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CPMI Brief No 4

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May 2024

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Regional payment infrastructure integration: insights for interlinking fast payment systems[1]

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Highlights

- Historically, efforts at payment infrastructure integration have been part of a broader regional economic strategy and benefited from strong support from the public sector. This has resulted in regional payment arrangements with an anchor in economic groupings.
- Interlinking payment systems with new common platforms can support payment infrastructure integration across borders. These are not new concepts, but recent advancements in technology may increase the efficiency and decrease the cost of such arrangements.
- Payment integration projects have different options in terms of the structure of and technical choices for cross-border arrangements, and the real world will be more complex than ideal-type models. Public and private actors can cooperate or develop competing systems. Ultimately, the level of fragmentation or integration will depend primarily on policy decisions rather than technology.

Introduction

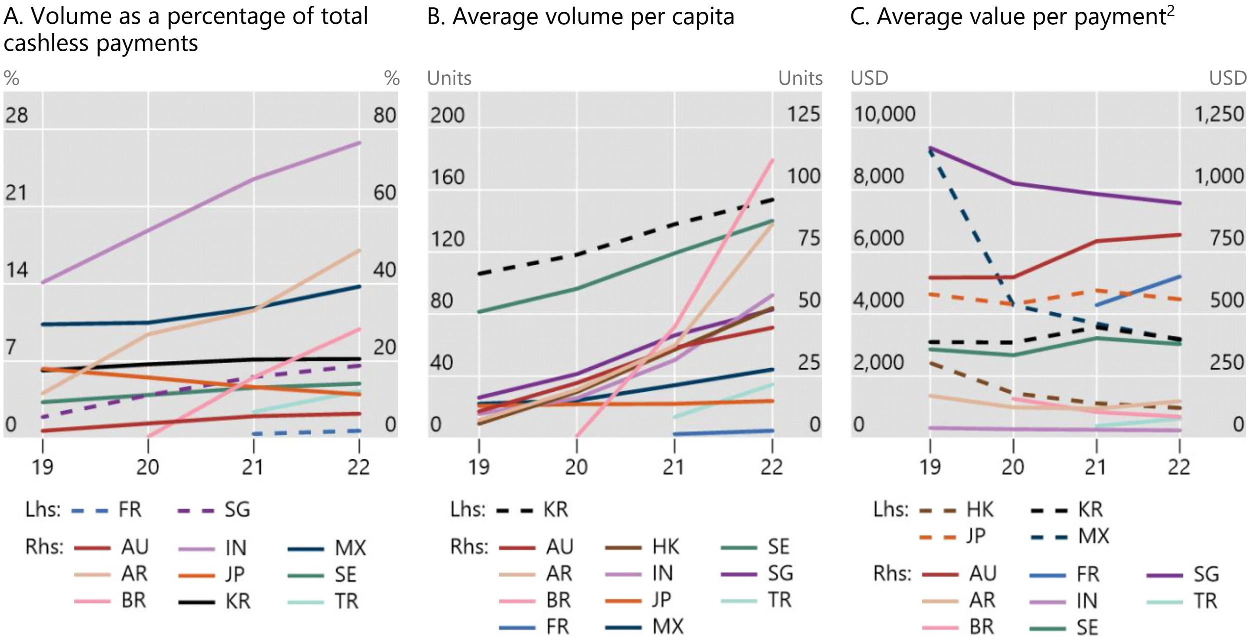
Over the past two decades, through a combination of digital innovations in payments and evolving end user needs and preferences, the regional integration of payment infrastructures has been expanding. This has enabled cross-border transactions for financial market participants or their customers, often between countries within a region. In some cases, this integration has spread across regions and even globally (World Bank (2014)). While the focus in the past has been on the integration of wholesale payment systems, typically real-time gross settlement (RTGS) systems,[2] opportunities are emerging to facilitate the integration of fast payment systems (FPS)[3] through interlinking existing systems or establishing common platforms. At least 75 FPS are in operation, and the number continues to grow. Fast payments are a prominent driver of the digitalisation of countries' payment ecosystems (see Graph 1). Progress on technical interoperability (eg harmonised ISO 20022 data requirements and application programming interfaces (APIs)), governance (eg the Committee on Payments and Market Infrastructure (CPMI) interim report on governance and oversight) and practical interlinking initiatives (eg Project Nexus) are paving the way to establishing safe and efficient links among FPS at scale.

1 The views expressed in this CPMI Brief are those of the authors and do not necessarily reflect those of the Bank for International Settlements, its Committee on Payments and Market Infrastructures or its member central banks. We are grateful to Anamaria Illes and Ilaria Mattei for excellent research assistance.

2 RTGS systems are fund transfer systems that continuously settle payments on an individual order basis, without netting debits with credits.

3 FPS are infrastructures, also referred to as instant payment systems, that clear and/or settle retail payments in which the transmission of the payment message and the availability of "final" funds to the payee occur in real time, or near real time, and on as near to a 24-hour and seven-day (24/7) basis as possible.

The use of fast payments continues to grow[1] Graph 1



[1] Jurisdictions represented in the above graphs are those that have data available for at least two consecutive years during the 2019–22 period. [2] To remove the effect of the variability of the exchange rates over time, we used the average exchange rates over those time periods that the jurisdictions had data available to convert values expressed in domestic currency to US dollars.

Source: Di Iorio et al (2024) based on CPMI Red Book statistics; authors' calculations.

