Governance of Retail Payment Systems

Keeping Pace with Changing Markets

June 2021
The rapid growth and innovation in retail payments have drawn renewed attention to the framework and arrangements for governance of retail payment systems. The mandates of retail payment systems have gained importance as the digital economy has expanded. The changes in market structure, competition, and notions of dynamic efficiency, as well as the ongoing need to enhance inclusion and participation in the economy, underline the important public-sector interests at stake. The governance framework and arrangements for such institutions are hence matters of interest to both the private and the public sector and warrant ongoing management and review. Effective governance arrangements are critical to the pursuit of the key policy objectives of ensuring the safety, reliability, and efficiency of payment systems and their broader role in supporting sector economic activity.

This document, *Governance of Retail Payment Systems: Keeping Pace with Changing Markets*, has been prepared by a team of experts from the World Bank’s Payment Systems Development Group of the Financial, Competitiveness and Innovation Global Practice and the International Finance Corporation’s Creating Markets Advisory. The World Bank has been a very active player in the area of payment systems for more than two decades and has helped with the setup of legal frameworks and the governance, supervision, and implementation of retail payment systems reforms across emerging and developing economies. The World Bank also coordinates closely with and participates in international standard-setting bodies with relevance to payment systems, including the Financial Stability Board and the Committee on Payment Market Infrastructures.

*Governance of Retail Payment Systems: Keeping Pace with Changing Markets* presents an analysis of the context, objectives, challenges, and approaches to ensuring effective governance of retail payment systems. It builds on existing principles and guidance for financial market infrastructures and corporate governance to provide guidance to authorities, operators, and other relevant stakeholders for the setup, review, and management of governance frameworks and arrangements specific to retail systems.

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<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>CCP</td>
<td>Counterparty Clearing House</td>
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<td>CPMI</td>
<td>Committee on Payments and Market Infrastructures</td>
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<td>CSD</td>
<td>Central Securities Depository</td>
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<td>EIG</td>
<td>Economic Interest Group</td>
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<td>FMI</td>
<td>financial market infrastructure</td>
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<td>GPSS</td>
<td>Global Payment System Survey</td>
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<td>IRPS</td>
<td>Important Retail Payment System</td>
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<td>IOSCO</td>
<td>International Organization of Securities Commissions</td>
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<td>MDR</td>
<td>Merchant Discount Rate</td>
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<td>NETS</td>
<td>Network for Electronic Transfers</td>
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<td>NPCI</td>
<td>National Payments Corporation of India</td>
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<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<td>ORPS</td>
<td>Other Retail Payment System</td>
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<td>PFMI</td>
<td>Principles for Financial Market Infrastructures</td>
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<td>PSR</td>
<td>Payment System Regulator</td>
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<td>RBA</td>
<td>Reserve Bank of Australia</td>
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<td>RBI</td>
<td>Reserve Bank of India</td>
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<td>SIC</td>
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1 Executive Summary

As innovation in retail payments continues and the systems evolve, effective governance of them becomes more complicated and increases in importance. Within expanding digital and data-driven markets, existing retail payments systems are under pressure to adapt, and new ones are emerging. Retail payment systems are essential for the economy to function efficiently, and more and more, they are something on which all individuals rely on in order to participate in economic life. As a scalable element of financial services networks, they are also increasingly of strategic importance for economic development and are attracting both domestic and international private-sector interest.

Effective governance arrangements of retail payment systems are critical not just for the stability, reliability, and efficiency of the financial system but also for its capacity to manage and respond to the changing policy and market environment. While many different factors contribute to the overall stability, reliability, and efficiency of the financial system, governance of retail payment systems and payment service providers is one essential factor that brings these relevant elements together. Governance sets the tone and direction for a payment system and creates the arrangements for decision-making and coordination among the many participants and stakeholders necessary for the effective and efficient functioning of a retail payment system.

Governance arrangements of a system also help authorities achieve the system’s policy objectives and interests. The primary public policy objectives for retail payment systems are to “promote safety and efficiency” and “support the stability of the broader financial system.” Beyond the core objectives of safety, reliability, and efficiency, governance also helps (i) enhance competition and stimulate innovation, (ii) foster market integration, (iii) expand access and usage, also in the context of financial inclusion and particularly in developing and emerging markets, and (iv) balance competition and cooperation to create (or preserve) a level playing field and ensure market contestability.

Public authorities have different tools at their disposal for influencing governance arrangements through the governance framework. The interest of public authorities as indicated include, ensuring that payment systems facilitate and promote comprehensive and active participation by all stakeholders, including those excluded from financial services. The governance arrangements need to ensure that the overall objectives as set by the public authorities are also met, beyond the interests of the direct stakeholders.

Governance calls for focused attention, and retail payment systems deserve and require distinct and specific guidance regarding governance. This is because issues related to retail payment system governance go beyond the typical corporate issues, precisely because of the underlying public interest and the broader public policy objectives of safety and efficiency. The CPMI-IOSCO principles for financial market infrastructure provide a detailed framework and sound guidance, but they apply directly only to those retail payment systems that are deemed systemically important. Moreover, the specific circumstances of and practical challenges faced by retail payment systems warrant further guidance.

Policy makers and authorities with responsibility for regulation and oversight are under pressure to adapt frameworks and adjust to the new demands of the digital economy, where governance becomes increasingly important. They often need to make balanced and dynamic trade-offs between different and sometimes disparate objectives. The owners, operators, participants, and other stakeholders in retail payment systems also face new challenges on how to balance access, innovation, safety, and competition, with emerging services on the one hand and the commercial role/objectives of a payment system in a competitive sector of the economy on the other. Governance plays a key role in shaping the incentives and mandates of owners and how the different stakeholders work together in the context of the broader public interests.

As the pace of change and innovation has accelerated, regulatory and supervisory
frameworks have been stretched. The sector is under pressure to accommodate and support more competition and innovation. The internationalization of both the real economy and financial services has highlighted interdependencies and deficiencies that some incumbent payment systems have been slow to address. Governance frameworks and arrangements need to ensure that these can be managed in a way that balances competing public policy and private interests.

This paper provides context and considerations regarding the governance of retail payment systems within this changing environment. It provides examples of approaches specific to the governance of retail payment systems and the different factors that influence and guide them. It refers to related legal frameworks, principles, and reference materials that may be useful in conducting reviews. And it draws on and shares examples of the challenges, frameworks, and arrangements of specific countries and systems. The paper provides specific guidance for practical matters, such as the regular assessment and revision of governance arrangements, the importance of acknowledging public interest, maintaining access rules that are in line with market needs and developments, achieving and maintaining a high degree of transparency regarding governance, and in ensuring that the board and management have the right skills and knowledge.

The paper concludes with several themes for consideration that would help authorities and other relevant stakeholders navigate the topic of governance for retail payment systems. They are summarized below.

Consideration 1: There is no one-size-fits-all blueprint for governance arrangements.
The governance arrangements of different retail payment system should be context specific and will inevitably differ. Governance arrangements must be specific to the market, policy, and institutional context of each given retail payment system. They should help to address public policy interests relevant to the country, the market and political context while balancing these with the interests of users, owners, operators, and participants.

Consideration 2: Governance arrangements should be reviewed regularly
Governance should remain a living topic. Governance arrangements should be regularly reviewed especially in the context of structural changes to the market, to policy or the institutional environment as well to respond to industry innovation.

Consideration 3: Appropriate public interests should be acknowledged, clearly defined and addressed
The governance arrangements of a retail payment system shall recognize and support “public-interest considerations.” Public interest considerations is a broad and evolving concept that policy makers and authorities must strive to define, adapt, and clearly communicate, in accordance with their own policy and market context and as part of the governance framework which need to be properly reflected within the governance arrangements of a retail payment system.

Consideration 4: Stakeholder involvement is of key importance
Effective involvement of relevant stakeholders is an essential element of a retail payment system’s governance. The involvement of different stakeholders can be achieved through a variety of mechanisms, dependent on the context.

Consideration 5: Access rules should evolve with the market
The access, membership, and participation rules of a retail payment system should be regularly evaluated and aligned with changes in policy and market context. Such evaluations shall be guided by the development needs of the economy, the retail payments market, the role of new types of payment service providers, and with respect to the other policy objectives and considerations for preserving the safety and integrity of systems.

Consideration 6: Anticipate changes to skills and qualifications required by the board and senior management
In a context of increasing change in retail payments, it is important to ensure that the board and management possess the skills, qualifications, and experience necessary to fulfil their roles. The
board of directors is responsible for ensuring that its members’ skills and qualifications are up to date and aligned with the emerging challenges and structure of retail payments.

**Consideration 7: Potential conflicts of interest should be identified and addressed**
Governance arrangements need to acknowledge and pay specific attention to potential conflicts of interest. Retail payment system governance arrangements should take account of the full scope of potential conflicts of interest across the entire set of stakeholder groups and their interactions and mitigate them in a transparent manner.

**Consideration 8: Governance arrangements must be transparent**
Transparency is a hallmark of good governance and an important and effective mechanism to promote it. As a minimum, transparency requires that information regarding current governance arrangements of a retail payment system shall be published.

**Consideration 9: Application and effectiveness of the governance framework should be regularly assessed.**

The scope of application of the governance framework and its alignment with governance arrangements should be assessed regularly. Attention should be paid to changes in the market that may require amendments to existing regulations.

**Consideration 10: The different roles of public authorities should be acknowledged and addressed**
Public authorities have different and often changing roles and responsibilities in the governance of retail payment systems. The role(s) of public authorities, including central banks, in the governance arrangements of retail payment systems have to be considered and clearly defined.

**Consideration 11: Attention should be paid to the critical role of the central bank**
The oversight activities of a central bank play a critical role in ensuring effective and appropriate governance of retail payment systems. The central bank might also need to play a role as a market catalyst.
2 Introduction

Retail payment systems are essential and of increasing strategic importance for the economy. Within expanding digital and data driven markets, existing retail payments systems are under pressure to adapt and new ones are emerging. Digital payments are now, even if not “essential”, certainly tending towards becoming something on which all individuals rely on to participate in economic life. The pace of change and innovation has accelerated, while the scope of its impact on payments has also widened. Regulatory and supervisory frameworks for payments and related financial services have also evolved, in general enabling more competition and innovation into the market. The internationalization of both the real economy and financial services has highlighted interdependencies and deficiencies that some incumbent payment systems have been slow to address.

Governance creates the structures within which a retail payment system operates. At its core, governance relates to the ownership and the management of the operations of a retail payment system and the processes which govern it. The market context shapes the policy environment and sets the framework within which governance operates. Governance is important for all types of organizations but given the central role that a retail payment system plays in the economy and the need for the public to be able to use them, their position within the structure of financial markets, governance of them needs to reflect a variety of public policy as well as private interests.

The term “governance” is used in different ways, covers a broad set of topics, and has relevance to retail payment systems in different contexts. In the broader economic literature, governance can refer to a range of notions, from economic policy, through market structure to corporate level matters. In one sense it refers to “corporate governance”, the internal arrangements that govern a company and its operations. The OECD Principles refers to corporate governance as “a set of relationships between a company’s management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined.” The OECD has published OECD Corporate Governance Factbook 2019, which provides a comprehensive global overview regarding corporate governance. In the context of financial market infrastructures, the Bank of International Settlements (BIS) somewhat extends this notion by underlining the scope of stakeholders that can be concerned. In the PFMI it defines governance as “the set of relationships between an FMI’s owners, board of directors (or equivalent), management, and other relevant parties, including participants, authorities, and other stakeholders (such as participants’ customers, other interdependent FMIs, and the broader market).”. In a broader sense, governance can also often refer to the rules, institutions, and industry structures that shape the economics of the market and firms’ behavior within it. Such aspects regarding governance are external to a specific entity or system itself but set the “rule of the game”, the incentives and structures within which it operates.

Governance plays a role in furthering the aims of relevant stakeholders, especially policy makers, that market forces alone may not be relied upon to address. Governance will be critical for ensuring the stability and safety of a retail payment system. Setting technical and operating rules, controlling entry, or assigning some operating elements of a payment system to a public body may help to ensure that high standards are met. Elements of governance may be designed to enhance the efficiency of and access to payment systems, mandating for instance provision to under-served users, setting pricing controls or expanding the array of firms that can have access to a system. And governance arrangements may need to play a role in facilitating competition and innovation, helping to make the market more contestable and dynamic, for instance via changes to ownership rules, forced divestments or licensing frameworks; or governance arrangements may lead to or allow for direct public investments that introduce innovations.
The different aims of stakeholders may not always align. The aims of preserving stability may not be entirely compatible with those of competition. They also may vary from a timeframe perspective, with for instance competition concerns for short-run gains in consumer welfare also needing to be balanced against longer term effects on stability. Given the complex interplay of different policy aims, it is essential that regulators and competition authorities liaise and coordinate their actions and respective influence or interests in the governance arrangements of systems.

