives<sup>13</sup>



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Regulations

## THE PATH TO IMPROVING CROSS-BORDER PAYMENTS

The Committee on Payments and Market Infrastructures (CPMI) has established a Task Force dedicated to working on cross-border payments:

- In 2020, the Financial Stability Board (FSB) reported on the challenges facing cross-border payments.<sup>14</sup> [See figure 1]
- To tackle these challenges, the FSB set out a roadmap endorsed by the G20 with a vision for enhancing cross-border payments and an action plan, bringing together central banks, public authorities, standard-setting bodies and the private sector around the world.
- The roadmap includes a set of measurable targets for 2027 to unite everyone around the same vision. Of note is the intent to explore the potential role of new payment infrastructures and arrangements, including global stablecoins and central bank digital currencies (CBDCs) through 2025 and beyond, with the IMF and World Bank providing technical assistance to facilitate cross-border use of CBDCs if requested.

## Figure 1: Historical challenges in cross-border payments, as identified by the FSB<sup>15</sup>



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## PART II

# Realizing opportunity in real time: Commercial payment innovation in the digital age

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# Real-time payments

## REALIZING OPPORTUNITY IN REAL TIME

In the digital economy, fintechs and paytechs are key to making payments faster, safer and more accessible, acting like fluid in a network of interconnected tubes that include consumers, governments and businesses. They will enable swift, effortless money transfers, enhancing global economic networks both old and new.

Currently, over 5,000 payments-focused fintechs generate around \$100 billion in revenues, with projections suggesting a surge to \$520 billion by 2030. This growth reflects the evolving payments landscape, marked by the advent of CBDCs, real-time and cross-border payments, standardized global bank communication such as ISO20022 and innovations in digital assets and stablecoins. With over 90% of central banks exploring digital currencies, we stand on the brink of a major shift in how transactions are conducted, emphasizing security and efficiency in the ever-evolving payment ecosystem. As the fintech sector expands to capitalize on the rapid growth in cross-border payments, key innovations have emerged, including developments in RTPs, blockchain and crypto currencies, open banking, and advancements in fraud prevention and regulatory trends.

## GDP GROWTH LINKED TO INSTANT AND RTP

RTPs are becoming a key driver for economic growth, with 86% of businesses with revenues between \$500 million and \$1 billion already adopting this efficient transaction method. These instant payments enhance liquidity and financial stability by unlocking working capital and reducing transaction times. They also help integrate informal economic activities into the formal financial system.

<u>A study by ACI and Cebr</u> highlights the positive impact on GDP growth, projecting that an RTP system in New Zealand could elevate the GDP by \$271 million, or 0.1%, by 2027. The European Union, recognizing these economic benefits, <u>has mandated</u> <u>instant payment schemes</u> across its member states, underscoring the significant role of RTP in fostering a more efficient and inclusive financial ecosystem.

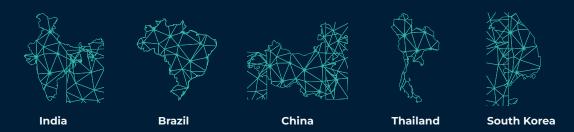


**5,000+** payments-focused fintechs generate around **\$100B** in revenues, with projections suggesting a surge to **\$520B** by 2030.



86% of businesses with revenues between \$500M and \$1B have adopted RTPs.

## Top 5 real-time markets<sup>16</sup>



	2021	2026	
BUSINESS- AND CONSUMER- LEVEL BENEFITS	\$37в	\$164.6в	
FORMAL GDP SUPPORTED BY REAL-TIME	\$54.6в	\$131.1в	

## Leading 5 developed markets<sup>17</sup>



	2021	2026	
BUSINESS- AND CONSUMER- LEVEL BENEFITS	\$2.1в	\$5.5в	
FORMAL GDP SUPPORTED BY REAL-TIME	<b>\$7.3</b> в	\$14в	

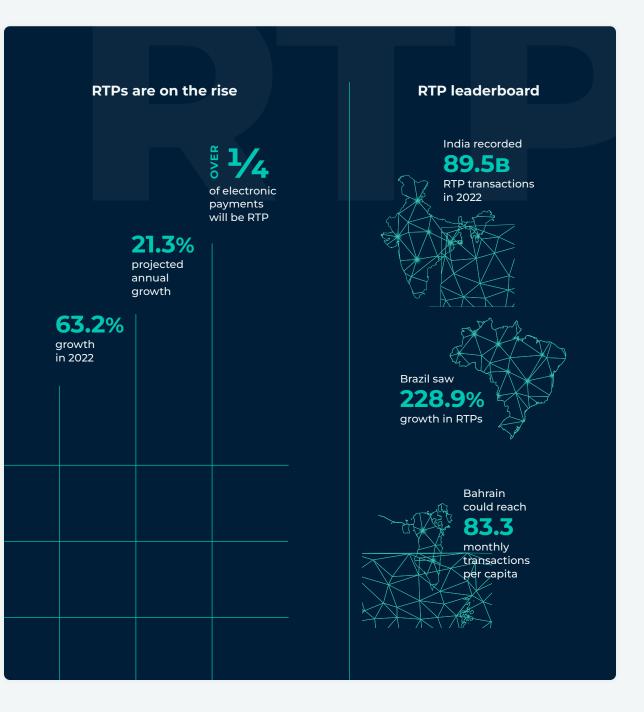
## **RTP TAKING OFF GLOBALLY**

RTPs are revolutionizing global finance with a 63.2% jump in transactions in 2022 and an expected rise to \$511.7 billion by 2027, marking a 21.3% annual growth rate. Soon, RTP will form 27.8% of all electronic payments, up from 18% in 2022.

Leading the RTP adoption, India recorded \$89.5 billion transactions in 2022, with Bahrain predicted to reach 83.3 transactions per capita monthly by 2027. Brazil's RTP market grew by 228.9%, reaching \$29.2 billion transactions.

In Asia, RTP's success stems from standout user-friendly features, QR codes and mobile integration, with significant usage by governments and businesses, including cross-border payments within ASEAN.

In contrast, by 2027, European nations like the Netherlands and Sweden will rank high in RTP adoption, whereas major economies like the UK, the US and Germany will lag, underscoring a global disparity in embracing this payment innovation.



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## CONVENIENCE OF DIGITAL SERVICES IS DRIVING RTP GROWTH

The rise of RTP is fueled by consumer demand for instant transactions, driven by the convenience of digital services. The integration with mobile wallets and digital apps, coupled with the global surge in smartphone users — expected to increase facilitates this shift toward faster payment solutions. Government initiatives worldwide, such as Brazil's PIX and the EU's instant payment mandates, further support RTP infrastructure development.