Payment infrastructure integration is not only the linking of payment systems from a technical standpoint. It is equally about defining a common operational framework for transacting, clearing and settling cross-border transactions, as well as a robust governance and oversight framework that upholds the high standards of safety and financial integrity. In view of this challenging task, not all payment integration projects have been (or will be) successful. Several FPS that have become operational face some challenges in attracting participants and/or volumes even at a domestic level. Adoption of fast payments tends to be more widespread when the central bank owns the FPS. Publicly owned FPS may be designed to prioritise a public good perspective, aiming for open, inclusive and competitive payment markets. A user-centric approach, addressing diverse needs such as domestic person-to-person (P2P) transactions, merchant payments and cross-border transactions is also important. The inclusion of non-bank providers may improve access for underserved customers. Cross-border functionalities can expand the utility of FPS beyond domestic transactions. Cheap and fast cross-border transactions can also broaden the access of firms to global markets. Keeping these features in mind may help build strong public infrastructures that are widely adopted and support policy goals (Frost et al (2024)).

Design choices for payment infrastructure integration

Models of integration

Integrated payment systems can substitute for or operate alongside domestic payment systems and traditional back-end arrangements for cross-border payments such as correspondent banking[4] and closed loop systems.[5] Generally, the processing of payments can be split into (i) the front end, in which end users interact with their payment service providers (PSPs) to initiate or receive payments, and (ii) the back end, in which the clearing and settlement of payments is supported by different arrangements. Payment system integration approaches can be classified into four stylised models[6] (CPMI et al (2023), see Graph 2):

- In the *single access point* model, participants in one domestic payment system have access to a foreign system through a single entity that directly participates in the foreign system.
- In the *bilateral link* model, participants in the domestic system can directly reach all participants in the foreign system via the bilateral link instead of only through the single gateway entity.
- In the *hub and spoke* model, two or more payment systems (the spokes) link to a common intermediary (the hub).
- In the *common platform* model, participants can reach each other directly across borders on a single, integrated technical platform.

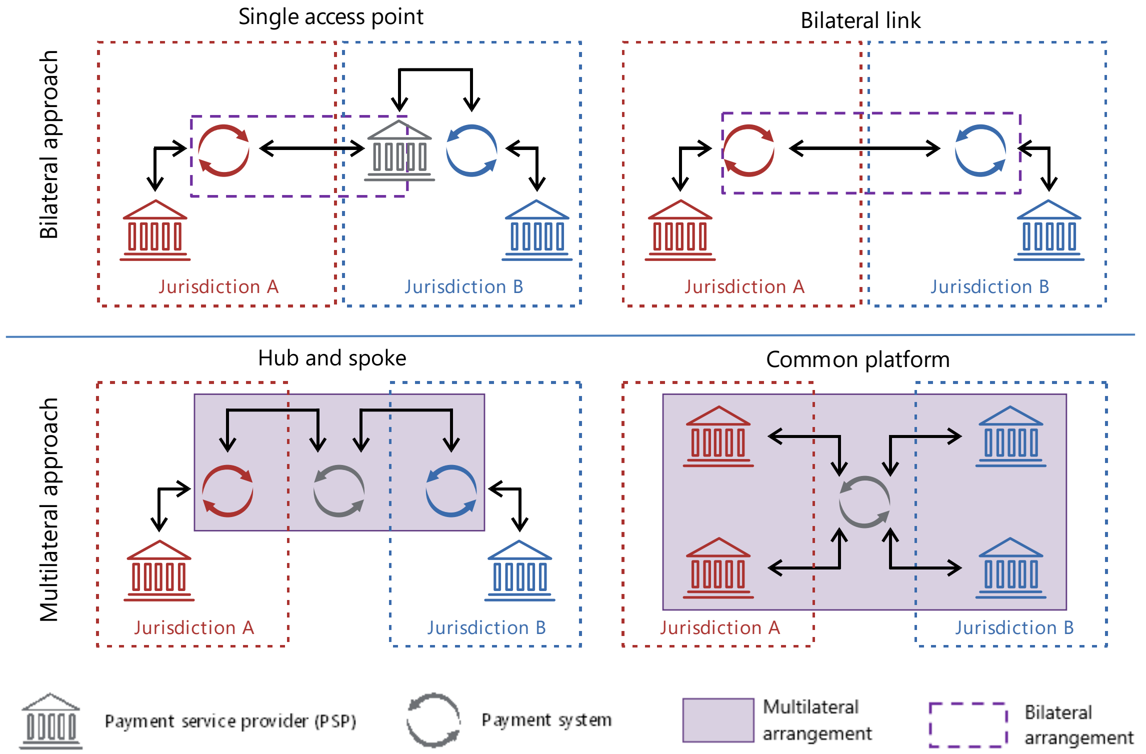
The hub and spoke and common platform models, referred to collectively as multilateral models, differ from each other in two notable ways. First, in the hub and spoke model, the domestic payment systems (the spokes) connected to the hub must adhere to the hub's rulebook, but PSPs participating in the spokes may be bound by the hub's rules only if they offer cross-border services. Conversely, on a common platform, all PSPs must adhere to a common rulebook. Second, hub entities are most often built solely to enable cross-border payments, while common platforms can be built to enable domestic as well as cross-border payments (CPMI et al (2023)). Integrated payment systems can overlap in their geographic reach and/or co-exist with domestic payment systems.

4 Correspondent banking is an arrangement under which one bank (correspondent) holds deposits owned by other banks (respondents) and provides payment and other services to those respondent banks. Correspondent banking arrangements enable banks to access financial services in other jurisdictions and provide cross-border payment services to their customers, supporting international trade and financial inclusion. A cross-border payment via correspondent banking typically involves a series of fund transfers in a chain of linked correspondent banks. The intermediary banks in these chains are often large global banks offering their correspondent banking services to smaller domestically focused PSPs (CPMI (2018) and FSB (2020)).