Effective governance should help to balance and manage these different aims and objectives while responding to changes in policy and market environments. There are many different and sometimes conflicting aims that owners, users and other stakeholders seek to address. But all parties are essential to their operation and play different roles. Governance is the essential structure that brings all the relevant elements together, shapes the boundary conditions, sets the tone and the direction for the payment system and creates the arrangements for decision-making and coordination among the many participants and stakeholders necessary for the effective and efficient functioning of a retail payment system.

The market context in which retail payment systems operate has changed in many countries. This also alters the challenges that governance may need to help manage. Technology and business model innovations have created greater potential for economies of scale and efficiency gains as well as demand for new services. Innovation outside of systems has demonstrated the inefficiencies embedded within incumbent systems and arrangements. New entrants and international expansion have highlighted barriers to competition that existing governance structures create or sustain. New entrants’ efforts have often led to the creation of parallel and closed networks. This has in turn raised issues of inter-operability, the role of different ownership structures and how to align governance and regulation across different systems.

Governance and policy pertaining to retail payments have also evolved in recent years. Regulatory reforms to the licensing framework and regulation of payment services have enabled new types of payment service providers and platforms to enter the market. Sub-activities have been more finely defined and, in some cases, governments have mandated the unbundling of services, such as through the legal separation of systems operators from schemes. New entrants have sought access to and participation in existing systems. Technology innovation has also prompted public authorities directly, or indirectly via industry, to create new payment platforms and services; there have been changes in the structure of supervision; and competition concerns have led to some direct interventions in the strategy, pricing, and access rules of payments systems. All such examples of changes have had substantial influence on the mandates, constraints, rules, and structures of governance.

The dominance of retail payment systems owned by a central bank or the banking community has waned, but the rise of new entrants has also prompted them into renewed action. Just as the role of privately owned systems has risen and many legacy systems have enhanced the role of private investors, in many countries, public authorities have themselves led a new wave of innovations, establishing new systems or prompting bank-governed organizations to introduce new systems and services. As both retail payments markets and payment systems undergo changes, governance arrangements will also often need to adapt to provide effective support for overriding policy objectives.

New entrants in the financial system and changes in the demand prompted by the digital economy have demonstrated that incumbent systems have not always been well positioned to either lead or respond to innovation. Retail payment systems do not operate in a fully competitive market. They are network services that enjoy increasing returns to scale. They encompass distinct vertically linked and historically often integrated functions undertaken by different actors – issuers, processors, acquirers for instance. And by design (and with good reason), regulation often limits entry to the market and access to its services. Faced with these market “imperfections” and public interventions, retail payment systems cannot be expected to, alone through the influence of market forces, strike the right balance between various competing interests. The
challenges are today more acute, as markets experience rapid innovation and change in both supply and demand. Hence policy and regulation interventions must (and do) play a role, as do governance of the market and the retail payment systems that operate in it.

In this context, questions arise about the relative merits of different ownership structures. Retail payment systems can be - and are - operated under very different ownership structures, with corresponding variations in governance. Some are under the full ownership and operation of a central bank; others are not for profit organizations owned by members of the banking community, but often with representation of the central bank at some level; increasingly the broader “infrastructure” is actually composed of separate legal entities with different owners and economic structures. And in many instances retail payment systems are owned by an independent non-bank third party operator, some of which are publicly listed entities. Over the past decades, many systems have gone through multiple changes in structure, ownership, and governance (refer to Figure 6 for examples).

**Box 1: Variations in ownership types and legal structures**

Both the ownership structures and the legal structures of retail payments systems differ widely and encompass several dimensions. The payment system itself is often a collection of separate legal entities; sector and corporate governance as well as scheme and membership rules shape how such legal entities interact with each other. The economic owners of the individual legal entities within a system may be distinct, and different, from those that exercise strategic and managerial control of the system overall. In line with market evolution, many systems have proactively or through the influence of policy makers become more “unbundled” or less vertically-integrated. Specific roles or activities, such as acquiring, marketing or processing services, or the “scheme” itself, have been split off from a core entity. Accordingly, ownership models may defy simple classification. Figure 6 provides an overview of the evolution of ownership and corporate structure for a selection of 7 systems (in Denmark, Germany, UK, India, Malaysia, Morocco and Turkey). A cursory look at this figure highlights how much variety, change and evolution there is, even across a diverse array of markets. A few stylized examples of ownerships structures follow.

- **Owned by the Central Bank**: in this context, the system may or may not be a separate legal entity. If the system is not a separate legal entity, the central bank can be required to put in place specific internal structures and procedures to manage it.
- **Partially owned by the Central Bank**: the system may be an independent company, incorporated as for or a not-for profit, with the central bank, as well as local banks as shareholders
- **Industry-owned private company**: this is a common structure in which a group of participants and members of the system are also its owners. The Central Bank may have a seat on the Board as an Observer or with a ‘golden share’
- **Private or publicly listed company**: A payment service may be operated by a for profit company, which may or may not own the scheme; a closed loop scheme is often owned by the operator; in 4 party card networks the scheme may be legally distinct. Together they constitute the overall system.

The payment scheme may be incorporated in a legal entity that is separate from the company that operates the technical infrastructure. The former may be not for profit, and owned by its participants or members; whereas the company operating the infrastructure may be a for profit, independent commercial entity.

There is no linear evolution in ownership and legal structures. Central banks have often played a pivotal role in creating new payment systems and ensuring that banks coordinate and cooperate within them. But once they reach a certain level of maturity, central banks have often reduced or at least adjusted their role in them, sometimes relinquishing ownership and control. In recent years, with the advent for instance of faster payment systems, central banks have once again been called upon frequently, to play a critical role as catalysts, e.g. to encourage or force through changes and new investments that require coordination and collaboration. Further discussion of ownership and control is provided in section 4.1.
Each type of ownership model can be effective in supporting broader objective aims, but governance must make up for market imperfections. The implications of each ownership model, the way in which the retail payment system functions under them, should be taken into consideration. The market context in which a particular model operates will also influence broader policy outcomes. For instance, privately owned for-profit systems may support the policy aims of innovation and efficiency. But if operating in markets with high barriers to entry and few, if any, competing systems, governance may need to support universal access and competitive pricing. On the other hand, in the context of a system owned by the central bank or a limited pool of member banks, aims of inclusiveness and pricing may be well embedded in its mandate; but governance arrangements may need to find ways to compensate for a lack of market contestability and incentives for innovation.

Central Banks play a fundamental role in ensuring that governance balances these different interests and aligns a payment system’s strategy, operations and conduct with public policy objectives. This involves balancing competing interests of stakeholders, including those of private stakeholders and helping, through governance – as one among other measures - to address market imperfections. But within that scope, the central banks can and does play a wide variety of roles. The central bank can be the owner and/or operator of a retail payment system. It is usually but not always also its regulator and overseer. Central banks may have a seat on the Board, with or without formal voting powers. And at the last resort, the central bank will have powers of persuasion over a system’s members, participants and operators as either their regulator or as a key authority within the overall financial system.

The governance of retail payment systems encompasses both internal arrangements and the external framework within which they operate:

The internal arrangements include its mandate, its executive and management bodies, and the rules under which they operate as well as the actual terms of incorporation, operations, and development of the system. A Board of Directors or some similar decision-making body oversees the payment system as a whole and sets the objectives for and the terms under which the management operates. Governance arrangements are the glue that supports and holds a payment system together, also over time.

Internal governance arrangements are shaped, influenced and constrained by the external governance framework. This includes external elements beyond the control of retail payment systems, but which substantially impact them. They include policy aims, mandates, institutions, instruments, and mechanisms as well as the actual laws, regulations (and subsidiary instruments of regulation), and oversight framework under which they operate. The governance framework can also include direct or indirect policy interventions, such as via competition authorities, or, for instance, the central bank taking an active role in shaping the market structure and broader systems operating in the payments ecosystem. The wider governance framework may also be influenced by other structures, such as a national payment council. Together they constitute an external governance “framework” in which they operate and the context in which internal governance “arrangements” are defined and apply to a specific system.

Together and in combination, the external and internal components shape the system’s structure and aim and constrain its behaviour and actions. They determine the scope and form as well as the level of autonomy left to systems to govern their affairs and their interaction with the broader array of stakeholders in retail payments. These structures can be more, or less, stringent and prescriptive from one jurisdiction to another. The various elements are interdependent and must be considered as such when undertaking reviews of or designing reforms to governance.

Because of their interdependency, it is important to assess and design governance as a whole and with reference to the market context. The effectiveness and relevance of specific
requirements with regards to access, ownership structures or licensing frameworks, is difficult to assess when looked at in isolation. Their effectiveness and appropriateness depend on the market circumstance, relative important of policy aims, competitive dynamics as well as other elements of governance in place.

In considering the effectiveness of governance, it should also be remembered that such arrangements are only one among other “tools” or instruments available to shape market outcomes and the behavior of firms. Governance should not be expected to or regarded as a tool to address all public policy and market issues. Direct regulation of systems and participants is also important. Regulation and governance should work alongside each other to complement private market forces.

**Figure 1: Overview of Elements of Governance**

In Bossone and Cirasino’s 2001 paper on governance and oversight, they explain how governance arrangements should support the broader policy objectives of ensuring the safe and efficient provision of payment services. To the extent that governance supports the exercise of oversight, they should help over the longer term “to make sure that the payment system optimizes its provision of services to the economy as this develops over time.”4 It is also important to “exploit the complementarity between the public and the private sector and use incentives to induce agents to internalize prudence and honesty in their long-term business strategy.”5 These objectives and the principles guiding them have remained very robust to changing market conditions. In this context, it is also important to revisit governance arrangements for retail payment systems.

Governance calls for focused attention and retail payment systems deserve and require distinct and specific considerations regarding governance. The CPMI-IOSCO principles for financial market infrastructure provide a framework and sound guidance, but they only apply directly to those retail payment systems that are deemed systemically important. The specific circumstances of and practical challenges faced by retail payment systems warrant further guidance. Policy makers and authorities with responsibility for regulation or oversight are under pressure to adapt frameworks and adjust to the new demands of the digital economy. They often need to make balanced and dynamic tradeoffs between
different and sometimes disparate objectives. The owners, operators and participants and other stakeholders of retail payment systems also face new challenges on how to balance access, innovation, safety and competition with emerging services on the one hand with their commercial role of a payment system in a competitive sector of the economy on the other. Governance plays a key role in shaping the incentives and mandates of owners and how the different stakeholders work together in the context of the broader public interests.

In the context of both the governance framework and the governance arrangements, this paper provides specific considerations and guidance regarding retail payment system governance. It provides examples of approaches specific to the governance of retail payment systems and the different factors which influence and guide them. It refers to related legal frameworks, principles and reference materials that may be useful in conducting reviews. And it draws on and shares examples of challenges, frameworks and arrangements of specific countries and systems. The paper addresses the topic of governance in relation to the individual retail payment systems and not the national payment system as a whole which may be comprised of several individual payment systems. The term national payment system is often used to describe the entire payment infrastructure of a particular country.

The purpose of the paper is not to promote particular governance or ownership models. Retail payment systems are diverse in relation to the ownership model applicable ranging from full public ownership to public listings which equally affects the governance arrangements of the individual payment systems. The particular governance or ownership model chosen will be, and must be, guided by the needs and circumstances of the particular market and the particular payment system and will likely change over time. Nevertheless, some aspects and principles regarding governance remain relevant across the different ownership models.

The paper is not intended to cover every aspect and every topic of relevance to governance. The general topic of governance is very wide and touches upon and affects many different aspects of the operations of a retail payment system. The paper will address the main relevant themes in relation to governance of retail payment systems where some will be discussed in detail while others will solely be taken into account to provide context.

Possible avenues for further research

As governance arrangements are highly context specific, it is appropriate to consider areas of further research that may provide more specific guidance. Governance frameworks and arrangements will need to adapt to different market circumstances, which themselves can and should be expected to change over time.

Particular areas for consideration regarding further research:

- How should the objectives and arrangements of governance vary with the level of access to services, or to the level of sophistication of the financial markets in which they operate?
- What are the impacts on governance of the increasingly international scope of payment services? What implications are there for (i) the governance of systems and operators active in multiple markets, or (ii) for systems that operate across borders?
- How do governance arrangements influence incentive for development of faster payments systems and what issues should governance of such new systems address?
- How will open banking arrangements influence the context for governance? In particular, as open banking should in principle provide more control to end users of payment systems, will competitive pressures be strengthened, thereby enhancing the role of market discipline regarding governance?
- The implications of CBDCs on governance arrangements of retail payment system?