The elimination of intermediaries in RTP systems reduces transaction fees, benefiting both businesses and consumers. Merchants

save on interchange fees that can reach as high as 4% and benefit from immediate fund settlements and a streamlined returns. process, enhancing customer loyalty.

## **RTP REVENUE OPPORTUNITIES** FOR BANKS

Banks face a significant opportunity by embracing RTP to meet customer demands and market changes. While banks traditionally view commercial payments as a cost center, an Accenture study highlights a potential \$371 billion revenue from value-added services, including RTP, by 2028.

However, regulatory and consumer protection aspects associated with RTP have made some banks hesitant due to the lack of direct competitive advantage. In markets like the Netherlands, where banks don't charge for RTP transactions but offer bundled account benefits, revenue is generated through package fees, interest and traditional banking methods rather than per-transaction fees.

Banks should evaluate their use of RTP infrastructures and think about how they could strategically leverage new solutions to enhance their position in the rapidly changing payment ecosystem.



Learn more about real-time payments, FedNow and the new era of B2B transactions on our blog.

PAYMENT DYNAMIC	POTENTIAL USE CASES
P2P Person to Person	Repayments/remittances to family or friends
G2C Government to Consumer	Subsidies, tax refunds/rebates, government wages, pensions, social benefits, unemployment benefits, loans
B2C Business to Consumer	Bill payments (using Request to Pay), rebates, refunds, vouchers, legal settlements, insurance claims, employee wages, employee reimbursements
C2B Consumer to Business	Point of sale transactions, bill payments, medical co-pays
C2G Consumer to Government	Taxes, loan repayments, donations, registration fees
B2B Business to Business	Supplier payments, refunds, adjustments
B2G Business to Government	Taxes, registration fees, campaign donations
G2B Government to Business	Privatized services, tax rebates, government contracts



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## G20 ROADMAP FOR ENHANCING CROSS-BORDER PAYMENTS

RTPs currently offer instant domestic fund transfers and have dramatically shifted the payments landscape with their speed and efficiency. However, integrating RTPs with cross-border payments, multiple intermediaries and often lengthy settlement times presents challenges. These include interoperability issues (as most RTP systems are country-specific), regulatory complexities across borders in various regions and the need for significant infrastructure upgrades.

In 2020, the <u>G20 prioritized enhancing</u> <u>cross-border payments</u>, launching a roadmap to improve cost, speed, accessibility and transparency by 2027. A key goal is for 75% of these payments to reach recipients within an hour by 2027. Major 2023 milestones include Swift's adoption of ISO20022, enabling standardized global bank communication for more efficient and secure cross-border payments.

However, adoption is still emerging, with fewer than 800 banks using ISO syntax for payment messages in 2023. Achieving <u>G20 targets requires interoperability</u> and regulatory alignment, particularly in areas like anti-money laundering and data governance, underscoring the need for public-private sector collaboration.

## Overview of the priority themes and actions for achieving the G20 targets<sup>18</sup>

PAYMENT SYSTEM INTEROPERABILITY		entral bank operators' community of practice
AND EXTENSION	02 FF	PS interlinking across borders
		oss-border payment service level greements/schemes
LEGAL, REGULATORY AND	<b>04</b> Ba	ank/non-bank regulation and supervision
SUPERVISORY FRAMEWORKS	<b>05</b> In <sup>.</sup>	formation to end-users
	06 AN	ML/CFT rules application
DATA EXCHANGE AND	<b>07</b> In	teraction with data frameworks
MESSAGE STANDARDS	08 IS	O 20022 harmonization requirements
	<b>09</b> AF	PI harmonization
	<b>10</b> Le	gal Entity Identifier use
	<b>11</b> Pa	ayments Summit
	<b>12</b> In	dustry taskforces
	<b>13</b> M	onitoring and progress reporting
	<b>14</b> Te	chnical assistance
	<b>15</b> Pu	ublic sector outreach

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## CENTRAL BANKS SPEARHEAD INNOVATIONS IN CROSS-BORDER PAYMENTS

Central banks globally are innovating to enhance cross-border payments (more on their experiments with the BIS later). The European Central Bank and Sweden's Central Bank are <u>exploring</u> <u>instant, cross-currency payment systems</u>, while the <u>European Payment Council's</u> <u>One-Leg Out Instant Credit Transfer</u> <u>scheme</u> aims to streamline international transactions within and beyond Europe. The Arab Monetary Fund's Buna platform facilitates payments in regional and international currencies across commercial banks and institutions.

In 2023, Vietnam joined Indonesia, Malaysia, Thailand, the Philippines and Singapore in an initiative to connect payment systems, emphasizing QR code usage for retail. This collaboration aims to bolster trade and resilience against global financial uncertainties. India and the UAE have also agreed on memoranda to use local currencies for cross-border transactions, enhancing economic ties. Furthermore, the ASEAN Bankers Association has <u>developed an interoperable QR code</u> to simplify and reduce the cost of cross-border payments within ASEAN, promoting tourism and trade.

## RTPS IMPROVE FINANCIAL INCLUSION AND HUMANITARIAN AID

RTPs are pivotal for financial inclusion, significantly benefiting remittances by providing instant P2P family support and lowering transaction costs, which currently average 6.25% globally, with UN Sustainable Development Goals set to reduce it to below 3% by 2030. Digital remittance costs, at 4.72%, are already lower, and RTP systems could reduce these further by serving as a digital infrastructure.

RTPs are crucial for immediate access to funds in emergencies, exemplified by situations such as global armed conflicts or natural disasters, where traditional fund-receiving methods fail. Instant payments from insurance companies enable quick recovery actions, such as contractor payments.

Moreover, RTP enhances B2B transactions, ensuring faster trade and prompt settlements, vital during crises like pandemics or labor shortages. This system fosters agile business partnerships and timely supply procurement, overcoming traditional credit process delays.



Global transaction costs currently average

**6.25**%

Goals set to reduce transaction costs below

**3%** 

## FINTECH LEADERSHIP SPOTLIGHT — BLOCKCHAIN FOR GLOBAL HUMANITARIAN AID DISBURSEMENTS

The disbursement of humanitarian aid has been a historical challenge for many organizations aiming to provide relief around the globe. The Stellar Development Foundation's Aid Assist program is aiming to change that.

Powered by the Stellar blockchain, Stellar is on a mission to democratize access to financial services, with the goal of revolutionizing how humanitarian aid reaches its recipients through innovative digital wallets — an approach born from the 2022 Russian invasion of Ukraine and since expanded to other areas of need.