5 In a closed loop system, the PSP of the payer is the same entity, or part of the same group, as the PSP of the payee. Closed loop systems are also known as "single platforms", and the payments through these systems are known as "on-us", "in-house" or "intragroup" transfers. On-us transfers in a closed loop system are initiated and completed by the same PSP across multiple jurisdictions and do not rely on a connection between other institutions or infrastructures in those jurisdictions. This can be the case for proprietary arrangements such as traditional money transfer operators, international card schemes that use the three-party model, e-money schemes or large global banks that are present in both the payer's and the payee's country (CPMI (2018)).

6 Only two of these models, bilateral link and hub and spoke, are interlinking in the narrow sense of the definition. However, the other two models (single access point and common platform) are also often referred to as interlinking models.

Stylised models for payment system integration[1, 2] Graph 2



[1] Examples include Directo a México (bilateral link), the Regional Payment and Settlement System of the Common Market for Eastern and Southern Africa (hub and spoke) and the Southern African Development Community's RTGS (common platform). [2] The multilateral arrangement includes the participants and the entity operating the arrangement. In the hub and spoke model, the participants are payment systems. In the common platform model, the participants are PSPs.

Source: Adapted from CPMI et al (2023).

Size and nature

Cross-border interlinking payment system arrangements vary widely in size and nature, reflecting the complexity and diversity of international financial networks and their systemic relevance. Arrangements range from small-scale bilateral connections between two payment systems to expansive multilateral networks encompassing numerous jurisdictions. Their size and nature are influenced by factors such as economic integration, geopolitical considerations and technological advancements. Greater economic integration, such as the formation of free trade agreements or currency unions, can lead to the development of larger and more sophisticated interlinking arrangements.

Currency model

A key design choice is the currency arrangement for the integrated payment system, which could be based on a single currency;[7] multiple currencies without conversion, using account structures that are segregated by currency (multicurrency); or multiple currencies with conversion taking place on the platform, allowing one connected PSP to be debited in one currency and another connected PSP to be credited in the other

[7] This currency can be (i) a common currency of a currency union between the connected jurisdictions, (ii) a national currency commonly used for international trade among the connected jurisdictions or (iii) an international reserve currency such as the US dollar or the euro.

currency (cross-currency) (CPMI et al (2023)). Factors influencing the choice of currency arrangement include: (i) the liquidity of the chosen currency (or currencies), particularly in exchange with other currencies of interest; (ii) any exchange restrictions or other capital controls related to the currency; and (iii) the exchange rate regime in the relevant jurisdictions against the currency.

Ownership

Integrated payment systems may be privately owned, publicly owned or owned by a hybrid public-private partnership. Further, there may be models where the scheme owner and operator of the payment system are the same entity, and other models where the owner and operator are separate entities.

Governance structure

In a bilateral link model, the interlinked payment systems maintain their own governance frameworks, but these must be compatible with each other. In a hub-and-spoke model, the hub has a separate governance framework that should not conflict with the governance frameworks of the individual interlinked systems. In a common platform model, the platform also has a separate governance framework. However, because the platform is a separate payment system and interlinking is achieved at the level of PSPs participating in the platform (rather than at payment system level), the compatibility of its governance framework with the analogous frameworks of domestic systems is less of an issue.

Legal, regulatory, supervisory and oversight requirements

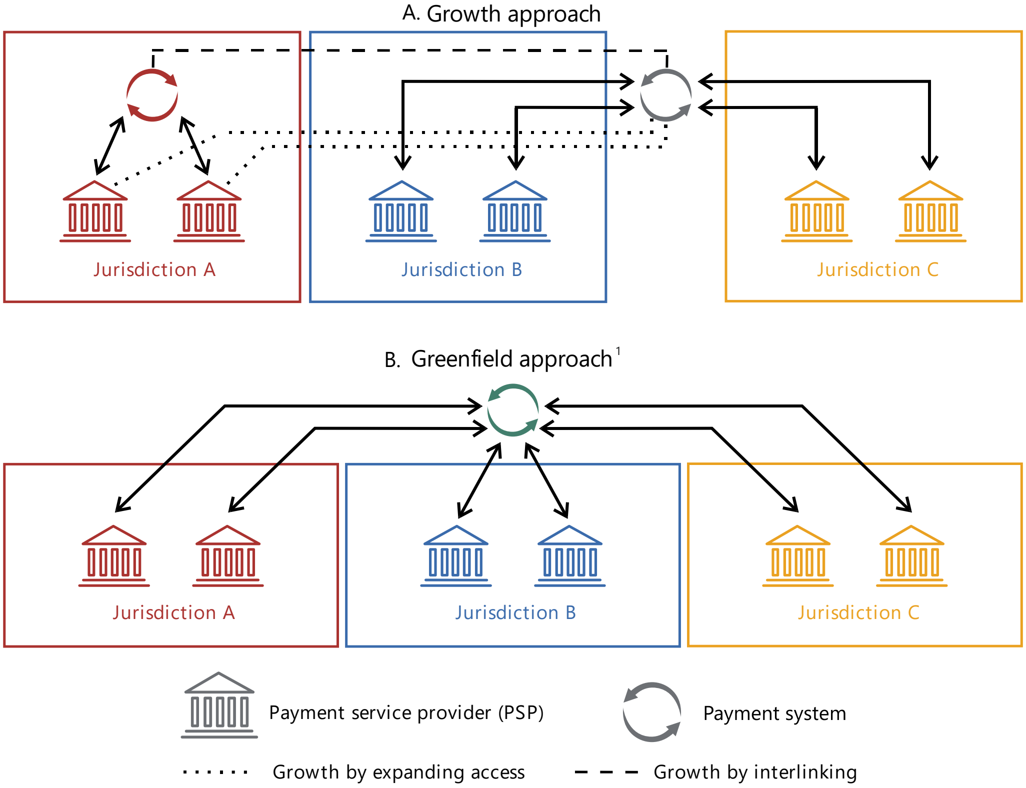
Cross-border payment arrangements operate within a manifold regulatory environment characterised by a diverse array of domestic and international laws, regulations, supervisory frameworks and oversight mechanisms. To navigate this intricate landscape and ensure the smooth functioning, security and integrity of these arrangements, various requirements must be addressed. These include a legal basis, regulatory compliance, risk management and cooperation among authorities. A robust legal basis is paramount to govern the rights, obligations and liabilities of the stakeholders involved. PSPs' and payment systems' compliance with regulatory requirements is foundational to mitigate risks inherent in cross-border transactions. Central banks and other financial sector authorities play a pivotal role in the regulation and oversight of cross-border payment arrangements.

