Cross-border payments – a catalyst for global integration and growth

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Thank you for the kind invitation to join you today and discuss payment systems.

Payments are the oil that keeps the wheels of the economy rolling smoothly. They support both domestic trade and cross-border exchanges. Efficient payment systems lower transaction costs for individuals and businesses and foster inclusion, ultimately bringing widespread economic benefits.

Naturally, the flipside is that when payments are costly, slow or inaccessible, they act as sand in the wheels of the economy. These costs can amount to a couple of percentage points of GDP (BIS (2020)).

The world of payments is transforming rapidly, in large part because of technological advances. This transformation can strengthen economic and financial integration and boost growth. But this is not guaranteed. Central banks have a role to play in getting the transformation right.

In my remarks today, I will focus on cross-border payment connectivity and related work that we have been doing at the BIS. I will examine the pain points in cross-border payments and discuss how advances in digital technology can help overcome them.

Progress in domestic payments

But before talking about cross-border payments, I would like to give an overview of the tremendous progress we have seen in domestic payments. These advances can usefully serve as a reference for where we stand in terms of cross-border payments.

In many countries, the rollout of fast payment systems has transformed the way people pay. Fast payment volumes – measured as transactions per capita per month – have grown rapidly in several economies worldwide (Graph 1.A). The Asian region is flush with fast payment systems. Examples include BI-FAST here in Indonesia, the Unified Payments Interface (UPI) in India and PromptPay in Thailand. Central banks deserve much credit for the progress in

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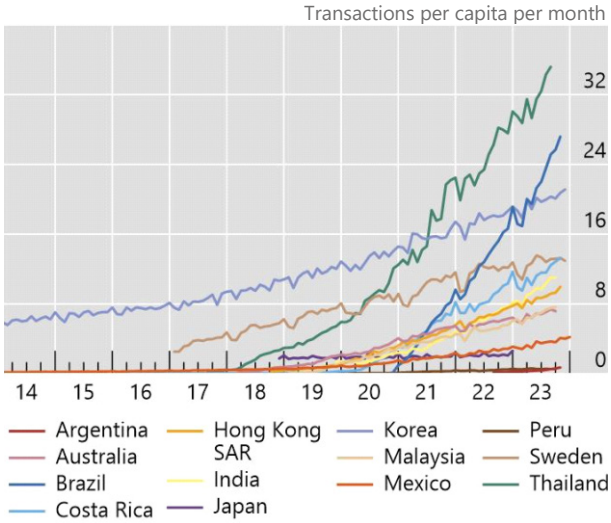
domestic payments. BIS economists (Frost et al (2024)) have shown that the adoption of fast payments is greater when the public sector plays an active role in setting up the system.

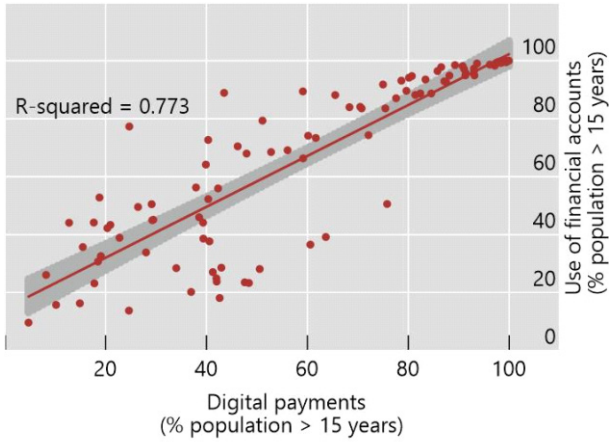
The defining feature of fast payment systems is obviously that the payments are fast. However, it's not only about speed; fast payment systems are often also cheaper and more user-friendly, thanks to their user-centric design (Aurazo et al (2024)). For instance, quick response (QR) codes offer an alternative to typing in account numbers. Often, these systems also allow the sender to verify the payee upfront and track the status of the payment. All of this adds to convenience and reduces scope for mistakes.