Retail Payment Systems and governance

A payment system is a set of instruments, procedures, and rules, including legal arrangements, for the transfer of funds between or among participants. The system includes the
participants and the entity operating the arrangement, its access, and its operating or “scheme” rules. Payment systems are typically based on an agreement between or among participants and the operator of the arrangement, and the transfer of funds is affected using an agreed-upon operational infrastructure.\(^6\)

A payment system is generally categorized as either a retail payment system or a large-value payment system. A retail payment system is a funds-transfer system that typically handles a large volume of relatively low-value payments in such forms as checks, credit transfers, direct debits, and e-money and card payment transactions.\(^7\) Retail payment systems may be operated by either the private or public sector, using different settlement arrangements, including multilateral deferred net settlement or a real-time gross settlement mechanism. A large-value payment system, handling large-value and high-priority payments, is more often owned and operated by a central bank using a real-time gross settlement mechanism or equivalent.

Retail payment systems differ widely in terms of the composition and scope of legal and operational entities they encompass. Some payment systems consist of a single entity that provides all services; in others, the infrastructure may be managed by separate scheme owners and system operators, or by both a scheme and an operator company.\(^8\) Separate companies may support different scheme or instrument types, and there may be competing processing services for the same type of scheme; some functions may be fulfilled by companies with separate legal status and their own governance arrangements. (See figure 2 for an overview of the elements of a retail payment system.) In some countries, there has been a trend toward establishing national payments companies that undertake a number of functions in relation to retail payment systems.\(^9\)

For purposes of alignment with oversight responsibilities, payment systems may be classified in different ways. In the European Union, payment systems have been classified as Systemically Important, Prominently Important, or Other retail payment systems.\(^10\) The system designation determines the oversight approach and requirements, which are typically based on a subset of the PFMI.\(^11\) In India, the Reserve Bank of India (RBI) has indicated in its new oversight framework that it would classify some systems as systemically important payment systems and apply oversight to them in accordance with the PFMI.\(^12\) Other retail systems would not be subject to assessment against the entirety of PFMI. In reference to other retail payment systems, however, the RBI notes that “some of the PFMI are so fundamental that they should also be observed by” other retail payment systems. “For the purpose, the RBI will be classifying such RPSs [retail payment systems] as Important Retail Payment Systems (IRPS) and Other Retail Payment Systems (ORPS).”

Figure 2: Functional Overview of Components of a Retail Payment System

Payment systems encompass a set of instruments, procedures and rules for the transfer of funds between or among participants. The system includes the participants and the entity operating arrangements.

**Actors and Stakeholders in Governance**

The governance framework and arrangements of retail payment systems must take account of the roles and interests of several stakeholder groups. Beyond the board of directors and the management charged with the actual day-to-day operations, there are other stakeholder groups to consider. (See figure 3.)

- **Public authorities:** This includes primarily the central bank and other financial-sector authorities with responsibility for oversight or regulation of payment systems, but it can also encompass other authorities with responsibility for competition or consumer protection, national security, and market integrity and conduct. The international growth of payment services and payment providers can make coordination with other stakeholders, including foreign authorities, relevant.

- **The owners of payment systems** are central to the design and exercise of governance of their systems. But in considering governance, it should be noted that there are many nuances to ownership. The schemes, systems, and operators of systems may all be separate legal entities with different owners, and there may be material differences to the economic and legal ownership rights that owners can exercise, in particular where there is collective ownership of a payment system by many of its participants.

  - **Participants** have traditionally been licensed deposit-taking and credit institutions, but increasingly among them there are now also non-bank payment service providers that may be direct or indirect participants. Many retail payment systems have made changes to their rules to expand access and the types of access to new kinds of participants and give them an appropriate voice in governance.

  - **End users** also have a vital interest in the governance of retail payment systems. They include not just consumers and merchants but also other business and government users. Where there are underserved communities and low rates of digital payments adoption, governance objectives and arrangements must also consider the interests of “non-users”—for example, as potential or prospective users.

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**Figure 3: Retail Payment System Stakeholders**

<table>
<thead>
<tr>
<th>Stakeholder groups</th>
<th>Context and definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Authorities</strong></td>
<td>The main functions of public authorities encompass oversight of the payment system, regulation and supervision of institutions. The central bank often plays a key role in these areas; but some countries place responsibilities with other financial sector authorities. Other authorities with potential impact on governance arrangements include those with responsibility for competition, security, market integrity and consumer protection, and finance; in some cases foreign authorities are of relevance.</td>
</tr>
<tr>
<td><strong>Owners</strong></td>
<td>The economic owners of payment systems are the shareholders. In the case of cooperative and membership owned structures, the owners of a payment system may be a sub-set of its participants; in some cases the central bank can be the sole shareholder of a payment system.</td>
</tr>
<tr>
<td><strong>Payment System</strong></td>
<td>Payment systems encompass a set of instruments, procedures and rules for the transfer of funds between or among participants. The system includes the participants and the entity operating arrangements. Responsible for operations of a retail payment system, the Operator may be the owner but may also be a separate legal entity. The operator may be a central bank or a private collective or independent entity. Schemes are specific sets of rules, practices and standards.</td>
</tr>
<tr>
<td><strong>Participants</strong></td>
<td>Participants are payment service providers (PSPS) responsible for receiving, transmitting and executing payments through a retail payment system. PSPS can have different regulatory status. Participants often divide into: Direct participants: with direct access to a retail payment system. Indirect participants, which access a payment system via a contractual relationship with a direct participant. Some participants may also be owners of the system, and are then referred to commonly as Members.</td>
</tr>
<tr>
<td><strong>End Users</strong></td>
<td>These are the users of the different retail payment services offered by the payment service providers; they may include legal and natural persons and encompass consumers, merchants and other entities selling goods and services, corporates and governments.</td>
</tr>
</tbody>
</table>

*Others may include authorities for competition, data protection, national security, consumer protection, finance.*
**Principles for Financial Market Infrastructures**

The Committee on Payment Market Infrastructures and International Organization of Securities Commissions developed the PFMI. These principles, which apply to a range of FMIs, including systemically important payment systems, provide a starting point and robust structure around which to extend guidance more specifically to the governance of retail payment systems. In addition to Principle 2 (see below and in appendix A), other elements of the PFMI also pertain to governance frameworks and arrangements.

The PFMI set out key aims for governance. Principle 2 of the PFMI states: "An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders." This principle was formulated in the 2012 publication with the interests of stability and risk foremost in mind, noting that “if not properly managed, they [payment systems] can pose significant risks to the financial system and be a potential source of contagion.” Governance is further described within the PFMI as the process by which a payment system (i) defines objectives, (ii) ensures the overall means and ways in which to achieve those objectives, and (iii) monitors the ongoing achievements and compliance against them.

### Figure 4: PFMI Elements with Direct Application to Governance

<table>
<thead>
<tr>
<th>Principles for Financial Market Infrastructures</th>
<th>Governance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Liquidity</td>
<td>x x</td>
</tr>
<tr>
<td>2. Governance</td>
<td>x x</td>
</tr>
<tr>
<td>3. Framework for the comprehensive management of risks</td>
<td>x x</td>
</tr>
<tr>
<td>4. Credit Risk</td>
<td>x x</td>
</tr>
<tr>
<td>5. Collateral</td>
<td>x x</td>
</tr>
<tr>
<td>6. Margin</td>
<td>x x</td>
</tr>
<tr>
<td>7. Liquidity Risk</td>
<td>x x</td>
</tr>
<tr>
<td>8. Settlement Finality</td>
<td>x x</td>
</tr>
<tr>
<td>9. Money Settlement</td>
<td>x x</td>
</tr>
<tr>
<td>10. Physical deliveries</td>
<td>x x</td>
</tr>
</tbody>
</table>

Source: World Bank

The PFMI apply to FMIs, including those owned by the private sector. This is significant in the context of governance in that it sets a precedent for the owners and the board of directors of privately owned retail payment systems to incorporate public-interest considerations as one of their main objectives. It requires a payment system not just to pursue profits but to consider the effects of their business on the stability of the broader financial system and to support other public-interest considerations. Principle 2, in other words, instructs all private-sector FMIs to combine (and balance) the “public” interest with their private objectives.
Retail payment system governance should also be guided by the general principles for corporate governance. These focus on the governance of publicly traded companies but are also used as best practices for other companies. The OECD Principles of Corporate Governance provide a benchmark for corporate governance around the world and are used by the Financial Stability Board for Sound Financial Systems Key Standards. They are also used by the World Bank for assessments regarding corporate governance matters of banks and other financial institutions.

Recognizing the unique role of the central banks, the PFMI provide for some exceptional cases where the principles are applied differently to FMIs operated by central banks due to requirements in relevant law, regulation, or policy. Similarly, for retail payment systems/infrastructure, the central banks may have public policy objectives and responsibilities such as financial inclusion. The central banks should not be constrained in the composition of the central bank’s governing body or that body’s roles and responsibilities.

**Why Is Retail Payment System Governance Important?**

Governance is important in the context of retail payment systems because retail payment systems involve and affect a wide range of stakeholders, the interests of which do not always align automatically with the broader public interest. There is a legitimate public interest in ensuring that retail payment systems serve the needs of the economy in an efficient and safe manner. While in other types of markets, the competitive pressures may act to discipline firms and create appropriate incentives for governance, retail payment markets are both highly regulated and subject to network effects that can also lead to market failures. Payment system governance therefore needs to help achieve a balance between competition and coordination among participants to serve the needs of users as well as the interests of its participants. Governance arrangements provide a structure around which to set the institution’s mandate and to coordinate and address these different interests and roles of its stakeholders.

The ongoing evolution of the market and of policy objectives and context requires that governance is reassessed and recalibrated periodically. As markets change and mature, retail payment systems also need to evolve. The governance arrangements of a retail payment system should facilitate change but may not always be sufficiently flexible or up to date to accommodate change in an orderly manner and in alignment with changes in policy. The need to facilitate innovation has also become a more prominent element of a regulator’s objectives. In the United Kingdom, for instance, the Payment Systems Regulator has explicit objectives that emphasize these additional goals, stating that one of its roles is to support “competition, innovation and the interests of service-users.”

New systems are emerging or being established, for which appropriate governance arrangements need to be defined and established. Technology in particular has facilitated the emergence of new retail payment systems and instruments. Some have been established as new interbank systems, led by central banks or by industry while others have been established by new entrants such as internet platforms. Ongoing initiatives by authorities to develop central bank digital currencies are likely to change the payments landscape further and have important implications for governance, too. While many emerging players may remain small in size, a number of them have grown at an unprecedented pace, at times outside the focus or remit of the regulators. Nevertheless, a number of considerations and requirements regarding governance should be applied to all retail payment systems.
### Figure 5: Attributes of Effective Governance

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Attributes of Effective Governance</th>
</tr>
</thead>
</table>
| **Public authorities** | • Helps authorities ensure that systems operate safely and efficiently and provide affordable, convenient payment services  
• Ensures that legal, regulatory, and institutional frameworks provide for (i) clear divisions of responsibility, (ii) appropriate powers and resources to be available to authorities to fulfil their duties, and (iii) effective means of cooperation  
• Protects and facilitates the exercise of shareholders’ rights and influence and ensures the equitable treatment of shareholders  
• Ensures that public interests and interests of stakeholders are recognized and reflected  
• Ensures clear understanding of their obligations to support public interests and their role in ensuring that systems are safe, efficient, affordable, and convenient  |
| Owners | Provides a clear mandate and principles and rules for the board in regard to (i) its role, (ii) aims and strategy of the system, (iii) responsibilities of the board, and (iv) their accountability  |
| Board of directors | Enables and clarifies the powers of management and their role(s) in regard to (i) corporate strategy and operations, (ii) financial sustainability and performance, (iii) business and operational performance, (iv) legal and regulatory compliance, (v) accountability, and (vi) user satisfaction  |
| **Management** | Ensures clear, objective, competitive, and inclusive pricing, service-offering and access rules, and eligibility criteria  |
| **Participants** | • Helps ensure provision of safe, reliable, efficient, affordable, and convenient payment services  
• Ensures appropriate protections for users and a competitive market  |

*Source: World Bank*
Figure 6: The evolution of corporate structures, selected examples of retail payment systems

Timeline of corporate events – selected national payment systems and operators

Source: authors own analysis and presentation, Company reports, websites, and public disclosures
The notion of the external governance framework refers to the rules, institutions and market structures that shape and delimit the internal governance and operations of a given retail payment system. The external governance framework is generally not something that the owners or managers of a payment system can alter themselves, but which must, to some extent, be taken as given, ‘external constraints’. Where a central bank is itself an owner of, or has a role in, the governance of a specific payment system, they may be able to influence those external factors, but must do so in a manner that addresses the potentially different mandates they fulfil in respect to sector regulation and oversight on the one hand and their duties to that particular retail payment system on the other hand.

Different policy, legal and regulatory instruments contribute to the external governance arrangements. Regulations can significantly shape the contours of payment services and affect the role of actors in them—for instance, defining licensing conditions and controlling market entry. Policy makers set government objectives for retail payments and may take an active role in developing relevant elements of governance frameworks. Policy makers also determine the structure and powers accorded to various authorities through which the more detailed and operational elements of a governance framework are defined, implemented, and overseen.

