

From Magma to Masterpiece: Forging the Future of Cross-border Payments

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Introduction

As we gather here in Iceland, its breathtaking landscapes remind us of how beauty is shaped by the earth's slow but powerful forces. Tectonic plates shift almost imperceptibly – much like the progress we've long been seeing in cross-border payments.

Yet when these plates collide, the impact can also be dramatic – triggering volcanic eruptions, unleashing magma, and causing orogenic changes that reshape the terrain. In the same way, innovation can act as a sudden, transformative force, that can reshape and improve the existing payments ecosystem.

Innovations in payments have often been associated with technological progress. Major breakthroughs – or 'eruptions', to return to my earlier metaphor – have marked turning points reshaping the global payments landscape. Examples include the telegraph enabling wire transfers in the 19th century, electronic fund transfers in the 1970s and internet banking in the 1990s.

Fast payment systems (FPSs)¹ have emerged as a powerful tool for improving the speed, efficiency and accessibility of domestic payments. However, cross-border transactions still largely depend on the traditional correspondent banking model and continue to record an unsatisfactory performance in terms of transparency, access, speed and cost.²

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¹ An FPS is a retail payment system that enables the transmission of the payment message and the final crediting of funds to the payee in real time or nearly real time. FPSs typically operate around the clock or very close to 24 hours a day, every day of the week throughout the year (24/7/365). See CPMI, *'Linking fast payment systems across borders: governance and oversight*', October 2024.

² In response to these challenges, the G20 has made improving cross-border payments a high priority and, in 2020, launched an ambitious roadmap to enhance their efficiency through greater interoperability and reduced fragmentation, without compromising security and integrity. See FSB, '*G20 Roadmap for Enhancing Cross-border Payments. Consolidated progress report for 2024*', October 2024.

Interlinking FPSs across borders offers a concrete opportunity to transform cross-border payments. By enabling more institutions to operate directly across jurisdictions, FPS interlinking offers the potential to reduce the frictions of the traditional correspondent banking model – namely long transaction chains and limited competition. This requires harmonizing data and rules, which enhances transparency, streamlines compliance checks, shortens processing times, and in turn lowers end-to-end transaction costs.³

Aside from improving efficiency, FPS interlinking can also help address the growing risks of fragmentation posed by other emerging instruments – such as crypto-assets and private payment networks. While these alternative solutions often provide faster and cheaper services, they typically operate as closed-loop systems, limiting interoperability and creating isolated pockets within the global payments environment. By promoting open, interconnected systems, FPS interlinkages can maintain the cohesion and integrity of the international financial system while providing a safe and resilient alternative that preserves the benefits of innovation.

Today, I would like to focus – from a European perspective – on this ongoing transformation through three key points: first, the Eurosystem's strategy for interlinking FPSs; second, Banca d'Italia's active contribution to this strategy; and third, other innovative initiatives complementing these efforts and including CBDCs, tokenization and the interoperability of DLTs with traditional systems.

Eurosystem strategy

In line with the G20 Roadmap for Enhancing Cross-border Payments, the Eurosystem aims to reduce fragmentation in global payments by leveraging TIPS – the TARGET Instant Payment Settlement service developed and operated by Banca d'Italia on behalf of the Eurosystem. To this end, the Eurosystem has developed a strategy that builds on TIPS' capabilities in order to support the objectives of the Roadmap and is based on three pillars.⁴

First pillar: capitalizing on TIPS' multi-currency design. Today, TIPS is already settling instant payments, not only in euros, but also in Swedish kronor and Danish kroner,⁵ with the Norwegian krone expected to join in 2028.⁶ Iceland is also exploring the possibility of settling its instant payments on TIPS.⁷ Processing multiple currencies on a single platform – under uniform rules, standards and protocols – is paving the way for cross-currency

³ BIS, 'Interlinking payment systems and the role of application programming interfaces: a framework for cross-border payments', July 2022.

⁴ ECB news, 'Eurosystem launches initiatives to improve cross-border payments by interlinking fast payment systems', October 2024.