Fast payments have grown rapidly and are associated with greater inclusion — Graph 1

A. The volume of fast payment transactions has grown rapidly[1]



B. Digital payments are associated with greater account access



[1] Monthly data.

Sources: Frost et al (2024); Aguilar et al (2024).

Moreover, digital payments are a gateway for broader financial inclusion. For many people, opening a payment account or wallet is the first step towards using other financial services. There is a clear positive correlation between the share of the population that uses digital payments and the share with an account in the formal financial system (Graph 1.B). Opening an account often creates pathways to a wider suite of financial services. BIS research shows that fast payment services can have a stimulating effect on the adoption of a variety of digital finance apps (Cornelli et al (2024)). In the end, the ability to save, borrow or insure formally helps improve economic agents' ability to deal with financial shocks (Cantú et al (2024)).

Digital payments pose broader benefits, too. A large cross-country study by the BIS, spanning more than 100 economies, shows that a 1 percentage point increase in the use of digital payments is associated with a 10th of a percentage point increase in per capita GDP growth (Aguilar et al (2024)).

Pain points in cross-border payments

Cross-border payments, by contrast, have not kept up with the progress achieved in domestic cases. Compared with domestic payments, cross-border payments cost several times more, take much longer to complete, are more difficult to access and are less transparent (FSB (2025)).

To give an example, according to the World Bank's latest remittance report (World Bank (2025)), the global average cost of sending $200 stood at 6.5% in Q1 2025. Even in South Asia – which is the remittance-receiving region with the lowest cost – the average was 4.8%. Granted, these costs have declined over time, but they are still significant, adding up to billions of dollars per year for hard-working migrants and their families. By comparison, when using domestic fast payment services, the fee incurred by senders is typically much less than 1% (Aurazo et al (2025)).

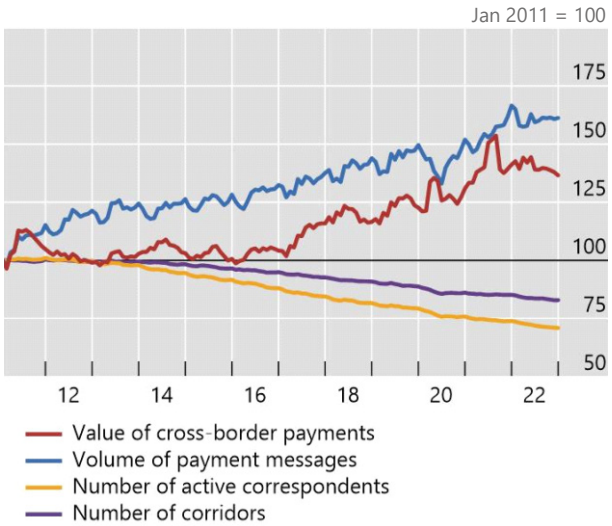
The inefficiencies in cross-border payments do not hurt only remitters; businesses are also affected. Higher costs can render cross-border trade unprofitable for micro, small and medium-sized enterprises (MSMEs) in some regions or sectors. This may effectively exclude such firms from global supply chains and hurt the potential for export-led growth. Costly cross-border payments also hurt foreign direct investment and other investment flows.

In short, costly cross-border payments impede economic integration and growth.

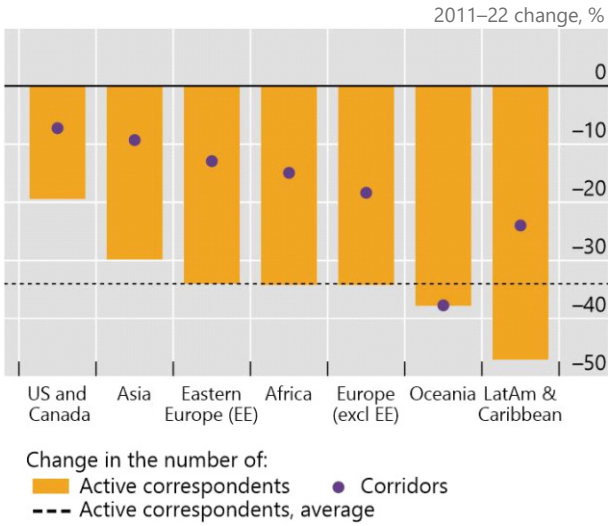
What makes cross-border payments costlier?