The external governance arrangements relevant for retail payment systems are also shaped by sector-specific policies and regulations and by the oversight framework applicable to national payment systems. The governance framework is further guided by the general legal framework and corporate governance standards applicable to the broader economy. This includes the set of general as well as sector-specific policies, laws, regulations, institutions, and international standards and best practices established by authorities, within which systems are established and operate. Important examples of international standards and standard setting bodies are the Principles of Corporate Governance established by the OECD\(^\text{18}\) and the Principles for Financial Market Infrastructures (PFMI)\(^\text{19}\).

The PFMI define the general issues and principles pertinent to these governance arrangements for FMIs, including systemically important payment systems. They emphasize the need for authorities to clearly define the criteria for infrastructures to be subject to regulation, supervision, and oversight and to ensure that authorities have the capacity and powers to exercise these roles. Additionally, the PFMI recommend that authorities disclose their policies and ensure sufficient cooperation with and among different authorities. The PFMI also set out principles in regard to the objectives of an FMI, and access to and participation in them. The PFMI are applicable to retail payment systems that have been deemed systemically important by the relevant authority. In other instances, a subset of the PFMI is also applied by some public authorities to other retail payment systems—in the context of oversight.

The PFMI are relevant to the governance of more than just systemically important retail payment systems. Systemically important retail payment systems play a critical role in maintaining and protecting economic activity. Other retail payment systems that are not deemed systemically important may be somewhat smaller in terms of their overall transaction volumes but nevertheless may still be of importance to broader economic activity or public trust. They may be essential for the economic activities of individuals and businesses where few alternatives are available. Disruptions to such systems can also have direct impacts on the economy but may equally erode the public’s confidence in digital payments overall and diminish demand for non-cash means of payment and the transition away from cash. The considerations of the PFMI in relation to governance arrangements that support safety and efficiency and in promoting relevant public-interest considerations are also relevant to other retail payment systems in terms of preventing or mitigating potential disruptions and in maintaining confidence in retail payment systems. The PFMI can thus often be used as the applicable external framework also regarding
governance as part of a wider oversight framework which covers non-systemically important payment systems.

Governance framework requirements also need to take into account and reflect changes in market structure and dynamics. Market changes will have an impact on how public policy objectives can be achieved through an appropriate balance of private- and public-sector action. The authorities should “not seek to do by themselves what the market can do better.” At the same time, the authorities should help the market to do what it can do better, ensuring that the public interest is safeguarded and promoted in the process. Market developments have also altered the opportunities and incentives faced by users, participants, and operators of retail payment systems. The pertinent questions for policy makers and market authorities that increasingly need to be addressed within governance frameworks and arrangements are,

(i) What concrete changes to the governance and regulatory framework need to be considered?
(ii) How should governance reflect and adapt to the interests of end users and other stakeholders? and,
(iii) How, with increasing service specialization and qualitative differences in payment services, should the key policy aim of efficiency and safety be defined and monitored?

Direct or indirect public-sector interventions in FMIs can also significantly shape the governance framework. Public authorities, most often the central bank, may create, own, or operate a retail payment system. They can play a critical role as convenors or catalysts, to encourage or enforce coordination among payment system participants and set guidelines or mandates for a system. Competition-related interventions by government authorities may also shape the market and governance arrangements—for example, via price controls or access policies in which a given retail payment system operates.

Central banks require specific powers to regulate retail payment systems. Central banks will often have the direct powers to regulate or demand specific requirements regarding governance as part of the general powers granted under a Central Bank Act. A central bank may also be able to impose requirements regarding governance as part of the licensing process for a retail payment system or through the applicable oversight arrangements.

3.1 Public Policy Objectives and Governance Challenges

Public policy objectives and interests can and should play a pivotal role in shaping the governance arrangements of a system. Public policy aims are usually formulated in a strategy for payment-sector development and further transposed through the mandate and powers accorded to authorities. Policy makers generally adhere to the PFMI in support of the primary objectives for retail payment systems to “promote safety and efficiency” and “support the stability of the broader financial system.” These high-level aims require further elaboration and contextualization in order to inform and shape governance arrangements. The governance framework will need to evolve in tandem with policy and market development.

Defining the overall policy objectives may be part of a broader strategic plan such as a national payments systems strategy. This will articulate the short- to medium-term strategy of a given country for retail payments and include or affect the strategic initiatives regarding national retail payment systems. In addition to the general policy objectives, such plans may also directly set out specific conditions, requirements, or other terms regarding governance, such as ownership, licensing, access, competition, and stakeholder involvement. A national payments systems strategy can be developed in cooperation with a national payments council or similar body comprised of relevant stakeholders, including both users and providers of payment services. It is always important that overall policy objectives are clearly articulated and provide sufficient detail to guide operational decisions. They inform the different steps that need to be taken from a technical and practical perspective in order to meet the identified objectives.

Beyond core aims of safety and efficiency, governance should help to support other
important objectives. These include (i) enhancing competition and stimulating innovation, (ii) fostering market integration, (iii) expanding access and usage, also in the context of financial inclusion and particularly in developing and emerging markets, and (iv) balancing competition and cooperation to create (or preserve) a level playing field and ensure market contestability. The latter objective can be important if the ownership and distribution of market power among incumbent and new firms change.

Financial inclusion has important and specific implications for governance arrangements that warrant emphasis. A payment system may have efficient mechanisms in place to integrate and respect the interests of participants and users. But that does not mean that it has mechanisms to reflect and accommodate the interests of those excluded from or on the margins of formal banking and payment systems. For markets with significant gaps in the population served by existing services, government-led policy needs to represent the interests of these “non-users” and the broader interest in ensuring more universal, convenient, and affordable payment services.

Box 2: Policy Mandates and The Governance Framework: Examples

The Reserve Bank of Australia’s (RBA) approach to payment systems regulation highlights the way in which the authorities influence the governance of retail payment systems in Australia. Consistent with international norms, the RBA defines three main objectives: (i) to control risk in the financial system, (ii) to promote efficiency of the system, and (iii) to promote competition in services. Its primary regulatory intervention takes the form of an access regime. In general, the RBA seeks to minimize interventions and enable the industry to operate under self-regulation wherever possible, leaving significant autonomy to the industry.

Within the European Union, the broader policy objective of forging an integrated market has had multiple implications for the governance of retail payment systems. It has led, for example, to the creation of European Union–wide payment schemes and instruments such as Single Euro Payment Area credit transfers and the TARGET Instant Payment Settlement service operated by the European Central Bank, reformed regulations to expand access to and participation in payments systems by new classes of institutions (for example, payment institutions) and through newly defined activities, and through Regulation 2015/751, which mandated the separation of payment card scheme and processing entities.

The Bank of Ghana has issued a National Payment Systems Strategy setting out a high-level list of responsibilities, including the need for a clear and comprehensive regulatory and governance framework that helps to achieve the different aims of promoting systems that are competitive, safe, and efficient and contribute to the aims of financial inclusion.

The strategic vision of the South African Reserve Bank emphasizes the need for a collaborative approach between industry stakeholders in order to achieve improvements and modernizations. The vision notes the importance of having a clear and transparent regulatory framework for all actors and commits the reserve bank to maintaining a level playing field, applying similar rules to similar payment activities and services.

The United Kingdom’s Competition and Markets Authority introduced a coordinated set of policy actions to address constraints on competition in retail banking and payments and to broaden access to the clearing system. For example, the authority accepted undertakings proposed by Bacs Payment Schemes to address these issues, including undertakings to reform the corporate governance of the account-switching service, specifically to expand the membership of the management committee, to ensure that “independent non-bank or building society members and representatives of relevant consumer groups and intermediaries” were represented, had scope to voice their views, and, where appropriate, also had voting rights.

The State Bank of Pakistan’s national payment systems strategy highlights the role that the regulatory framework needs to play in creating an enabling environment for inclusive payments. It noted that not all actors were covered by the oversight of the state bank and that its scope would need to be extended to cover all systems, instruments, and services. To help guide the market, it also recommended the formation of a National Payments Council.
In Switzerland, the SNB has decided to facilitate direct access by fintechs to central payment systems. To fulfil its mandate to facilitate and protect non-cash payments systems policy, the SNB can operate Giro accounts and decide upon criteria for accessing such accounts used for clearing and settlement within the Swiss Interbank Clearing (SIC) System operated by SIX for wholesale and retail payments. In a statement from September 2019, the SNB expanded access to regulated fintechs, thereby using its mandate to influence the framework in which the SIC operates.

The Reserve Bank of India (RBI) has articulated a Vision 2021 strategy around four core principles: Competition, Confidence, Cost, and Convenience. In Vision 2021, the RBI indicates its intent to promote the establishment of a self-regulatory organization for the payment systems in India. The organization should work toward establishing minimum benchmarks and standards and help discipline rogue behaviour. In that document the RBI also highlights its role in helping to expand access to payments infrastructure.

3.2 Recent Challenges for Retail Payment System Governance Frameworks

Governance has often been outpaced by market developments and has sometimes struggled to manage the consequences of them. It has been a challenge for governance frameworks and arrangements to navigate and align different stakeholders’ interests to encourage systems to adapt to the digital economy and embrace innovations that would be in the interests of the broader public. Multidimensional changes to policy and regulations—such as licensing new types of payment services or service providers and “open banking” infrastructure, as well as changes to access rules—have reshaped the governance framework. In parallel, but not always in alignment, the governance arrangements of incumbent and new systems have changed. Governance has not led but followed the evolution of retail payment systems and, in some instances, has contributed to a less dynamic environment than witnessed in other parts of the digital economy that are less heavily regulated.

Under systems’ existing governance arrangements, it has not been easy for incumbents to achieve a new balance between members’ incentives and the broader public interest in efficiency. It has not always been possible within existing governance arrangements to resolve tensions between the interests of new entrants and incumbents. Some systems required encouragement or direct intervention by oversight authorities to embrace change and implement new services and models of operations. This has included measures to amend legislation and regulation as well as the application of soft power or moral suasion to the banking and payments community. In some instances, changes to the governance framework have come about through the intervention of a competition authority.

The rise of important new actors in the payments sector has also created governance challenges. This includes new account-holding institutions, such as those operating under e-money regimes, and new payment service providers as well as new payment networks operated by e-commerce, telecommunications, or other non-financial companies. Effective integration of these companies within the existing participation frameworks, access and schemes rules, and ownership structures of interbank or card networks has been limited. More often, these new actors have created new services and even new complete retail payment systems alongside incumbent systems and with limited dependence on their operational or governance arrangements. Yet, as new and alternative systems, they have not always been formally subject to existing principles or standards for retail payment systems governance.

The added challenge for governance relates to competition and the level playing field. With a multiplicity of systems in a market, and with multiple network effects operating, the practical
interpretation of key notions of efficiency, fair and equal access, and the public interest becomes more complex. The contours of market power and dominance are changing, with implications for rules on access to central infrastructure and forms of participation. The scope of retail payment systems to which such rules as well as more general governance principles should apply is changing.

Given these challenges, the role of government, primarily through the central bank, is also evolving. Public authorities are usually the highest-level actor within the governance framework upon which responsibility will rest to intervene if existing arrangements are deficient. But most authorities heed the advice that they should “not seek to do by themselves what the market can do better” and hence are rightly reluctant to take on full and permanent control of retail payment systems; this is in part to avoid crowding out the market and in part to enable and encourage innovation and development from the private market. But at the same time, the market often requires an enabling structure that unlocks competition from new actors, protects contestability, or helps provide access to basic infrastructures. Public authorities face a complex challenge of trying to limit interventions and minimize market distortions while still facilitating targeted changes in the market that promote innovation, protect contestability, and broaden affordable or more universal access.

It should be noted that innovation in technology can also provide new or better solutions to balancing conflicting objectives. In some cases, technology has extended the efficiency frontier and made it easier to balance broader access with the need to control for risk. Governance structures have not always facilitated or provided incentives to benefit from such innovations; they have often created opportunities and pressure for new or alternative payment systems to emerge outside of existing systems. Many stakeholders, including policy makers, payment system members, participants, and competition authorities, have prompted changes to governance arrangements, with intent to enhance incentives for innovation.

In many instances, policy makers are confronted with trade-offs between different objectives. The design of governance frameworks and arrangements will need to consider to what extent different policies and arrangements are compatible or incompatible with each other. There is no evidence of a single dominant model regarding governance; some policy choices will be more compatible with each other than others, and, for some, the compatibility will change over time as the market evolves. For illustrative purposes, box 2 provides an overview of some of the main policy objectives and trade-offs.

3.2.1 Promoting Efficiency

Efficiency is listed as both a general objective and a key consideration that is noted throughout several elements of the PFMI. Efficiency should be considered on two specific levels: (i) at the level of an individual system and (ii) with regard to the economy-wide structure of payment systems and the notion of “dynamic efficiency.” Efficiency also needs to be regarded in the context of safety. The PFMI highlight safety and efficiency in combination; thus, promoting efficiency should be guided by relevant considerations regarding safety.