Expansion approaches

The underlying model of integration brings some differences in how to establish and possibly expand the reach of an integrated payment infrastructure, as laid out in CPMI et al (2023). As an illustrative example, consider a baseline scenario in which a domestic payment system exists in one jurisdiction (A) and an integrated payment system connects another two jurisdictions (B and C) (Graph 3.A). If the aim is to enable all PSPs across the three jurisdictions to reach each other via the payment systems (as opposed to via correspondent banking), a growth approach or a greenfield approach could be followed.

Stylised approaches for the expansion of integrated payment systems

Graph 3



1 The greenfield approach is illustrated as replacing Jurisdiction A's domestic payment system. However, the greenfield approach could also retain the domestic payment system, as illustrated in the growth approach.

Source: Adapted from CPMI et al (2023).

The *growth approach* involves increasing the reach of an existing multilateral platform, providing access to participants based in Jurisdiction A (Graph 3.A, dotted lines). This can be achieved by granting direct access to participants or by interlinking with the domestic payment system of Jurisdiction A via a direct access point or bilateral link (Graph 3.A, dashed lines).

The *greenfield approach* involves establishing a new multilateral platform either as a hub entity in a hub and spoke system with the existing infrastructures as spokes or as a common platform that replaces existing infrastructures and provides direct access to all participants (Graph 3.B).

Payment infrastructure integration initiatives: state of play and future plans

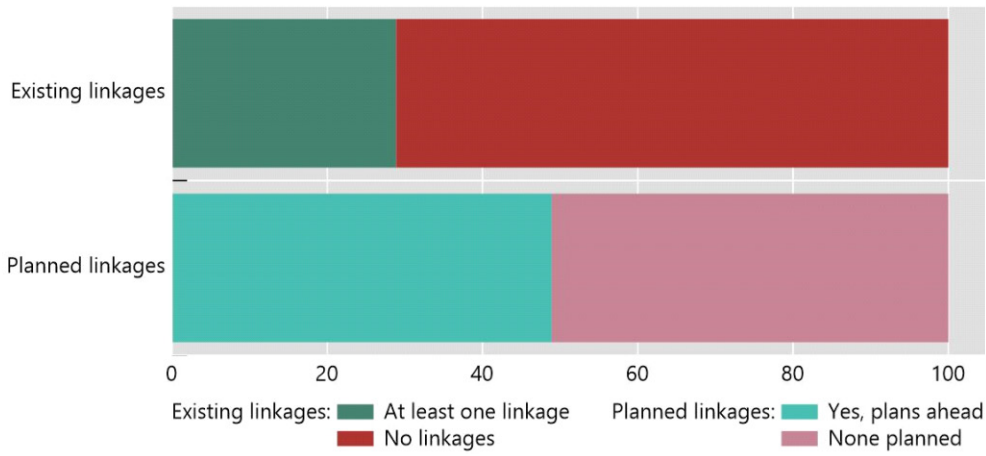
A wide range of initiatives have emerged over time to support the development of cross-border payments, particularly for jurisdictions within the same geographic region. These initiatives include projects focusing on developing regional payment systems and regional integration projects, and they impact wholesale and retail (including remittance) payments. There are numerous examples of regional integration projects and regional payment systems for wholesale payments across the globe. These existing regional platforms tend to process wholesale payments between jurisdictions in economically integrated areas.

The rapid development of FPS globally over the past decade has also given rise to the emergence of regional payment systems and integration projects for fast payments (ie those available on a (near) 24/7 basis).[8] For example, three regional FPS have gone live in Africa since 2020 and a further three are currently under development (AfricaNenda et al (2023)).

Of the 45 operational FPS responding to the 2023 CPMI monitoring survey,[9] 29% reported that they allow participants to send and receive payments to and from foreign payment service providers. Furthermore, 49% are planning to establish initial or additional links within the next two years (Graph 4). Bilateral interlinking is currently the predominant model used (54% of integrated FPS use it), compared to 8% that use a common platform. This likely reflects a lack of an operational common platform and hub and spoke models available for operators to utilise or join.

Overview of FPS interlinkages

In per cent of operational FPS reported — Graph 4



Sources: 2023 CPMI cross-border payments survey on progress; BIS.