## 

Learn how the Stellar Development Foundation is <u>deploying blockchain</u> <u>technology to improve humanitarian aid</u> <u>disbursement</u>, such as they did following Russia's invasion of Ukraine in 2022.

"Blockchain solves a lot of the issues that organizations face when they're doing this amazing [humanitarian aid] work. The legacy financial system is opaque, expensive and slow. What blockchain has been able to provide is a set of instant, cheap, transparent rails for organizations that need to provide money without setting up a full on-the-ground infrastructure. The last thing you want to do is send in 200 staff members if you don't have to.

And so with Stellar Aid Assist, which is the program built around humanitarian aid on Stellar, there's a product underneath that which basically allows for organizations to send money to individuals on their phones in a stable and portable way, so that those people can receive the money and do whatever they need to do with it. We trust people to meet their own needs in their environments, especially in a time of crisis."



TORI SAMPLES Sr. Product Manager at Stellar Aid Assist

# **Emerging rails**, tokenization and the opportunities ahead

In today's globally connected environment, the ability to successfully and safely transfer money across borders is essential for businesses and individuals alike. Businesses need to pay employees overseas, manage international suppliers, and optimize cash flow through treasury management. Meanwhile, individuals buy goods from international sellers, manage finances while traveling and send money to loved ones overseas.

To overcome the limitations of traditional cross-border payment systems, a new generation of fintech companies has emerged. These companies are innovating on existing rails, with some fintechs leveraging cutting-edge technologies like blockchain to improve cross-border payments. Such private-sector innovation has captured the interest of governments and institutions globally, particularly in the form of payment stablecoins and CBDCs for their potential positive impact on cross-border transactions.

Furthermore, statistics reveal an increasing focus on real-time cross-border payment solutions. According to ACI Worldwide, RTPs accounted for \$266.2 billion transactions globally in 2023, a year-over-year (YoY) growth of 42.2%. ACI Worldwide forecasts \$575.1 billion real-time transactions by 2028, when RTPS are expected to account for 27.1% of all electronic payments globally. This section explores some of the ongoing and most promising experimentation, theory and real-world applications of blockchain and digital assets as they pertain to the potential for improving real-time cross-border payments.

## ADDRESSING CROSS-BORDER CHALLENGES THROUGH BLOCKCHAIN

Fintech companies are increasingly using distributed ledger technology (DLT) and blockchain to address cross-border payment challenges, by offering transparency and traceability, which reduces fraud risk and enhances security.

Statista projects a significant increase in B2B cross-border transactions on blockchain by 2025, with the Asian market leading this trend. Moreover, a survey conducted by **PYMNTS.com** found that 37% of businesses are currently using blockchain for cross-border payments. A further 13% said they would like to begin leveraging blockchain for their international transactions.

## Increasing focus on RTPs

575.1B **RTP** transactions by 2028

**27.1**% of electronic payments will be RTP

42.2% growth in 2023

## CONVERGE PODCAST



Check out our podcast, "New rails to new worlds: Building inclusive, innovative infrastructures for global payments," featuring Convera CCO Jennifer Parker, Citi TTS Head of Digital Assets Ryan Rugg, Ripple Head of Payments Products Pegah Soltani, and Swift Head of Payments Kalyani Bhatia.

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DLT also enhances interoperability between financial systems, making cross-border transactions increasingly seamless. Fintech companies like <u>Stellar</u>, Ripple and Veem are leveraging blockchain for more efficient and transparent cross-border payments, demonstrating the industry's commitment to addressing evolving payment needs.

Meanwhile, legacy players like the Society for Worldwide Interbank Financial Telecommunication (SWIFT) have significantly elevated their offerings. In 2017, Swift gpi (global payments innovation) was introduced to enable same-day processing of cross-border payments, while significantly increasing their transparency and traceability. <u>Swift reports</u> that 50% of gpi payments reach beneficiaries in under 30 minutes and a further 40% arrive at their destination in under 5 minutes.

## Increase in B2B cross-border transactions on blockchain<sup>19</sup>

**466**M

745M B2B cross-border blockchain transactions conducted by 2025

blockchain transactions anticipated in Europe by 2025

of B2B cross-border transactions finalized on the blockchain were in

the Asian market in 2020

## FINANCIAL INSTITUTIONS AND THE BIS COLLABORATE TO ENHANCE CROSS-BORDER PAYMENTS

The Bank for International Settlements' (BIS) Innovation Hub has driven and is currently driving several new projects to enhance cross-border payment speed, transparency and interoperability. These initiatives highlight the importance of leveraging blockchain and distributed ledger technology (DLT) for cross-border payment interoperability, with the IMF emphasizing the public sector's role in driving platform development alongside private-sector innovation.

## **Project Agora**

BIS and seven central banks across the US, Mexico, Great Britain, Switzerland, Eurozone, South Korea and Japan have announced plans to collaborate with the private sector convened by the Institute of International Finance (IIF) to integrate tokenized commercial bank deposits with tokenized wholesale central bank money using smart contracts to achieve atomic (or instantaneous) settlement.

## **Project mBridge**

mBridge aims to create a unified platform for issuing and exchanging wholesale CBDCs from multiple central banks, with the latest prototype reducing cross-border transfer times from days to seconds. This customizable platform supports compliance, privacy, liquidity and monetary policy transmission.

## **Project Dunbar**

Dunbar also focuses on a common platform for CBDC issuance and exchange, managed cooperatively by central banks and used by private financial institutions. It addresses interoperability challenges by enforcing technical standards, data architectures and terminology.

# THE "FINTERNET" — THE FINANCIAL RAILS OF THE METAVERSE?

Bank for International Settlements general manager, Augustín Carstens has coined the term <u>"Finternet"</u> to describe the organization's vision of a network of interconnected financial ecosystems similar to the internet. It aims to simplify and enhance financial services by integrating technologies like tokenization and unified ledgers.

The Finternet emphasizes collaboration between public and private sectors and focuses on inclusivity, particularly benefiting emerging markets and developing economies. Statistics reveal significant gaps in financial inclusion, with \$1.4 billion adults remaining outside the formal financial system, and only 28% having borrowed from a formal institution.

## 



Hear more from the Bank for International Settlements' Daniel Eidan on cross-border payment challenges being solved through various Central Bank and private-sector experiments and the goal of interoperability <u>on our podcast</u>.

## 

The Finternet proposes to bridge these gaps by consolidating various financial transactions onto a single platform (unified ledger), potentially transforming access to and the efficiency of financial services globally, offering broader reach, better risk management and lower transaction costs.

# CRYPTO ADOPTION IN TRADITIONAL FINANCIAL MARKETS

In line with the views of an emerging Finternet, traditional financial institutions are increasingly embracing crypto-assets and blockchain technology, with a focus on stablecoins, which are digital assets tied to a stable value like the US dollar.