The topic of efficiency is addressed in further detail in Principle 21, which states, “an FMI should be efficient and effective in meeting the requirements of its participants and the market it serves.” In the explanatory note to Principle 21, it is further highlighted that the primary responsibility for promoting the efficiency and effectiveness of an FMI belongs to the owners and operators of the FMI. This further emphasizes the link to governance. Furthermore, Principle 21 links efficiency to the practicality and cost of an FMI to its participants and users. In addition, it is required that mechanisms are put in place to ensure regular reviews regarding efficiency and effectiveness.
Historically there have been two main types of retail payment system: card schemes and interbank networks. They tend to operate as either open multi-party or closed, private networks (see Table 1). Some systems originated as private networks run by a single bank. Others, especially for interbank transfers, were designed from the start as networks of different banks, to facilitate payments between their account holders. Many open network systems have emerged through the alliances or mergers between private networks.

Both types of system have structural features that can inhibit competition. Payment systems operate as multi-sided platforms within a highly regulated network industry. Governance arrangements are, on the one hand, often designed in part, to address the associated market “imperfections”, but on the other hand, governance arrangements can themselves also constitute hurdles to competition and innovation. Governance and market structures are interdependent and the effect of a system’s specific governance arrangements on competition will depend on the external governance framework and other features of the overall market structure.

As multi-sided platforms, payment systems need to attract different types of users in appropriate proportions. The value of adhering to a specific system depends upon the number and variety of other parties on the platform with whom they can transact. System operators face a “chicken-and-egg” challenge to which “zig-zag” user recruitment, cross-subsidies and incentive strategies are used to gain scale. New third-party entrants may use incumbent networks to enable or service one side. As network services, they also exhibit increasing returns to scale. The benefits to affiliated merchants, consumers and other users as well as participants grows as new members join. Larger incumbent networks benefit from barriers to entry and reduced competition. Additionally, where there are competing services and systems, incumbent banks (with a stake in existing systems) may be able to induce or discourage their account holders from joining them.

The essence of payment systems is to achieve coordination, via a network, between its participants, service providers and end-users. This coordination is usually achieved through some form of vertical integration. This can be via direct, end-to-end ownership and control of all functions, or it can be achieved through a looser network binding independent firms via common rules, standards, and operations. Systems that are fully integrated, legally and operationally, can achieve high levels of reliability, safety and a better user experience. But end-to-end ownership can be difficult to scale indefinitely. However, some vertically integrated systems can become so powerful that policy interests or market forces curtail their growth. Vertically integrated systems can have both incentives and means to engage in exclusionary conduct, especially when service providers are integrated with infrastructure to which their competitors may need access.

Open payment networks on the other hand achieve coordination between independent actors who are often also competitors through more distributed governance arrangements and alignment of incentives. Participants and providers agree voluntarily to adhere to rules, standards and conventions. Through governance arrangements they can have some influence on their design and evolution. Open networks provide “synthetic scale” without needing a single owner. But when markets and systems are exposed to structural change and need to innovate, the governance arrangements that enhances coordination among many can be that which curtails the speed and agility with which the system is able to react.
Standardization and unbundling of services within payment systems have enhanced market contestability. With growing market maturity, systems have loosened the ties of vertical integration. Demutualization, de-coupling of systems from central banks and industry bodies, and consolidation at the international level have been encouraged as means to facilitate innovation. System functions, conventions, operations and technology have become more standardized and easier to coordinate without having direct control over the entire system (see ②, ③). Services of specialized firms have become more easily inter-changeable. This has made it easier to introduce and bolt-on innovations within specific elements of the overall payment system, especially at end-nodes of the network. Governance frameworks have had to be accommodating. Regulators have refined the categorization of and introduce new licensed activities and service providers, thereby enhancing competition. But as innovation has expanded from end-nodes to core and the power of new stakeholders has strengthened, further governance challenges have emerged, particularly where more radical changes to central systems have financial repercussions for all participants. Even if the management of a payment system acknowledges the need for new investments, the overall governance structure may not provide the necessary powers and incentives to enact change.

Overall, market context and internal and external governance are inter-dependent. There is no simple, dominant set of governance arrangements that optimizes policy defined outcomes; rather there may be multiple combinations that can help to pursue those aims, making trade-offs between them and varying on the market context, its evolution and its impact on the relative importance of specific policy aims. Governance may be designed to mitigate the effects of weak competition, but governance itself can also curtail market contestability. In assessing its contribution to welfare-enhancing competition, governance must be reviewed and designed, drawing on examples, in combination with market structure.

- Internal governance arrangements of industry-owned systems have not always made for sufficient incentivizes to innovate or capacity to lead changes. But in many cases, the external governance frameworks have provided policy makers or the central bank with sufficient levers to overcome such barriers and still prompt changes deemed to be in the public interest. In one example, a payment system with a balanced structure of shareholders found itself in circumstances whereby, after a period of market consolidation, within the existing governance rules, a single bank became a majority shareholder in the system. This unbalanced the organisation in a way that was detrimental to further developments of importance for efficiency, inclusion, and innovation. The central bank had to step in, invoking less formal powers within the broader governance framework, to restore balance in the ownership.

- Bank-owned systems have left underserved spaces that non-bank owned networks and new service providers have addressed, but not without some challenges to governance. New providers often have more autonomy to make investments and try new arrangements. In some cases, regulators have been pro-active in authorizing the entry of new systems (like mobile payment networks) and third parties (like e-commerce payment providers); in others they have been less interventionist, allowing new entrants to emerge without first setting new regulations or governance rules (see ④). Governance has shaped the ease with which new providers interconnect with existing networks, and debate on interoperability. In an example in Germany, Sofort AG was accused by the banking association of transgressing a systems’ rules by inciting clients to share login data to generate credit transfers via online banking. The association eventually lost the case, with competition authority determining certain restrictions anti-competitive.
Governance has also influenced if and how new systems become interoperable with existing systems. As they have grown, new systems and individual payment providers have sought access to central settlement infrastructure. Rules and standards have often kept them out and sometimes encouraged them to create new clearing systems. But in other markets, like Switzerland, the existing governance framework has allowed for new types of institutions to access central bank clearing and settlement systems (see ©).

Governance, alongside other measures, needs to help compensate for the lack of discipline that normal market competition would otherwise impose on the operators of payments systems. The external framework and internal arrangements of governance need to take into account and adapt to the complex and still evolving national and international market structures of retail payment systems. And policy makers need to proactively manage the interactions between governance arrangements and competition in order to strike a balance between private interests and key public interests in safety, reliability, efficiency and access.

For a specific payment system, efficiency considerations should guide the design of governance arrangements and the decision-making framework. These should aim to ensure that the focus of the board and management ensures that the payment system itself utilizes its resources efficiently. These considerations pertain to governance arrangements discussed in section 4 of this paper.

Secondly, efficiency concerns the extent to which payment systems collectively and individually contribute to an efficient use and allocation of resources from an economy-wide perspective. Policy makers need to make increasingly complex decisions about how to design the governance framework in such a manner that it sets incentives and rules that help this broader aim of efficiency to be achieved. This is becoming more complex for two reasons: (a) It requires taking into account not just the costs incurred within the systems themselves but also the related income and expenses incurred by participants and users, including fees levied on end users, in the course of conducting transactions. (b) It is also particularly complex because of rapid innovation and changes in market structure and the array and usage of payment services and systems. Short-term efficiency gains or savings may forestall more important innovations in the future; conversely, the net gains from investments in new platforms will be difficult to predict reliably.

With regards to “dynamic efficiency,” the challenge is that a given framework and set of governance arrangements may help promote efficient outcomes in one set of market circumstances but not necessarily enable efficiency in a future state of the market. If exogenous factors change—such as through technology or business models, shifts in the structure of demand or supply, or through international trade—the set of efficiency-maximizing solutions may also change. For example, while an incumbent interbank retail system might be operating efficiently from a financial perspective, reducing fees and improving security, it may hinder competition or innovation in a way that creates hurdles to taking advantage of or responding to exogenous changes to technology or the needs of consumers. This can often be evidenced by the rise of new competing actors and services outside the system. On the other hand, the fact that alternative systems can emerge is a good sign of market contestability. Governance arrangements that remain effective and robust in the face of such market changes are rare. Hence, policy makers need to be ready to review the governance framework and make adjustments to it.

Promoting efficiency will have a different meaning depending on the concrete circumstances. In the Global Payment System Survey 2018, increasing the overall efficiency of the payment system is quoted as the main driver for reforming the national payment system. While efficiency may be
a less tangible concept, the practical meaning of achieving efficiencies should always be spelled out in more concrete terms in policy objectives or as part of a wider national retail payments strategy.

3.2.2 Cooperation and Competition

The governance framework needs to articulate how and to what extent the governance arrangements of a given system will balance the needs for cooperation and competition. Achieving efficiencies in a payment market or across different payment markets will often require cooperation between different payment service providers. These entities are also likely to compete with each other in the provision of specific payment or ancillary services, while being supported by shared, common, or linked infrastructures. This may potentially trigger different issues regarding competition law compliance in relation to, for example, standards, pricing, or access where the fact that entities that are also competitors are agreeing to rules or principles that apply across a market may trigger an antitrust investigation.\(^{24}\) This particular aspect requires careful consideration of both governance and ownership arrangements in general and also of any board or management decisions regarding aspects such as access and pricing.

The decision-making process of a payment system should be based on an acknowledgement of the potential existence of conflicts regarding cooperation and competition. The composition of the board, the transparency of the decision-making process, the transparency of documentation, and stakeholder involvement are important components of a process that can ensure that the potential conflicts between ensuring both effective cooperation and effective competition are minimized and are appropriately recognized, recorded, and addressed.

Active involvement of the relevant authorities may be required to ensure that the payment systems and markets remain competitive and contestable. Some central banks and payment regulators have specific competition-law responsibilities within their remit, while in other countries, this responsibility rests solely with the competition authority. Both shared or divided responsibilities regarding payment services and competition-law compliance require active cooperation between the different regulators and authorities. It may also require some level of mutual training and information exchange to ensure that all relevant policy objectives are understood and met.

3.2.3 Cooperation among Public Authorities Regarding Competition Matters

As technology has advanced and the role of non-bank actors in payments has increased, issues regarding competition, contestability, and market power have grown in significance. In many countries, the sector regulator in charge of payment systems and the financial sector also has the primary role in ensuring compliance with competition issues, ensuring fair and contestable markets. Technological and business model advances have made greater efficiency gains possible while also exposing issues related to market power. Market trends have highlighted the roles that non-banks can play but also exposed the ways in which regulation and the governance of incumbent systems can create barriers to entry.

Governance arrangements may also be shaped by the role of the competition authority or agreements it has with the overseer of the payment system. Some competition authorities have underwritten memorandums of understanding with central banks. (See box 3.) In some countries, competition authorities have intervened directly or indirectly in market structures. Interventions may include mandating changes to the actual governance arrangements, ownership, or practices of a payment system, such as by minimizing the influence in it of certain users or by mandating broader involvement of users in its governance.\(^{25}\)

3.3 Examples of Mandates and Strategies

i. Oversight

Most retail payment systems will be subject to regulation and oversight by a central bank. The motivation for this is generally to protect systems
against risks that may have effects on the wider economy. Oversight will touch on various aspects of governance based on broader principles and standards that give the overseer the ability and flexibility to focus more directly on the different relevant components and effects of governance and the tools to address any inefficiencies and shortfalls.26

ii. Competition

Some oversight authorities also have an explicit responsibility for promoting fair and open competition. They need to balance the aims of stability and safety with the need to promote efficiency. The competition mandate may be bestowed upon a competition authority alone or in the context of mobile money e.g. to a telecom regulator; most often mandates are concurrent with each other and require coordination, e.g. in the form of an MOU. To facilitate more innovation and competition, policy makers are frequently strengthening the mandate of (or encouraging oversight and) competition authorities to enhance access and market contestability. These interests can lead to interventions that shape the governance framework—for instance, in modifying access criteria, setting requirements for interoperability, or, in some cases, strengthening the role or voice of new participants in the governance of existing systems.

iii. Stance on Intervention

Governments take different approaches toward the role of the state versus private enterprise in shaping the evolution of the payments sector. In some markets, such as Australia, the stated approach is to minimize public-sector intervention and to put the onus on the private sector to come up with ways to help support the broader policy aims for the payment sector and systems. In other markets, market failures or development challenges may motivate public authorities to be more interventionist—for instance, to take a lead role in setting up or governing retail payment systems. Hence, the policy approach will be an important factor shaping the market context in which the governance of a given retail payment system is designed and operated.

Box 4: Coordination between Payment-Sector Oversight and Competition Authorities

Memorandums of Understanding between Central Banks and Competition Authorities:
In Brazil, the Administrative Council for Economic Defence and Banco Centrale do Brasil agreed to a memorandum of understanding in 2018 undertaking to coordinate and give greater predictability to merger controls of institutions in the financial sector and to foster exchange of information. It also confirms that the administrative council will be responsible for the control of anticompetitive conduct involving companies in the financial sector. During the analysis, the administrative council will use data provided by the central bank through information exchange to increase the technical consistency and articulation of its decisions.