Bilateral interlinking might be faster to implement and would give the FPS full control of the other FPS that they wish to link with. However, bilateral models face scalability challenges compared with multilateral ones. While around a third of operators planning future interlinkages have not yet decided on the model that will be used, the stated plans of survey respondents over the next five years point to a trend away from single access point connections and bilateral links towards common platforms and hub and spoke models (Graph 5.A). Given the scalability benefits of these types of multilateral models,

[8] Examples include Buna with a focus on Arab Monetary Fund member countries, Transactions Cleared on an Instant Basis (TCIB) (Southern African Development Community), GIMACPAY (Central African Economic and Monetary Community), Pan-African Payment and Settlement System (PAPSS) (West African Monetary Zone (WAMZ), but ultimately all of Africa), TARGET Instant Payment Settlement (TIPS) and EBA Clearing's RT1 (European Union), Nexus (Association of Southeast Asian Nations region (and beyond)), and regional FPS that are under development in the Common Market for Eastern and Southern Africa, the East African Community and the West African Economic and Monetary Union.

[9] The CPMI conducted a survey in 2023 among central banks to monitor progress in the implementation of payment system improvements that may contribute to enhanced cross-border payments. Responses to the survey came from 71 central banks, with broad coverage of both advanced economies (AEs) and emerging market and developing economies (EMDEs). Respondents reported 166 operational payment systems, including 69 RTGS systems, 45 FPS and 52 deferred net settlement (DNS) systems.

interlinking could accelerate if projects such as Project Nexus or IXB (by US-based The Clearing House and EU-based EBA Clearing) move into production.

Turning to currency arrangements, the share of single-currency arrangements in existing linkages is 46%, while the share of cross-currency arrangements is 23%. Looking ahead to linkages planned within the next two years, the share of single-currency arrangements drops to 14%, while the share of cross-currency arrangements increases to 32% (Graph 5.B).

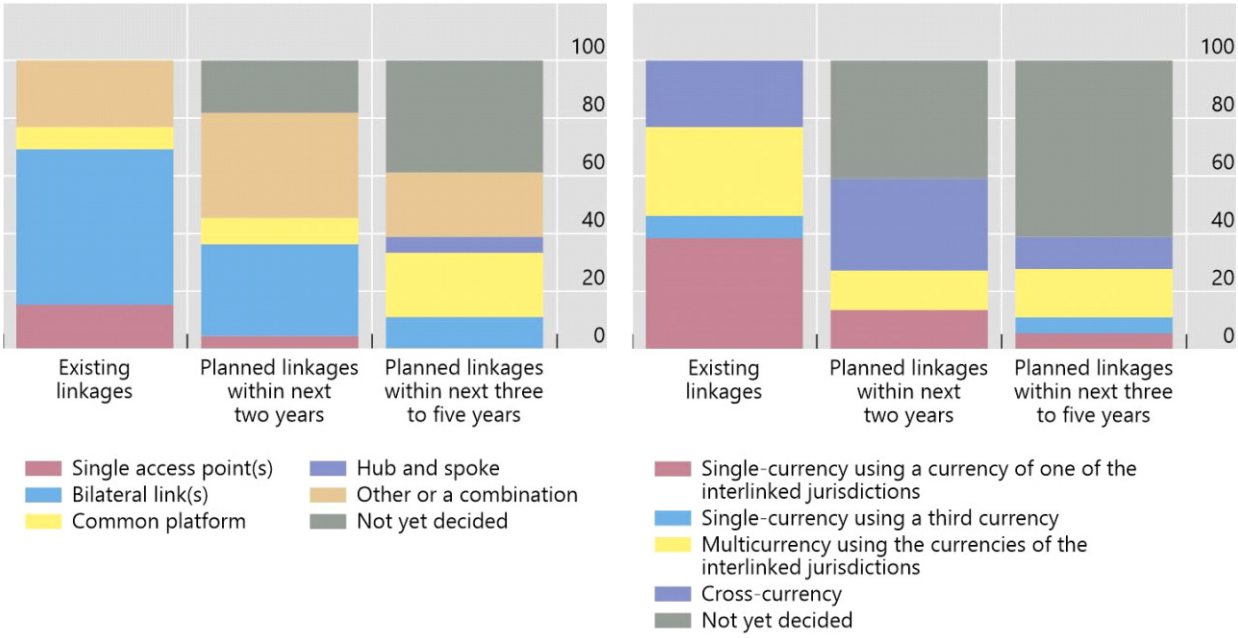
Design choices of FPS integration[1]

In per cent

Graph 5

A. Share of integrated FPS by linkage model

B. Share of integrated FPS by currency arrangement



[1] Existing linkage bars show the share of operational FPS with an existing linkage to another system that use each type of integration model (in panel A) or currency arrangement (in panel B). Planned linkage bars show the share of operational FPS with plans to establish a new linkage during the specified time period that plan to use each type of integration model (in panel A) or currency arrangement (in panel B).

Sources: 2023 CPMI cross-border payments survey on progress; BIS.

Benefits and challenges of payment system integration

Possible benefits

Integrated payment systems can reduce the number of intermediaries, increase the speed of payments, reduce costs and enhance transparency by addressing a variety of frictions inherent to traditional models of cross-border payments.

Improved interoperability

Fragmented and truncated data formats hamper straight-through processing and reconciliation of payments. This is because differences in data standards, formats and content across jurisdictions, infrastructures and messaging networks may lead to manual intervention, with operational risks and possible undesired rejection of transactions along the chain. Payment system integration encompasses a harmonisation of business and technical-operational rules and is likely to improve data quality.