Despite a \$1.2 trillion dip in the total crypto market cap, <u>stablecoins have seen a gain</u> <u>of 5.6%</u>. This shift is attributed to growing awareness and understanding of blockchain, crypto, and digital assets, with initiatives like

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the Markets in Crypto Assets Regulation (MiCA) helping to clarify regulatory ambiguity. Additionally, interest is rising in decentralized finance (DeFi) platforms, which enable direct financial interactions without intermediaries to reduce costs and improve efficiency for traditional financial players.

## DECENTRALIZED FINANCE POISED TO BOOM

According to Statista, the DeFi market's revenue is projected to hit \$26.17 billion this year, with an annual growth rate of 9.07% expected to reach \$37 billion by 2028. Each DeFi user is expected to contribute an average of \$1,378 in revenue in 2024, with the number of DeFi users expected to hit \$22.09 million by 2028. The US is expected to lead in revenue, reaching \$12.5 million in 2024.

Forward-thinking banks worldwide are exploring, issuing, trading and offering custody services for stablecoins and other digital assets. JPMorgan Chase launched JPM Coin in 2019 for instant payments between institutional accounts, adding programmability features later. BNY Mellon launched Digital Asset Custody, responding to high institutional interest in tokenized products. Santander introduced One Pay FX, a blockchain-based international money transfer service, while Société Générale launched its stablecoin, EUR CoinVertible, for trading on Bitstamp.

## TOKENIZATION AND CRYPTO INNOVATIONS BREAK TRADITIONS

To help traditional banks and markets enter the digital currency and DeFi world, specialized service providers have emerged. These include tokenization platforms, companies offering crypto-as-a-service and hybrid solutions blending DeFi with traditional mechanisms.

Tokenization platforms convert real assets (e.g., art) and financial products (e.g., bonds, stocks) into tokens traded on blockchains. Examples include ConsenSys Codefi and OpenSea, which enables the creation and sale of digital assets and serves as a marketplace for NFTs.

Crypto-as-a-service companies, akin to banking-as-a-service providers, offer pay-per-use models for digital financial capabilities. In Brazil, companies like Nubank and Mercado Pago use these services to facilitate buying and selling crypto assets. Meanwhile, hybrid solutions like Credix and Cloudwalk in Brazil blend traditional user experiences with DeFi technologies internally.

## 



To dive deeper into DeFi's growth and impact on TradFi, check out our <u>3-part series podcast</u> <u>on "Why DeFi Matters,"</u> with author Ian Horne, Head of Content for Money2020 EU.

## 

By 2028, revenue from DeFi projected to reach

**37**B

By 2028, the number of DeFi users is expected to hit

в**22.09м** 

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To learn more about the promise and <u>impact of payment stablecoins</u> <u>and CBDCs</u> on cross-border payments and remittances, or on <u>tokenization</u>, check out our blog.

Open data

# Market outlook Real-t

# FINTECH LEADERSHIP SPOTLIGHT — ESG AND BLOCKCHAIN

According to a recent Ripple/US Faster Payments Council survey of leaders at financial institutions, 81% of those surveyed acknowledge the environmental impact of blockchain use, while 78% believe low energy consumption in the context of blockchain use is "very" or "somewhat" important.

## 

Listen to <u>our conversation with Nameer</u> on the *Converge* podcast to learn how to future-proof your ESG strategy.

"I see the evolution of Environmental, Social and Governance (ESG) from mere corporate responsibility to a strategic imperative as critical in the face of escalating climate challenges. ESG now demands robust practices including emission reductions, sustainable resource use and enhanced diversity in leadership.

Fintech and blockchain are pivotal, transforming ESG initiatives through innovations like voluntary carbon markets and ensuring transparency with decentralized platforms for environmental integrity.

It's essential that corporations not only adapt but lead by setting clear ESG targets, embracing renewable energies, and optimizing resource efficiency. Together, leveraging advanced technologies, we can spearhead a sustainable economic future, protect our environment and build a resilient society for future generations."



NAMEER KHAN Founder and CEO of Fils

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# Data sharing and the open banking revolution

In recent years, the financial sector has witnessed a paradigm shift toward openness and interoperability, ushering in the era of open banking. Jurisdictions around the globe, including the European Union, United Kingdom and Brazil, have adopted open banking frameworks, allowing third-party providers access to financial data with the consent of customers. This transformation facilitates more secure and expedient cross-border payments and broadens the scope of financial services, extending into investments and insurance.

As we progress from open banking to open data, this shift not only redefines the accessibility of financial data but also sets the stage for expansive data sharing across diverse sectors, enhancing transparency and innovation. The following section explores the open banking revolution and its implications for global financial services and data management.

## FROM OPEN BANKING TO OPEN DATA

Moving from open banking and open finance to open data marks a significant shift. While open banking has sparked global interest, various nations are now finding their unique paths to unlock financial data. This expansion highlights the transformative potential of open data sharing, encouraging global attention.

While open banking and open finance focus on financial data, their core principles of transparency and openness align with open data, which extends these principles beyond finance to include a wide range of information, from government data to scientific research.

Open data aims to promote transparency, collaboration and innovation by making diverse datasets accessible to the public. This initiative encourages the development of innovative applications and research in various fields.

The evolution of these concepts suggests that open data will continue influencing data sharing and utilization across sectors, including finance. Trends toward openness and collaboration are expected to endure, shaping a more interconnected and innovative environment. However, the trajectory of open data will depend on regulatory frameworks, technology and societal attitudes toward data sharing.

## US IS CATCHING UP TO EUROPEAN OPEN BANKING

The US is making strides in open banking, catching up to Europe, as seen in **INNOPAY's Open Banking Monitor** and <u>The Paypers' Trends Report</u>. While Europe leads in APIs, North American banks now contribute 14% to the open banking market (OBM), with CitiBank notably leading in openness. US Bank and Wells Fargo are also expanding their API offerings and leading in functional scope.

Cross River Bank and Capital One shine in functional scope and developer experience, but access to offerings from giants like Goldman Sachs, JPMorgan and Chase is limited, hindering a full assessment.

US banks excel in offering investment and foreign exchange APIs, providing direct access to investment data and currency exchange rates, with some enabling real-time or future trading. Unlike Europe, US developments are industry-led, with banks proactively adopting open banking strategies. In Europe, the Data Act, effective since January 11, 2024, complements existing regulations like the General Data Protection Regulation (GDPR), aiming to create a unified data market. The US is also advancing in data privacy laws, with eight states passing laws in 2023 and more expected to follow in 2024, indicating a growing trend in privacy regulations. Canada is updating its privacy laws with the Digital Charter Implementation Act, 2022, expected to be enacted in 2024, introducing the Consumer Privacy Protection Act and emphasizing data privacy for consumers.