In Australia, the Reserve Bank of Australia (RBA) and Australian Competition and Consumer Commission have a memorandum of understanding in place in which both parties recognize the importance of competition in the payments system and financial services more broadly. It confirms that, under the Payment Systems (Regulation) Act of 1998, the RBA may designate a payment system as being subject to the RBA’s powers. The reserve bank may then “impose an access regime on the participants and/or determine standards for that system.” The memorandum also confirms that, where the reserve bank has taken such initiatives, members of that system will not be at risk under the Competition and Consumer Act of 2010.

Coordination between Authorities Embedded in Law:
In some legal systems, such as in Morocco and France, the law on credit institutions sets out requirements for competition authorities and the central bank or other financial-sector regulators to mutually inform each other of actions and opinions relevant to mergers and acquisitions in the sector.

Interventions by Competition Authorities:
In Turkey, the Turkish Competition Authority recently intervened in the market, revoking an exemption it had issued to the BKM’s express payment scheme. The authority stated that its main concern was the possible restriction of competition through the unique integration between the BKM and its member banks. Such interventions alter the market governance framework within which the BKM operates, to address potential conflicts of interest.
The Israeli Antitrust Authority has played a role in the market structure and governance arrangements of the local clearing company SHVA. To address potential market-entry barriers, in 2017, in coordination with the Bank of Israel, it demanded that SHVA publish and legally separate the communication protocol used and put it into a not-for-profit association comprised of users, including incumbents as well as new entrants.

Intervention by Competent Authorities:
The intervention by the Reserve Bank of India and the government: The reserve bank has intervened, and rationalized charges levied on customers for transactions at ATMs and the merchant discount rate (MDR) on debit cards, which was applicable across financial institutions and operators. To promote digital payments, the government waived the MDR charged to merchants for transaction up to Rs 2,000 by compensating the banks for the same. However, effective January 1, 2020, as per government announcement, there is no MDR on transactions done using RuPay cards and for payments made via the Unified Payments Interface. However, the banks could continue to charge the MDR for transactions affiliated to other card schemes. This distorts the level playing field.

a. The Bankalarası Kart Merkezi (BKM), or Interbank Card Center, provides domestic clearing and settlement of card transactions. The participating banks in the BKM are members of Visa or Mastercard. The transactions with non-member banks or with banks outside Turkey are processed outside Turkey by Visa or Mastercard or via correspondent banking arrangements.


3.4 Legal and Regulatory Framework
Authorities shape laws, regulations, and licensing regimes and may intervene in other ways that directly or indirectly shape the governance framework for retail payment systems. Licensing frameworks may set requirements that systems need to fulfil or mandate the use of a specific legal form as the basis for a retail payment system. Regulations may intervene directly in governance arrangements, such as by stipulating requirements for interoperability, setting price controls, or detailing expectations for access and participation.

3.4.1 Licensing Frameworks
Licensing conditions have a direct impact on the governance arrangements of a retail payment system. A retail payment system may be required to obtain a license from the relevant regulator in order to commence operations. Licensing is an important means for policy makers and regulators to control entry and shape the contours of the market, thereby indirectly influencing the objectives and mandate. A regulator might set out authorization criteria, but not automatically grant licenses to all operators that meet them, depending on their approach to market entry as an instrument of competition or other policy in the sector. Policy makers and regulators can influence the level of competition in the market or in specific services. They can impose restrictions or conditions for operations, such as a divestment of other activities or rules on pricing arrangements or interoperability. Not all countries operate a formal licensing regime, but entry controls may be needed to support the pursuit of general policy objectives when operating a payment system.

The licensing requirements or conditions for a payment system may impose specific mandates. They may pertain to the composition and qualifications of the board(s) in combination with separate fit-and-proper requirements for the board and senior management. The licensing rules may also impose specific requirements regarding the establishment of board committees, such as a separate risk committee, and specific obligations for the operations and procedures of such committees, which will affect the general governance arrangements. Licensing requirements may also specify or limit the type of legal entity or vehicles that may be used to operate a payment system. This will in itself affect and/or impose specific requirements regarding governance on the payment system licensee.

3.4.2 Legal Structures
The legal form under which a payment system is incorporated forms a cornerstone of its governance arrangements. As noted above, the
The legal form of a payment system will also usually reflect the overall aims of the undertaking and define obligations and objectives under which it operates. The legal form stipulates whether a company is for profit—for example, whether it can pay dividends to shareholders. Legal forms also determine the kind of status shareholders or members have in the undertaking. National legal forms influence who has control and how easy it is (or not) to alter the structure of power and membership. In addition, the chosen legal form also determines the liability of the entity and its participants.

Historically, most retail payment systems have been either systems owned by central banks or mutual organizations owned by participating financial institutions. Today, retail payments systems cover a wider variety of legal forms and structures, including variations on publicly listed for-profit companies, private joint stock entities, cooperative-type undertakings, and membership-based organizations operating on a cost-recovery basis, as well as business units of non-bank conglomerates.

### Box 5: Examples of Relevant Company Structures

**Company limited by guarantee:** Many payment organizations take this form, including the CIP in Brazil, the NPCI in India, and KFTC in Korea. Although there are local variations, they are generally run by “members” and, either by legal form or through their statutes, are operated on a cost-recovery basis and cannot or do not in practice issue dividends.

**Economic interest group (EIG):** This legal form is a not-for-profit structure, similar to the company limited by guarantee, in which parties come together to collaborate in a manner that promotes the efficiency of their existing business. It does not impose constraints on the specific modalities of management and administration, but by default, it is governed by a general assembly composed of all members of the EIG. In France and Morocco, Carte Bleue and the GP2M are established under this legal form.

**Joint stock company with central bank as a shareholder:** In many countries, the payment organization is a private company, but the central bank is a shareholder. This is the case for PayNet in Malaysia, TransFond in Romania, BKM in Turkey, and NAPAS in Vietnam.

**Private limited company:** Many bank-owned schemes and payment organizations are incorporated as private companies limited by shares. Generally, but not always, these are owned by banks that are also participants in the system and/or are issuers or acquirers of payment instruments. The company can generate a profit, even if often it is run more as a shared service and not strictly to maximize profits. Examples include the EKS in Germany (owned by the local banking associations), STET in France (owned by the major banks), ITMX in Thailand, and NPP in Australia.

**Publicly listed company:** A few retail payment systems are now publicly listed for-profit entities. Most prominently, these include Mastercard and Visa. Mastercard is also the owner of some domestic systems operators (for example, Vocalink). Other companies, such as Network International, also operate payment systems and provide processing for third-party schemes.
Accommodating specific requirements regarding governance arrangements can often be undertaken without directly affecting or changing the legal structure. The chosen or mandated legal structures will define certain general requirements regarding the governance arrangements. While specific changes regarding governance arrangements, such as changing ownership from public to private or going from a pure not-for-profit to a for-profit focus, may require changing the legal structure and manner of incorporation of a retail payment system, other changes may be made while keeping the legal structure intact. Flexibility in relation to incorporating requirements regarding the composition of the board, voting rights, and defining the objectives and strategy of the company is often provided as part of company law without changing the underlying legal structure.

3.4.3 Sector Regulation and Guidance

Payment systems regulators may issue guidance or set rules or mandates that shape or specify elements of the governance arrangements for a retail payment system. A few key aspects concern the following:

Interoperability: Sector regulation may mandate interoperability between different payment systems in the market. More intrusive measures may impose specific structural requirements, such as functionally separating a payment card scheme function from processing functions. Such steps were mandated by the European Union through the Interchange Fee Regulation. Furthermore, mandating the use of specific processors may be prohibited by law and or supplemented with a mandate to offer alternatives when processing and routing transactions. As an example, the Durbin Amendment (part of the Dodd-Frank Wall Street Reform and Consumer Protection Act) in the United States, states that the card issuers are required to be affiliated with at least two card-processing networks to allow the merchant a choice of network routing, effectively delinking scheme from processing.

Interoperability may take on multiple facets and relate to multiple layers of services within the overall system. In particular as new network structures, such as those led by mobile operators, seek to integrate with other systems, it may concern interoperability between separate mobile money systems, between their respective agents as well between mobile and bank led payment systems.

Ownership: Other initiatives may address the ownership of a retail payment system. As an example, the sector regulator might mandate divestments to prevent a given entity from dominating the ownership of one or several retail payment systems. In Israel, for example, a bank may not have an ownership share of more than 10 percent of SHVA. In the United Kingdom, following an enquiry, the Payment Systems Regulator found that a divestment of the four largest shareholders in Vocalink would be a remedy for increasing competition in the UK market. A mandate can also be in the form of more diversified ownership by, for example, including non-banks within the ownership or the inclusion of independent directors within the board. Moreover, the ownership pattern could be driven by regulatory interventions. For instance, the National Payments Corporation of India (NPCI) was promoted by ten banks comprising six public-sector banks, two private banks, and two foreign banks. Since then, the shareholder base has been broad, with non-bank participants also becoming shareholders of NPCI.

Access: A regulator can also set guidance regarding access rules and how they are applied. Such measures will impinge on the governance arrangements of the system in the interests of ensuring fair and open access and a proper level of competition in the market. This set of policy aims is often inspired by the PFMI, which enshrine the principle of fair and open access in Principle 18. Access can be in the form of direct or indirect access through another participant. To ensure that entities considering applying for access to a payment system have sufficient information for making informed decisions in this regard, the general access and participation requirements and conditions may have to be made publicly available. Moreover, any changes may require regulatory approval, and regulators retain the power to direct changes in the access rules if needed to support public interest.
Transparency: Relevant guidance can also pertain to transparency. Regulators may stipulate that the governance arrangements of retail payment systems commit to disclosing specific information to the public and/or to publish specific communications at predefined intervals or following particular events. This can include the requirement to publish relevant proposals for wider consultation before decisions are made as well as publishing the subsequent decisions made, including their motivations.

Stakeholder representation: Regulators can issue guidance or mandates about stakeholder representation in the decision-making of a payment system. They may require that the board of directors establish specific user or stakeholder committees that need to be consulted by a payment system as part of the decision-making process. Furthermore, any fees and principles for charging fees should be made publicly available together with a description of the services provided (as per Principle 24 regarding transparency). The requirement to publish all fees can also be combined with the requirement that all fees and fee changes are to be approved by the central bank before adoption.

3.5 Public-Sector Interventions

Beyond regulation and oversight, public authorities, most often central banks, often play a direct role in retail payment systems. They not only may influence the governance arrangements of specific institutions but also may be a part of them through a role in their creation, financing, ownership, and operation. Their actions may also influence the dynamics of the broader market and the behaviours of competing systems, if any such exist.

A central bank or other authority may decide to take an active role in reforming an existing or establishing a new payments infrastructure. This can be done in many ways, but in all cases, the pivotal role of the central bank inevitably shapes both the governance framework and the actual governance arrangements of the institution. The central bank may direct the industry to make changes to the governance of an existing system—for instance, to expand access to it by non-banks—or the central bank may charge an existing body to create a new payment platform and service, such as instant payments. The central bank may also choose to become a shareholder or an observer on the board, hence having a direct influence on daily governance.

Interventions can also take place to promote specific policy objectives. The central bank may decide to engage in order to promote or mandate interoperability between different payments systems—for example, in order to promote competition and utility. Standards are central for the development of retail payments; hence, initiatives can centre on mandating the use of a particular standard as a means to facilitate access and interoperability. The creation of a new payment system to compete with the incumbents can also be a means to further competition and thereby expand and develop the market. Other initiatives can focus on the uptake of specific technology, such as chip and pin or contactless payments to enhance systemwide security and measures to combat fraud.

The regulator of a payment system can directly influence its governance arrangements as well as its strategy. The regulator can intervene in different ways, including by mandating specific changes in governance in order to facilitate certain outcomes or minimize or prevent certain effects in the market. In this regard, the Payment Systems Regulator in the United Kingdom describes its remit and focus regarding governance of retail payments systems in the following manner:

*The PSR is opening up the governance and control of payment systems to ensure that operators become more transparent and their decisions take into account the interests of the businesses and people that use payment services.*

*We do this by requiring interbank system operators to: (i) address specific conflicts of interest of decision-makers, (ii) improve service user representation in decision-making, (iii) publish their board minutes to explain their decisions.*

In India, the Reserve Bank of India (RBI) has laid down a governance framework for NPCI that
mandates that neither the chair, director, nor nominee director shall hold office for a period of more than five years in NPCI. Accordingly, independent directors are appointed for a period of three years at a time (first term), and thereafter they are eligible for an extension or reappointment for a second term of two years, subject to the approval of the National Register of Citizens, board, and shareholders of the company. The Board Diversity Policy sets out the approach to diversity on the board of NPCI.