Correspondent banks have been retreating globally — Graph 2

A. Correspondent banks have been retreating[1]



B. The decline is global[2]



[1] Three-month moving averages. [2] Averages across countries in each region. Correspondent banks that are active in several corridors are counted several times. Grouping of countries by regions is according to the United Nations Statistics Division; for further details, see unstats.un.org/unsd/methodology/m49/.

Sources: Garratt et al (2024); Rice et al (2020).

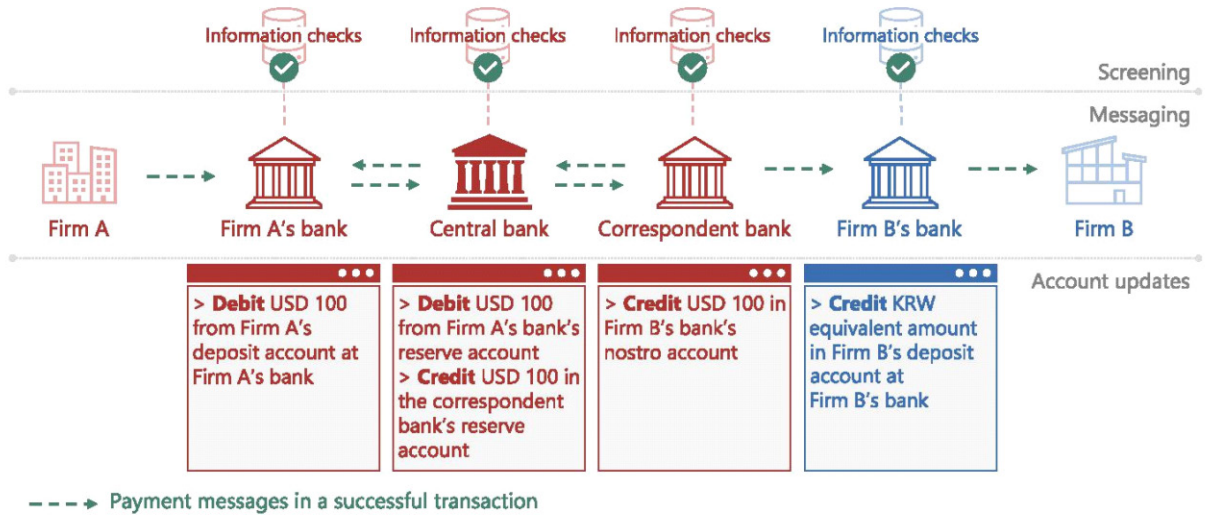
Why are cross-border payments so much more costly and less efficient than domestic payments?

Sending money across national borders entails more steps than sending money within them. These steps understandably add to the costs. They include currency conversion charges and fees that help cover the effort that goes into anti-money laundering (AML) and other compliance checks, which are more complicated in the cross-border context.

That said, a non-trivial portion of the cost is due to inefficiencies or frictions.

One issue is the sustained decline in correspondent banking in many cross-border corridors during the last decade (Graph 2.A; Rice et al (2020); Garratt et al (2024)).[2] The decline is evident in all regions of the world (Graph 2.B). Meanwhile, payment volumes have trended up. Combined with greater concentration in the correspondent banking system, the surge in demand has probably contributed to rent-seeking. BIS research has found that transaction costs are higher in countries with more limited access to correspondent banking services (Rice et al (2020)).

Sequential compliance checks in correspondent banking — Graph 3



Source: Garratt et al (2024).