⁵ To connect to the TIPS platform, Sweden and Denmark conducted a feasibility assessment followed by the signing of a Currency Participation Agreement. Sweden joined TIPS in February 2024 (see ECB news, 'Sweden joins TIPS – Eurosystem instant payment platform also settles in kronor', February 2024), while Denmark joined in April 2025 (see ECB press release, 'Denmark joins T2 and TIPS to fully integrate Danish Krone in Eurosystem's payment services', March 2024).

⁶ See ECB press release, '*Norway joins TIPS, adding Norwegian krone to Eurosystem's instant payment service*', November 2024.

⁷ See ECB news, '*Seðlabanki Íslands expresses an interest in joining T2 and TIPS*', September 2024.

settlement between accounts in different denominations. This functionality is expected to go live in 2026.

Second pillar: maximizing the benefits of interconnection through multilateral interlinking initiatives. In this context, the Eurosystem is assessing its potential participation in Nexus – a multilateral network initiative led by the BIS Innovation Hub.⁸ The ECB and Banca d'Italia, as the owner and operator of TIPS respectively, are currently involved as special observers. Joining Nexus would enable TIPS to connect with several Asian countries already backing the initiative,⁹ thereby enhancing TIPS' attractiveness and reinforcing its role and ambition as a regional hub for payments. On the one hand, this could stimulate interest in including additional European Economic Area currencies in TIPS; on the other hand, it could pave the way for future bilateral interlinking arrangements.

Third pillar: promoting bilateral interlinking arrangements with other key systems. Advanced discussions are already under way with the Unified Payments Interface (UPI) in India, while preliminary discussions have also begun with other central banks that operate FPSs.

This strategy is designed to balance the broader and long-term benefits of multilateral interconnections with the more immediate gains of bilateral links. By pursuing these routes in parallel, the Eurosystem aims to deliver tangible improvements in the short term while laying the groundwork for a more efficient, inclusive and interoperable global payments environment over the medium to long term.

In addition to supporting public sector objectives, the strategy opens up new growth opportunities for the private sector. As an example, payment service providers (PSPs) could penetrate corridors or markets where competition has traditionally been lower.

Banca d'Italia's engagement and vision

Let me now outline Banca d'Italia's role in this evolving scenario. As the designer and operator of TIPS on behalf of the Eurosystem, we are at the forefront of the Eurosystem's strategy.

We are fully committed to the G20 Roadmap for Enhancing Cross-border Payments and, during Italy's G7 Presidency last year, we placed a strong emphasis on promoting FPS interlinking to boost efficiency and reduce fragmentation in cross-border payments.¹⁰

As Governor Panetta highlighted in a recent speech, there is no single path forward.¹¹ Our vision for the future embraces the coexistence of bilateral and multilateral arrangements.

⁸ BIS Innovation Hub, Project Nexus Overview, '*Enabling instant cross-border payments at scale*', July 2024.

⁹ On 30 June 2024, Bank Negara Malaysia, Bangko Sentral ng Pilipinas, the Monetary Authority of Singapore, Bank of Thailand and the Reserve Bank of India signed an agreement to work towards the implementation of Nexus. Bank Indonesia participates as a special observer.

¹⁰ A. Di lorio et al., '*Acta, non verba: interlinking fast payment systems to enhance cross-border payments*', CPMI Brief No 7, February 2025.

¹¹ F. Panetta, 'Invisible yet essential: the contribution of cross-border payments to a better world and a safer financial system', May 2025.

While the latter significantly reduce the number of individual bilateral links, they are also more challenging to establish, as they require more complex governance structures and a harmonized regulatory framework. We foresee that countries with strong strategic alignments and close economic ties will pursue such frameworks, leveraging network effects to create regional hubs. These hubs can then connect with one another or with individual jurisdictions through bilateral links. Even though the complexity of this architecture poses some challenges, this layered approach would ensure the flexibility and scalability needed to realistically be able to build an efficient and inclusive global payment network.