More efficient processing of compliance checks

Integrated payment systems, especially those based on multilateral models, can improve end-to-end transparency and traceability for PSPs and ultimately end users. They can also facilitate compliance checks, since they are based on arrangements that will increase the ability to track payments. In particular, by using common standards and communication channels, payment systems can support PSPs in their anti-money laundering/combating the financing of terrorism (AML/CFT) and know-your-customer compliance checks. Buna, for example, does compliance checks at the platform level and does not leave this responsibility to its participants alone.[10]

Shorter transaction chains

Integrated payment systems reduce the reliance on intermediate layers of correspondent banking relationships. This simplifies the transaction chain and contributes to improving reachability between participants. More specifically, the scope of beneficiary PSPs able to receive payments will increase, as all participants of the payment systems would be reachable. Shortening the transaction chains can also contribute to shortening processing times. The bilateral link between Singapore's PayNow and Thailand's Promptpay, for example, has reduced the transaction time from one or two days to one or two seconds (Jeffrey (2023)).

Reduced funding costs

Correspondent banking or bilateral arrangements often require PSPs to prefund their position – potentially across multiple currencies – or to get access to foreign currency markets,[11] which can increase funding costs. However, multilateral models supported by appropriate liquidity and currency arrangements can reduce the number of currencies and accounts that need funding, thereby reducing funding costs. If the arrangement foresees netting, this can further reduce liquidity needs.

Risk mitigation

Integrated payment systems may include payment-versus-payment (PvP) functionalities, and they may reduce credit and settlement risk relative to foreign exchange (FX) transactions in the chain, compared with correspondent banking. Moreover, the common rules of an integrated payment system can improve the immediacy and finality of payments and decrease legal uncertainty.

Increased competition

In the same vein, a likely benefit of integrated payment systems is enhanced competition, as they allow direct interaction between PSPs across jurisdictions. They can also reduce the reliance on correspondent banking, which is characterised by fewer providers (Boar (2020)). Integrated payment systems are an alternative to closed loop systems and offer more competitive prices than traditional cross-border payment solutions. End user costs, for example, came down from around 400–1,000 baht ($12–30) per

[10] Buna enables sanctions screening and AML/CFT checks on the platform itself. Buna conducts automated real-time compliance screening and checks against lists of sanctions and embargos. Depending on the jurisdiction of the originating and beneficiary participants and the currency of the payment transaction, the automated screening may involve different sets of these lists (ARPSCO (2024)).

[11] Cross-currency solutions may be difficult or even impossible to implement without the intervention of central banks when the currencies involved are non-tradable or not sufficiently liquid.

transaction processed via traditional cross-border payment arrangements to 150 baht ($5) per transaction for payments processed via the bilateral link between PayNow and Promptpay (Jeffrey (2023)).

Possible challenges

Payment system integration has a number of challenges above and beyond the establishment of domestic payment systems. There are therefore several examples of payment system integration projects that did not become operational or ceased to exist.

Limited political support

Political support is a key factor for successful payment system integration. Broader regional economic integration is often aimed at sustaining trade and remittance flows, economic integration or development, financial inclusion and modernisation. Yet, even in such favourable scenarios, several factors can hinder the realisation of payment integration projects or their success once established. The other challenges listed in this section could contribute to loss of or waning political support, as could fundamental differences in strategic and policy priorities between jurisdictions.

Geopolitical developments

Increased geopolitical tensions might result in payment system integration within certain country groupings, but they can make global or interregional payment system integration more challenging going forward.

Macro-financial considerations

Payment system integration could raise concerns about the increased risk of capital flight in the event of financial stress. This would have undesirable consequences for the conduct of monetary policy (eg in terms of currency substitution, effective transmission of monetary policy, impact on central bank balance sheets from foreign demand) and for financial stability (eg cross-border bank runs).

Governance and oversight

Integrated payment infrastructures are commonly governed by stakeholders from several jurisdictions and overseen by multiple public authorities, often through a cooperative oversight arrangement. Practitioners and authorities involved in FPS interlinking have noted that agreeing on workable governance and oversight arrangements can be especially challenging (relative to, for example, operational and technical challenges) due to the multi-jurisdictional, cross-border and/or cross-currency nature of these arrangements. While existing governance and oversight standards and frameworks for payment infrastructures remain relevant, the practical implementation of integrated payment systems may raise new issues that require further elaboration or tailored approaches. The G20 has thus identified the governance and oversight of interlinking arrangements for cross-border payments, in particular of FPS, as a priority action in helping to enhance cross-border payments.[12]

[12] In October 2023, the CPMI published an interim report on governance and oversight of FPS interlinking arrangements. The report describes 10 initial considerations (see Annex 2), resulting from a series of workshops with global stakeholders that was undertaken by the CPMI to better understand the sensitivities, complexities and experiences in this area. The interim report included 15 questions, and the CPMI invited stakeholders to respond by the end of December 2023. In general, the responses supported the considerations laid out in the interim report. The CPMI is preparing the final report, which will be submitted to the G20. It will have a clear distinction between the governance and oversight sections, with a more descriptive approach taken for the governance section and a more normative treatment of oversight issues. The report will cover both bilateral and multilateral arrangements and differentiate between them as needed.

Overlaps between payment systems' reachability and low volumes

Some overlaps currently exist between regional initiatives, and more are inevitable with increased integration of payment systems across borders. In some cases, this may offer an opportunity, for example to bridge gaps between different regions or cover different use cases and/or corridors. However, overlapping regional initiatives may also present several challenges, such as competing for participation and volumes or leading to inefficiencies in terms of participation, interoperability and liquidity management.[13]

FX, credit and liquidity risks

FX, credit and liquidity risks can make it more challenging to operate integrated payment systems relative to domestic systems, particularly if the platform processes multiple currencies. To mitigate these risks, settlement might be limited to a few, very liquid currencies. However, this choice could limit the usability of the platform for regional commerce. If offshore currencies are processed, challenges could arise for payment system operators to open accounts with the issuing central banks. Hence, they might need to rely on commercial banks, which might be more costly and could come with increased credit risk compared with settlement in central bank money. A platform that requires full pre-funding of participants' accounts to initiate payment transactions might result in trapped liquidity, reducing the attractiveness of the platform.