Another issue is the sequential compliance checks by each intermediary in the payment chain (Graph 3). The graph illustrates a payment from firm A in one country to firm B in another country. The payment involves multiple banks, and the burden of performing checks related

[2] A corridor is a pathway for moving funds between two countries. An active corridor is a country pair for which a payment message has been sent between them within a given period. Meanwhile, a cross-border payment message from one bank to another identifies a correspondent bank relationship. As an example, if banks in country A can send payment messages to three different banks in country B, then A to B is an active corridor, and country A has three active correspondents in country B which offer payment settlement services.

to sanctions, AML etc is placed on each bank. This results in a significant duplication of efforts and costs, as well as delays. Moreover, when problems emerge, steps already taken need to be unwound, adding to the cost of providing cross-border payment services. Meanwhile, non-overlapping operating hours and differing public holidays add to delays in payment processing and amplify settlement risks.

Addressing the frictions

Initiatives to address the frictions in cross-border payments gathered momentum when the G20 made this issue a priority in 2020 and agreed on a roadmap.

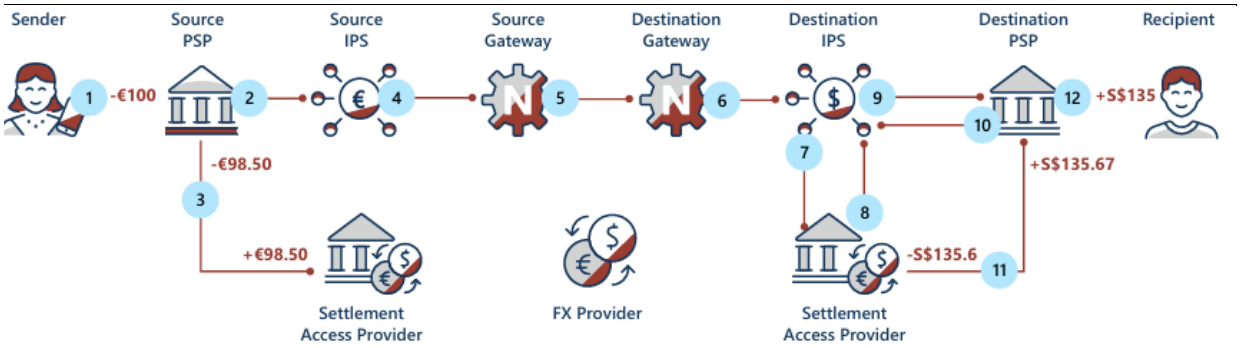
The Committee on Payments and Market Infrastructures (CPMI) hosted by the BIS has played a pivotal role in advancing the G20 roadmap. Working together with central banks and other payment authorities, the CPMI has made progress in key dimensions of cross-border payments such as access, interoperability, governance and oversight (Panetta (2025)). A case in point is its engagement with stakeholders to induce greater adoption of the ISO 20022 standard for global financial messaging (CPMI (2023)). Another is helping payment system operators make informed decisions on extending operating hours.

The BIS Innovation Hub is also working with central banks to drive progress along the roadmap. A focal point of these efforts is interoperability, which is a priority of the roadmap. Two broad approaches have emerged.

One builds on the success of domestic fast payments to improve cross-border payments. This involves interlinking domestic fast payment systems. Project Nexus is a case in point. This was a collaboration between the BIS Innovation Hub and several central banks in this region.

Nexus standardises the way in which payment systems in different countries connect to each other. Rather than one fast payment system operator building a custom connection for every new country, the operator can make one connection to the Nexus platform. This single connection allows the operator to reach all other countries on the network.

The payment chain in Project Nexus Graph 4



Source: BIS IH (2024a).