Bank Negara Malaysia is both a regulator of and a shareholder in the Real-time Retail Payments Platform. In order to avoid conflict of interest, the bank has put in place a robust governance control. In line with the developmental objective, PayNet’s shareholders do not receive dividends, and surplus profits are instead reinvested to ensure that the nation’s FMIs and payment ecosystems are resilient, competitive, and accessible to all. PayNet has a seven-member board of directors comprising representatives from Bank Negara Malaysia, financial institutions, and industry experts. The board is primarily responsible for the governance and management of the business and for ensuring the financial health of the company.

3.6 The Role of the Central Bank

Central banks remain at the center of the retail payments market through a range of roles and responsibilities. They are usually in a unique position to assess, facilitate, and drive various changes in retail payment systems as well as in their governance, in which they may take on several direct roles. A central bank is also able to facilitate cooperation and dialogue with and among different market players and the wider set of stakeholders, many of which will be payment system participants or users. This position equally requires central banks to be both focused and proactive in relation to retail payments in order to leverage opportunities and ensure the proper development and functioning of the market.

Figure 7: Roles Played by Central Banks in Payment Card Switches

Source: World Bank (Global Payments Systems Survey 2018)

Central banks have often been involved in creating, owning, and operating retail payment systems. In most countries, they are also charged with the oversight and regulation of such systems. As the market has evolved, the roles of other authorities, including financial services regulators and competition authorities, have often become more important, but the central bank is still often the single most important actor involved in shaping the governance framework. As Bossone and Cirasino note in their 2001 paper on payment systems oversight:
Due to their historical involvement in payment systems, the central banks of the leading industrial countries have been the main actors in moving the policy debate forward and in taking concrete steps to improve domestic and cross-border payment system performance.

The central bank is often responsible for regulation and oversight of a payment system. As such, central banks, in those roles, do not just influence but also assess the governance arrangements. The assessment will be in the form of a formal evaluation of the proposed governance structure in the context of the licensing conditions and requirements, but it may also include, for example, more concrete assessments and interviews with members of the board and management to ensure that they possess the right qualifications. But it should be noted that in various countries, other regulators may be performing the role of regulator of the retail payments market on their own or in collaboration with the central bank.

**Figure 8: Central Banks with Oversight Responsibility**

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Source: World Bank (Global Payments Systems Survey 2018)

The task of establishing the overall governance framework of a retail payment system may initially rest with, or originate from, the central bank. The central bank will typically be the operator of one or several wholesale payment systems and in most instances will act as both the market regulator and payment system overseer, as well as the leading policy maker. While the PFMI recognize that the principles shall be applicable to FMIs operated by the private-sector and central banks, different considerations may have to be applied to FMIs operated by central banks. The Committee on Payment Market Infrastructures has issued separate guidance in this regard that deals with the application of the PFMI to central bank FMIs. As far as governance is concerned, the guidance highlights that the key considerations regarding the board in Principle 2 are not intended to constrain the central banks’ governing body.

Nevertheless, as far as retail payment systems operated by central banks are concerned, a separate governance framework can be established in line with the requirements of Principle 2.

The specific role of a central bank in relation to retail payment systems will likely change over time. As the retail payment market changes and matures, a central bank may take, and may have to take on, a very active and central role in establishing, owning, and operating a retail payment system. The central bank often takes an active role initially, to facilitate and control the development of the payment system and of the market. Active involvement by the central bank can also be required to overcome coordination failures or inertia that could harm innovation and competition.
Box 6: Insights from World Bank Global Payment Systems Surveys (2010–17)

Changes in arrangements as notified between the Global Payment Systems Survey in 2010 and in 2017:

**Board membership:** From the surveys, only 11 (2010) and 10 (2017) central banks reported having a seat on a board of payment systems. This small net difference masks changes of a slightly larger order: Four central banks that report being a member of a board now were not a member in 2017. Five central banks used to have a board membership in 2010 but no longer do.

There will be various pros and cons regarding the involvement of the central bank. As a market matures, the involvement of the central bank in the ownership or operation and governance of the payment systems may be phased out and transferred to the banking community or the wider community of users. This could take place, for instance, through the establishment of a national payments company to which the ownership is transferred either wholly, in part, or in stages. National payments companies have been established, for instance, in Jordan, India, Vietnam, and Saudi Arabia with the purpose of further developing the national retail payments market. The phasing out of central bank ownership can be part of a clearly defined exit strategy that is incorporated into the governance arrangements.

As the market develops, the continued involvement of the central bank can also create conflicts of policy and interests. A central bank may be required to take an active role in the governance arrangements of a retail payment system initially, but once intersystem competition increases, an active role by a central bank in the governance arrangements of a specific payment system may be incompatible with its other roles and responsibilities.

Central banks may also take an active role in facilitating the uptake of new payment features and methods. For example, central banks have taken the lead in introducing instant payments. In the majority of cases, they have initially been both the owner and operator of these payment systems. A central bank may continue to be actively involved in the governance arrangements of retail payment systems in order to pursue specific objectives in terms of direction and growth or to minimize conflicts of interests.

While a central bank will have different roles relevant to governance arrangements of retail payment system, this does not necessarily entail that a central bank de facto has to take on a prominent role in the actual governance of a payment system. The actual role of the central bank in governance will be influenced by whether it acts as the owner, sole or in part, or as the operator of a retail payment system. It also depends on whether, without taking on such roles, the central bank has the mandate to play a legitimate central role in governance—for instance, by appointing (a number of) board members or by having the right to appoint the board chair or the chair of particular board committee.

A central bank has other means at their disposal for shaping or mandating specific governance arrangements. A central bank can influence and shape governance arrangements indirectly through articulating expectations and requirements regarding e.g. access to or stakeholder involvement in a retail payment system, leaving it to the Board of a payment system itself to determine how to accommodate such requirements within its governance arrangements. In many instances it will not be required to impose specific governance or corporate arrangements to achieve the desired policy outcome. Alternatively, a central bank may opt for more direct intervention by mandating specific arrangements or requirements regarding governance for particular retail payment systems in order to achieve specific policy objectives. Whether to opt for an indirect or direct approach regarding governance will depend on the particular market and particular mandates.
4 Governance Arrangements - The internal aspects

The governance arrangements provide the structure for the internal decision-making processes, set the tone, and shape the culture of a retail payment system. While these features may seem intangible, they lie at the core of the entity’s objectives and define the relationships between a company’s management, its board, its shareholders, and other stakeholders. The actual governance arrangements of a retail payment system, however, will be determined by a number of different factors, some of which are compulsory and some of which are optional. They include the governance arrangements of the entity or entities responsible for operating a payment system. This section outlines what the key aims, mechanisms, and challenges are in setting up and managing governance arrangements for retail payment systems.

Within individual systems, the governance arrangements are manifest in a variety of legal and discretionary arrangements. Set out in general by the controlling owners or stakeholders, key elements of governance arrangements include (i) the legal structure and mandate of the payment institution or company, (ii) the powers of the board, management, and committees appointed to oversee the business of the system, and (iii) the rules governing the admission, rights, and obligations of shareholders, members, or participants specific to retail payment systems, its scheme, and access rules.

The governance arrangements of retail payment systems will differ from those of large-value payment systems. A key difference, as highlighted in the PFMI, is that large-value payment systems are mainly operated by central banks and are limited to specific types of users and participants. Retail payment systems are more diverse and develop at a different pace than large-value payment systems. They differ in the way that they are set up and operate, in their primary functions, and in the direct participants and types of payments that they support. The policy objectives of a retail payment system will be wider; the risk of conflicts of interest will be higher due to the roles of the users; and the relevant stakeholder groups to consider will be more diverse. Hence, governance arrangements of retail payment systems will need to focus attention on issues and considerations that are different from those of high-value systems.

The governance arrangements shall also ensure that the individuals serving as board members and as part of senior management continue to have the qualifications required to fulfill their roles. The governance framework also provides the tools for the board to oversee the operations of senior management, to minimize and reconcile any conflicts of interest, and, not least, to ensure the general transparency of the operations of a retail payment system, including its governance structure, to the outside world.

Deficient or out-of-date governance arrangements can have serious negative impacts. Arrangements that were effective under a given state of affairs may not be robust enough to continue to operate effectively when market structures change. Poor governance arrangements will harm the operations of the payment system and may expose its operations to inappropriate and excessive risks. They can hamper the development of the retail payments market overall and may ultimately undermine financial stability. At the same time, proper and up-to-date governance arrangements are critical to building or maintaining the trust and confidence of the end users of retail payment services. Trust in this regard can be difficult to gain but vanish easily.

4.1 Ownership and Control

Ownership and control are central aspects of governance. In the case of retail payment systems, especially given their collaborative nature and the fact that owners or members of the systems are often also the main users of the service provided by those systems, these arrangements can be quite complex and different from other private-sector companies, posing different challenges. One considerable difference is that the responsibilities of the owners of a retail payment system transcend their interests as owners and shareholders, as they are also required to consider...
the interest of other stakeholders as part of the governance arrangements. Depending on the legal structure (see section 3.4.2), actual ownership and control may be exercised by shareholders, members, participants, or observers (for example, the central bank).

Typically, the owner or owners of a retail payment system have the right to appoint members to the board of directors in proportion to their shareholdings or transaction volume. But in many retail payment systems, alternative governance arrangements often ensure that board representation is more broadly based, giving stronger rights to smaller shareholders and different kinds of members. The individual board members primarily have various duties toward the company itself. Nevertheless, the influence of the owners through the appointment of individual board members, which are also often executives employed by the owner, can carry a considerable weight in the decision-making and direction of a retail payment system.

Payment systems display a wide variety of rules and structures that determine the kinds of parties that may have control and the scope and extent of such powers. Although the “owners” of a system will generally exercise most control, the status of members or owners and their voting rights may vary significantly. Some examples follow.

Eligibility: The statutes of the company may define criteria that a company or other organization needs to fulfil in order to be eligible to become a shareholder, member, or participant, with some governance rights. Many payment system companies allow only licensed financial institutions or, more specifically, deposit-taking institutions to become full members. Others define different categories of membership, with different rights or roles apportioned to members in order to maintain a balance between different stakeholders. In some instances, members’ rights are linked to their market share, ensuring that actors with higher transaction volumes also exercise more control.

Decision-making bodies: Companies have different levels and types of decision-making bodies. These also depend on the legal structure. Private companies usually have a board of directors or an administrative council that oversees governance. The shareholders usually elect the members of board. But other legal forms akin to associations or groupements d'intérêt économique may have a general assembly, to which all members have rights to attend and vote.

Voting rights: The powers of members or owners to appoint or elect representatives to decision-making bodies also vary. Often algorithms define voting rights that diverge from a simple “one organization, one vote” system, usually the aim of which is to balance control between different kinds of shareholders or members. It should also be noted that in many retail payment system companies, even if the central bank (or equivalent) is not a shareholder, it is often accorded observer or full voting rights in the main decision-making body.

Restrictions on transfer of shares: Given that payment schemes are instruments of cooperation, there are also often restrictions on the rights of shareholders to transfer their shares. In many institutions, shareholders have pre-emption rights they can exercise in the event that another existing shareholder wishes to transfer their shares or if, through another corporate action such as a merger or acquisition, they are to be acquired by another institution.

Ownership and control roles and rights accorded to non-bank participants and stakeholders: From a level-playing-field perspective, non-bank participants may be given the same ownership rights and equal governance rights as banks. In cases where new participants have the right of access but not a share of the ownership, specific provisions may have to be made in relation to governance to ensure that the interests of non-bank participants are observed and reflected in the governance arrangements.
A payment system wholly owned by its users/members may be closely tied to the market but less willing to grant access to new types of potential users. Its owners may be reluctant to support and process payments provided by entities that can be regarded as competitors. This particular type of user/member ownership may potentially attract the attention of regulators under applicable competition law given that the owners are both users and also competitors at the same time. This may also trigger behaviors that can be regarded as anticompetitive.

Systems owned by a public entity may be appropriate in situations where structural change is required but may be less well equipped to drive incremental change. Publicly owned systems are often well equipped to maintain the ongoing operations of the payment system but may be less well positioned to respond and adapt to the market’s more commercial and service-level demands for new products and service. But they may indeed be better placed to undertake longer-term market developments that have less clear or immediate financial returns.

A payment system entirely owned by private equity or other private investors may be able to grow the overall volume of a payment system in the short to medium term. But a pure for-profit focus needs to be balanced with a vision for the medium- to longer-term needs and developments of a market, fostering innovations and expanding access to and usage by lower-income users and smaller enterprises. The ownership structure may change over time, often driven by the needs of the market, the broader objectives of the owners, and regulatory requirements. Some systems have moved from cooperative user/membership-based organizations to publicly listed companies. In other cases, private-sector companies have come under greater public-sector control.