# EMBEDDED FINANCE — A FURTHER SHIFT IN THE LANDSCAPE

Embedded finance represents a significant evolution in the financial services landscape, building upon concepts like open banking, open finance, modular banking and banking-as-a-platform. This new approach is reshaping how customers interact with financial institutions, offering them integrated financial services within their daily activities.

Embedded finance is the integration of financial services into non-financial offerings, driven by digital advancements and customer preferences for seamless experiences. Jeff Tijssen, from Bain & Company, describes it as a non-financial platform offering adjacent financial services while taking on some economic ownership.

Banking as a Service (BaaS) forms the sturdy foundation for embedded finance, enabling its dynamic growth. Embedded finance focuses on user-facing financial services, while BaaS provides the backend banking functions that enable digital banks and non-banks to offer financial services. This combination of BaaS and embedded finance revolutionizes the industry, offering unparalleled convenience and accessibility that frees users from traditional banking limitations.

## THE IMMEASURABLE POTENTIAL FOR EMBEDDED FINANCE

The potential for embedded finance is vast. Estimates suggest that the global opportunity for embedded finance will reach **\$7.2 trillion in the next decade**, which is twice the combined value of the world's top 30 banks today. Regarding BaaS, **Juniper Research predicts** that BaaS platform revenue worldwide will surpass \$38 billion by 2027, up from \$11 billion in 2022. This substantial 240% growth is attributed to BaaS's ability to enhance connections between brands and customers through seamless banking and payment experiences. Initially, BaaS partnerships involved banks and API-first fintech companies, which offered enhanced financial services when embedded. Recently, API-first tech companies outside the financial sector, like e-commerce platforms or rideshare apps, have also started benefiting from embedded finance. <u>A report from Mastercard</u> suggests that these partnerships could eventually extend to all companies adopting API-based business models in the future.

BaaS, part of the "as a service" trend, is gaining attention. It builds on the older concept of white-label partnerships between banks and retailers, dealerships or airlines, which were costly and rare. APIs changed this by enabling embedded finance, integrating financial services into customer experiences.



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## REAL-WORLD USE CASES FOR EMBEDDED FINANCE AND BAAS

Retailers have long seen the value of financial services, with early examples like branded credit cards; however, embedded finance has begun to be widely used in various contexts, such as enabling seamless shopping experiences (e.g., Amazon) and mobility services (e.g., Uber). <u>McKinsey</u> also reveals that demand is maturing among embedded finance distributors and their customers for traditional financial products like deposits, payments, issuing and lending.

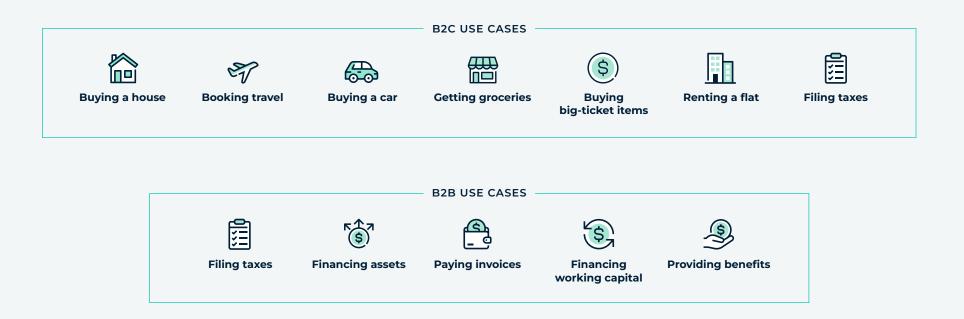
In supply chain operations, embedded finance optimizes processes and facilitates

trade finance. Platforms such as Tradeshift and Taulia integrate financing into procurement, allowing suppliers to access early payments or financing based on invoices. This integration improves cash flow management and strengthens supply chain relationships.

For businesses with international operations, embedded finance simplifies currency exchange in cross-border transactions. Traditional currency exchange services can be costly and time-consuming, but embedded finance solutions offer convenient and cost-effective options with competitive rates and minimal fees.

## PAYMENT PROCESSING AND INFRASTRUCTURE

Payment processing methods differ significantly between embedded finance and BaaS. In embedded finance, payments are dynamic and occur during online purchases or service use. In contrast, BaaS transactions are prearranged and occur in the background, unbeknownst to the customer. Here, the fintech company and the bank have already established an agreement. When a payment is made, the bank processes it through their APIs, with the front-end brand managing all customer interactions.



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In the realm of financial infrastructure and regulation, <u>Nirav Patel, CEO of Andaria</u>, highlights the advantages for businesses utilizing embedded finance. Unlike traditional banking services, where setting up financial infrastructure and navigating regulatory requirements can be complex and time-consuming, embedded finance offers a more streamlined approach.

With BaaS, licensed financial institutions share their infrastructure with other businesses, allowing them to offer banking services like checking accounts and loans. However, businesses are still responsible for managing finances and complying with regulations.

On the other hand, embedded finance involves non-financial businesses seamlessly integrating financial services into their products, without the need for a banking license. Providers of embedded finance handle the financial aspects, allowing businesses to focus on their core activities.

## COMPLIANCE PRESENTS CHALLENGES FOR FUTURE GROWTH

Compliance is a key factor in the growth of embedded finance and BaaS, and regulators and policymakers must update frameworks to address these challenges, including liability allocation and third-party risk control. Ensuring consumer privacy and data protection are also crucial.

BaaS providers and fintech firms must also comply with regulatory sanctions, such as those from the US or EU, to prevent illicit activities. This requires rigorous transaction screening to avoid engaging with sanctioned individuals or entities. Firms that fail to conduct sufficient KYC checks and meet AML regulations are at risk of financial crime, including fraud and money laundering.

Banks must build BaaS partnerships with risk and compliance in mind, establishing responsibilities, reviewing product roadmaps, engaging with regulators and automating compliance workflows to avoid negative consequences. Policymakers, regulators and supervisors should collaborate to update frameworks, allocate liability, control third-party risk and ensure consumer privacy and data protection are addressed.



Blockchain

# Fraud prevention, security and compliance take center stage

Increasingly sophisticated fraudulent activities in today's digital, Al-infused era pose substantial risks to both consumers and institutions. Reports indicate significant financial losses due to various fraud types, from bust-out schemes and authorized push payment (APP) fraud to account takeovers and synthetic identity fraud.