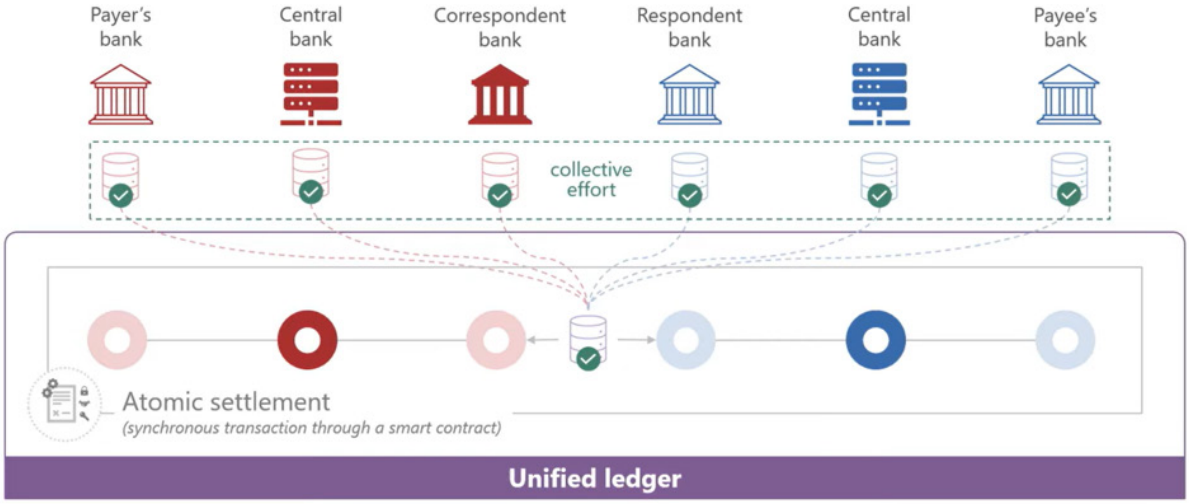
As Graph 4 shows, the payment journey in Nexus begins with the sender (1) initiating a payment with their bank (2). The sender's bank then obtains an exchange rate quote from an FX settlement provider (3). Once the sender's bank accepts the quote, the Nexus platform verifies if the recipient details are correct and if the recipient is eligible to receive payments via Nexus. Once this is verified, the bank sends a message to the fast payment service provider to process the first leg of the payment (4–5). This triggers an ISO 20022 message to the destination country providers to initiate the second leg of the transaction, conditional on compliance checks going through (6–12).

As many of you may already know, Nexus Global Payments (NGP) – a not-for-profit organisation – was established earlier this year to bring the Nexus vision to life.

A second, complementary, approach is to leverage tokenisation. Various fintech companies have been trying to pitch stablecoins as a cross-border payment solution. However, as we highlighted in the BIS Annual Economic Report this year, stablecoins fail to satisfy the three fundamental properties of money: singleness, elasticity and integrity (BIS (2025)).

Instead, the two-tiered financial architecture with the central bank money at the core and deposits held at private sector financial institutions at the front end does satisfy these properties. It ensures the singleness of money: money is accepted at par with no questions asked, whatever form it takes. Through credit creation, it provides money flexibly so that obligations are discharged in a timely way without waiting for incoming funds and thus avoiding gridlock. Last but not least, it ensures integrity against illicit activity by the compliance with AML rules.

The idea of collective effort in Project Agorá Graph 5



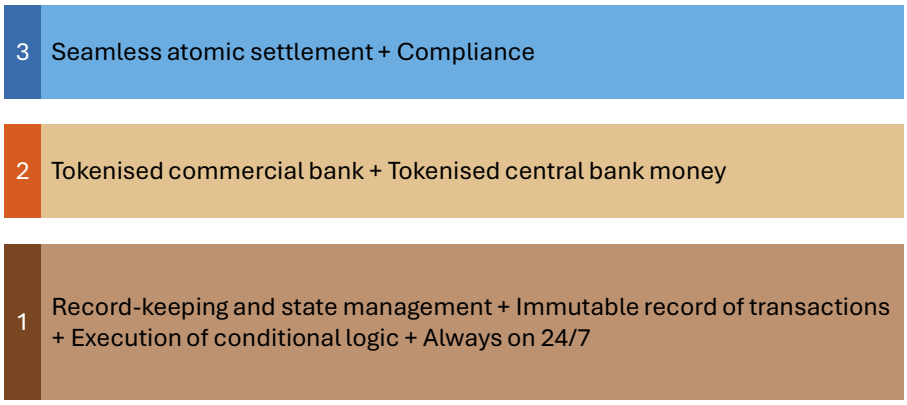
Source: Project Agorá.