Conclusion

Several regional payment infrastructures are in operation or in development today, many of which form part of a broader regional economic strategy. Integrated payment infrastructures without an anchor in economic groupings are more likely to face challenges in extending their reach, for a variety of reasons. Business model considerations, lack of demand for services, challenges in onboarding new currencies and/or weak public sector support are among the barriers that could limit regional payment integration to enhance cross-border payments. Increased public sector involvement and recent advancements in technology can help address some of the risks, barriers and challenges. Especially in the startup phase, a regional payments infrastructure will require decisive public leadership.

Policymakers have a variety of options to consider as they analyse the potential approach for regional payment infrastructure integration. Real-world integration will be more complex than indicated in the ideal-type models. Any evaluation should carefully consider the trade-offs between the different bilateral and multilateral models, the greenfield and growth approaches and the roles the public and private sectors can play. It should also account for the evolving nature of the cross-border payments market and trend towards increased standardisation and development of innovative technological solutions. To this end, possible further measures could entail efforts by regional bodies, operators and/or international organisations to realise the potential of regional integration projects and interregional alignment. A strong role for the public sector, while still cooperating with private sector actors, could be a key enabler for the cross-border integration of payment systems.

[13] The recent report on the state of inclusive instant payment systems (SIIPS) in Africa (AfricaNenda et al (2023)) highlighted the expected saturation of the payments landscape in Africa if all expected domestic and regional FPS are established. The SIIPS report cautioned that "if the market ends up fragmenting across too many cross-border participants, it is possible that no single IPS will reach the level of scale necessary to achieve network effects", but that "consolidation might happen as a natural consequence of regional and domestic IPS seeking sustainability through scale".

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Annex 1: Interlinking arrangements: factors and components for consideration

The CPMI report "Interlinking payment systems and the role of application programming interfaces: a framework for cross-border payments" (CPMI (2022)) outlines a framework of factors and components that may be important for jurisdictions to consider when exploring the possibility of pursuing interlinking arrangements to improve cross-border payments. Some of these aspects and practical perspectives may also apply to interlinking arrangements on an ongoing basis.

Factors that enable interlinking:

- *Strategic and political factors*, including the support of relevant public and private sector stakeholders for an appropriately designed interlinking arrangement in their respective jurisdiction.
- *Legal, regulatory and oversight factors* underpinning interlinking arrangements, given their cross-jurisdictional nature.

Components of interlinking arrangements:

- *Planning and business components,* including a clear and sustainable business case for establishing the interlinking arrangement.
- *Access and governance* rules and risk management measures.
- *Agreed service levels and scheme rules*, including definitions of the minimum operational and technical requirements for payments processed, agreed to by the interlinked payment systems .
- *General operations,* including timely processing and settlement of payments in the interlinked systems and facilitating secure, reliable, fast and cost-effective cross-border payments.
- *Financial risks and currency conversion*.
- *Operational resilience*, given the potentially broad reach of these arrangements and the potential impact of operational events on multiple jurisdictions.
- *Information and data exchange*, ie how to reduce development costs and shorten time to market of interlinking arrangements, including whether to adopt international technical standards, such as those for common messaging formats and APIs, to support straight-through-processing by increasing the automation of information exchange and AML/CFT processes, as appropriate.

Annex 2: Preliminary governance and oversight considerations for FPS interlinking

The CPMI report "Linking fast payment systems across borders: considerations for governance and oversight" (CPMI (2023a)) describes initial considerations for governance and oversight of FPS interlinking across borders.

Pre-conditions

Consideration 1: Compatible strategic and economic policy priorities among the involved jurisdictions can create favourable conditions for agreement on potentially sensitive issues related to the design of an arrangement's governance.

Consideration 2: A common long-term vision and objectives for an interlinking arrangement among the private and/or public sector FPS owners can be an important starting point for designing, establishing and maintaining the effectiveness of an FPS interlinking governance arrangement.

Consideration 3: The chosen ownership structure and legal setup of the interlinking arrangement can have strong interdependencies with key aspects of the governance framework.

Governance design

Consideration 4: The flexibility and scalability of the governance arrangement can be especially important for a cross-border interlinking arrangement to facilitate future expansion and an evolution of the role of central bank involvement.

Consideration 5: A wide adoption of fast payments at the jurisdictional level can contribute to the business viability of an FPS interlinking arrangement. The governance arrangement of the interlinking arrangement can leverage the experience from the interlinked FPS to increase its adoption, usage and ultimately sustainability.

Consideration 6: Representative stakeholder involvement in governance can increase acceptance of the cross-border interlinking arrangement, while keeping governance processes efficient and agile. It can be especially critical for the success of arrangements that may be driven by public interest objectives and operate in a diverse and multi-jurisdictional context.

Oversight design

Consideration 7: Depending on the state of the interlinking arrangement (ie planning, design, implementation, live operation) and the characteristics of its use (eg scale, intended use case), a pragmatic and proportionate approach in terms of risk management and oversight may contribute to its success.

Consideration 8: Overseers consider clarity and consistency of the oversight expectations for the FPS interlinking arrangement to be crucial to promote the arrangement's efficiency and safety.