As real-time and mobile payments grow, so does the vulnerability to scams, necessitating advanced, multi-layered security strategies. The next section explores the critical aspects of fraud prevention and the evolving

compliance measures needed to safeguard the integrity of modern financial systems.

## RISK AND VULNERABILITIES IN PAYMENTS

Fraudulent activities pose substantial risks, which are evolving in sophistication. According to Alloy's State of Fraud Benchmark Report, 25% of companies suffered losses exceeding €1 million due to fraud in 2023, with the two most prevalent trends being bust-out fraud and APP fraud. Shockingly, over half of Canadians have experienced financial scams, according to a recent report from Interac.

APP fraud involves scammers tricking victims into authorizing fraudulent transactions through various tactics like impersonation and romance scams. Bust-out fraud involves applying for a credit card and building a decent repayment

history, before maxing out the card with no intention to pay the bill.

Additionally, account takeover (ATO) fraud, where individuals gain unauthorized access to victim accounts, remains a threat. Identity theft, particularly synthetic fraud, is another major concern, with US auto lenders seeing a significant increase in synthetic identity exposure.

Mobile payment platforms pose the greatest challenge for banks and fintechs. A recent report from BioCatch found that fraud involving mobile devices rose from 47% in 2022 to 61% in 2023. Research from Zimperium shows that mobile malware scams are on the rise globally, with 24,000 unique malware samples identified across 187 countries.

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**25%** of companies suffered losses exceeding **\$1M** due

Fraud involving mobile devices rose from **47%** in 2022 to 61% in 2023

**CONV**<sup>±</sup>RGE PODCAST



Hear from Allov CTO Charles Hearn on our podcast covering emerging fraud schemes and the innovative authentication technologies being deployed to avoid them.

## 

## FASTER PAYMENTS, FASTER FRAUD: WHEN MILLISECONDS MATTER

With 88% of consumers eager to continue using RTP for online purchases, <u>according</u> to FICO, websites must offer diverse payment options to meet expectations and avoid losing sales. However, the immediacy of RTP, while convenient, opens doors for fraudsters, posing challenges in maintaining secure transactions. In the US, networks like RTP, Zelle and FedNow process transactions instantly, leaving little time for payment verification and fraud checks.

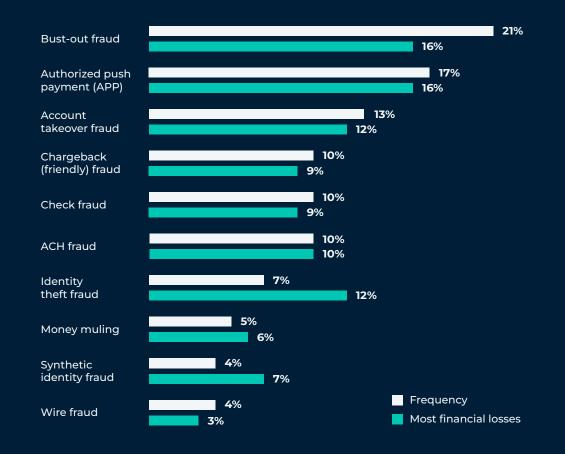
Common fraud types include authorized push payment (APP) fraud, with imposter and romance scams leading to significant losses, including <u>a notable \$10 billion</u> <u>in 2023</u> due to various scams. Account takeover (ATO) fraud, where unauthorized access to accounts leads to fraudulent transactions, affected 22% of US adults.

# CONVERGE



Hear from Soups Ranjan, CEO and founder of Sardine, <u>on the</u> <u>current state of fintech fraud</u> and how to stop threats in a RTP world.





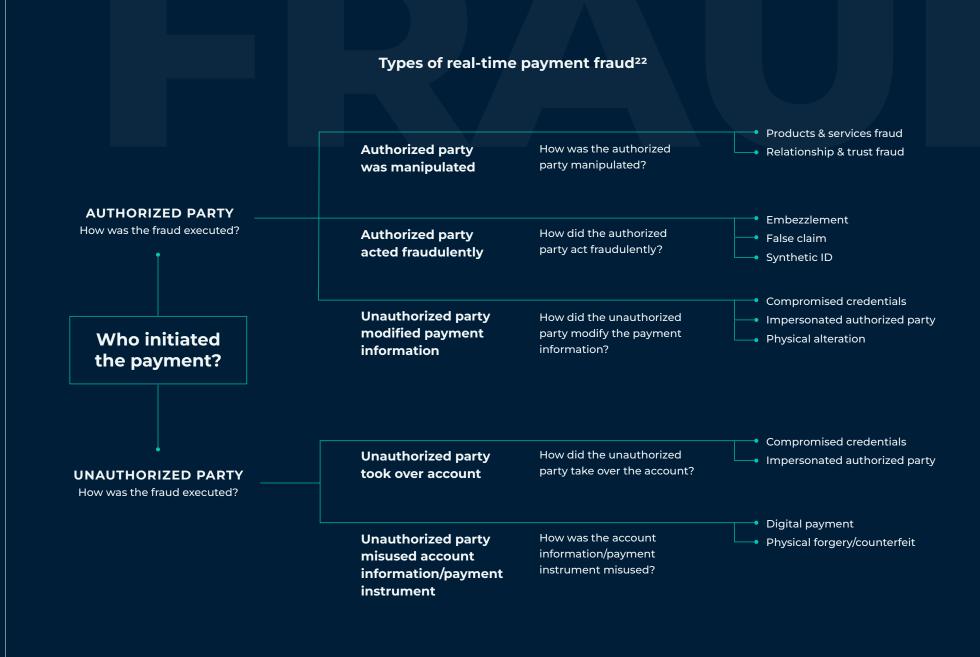
Note: "Friendly fraud" & "Coercion fraud" not displayed, only shown to UK respondents.

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## MOBILE WALLETS, DEEPFAKES AND FIGHTING ADVANCED FRAUD

The widespread use of mobile wallets has also escalated mobile money fraud, with a sharp increase in fraud executed from mobile devices, rising from 47% in 2022 to 61% in 2023.

Invoice payment fraud and the emergence of deepfake technology present additional risks, with deepfake scams resulting in losses like the \$25.5 million transferred by a Hong Kong finance employee duped by a fake video call.

Combatting such fraud requires a multilayered approach, combining systembuilt security measures and increased vigilance. Understanding customer behavior, establishing anomaly protocols and promoting customer education are essential. Collaboration within the industry and with technology partners for real-time fraud detection can provide comprehensive insights, highlighting the shared responsibility between financial institutions and consumers in fraud prevention.

Discover what's fueling the rapid rise of digital wallets — and <u>what it</u> <u>means for FX</u> — on our blog.