Central banks must step in to make sure that new technologies build on the time-tested foundations of the existing financial system. A core tenet of this system is trust in money and institutions. Trust takes time to build but can be lost rapidly. It is therefore only rational to make sure that this trust is preserved. Tokenised platforms with central bank money at the core can unlock new possibilities while maintaining stability and trust.

Project Agorá, another initiative by the BIS Innovation Hub, embeds this concept. The objective is to replace the complex chain of intermediaries and the sequential updating of accounts in today's correspondent banking transactions. Tokenisation can pack all this into a single, integrated process. As a result, the checks and processes become a collective effort (Graph 5).

Going a bit further into the details, the overall infrastructure proposed in Project Agorá has three layers. The first one is the ledger that is used for record-keeping (Graph 6). The difference relative to traditional systems is that it is a distributed ledger instead of a centralised one. A distributed ledger with each country as a node is well suited for a cross-country payments infrastructure.

Three layers of infrastructure in Project Agorá Graph 6



Source: Project Agorá.

The second layer features tokenisation. It combines a digital representation of money with smart contracts – rules that are executed based on pre-defined logic. In essence, tokenisation helps streamline complex processes. Crucially, this second layer brings together tokenised central bank and commercial bank monies, thus embracing the two-tier architecture I mentioned before.

The third layer implements atomic settlements. It combines multiple payments so that they are conditional on each other – meaning they occur simultaneously, thus eliminating settlement risk.

Let me now turn to compliance, which is a critical aspect of cross-border payments. The BIS Innovation Hub's Project Mandala is examining how technology can help streamline cross-border compliance. The Mandala platform requires participating institutions to store compliance rules in a standardised format – the so-called rules engine. Then, for any payment, the sender's institution queries all the compliance rules that apply to that payment. It verifies these rules and issues a "proof of compliance" – using the so-called proof engine. Crucially, all these steps are pursued while preserving the privacy of the involved parties.

In essence, the Mandala approach eliminates duplication of efforts – compliance checks are performed only once and the proof of compliance can be verified by all stakeholders. The project has already tested this approach for rules related to sanctions screening and capital flow management. The next phase will test a broader set of compliance requirements.

In all the projects I have described, central banks are providing the infrastructure that helps solve various pain points in cross-border payments. But central banks cannot stop here. They will have to make sure that the infrastructure provided is safe and equitable.

New technologies must be adopted in a way that protects the financial health of individuals (Cantú et al (2024)). For instance, mechanisms to protect users against digital fraud will have to be continuously updated given rapid changes in fraudsters' methods. And while evidence on the benefits of financial literacy programmes is somewhat mixed, mandating transparency about financial products can help improve financial decisions. Another consideration is that access to digital tools and technologies is uneven across societies and demographic categories. Here, offline solutions and digital finance awareness programs can help avoid a potential deepening of the digital divide (Doerr et al (2022)).

Concluding thoughts

Let me conclude.

Innovation has the potential to enhance cross-border payments and expedite progress towards the targets agreed by the G20. This will stimulate greater global economic integration and growth.

Technology offers many paths forward, but not all are equally promising. For instance, even with regulation, stablecoins have inherent limitations.

Central banks can guide innovation – thus playing a catalytic role in shaping the next-generation monetary and financial system. This will help ensure that the core tenet of trust is maintained.

The BIS is not just theorising but is working with central banks to develop innovative solutions based on time-tested pillars.

An FSB report published earlier this month documents progress towards the G20 roadmap targets (FSB, (2025)). But it also acknowledges that the "progress is not advancing as quickly as needed".

Part of the reason is that innovation alone cannot resolve the pain points in cross-border payments. Cross-border coordination in harmonising the relevant rules and processes – as well as consistent implementation – are also needed.

Asian economies are among the most dynamic in the world. The various bilateral and multilateral initiatives in this region have shown how marrying innovation and cross-border partnership can help move the needle.

Thank you.

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