Consideration 9: Some degree of cooperation among overseers of the FPS participating in an interlinking arrangement can be necessary for overseers to fulfil their respective mandates. The form, format and scope of cooperation can vary considerably and be tailored to different circumstances.

Consideration 10: The involvement of overseers during the design and implementation of an interlinking arrangement can contribute to the proper design of the governance arrangement and improve its alignment with other relevant oversight expectations. Both management and overseers may also benefit from open lines of communication for day-to-day management.

Annex 3: World Bank guidelines for successful regional integration of financial infrastructures

The World Bank guidelines are designed to correspond to the main public and private sector objectives for financial market and infrastructure integration, and to facilitate stakeholder realisation of the main benefits that are typically associated with financial infrastructure (FI) integration (World Bank (2014)). The guidelines also address commonly experienced barriers and challenges to efficient, effective and safe regional FI integration in order to improve accessibility and reachability for customers and to help minimise the various costs and risks often associated with integration efforts like these.

Enabling and institutional guidelines

Guideline 1: Define and promulgate a clear vision and general proposal as to the purpose, scope, form and need for regional FI integration that encompass a rationale for participation by all key stakeholders. The vision and proposal are open, flexible and living concepts at the initial stage.

Guideline 2: Locate the vision within the national policies of the participating countries to crystallise and attract an initially acceptable and potentially growing level of political support for regional FI integration.

Guideline 3: Co-opt or, if necessary, set up regional forums for key stakeholders appropriate for the scope and needs of the FI integration vision. These forums will help identify public and private sector roles and responsibilities and facilitate the necessary communication, cooperation and coordination among and within the stakeholder groups.

Guideline 4: Establish the necessary leadership from within the representatives of the public and private sector stakeholder groups that will actively commit to the regional FI integration program and will help secure the financial and human resources needed for the initiative.

Planning guidelines

Guideline 5: Devise specific governance and planning frameworks, including creating and empowering an effective project team to lead the planning, design and implementation stages.

Guideline 6: Conduct a comprehensive stock-taking of the economic and financial profile, institutional environment, overall financial structure and of the FIs of the countries interested in participating in the regional integration initiative. A review of previous initiatives elsewhere should be conducted before or as part of this exercise to understand what has worked and what has not, and why, and form a view of what might be appropriate locally.

Guideline 7: Identify the gaps and key divergences in existing national and, if applicable, regional arrangements and assess the strengths, weaknesses, opportunities and threats (ie a SWOT analysis) with respect to effective, efficient and safe regional FI integration. Pay close attention to the legal, regulatory and other relevant public policy characteristics of the participating countries (and/or the stakeholders involved) to assess their compatibility and the alignment of national regulatory frameworks with international legal and technical standards and best practices.

Guideline 8: Set a clear plan to address all pending gaps in a reasonable time frame to minimise barriers for integration. Propose mechanisms and realistic schedules for any required changes by participating countries. The rollout strategy might nevertheless need to be flexible to allow sufficient time for some entities intending to join to meet the participation requirements.

Guideline 9: Develop a strong business case that considers not only the information from the stock-taking exercise and subsequent analyses, but also the benefits and costs of various types of schemes, systems and structural models for FI integration as well as potential future developments and opportunities of integration. Deciding who will finance the costs of the initiative is a key part of establishing the business case.

Design guidelines

Guideline 10: Devise a broadly acceptable feasible model for FI integration based on consultations and discussions among all stakeholders around the stock-taking and business case analyses.

Guideline 11: Outline the selected integration model as comprehensively as possible with due regard to the results of the studies and analyses performed during the planning stage. This should include the structural architecture, operating schemes, regulatory and normative aspects, and technical design and operating systems.

Guideline 12: Specify the business framework for the new regional FI arrangement, including its organisation, management and governance, business management functions, operational scope and core business functions, business practices and controls, rules and procedures, and technical conditions and standards, among the main features.

Guideline 13: Establish effective cooperative public governance, regulatory and oversight mechanisms in line with Responsibility E of the Principles for financial market infrastructures to allow effective monitoring of the proposed regional FI arrangement.

Implementation guidelines

Guideline 14: Establish proper project management procedures and processes under the supervision of a designated project manager, who needs to be supported by sufficient and scalable human and financial resources. Include an effective and strictly enforced project control function that interacts closely with project governance and oversees progress on and issues arising from the regional FI integration program.

Guideline 15: Set up an effective communication function to properly inform all relevant stakeholders and the general public throughout the implementation process of the project. The regional FI integration plan and its proposed business practices, organisation and operations should be comprehensively documented and made public to create awareness of the new arrangement and its benefits and build support for using it.

Sustainability guidelines

Guideline 16: Regularise the consultative arrangements among key public and private sector stakeholders to ensure that the evolution of the regional FI arrangement in terms of new business functions, services and operating procedures is broadly responsive to, beneficial for and accepted by stakeholders.

Guideline 17: Regularise regulatory and oversight arrangements of public sector authorities to ensure ongoing compliance of the regional FI arrangement with the legal and regulatory requirements and any other relevant policy standards that apply to it.

Guideline 18: Maintain sound and committed organisational governance and senior leadership for the regional FI arrangement and ensure that staff dedicated to the regional FI organisation are well informed and well trained in the goals, functions and operations of the regional FI arrangements.

Guideline 19: Institute a regular program of self-evaluation and reporting on the regional FI arrangement's organisational structure, business functions and performance.

Bank for International Settlements (BIS)

ISSN (online) 2958-8758
ISBN (online) 978-92-9259-752-8