## CROSS-BORDER PAYMENTS — FERTILE GROUND FOR FRAUDSTERS

Cross-border payments pose significant risks for fraud, affecting the confidence of small-to-medium-sized enterprises (SMEs) and individuals. According to recent <u>research from Mastercard</u>, 41% of SMEs using online payment services are concerned about fraud, leading 47% of those experiencing issues to reduce their overseas transactions.

Fraud manifests in various forms, such as card-not-present fraud (CNP) in e-commerce and remittances, along with a growing trend of credit-related fraud on cross-border platforms. To further complicate matters, the multi-jurisdictional nature of these systems limits providers' ability to effectively assess the credit status of international transactions.

Moreover, cross-border payments are often exploited for money laundering, with criminals setting up shell companies in under-regulated jurisdictions. To address these challenges, efforts like INTERPOL's new <u>Financial Crime and Anti-Corruption</u> <u>Centre aim</u> to combat transnational financial crimes, while initiatives like Project Mandala seek to harmonize cross-border regulatory frameworks.

# **41**%

of small-to-medium-sized (SME) businesses that have used online payment services say fraud is a main concern.

# **47%**

of SMEs who have experienced problems with international payments send fewer payments overseas as a result

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## FIGHTING FRAUD IN PAYMENTS

Banks and fintechs are turning to a variety of innovative strategies to combat fraud, such as identity verification and transaction monitoring, along with education institutions whose international student bodies are increasingly susceptible to cyber criminals. Identity verification tools use document checks, biometric authentication (like facial recognition or fingerprint scanning) and knowledge-based authentication (answering security questions) to confirm customer identities.

With the rise of online payments, the global transaction monitoring market <u>is projected</u> <u>to hit \$34 billion by 2033.</u> Transaction monitoring systems, critical in our increasingly digital world, scrutinize transactions in real time, flagging any suspicious activities for further investigation.

## Other technologies being deployed to combat fraud

Machine learning and AI analyze vast amounts of data to detect patterns and predict fraudulent behavior.

**Geolocation and device fingerprinting** help verify user locations and detect compromised devices. **Behavioral analytics** scrutinize user behavior for anomalies that may indicate fraud.



**Fraud intelligence networks** facilitate information sharing and thwart fraudsters. **Blockchain** helps reduce fraud risks in financial transactions with its transparent and immutable transaction records.

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## FINTECH LEADERSHIP SPOTLIGHT: ERICA DORFMAN OF BREX ON THE IMPACT OF FINTECH AND AI ON SPEND MANAGEMENT AND FRAUD DETECTION

"With APIs and direct integrations into workflow tools, finance teams now have unprecedented visibility into their company's expenses.

At <u>Brex</u>, we've fully integrated expense management capabilities into our Global Corporate Cards, Bill Pay, and Cash Management offerings, enhancing finance teams' control and confidence in adhering to expense policies. Our customers can completely bypass the need for expense reports, proactively managing spend before it happens with our unique budgeting products.

With AI integrations, CFOs and controllers can focus on the most important insights into their teams' spending. AI will drive automation and efficiencies across the entire expense management stack, improving text recognition, enhancing fraud detection and powering intuitive user experiences..."



ERICA DORFMAN Head of Financial Products at Brex

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Listen to <u>our conversation with</u> Erica on the *Converge* podcast to learn how to future-proof your spend management and fraud prevention platforms.

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# Emerging regulatory trends in 2024 and beyond

Open banking and open data are revolutionizing how financial information is shared, but with this comes a surge in fraudulent activities. Fraudsters are eager to exploit vulnerabilities, making it crucial for banks to fortify their defenses. To combat this, banks will invest heavily in onboarding controls, empowering their fraud teams to weed out suspicious accounts from the start. This proactive stance extends to monitoring all customer interactions and implementing rigorous verification processes for third-party apps.

Third-party vendors are now indispensable for payment service providers (PSPs), but they bring a new set of risks. To mitigate these risks, robust relationship management with suppliers is imperative. This proactive approach is vital for preventing catastrophic outcomes such as data breaches, financial losses and operational disruptions.

## GLOBAL APPROACHES TO DATA PRIVACY IN 2024

European data regulation focuses on creating a unified data market within the EU. The Data Act, effective since January II, 2024, is a key part of this strategy, aiming to ensure fair data access and standardize usage across sectors. It complements existing regulations like the General Data Protection Regulation (GDPR), Free Flow of Non-Personal Data Regulation, and Open Data Directive, facilitating secure data flow and digital transformation.

In North America, data privacy laws are progressing, with several states passing legislation in 2023. Eight states have enacted laws, with five set to be enforced in 2024. Canada is also updating its regulations, with the Digital Charter Implementation Act, 2022 expected to be enacted, introducing the CPPA to replace outdated regulations and emphasizing data protection for consumers.

The EU's GDPR has set a high standard, influencing privacy laws worldwide. Many Asian countries are introducing GDPRinspired legal grounds, while Latin American countries prioritize consent but lack GDPRlike provisions. Singapore has expanded the use of deemed consent but requires organizations to perform specific Data Protection Impact Assessments for processing.

# KEY PAYMENT REGULATIONS IN EUROPE AND THE US

In Europe and the US, fraud trends are shaping key payment regulations. The European Union's regulatory framework, including AMLD6 (Anti Money Laundering Directive), FIDA (Financial Data Access), MiCA and PSD2 (Payment Services Directive), emphasizes measures like Strong Customer Authentication (SCA) and open banking, adding complexity to payment processing.

## 



Learn more from Jessica Cath, Head of Financial Crime at Thistle Initiatives, about the <u>evolving regulations</u> <u>in Europe and the UK</u> supporting the growth of crypto and digital assets, following Sam Bankman-Fried's recent 25-year prison sentence and the shadow it cast on the industry.

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In the US, regulations like the Dodd-Frank Act and EFTA, overseen by bodies like the CFPB and OCC, impact payment systems.

The California Consumer Privacy Act (CCPA) strengthens privacy rights for Californians, and recent legal decisions highlight California's commitment to privacy enforcement. State-level data privacy laws are increasing, with 13 states enacting comprehensive legislation.

The UK's Payment Systems Regulator (PSR) introduced mandatory reimbursement for victims of APP fraud within the faster payments system, starting October 2024. An amendment to delay payment processing in fraud cases is also proposed.

The Digital Operational Resilience Act (DORA) in the EU requires financial entities and third-party providers to implement ICT system standards by January 2025. DORA applies to traditional financial entities, crypto-asset service providers and third-party service providers, aiming to harmonize ICT risk management regulations across the EU.