Implementing this vision will require more than just technical solutions – it demands sustained international cooperation and greater harmonization of rules and standards.¹² Identifying the appropriate partners is key to translating this layered approach into tangible outcomes. In our view, partner selection should be guided by shared principles and values, promoting the robustness, safety and integrity of global payments; the strength of economic interconnectedness; geographical and cultural proximity; and, above all, a proven willingness and capability to connect.

Once identified, these partners can be prioritized based on selected business cases – such as greater trade volumes, or remittance flows – or by focusing on payment corridors that are particularly inefficient. This process must also take account of essential interoperability factors. Harmonized regulatory standards, particularly in areas like data protection, anti-money laundering, and countering the financing of terrorism, along with technological compatibility, are fundamental to ensuring secure and seamless integration across borders.

While identifying strategic partners is crucial, connections between countries can begin in more practical and sometimes unexpected ways. International technical cooperation activities, in the form of multilateral pilot projects and regional or bilateral initiatives, not only address immediate needs, but also foster mutual understanding, uncover shared values, and support convergence towards common standards.

By investing in these relationships, we don't just solve technical issues; we lay the groundwork for a more inclusive, resilient and interconnected global financial system.

Let me proudly recall a notable example of such cooperation: Banca d'Italia will provide an instant payment system, based on a clone of TIPS, in order to settle transactions in euros (commercial bank money) and in local currencies, to Albania, Bosnia-Herzegovina, Kosovo and Montenegro, with North Macedonia considering joining later.

The project was initially launched at the request of one country aiming to establish an instant payment infrastructure aligned with European standards. What began as a single-country initiative has evolved into a regional endeavour covering most of the Western Balkans, paving the way for bilateral links between TIPS and its clone. This

¹² For example, see FSB Final Report, '*Recommendations to Promote Alignment and Interoperability Across Data Frameworks Related to Cross-border Payments*', December 2024, and FSB Consultation report, '*Recommendations for Regulating and Supervising Bank and Non-bank Payment Service Providers Offering Cross-border Payment Services*', July 2024.

demonstrates how technical cooperation with one country can open the door to an entire region – uncovering shared priorities and wider opportunities for integration.

Other digital and innovative initiatives

However, the strategy that relies on TIPS is only one element of the broader Eurosystem vision.¹³ In parallel, the Eurosystem is actively exploring the potential benefits of the latest technologies, including DLTs, ensuring that innovation and modernization continue to drive progress across the payments landscape.

On the one hand, the Eurosystem is developing a digital euro as an electronic complement to and not as a substitute for cash and other digital payment instruments. While mainly designed for use within the euro area, the digital euro could also play an international role. Similar to TIPS, the underlying infrastructure could have multi-currency and cross-currency features that would make it easier to offer and transfer CBDCs internationally, thereby facilitating cross-border payments.¹⁴

On the other hand, the Eurosystem seeks to integrate innovative solutions into its market infrastructures, while ensuring the highest standards of safety and efficiency. Building on the exploratory work conducted in 2024, in collaboration with financial market participants and market DLT operators, the Eurosystem is expanding its efforts to enable settlement in central bank money for transactions recorded on DLTs, initially through an interoperability link with TARGET services and later on through a more integrated solution.¹⁵

These initiatives – together with the TIPS interlinking strategy – are complementary parts of a broader ambitious plan to build a more harmonized and integrated European financial ecosystem.

Conclusion

As I conclude, let me return to the image that opened this speech. Just as the magma unleashed by tectonic shifts reshapes the land by gradually cooling and solidifying, so too can these initiatives collectively transform today's fragmented cross-border payments environment into an interoperable, efficient and secure global network.

Progress may seem slow at times, but every step, every initiative contributes to the gradual creation of something enduring and seamless. By embracing innovation, fostering cooperation and remaining committed to interoperability, integrity and security, we are laying the foundations for a payments landscape that future generations will benefit from, just as we marvel at Iceland's magnificent scenery today.

¹³ P. Cipollone, '*Enhancing cross-border payments in Europe and beyond*', April 2025.

¹⁴ See ECB website latest publications on the digital euro.

¹⁵ ECS press release, 'Eurosystem expands initiative to settle DLT-based transactions in central bank money', February 2025.

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