## **KEY PROPOSALS OF PSD3**

PSD3, the proposed successor to PSD2, aims to fortify the EU's payment services market by addressing key fraud trends and promoting fair competition among providers. PSD3's main thrust is to enhance security and innovation in financial transactions, with a focus on combatting fraud and enhancing consumer trust.

One of the main innovations in PSD3 is the reinforcement of SCA requirements, which aim to protect consumers by verifying their identity during electronic transactions. Additionally, PSD3 introduces stricter guidelines for accessing payment systems and account information, aimed at closing loopholes that have led to uneven regulatory interpretations across different EU countries.

Another key aspect of PSD3 is the introduction of the Payment Services Regulation (PSR), which sets out clear definitions for terms like payment account and establishes conduct rules for all payment service providers, including traditional and e-money providers. This regulation is designed to enhance consumer protection and ensure uniform standards across all EU member states.

## THE BUSINESS IMPACT OF PSD3

The new directive emphasizes SCA, and businesses must adapt to new rules regarding data sharing, authentication methods and fraud prevention techniques. For instance, under PSD3, users can authenticate transactions using two identical categories, like token and SMS OTP, enhancing security without compromising convenience.

Issuers can now delegate SCA to third parties, but this is considered outsourcing and must comply with stringent rules. Importantly, SCA must be accessible to vulnerable customers, ensuring inclusivity in digital transactions. Furthermore, businesses are required to share more data with issuers, enabling them to monitor transactional patterns and behaviors for fraud detection, a move that could enhance security measures across the industry.

PSD3 also introduces stricter licensing requirements for PSPs and third-party providers (TPPs), placing a greater emphasis on security standards and regulatory compliance. This shift requires PSPs and TPPs to invest in robust fraud prevention systems and secure infrastructure to combat various types of fraud, including social engineering and scams.

# WELCOME TO THE WORLD OF REGTECH

Technology is increasingly being deployed to fight fraud and streamline regulation compliance, and regulation technology, or "regtech," has seen impressive growth led by innovative fintechs. <u>In 2023, the global</u> <u>regtech market stood at \$12.82 billion,</u> with projections to soar to \$85.92 billion by 2032. Regtech solutions span areas such as KYC, AML and more, automating tasks to enhance accuracy and risk management.

Working with fintechs and new tools, financial institutions are increasingly using cutting-edge technologies like AI for sanctions screening and transaction monitoring, projected to hit a market size of \$738 billion by 2030. These advancements help expand knowledge of customers, refine screening processes and enhance fraud detection capabilities. However, the use of AI poses challenges, including the risk of its misuse in fraud and the need for explainability in AI-driven decisions.

Regulators worldwide are enforcing stringent sanctions compliance programs. The UK's Economic Crime and Corporate Transparency Act 2023, for instance, aims to boost corporate ownership transparency and combat economic crimes by mandating a new register of foreign entities and strengthening legal frameworks to prevent abuses through hidden ownerships. These evolving regulations underscore the critical role of technology in maintaining compliance and thwarting financial fraud.

## Regtech projections<sup>23</sup>

In 2023, the global regtech market stood at

**12.82**B

By 2032, the regtech market will soar to

в**85.92**в

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# Fintech 2025+: Navigating the new era

The future of fintech is one of unprecedented growth, innovation and transformation within the landscape of global commerce. With cross-border payment flows projected to reach \$290 trillion by 2030, the urgency for innovative, secure and transparent payment methods has never been more pronounced.

Fintech's integration of blockchain technology, RTPs and open banking frameworks promises not only smoother transactions but also heightened security and increased financial inclusion.

As you embark on this journey of technological evolution, it's crucial to find the right partner to steer your business through this new era of opportunity and complexity. Convera remains committed to providing support and guidance to all those navigating the dynamic world of cross-border payments. We provide tech-led payment solutions to help more than 26,000 customers globally grow with confidence — from small businesses to CFOs and treasurers. As a global commercial fintech, Convera powers international business by moving money with ease across a financial network of 140+ currencies, 200 countries and territories and 70 regulatory licenses worldwide.

Contact our team of experts to discuss how Convera can help you navigate the complexity of global commerce and capture more value with every transaction.



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## ENDNOTES

## DISCLAIMERS

- <sup>1</sup> FXC Intelligence, available online at: <u>https://www.</u> <u>fxcintel.com/cross-border-payments-market-</u> <u>sizing-data</u>
- <sup>2</sup> BCC Research
- <sup>3</sup> McKinsey Global Payments Map
- 4 BCC Research
- <sup>5</sup> Source: Fouquin and Hugot (CEPII 2016), World Bank, Oxford Economics
- <sup>6</sup> Data from Bank for International Settlements Triennial Central Bank Survey of FX and OTC Derivatives Markets.
- 7 UNESCO/Oxford Economics
- <sup>8</sup> British Council/Oxford Economics
- <sup>9</sup> FXC Intelligence market sizing data and forecasts: <u>https://www.fxcintel.com/research/reports/</u> <u>how-big-is-the-b2b-cross-border-payments-market</u>
- <sup>10</sup> BCC Research (2023 and 2027) and Oxford Economics (2030 trend extrapolation)
- <sup>11</sup> BCC Research and Oxford Economics
- <sup>12</sup> BCC Research (2023 and 2027) and Oxford Economics (2030 trend extrapolation)
- <sup>13</sup> FXC Intelligence analysis, company earnings call transcripts. From the earnings of 12 cross-border payments companies.
- <sup>14</sup> Enhancing Cross-Border Payments Stage 1 Report: https://wwwfsb.org/2020/04/enhancing-crossborder-payments-stage-1-report-to-the-g20/
- <sup>15</sup> https://www.bis.org/cpmi/publ/d193.pdf
- <sup>16</sup> <u>https://cebr.com/wp-content/uploads/2022/04/</u> <u>Real-Time-Report\_v8.pdf</u>
- <sup>17</sup> https://cebr.com/wp-content/uploads/2022/04/ Real-Time-Report\_v8.pdf
- <sup>18</sup> FSB: Priority actions for achieving the G20 targets (February 2023)
- <sup>19</sup> <u>https://www.statista.com/statistics/1228825/</u> <u>b2b-cross-border-transactions-on-blockchain-</u> <u>worldwide/#statisticContainer</u>
- <sup>20</sup> Appinventiv
- <sup>21</sup> <u>Alloy.com</u>
- 22 <u>https://www.frbservices.org/financial-services/</u> <u>fednow/instant-payments-education/fraud-and-</u> instant-payments-the-basics.html
- <sup>23</sup> <u>https://www.fortunebusinessinsights.com/</u> regtech-market-108305

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