As an illustration, both Mastercard and Visa went from member-owned and member-governed organizations to publicly listed companies. Mastercard became listed on New York Stock
Exchange in 2006, Visa in 2008. However, while Visa Inc. went public, the European Visa business remained member owned and governed from 2008 to 2016 through Visa Europe, partly due to considerations regarding retaining a level of local control over the European retail payment activities.38

In Malaysia and Vietnam, to advance the development of new payment systems, mergers were orchestrated between systems owned by banks and the central bank. In Malaysia, the bank-led ATM network MEPS was brought together with Myclear, the payment network owned by the central bank, to create a single new private/public entity called PayNet. In Vietnam, a similar merger was orchestrated between Smartlink, a payment switch owned by a private bank, and BanknetVN, a payment service owned by the central bank and state-owned banks.

Network for Electronic Transfers (NETS) A/S provides another example of governance transformation. This company has changed hands several times in recent years. It went from full ownership by the banking community to a public listing, followed by a delisting and full ownership by investment funds within less than five years. Singapore’s leading payment solutions provider, NETS manages and operates the clearing and payment infrastructure for the Singapore Clearing House Association and owns Banking Computer Services Private Limited, which operates the funds-transfer service FAST.

4.2 Scheme Rules

Scheme rules, practices, and standards govern the interactions between a retail payment system operator and the system’s (direct and indirect) participants and, in some ways, also the interactions between participants and the end users. They are key components of the overall governance arrangements and have a direct operational impact on the overall aims of owners, stakeholders, and policy makers.

A retail payment system can consist of both the technical infrastructure and the different functions associated with operating it. Together, the operation and control of these may be fully integrated within the same legal entity. Alternatively, the processing and operating functions may be divided into separate functions, such as scheme and processor units, sometimes in combination with a separate operating unit. These functions can further be set up as entirely separate legal entities. A particular scheme can be relying on one or several technical infrastructures (processors) for providing its services.

The scheme rules will typically be agreed upon by the board or by the management under specific delegation from the board, depending on the topic. The scheme rules will be subject to the legal and regulatory requirements regarding payments, payment services and systems, and competition law, depending on the type of retail payment system and the market in which it operates. Within the European Union, both Payment Services Directive 2 and the Interchange Fee Regulation impose requirements and restrictions in relation to access, separation of scheme and processor, and particular aspects of acceptance, such as a ban on the so-called “honour-all-cards rule,” or in relation to surcharging. In India, the RBI, under the Payment and Settlement Systems Act, is empowered to direct the payment system operator and issue regulations in the interest of management or operation of any payment system or in public interest. The RBI has accordingly been issuing regulations on providing access to the payment systems to non-banks. For example, the Master Direction on Issuance and Operation of Prepaid Payment Instruments and subsequent notification39 made mandatory for PPI issuers to give the holders of full-KYC PPIs (KYC-compliant PPIs) interoperability through authorised card networks (for PPIs in the form of cards) and Unified Payments Interface (UPI) (for PPIs in the form of electronic wallets). Interoperability has been made mandatory on the acceptance side and has to be enabled by March 31, 2022. Apart from interoperability, the RBI has in public interest issued directions on “Harmonisation of Turn Around Time (TAT) and Customer Compensation for Failed Transactions Using Authorised Payment Systems” to build customer confidence and bring uniformity to the processing of the failed transactions.

The scheme rules also define other basic but important principles. These include the rules governing direct or indirect access to the payment
system, cut-off times, clearing and settlement, collateral, pricing, exception handling, and liability for any failures. The scheme rules may also specify requirements for particular payment products and payment instruments, security requirements, brand and acceptance rules.

4.3 Access and Participation

As the role of a retail payment system is to facilitate transfers between different actors in the economy, the rules governing which actors have access to it—and the way(s) they can access it—are fundamental to its operations and a central aspect of its governance. Principle 18 of the PFMI requires that FMIs should apply principles that allow fair and open access through objective, risk-based, and publicly disclosed criteria for participation. Retail payment systems should adhere to these objectives and develop an appropriate set of policies and governance arrangements, including access criteria and conditions, to ensure that such commitments are respected. While the objectives of access policy should be articulated within the governance framework, it will also lead to commitments within governance arrangements, which should be designed to help ensure that the policy objectives are respected by the board of directors and management of a retail payment system.

The principle of fair and open access assists in facilitating a transparent and level playing field. The aim is to support competition in the market by providing access (direct or indirect) to the services facilitated by a payment system, especially where the payment system may have monopoly or near-monopoly status and in situations where an applicant whose request for access is rejected will have no viable alternatives. Under the oversight of the board, the governance arrangements of a retail payment system must recognize and safeguard that the principles regarding fair and open access are respected and applied in practice.

The governance framework for retail payment systems needs to articulate what the policy objectives and requirements are for access and participation, and to what extent they apply to a given system. Within the broader policy framework, a national strategy may articulate, as part of its objectives for payment systems development, the general policy objective of fair and open access to retail payment systems. It may not be efficient to allow retail payment systems to have full autonomy in defining their access criteria and rules, and at the very least, the policy makers and oversight authorities may want to impose certain transparency and disclosure criteria, in line with the recommendations of the PFMI. The regulators will also need to balance their views on access with their concerns and powers as well as the abilities of the operator to manage risk.

Access is also influenced by competition policy and law. Ensuring fair and open access on a non-discriminatory basis is also further facilitated through applicable competition law. The principles regarding access, as part of the governance arrangements, will thus have to be applied in a manner that prevents arbitrary or misguided decisions. The extremes would be possible collusion or abuse of dominance by denying or limiting access of prospective participants. Some retail payment systems have the possibility under their governance arrangements of prohibiting the access of otherwise eligible candidates by deeming them a competitor; such a prohibition can create specific issues under competition law.

Governance arrangements will be the means by which access policies—to the extent they exist—are implemented and applied. Foremost among such arrangements are the access rules and principles that directly define participation types and eligibility criteria for the actual use of a retail payment system. Sometimes the criteria for access can also operate in an indirect manner. A precondition for (direct) access to a payment system can be that the participant must have a settlement account with the central bank. Eligibility for a settlement account with a central bank may be limited to licensed credit institutions, thereby indirectly limiting access to banks (as opposed to payment service providers). In some countries, notably Switzerland and the United Kingdom, non-bank entities have recently been permitted to obtain settlement accounts, thereby facilitating their direct access to and participation in a specific payment system. For many key retail payment systems, these are clearly documented and disclosed. In the United Kingdom, Pay.UK
operates a web portal dedicated to accessing the UK retail payment systems operated by Pay.UK.41

Authorities need to decide whether to extend access rules or guidance to closed loop and other proprietary retail payment systems. The PFMI apply to a limited scope of retail payment systems, and some retail payment systems may also be outside the scope of licensing and oversight requirements. As the coverage and usage of alternative systems grow, their relevance to public-interest objectives also rises. Hence, it may be more important to extend guidance on access rules and disclosure to such payment systems.

Access rules are also important because they are often linked to the role that participants may play (and the voting rights they have) in the governance of the payment system. Many system’s charters accord voting rights in accordance to a participant’s access status (for example, direct versus indirect participant) and the volume of their transactions relative to total system volume.

Rules and safeguards also need to be in place to suspend or terminate access. This is an important additional part of the governance framework that may be needed—for instance, to enable management and owners to address objectively a participant’s material breach of rules or procedures, or to terminate their access following an evaluation of risk associated with allowing continued access.

4.4 Managing Conflicts of Interest

Conflicts of interest can and will arise in any organization, on the board of directors as well as within management. Conflicts of interest can distort the decision-making of a company, potentially biasing decisions toward interests other than those that support the objectives of the company. Conflicts of interests arise when a board member acts on the basis of self-interest or in the interest of the company that the person represents, rather than in the interests of the company to which the person is appointed as a member of the board. Conflicts of interest can arise in relation to individual board members, between board members, between the board and management, and between board members and other stakeholders of the company.

Conflicts of interests can arise through a variety of circumstances and objectives. These may include the direct competition between specific users, the interest of larger-market players versus smaller-market players, where the larger players may not be willing to carry the proportional economic burden of developing the market, or where smaller players may not be willing to contribute financially due to lower returns on payment services. Conflicts of interest can also arise when allowing new market players to access the payment system or when facilitating interoperability with new or different payment means. Conflicts may also arise when managing a for-profit objective versus other objectives, such as security or ensuring the wider efficiencies of the system.

Conflicts of interest on a board, if not uncovered, disclosed, and managed properly, can give rise to faulty and inefficient decision-making and distract from achieving the objectives of the company. The types of payments that are managed by the payment system, the different users of the system, the owners, the broader stakeholder community, and the policy objectives of a retail payment system are diverse. This diversity also provides the potential basis for conflicts of interest. The board as a collective, as well as the individual board members, need to acknowledge and be able to navigate the different interests and objectives of a payment system. These include (i) the purpose, the policy, and other objectives set for the retail payment system, recorded as part of the governance arrangements, (ii) the applicable legal and regulatory requirements, and, where company law may specify, (iii) the specific obligations and fiduciary duties of a board member to act, for example, in the best interest of the company itself, toward shareholders, and toward other stakeholders.

The board of a retail payment system will comprise representatives of different types of institutions. Traditionally, this includes banks that have a share in the ownership of a retail payment system and are also the direct users of the payment system. This by itself can give rise to a number of potential conflicts of interest, where
the same entities cooperate while operating the retail payment system and, at the same time, compete while providing users with different types of services that are facilitated by the retail payment system.

A regulator may take proactive steps to prevent certain conflicts of interest and issue general or specific guidance to the market. The Payment Systems Regulator in the United Kingdom recently decided “to retain the fundamental obligation for regulated interbank payment system operators to take all reasonable steps to ensure that none of their directors also act as a director of a central infrastructure provider to their payment system” through the issuing of a direction. The Reserve Bank of Australia has issued guidance on managing the potential conflicts of interest that may arise from the different roles of the reserve bank and its commercial activities, including its participation in payment systems.

The potential conflicts of interest that may arise in a for-profit organization will also differ from those in a not-for-profit organization. Mechanisms need to be in place to deal with such conflicts where, for example, the interests of users/owners involved at the board level in a for-profit retail payment system clash with the for-profit motive in such matters as pricing or pricing principles. In addition, further emphasis on user and stakeholder involvement will be required in a for-profit organization.

Acknowledging and preparing for potential conflicts of interest will ensure that conflicts of interest are identified and dealt with as early as possible. Therefore, the governance arrangements should clearly recognize and reflect the possibility of conflicts of interest at the board level and include procedures for declaring, identifying, and managing different conflicts of interest. Board members may be required to sign formal declarations attesting to not having any conflicts of interest—for example, at each board meeting—or having to formally declare any conflicts of interest. The procedures for dealing with conflicts of interest may be spelled out further as part of the risk-management framework, which shall also ensure that any actual conflicts of interest are recorded properly. Transparency of the governance arrangements of a retail payment system, combined with transparency of the decision-making process and insight into the actual decisions made, will in itself limit the risk of conflicts of interest and can also provide the basis for addressing and, if required, rectifying decisions made ex post.

4.5 Responsibility and Accountability of the Board of Directors

The board of directors remains the focal point for the governance arrangements of a retail payment system. The board will be responsible for agreeing to and administering the arrangements by which the payment system will make decisions and operate. Depending on the circumstances, some functions to be undertaken by the board of directors may be delegated to a different body, such as a board committee or payments council, effectively replacing the board in specific matters. Clear and transparent rules and procedures shall guide the operations of the board of directors at all times, as a general and encompassing mandate.

The responsibilities of the board or other governance body will be defined by the articles of association, by the articles of incorporation, or, potentially, by law. Therein will be defined the different roles, responsibilities, and accountabilities of the board and management. These will include the following:

The rules governing the appointment of members to the board: These will detail the number of board members, the board’s configuration, the length of appointments to the board, and the possibility of reappointments. The rules can also describe the possible right of certain stakeholders and non-owners to appoint board members or the right to appoint certain committee chairs directly. The appointment of non-executive board directors, including independent directors, is regarded as an integral part of proper governance under the PFMI, and this aspect should be considered as part of establishing the governance arrangements.

The responsibilities and accountabilities of the board: The operations of the board shall be clearly documented to reflect the unique circumstances and requirements of the retail payment system, and they should be assessed in terms of their
appropriateness and effectiveness on a regular basis.

The responsibility for the overall strategic objectives: The board will also define the strategic objectives and guide the management of company operations. These objectives must be formulated in a manner that takes into account the defined public-policy objectives, objectives regarding safety and efficiency, and public-interest considerations.

The responsibility for appointing senior management: At a minimum, the board will appoint the CEO, but it may also play a role in the appointment of senior management. Ultimately, the board is also responsible for terminating the employment of senior management.

The board will be responsible for defining and agreeing on the framework governing the relationships between the board and management regarding the day-to-day operations. The board of directors will define the framework within which the management will operate and manage the operations of a payment system, and especially its objectives, strategy, and risk management. The board will define the framework for the ongoing interactions between the board and management; the reporting lines and any delegated authority from the board to management should be clear, unambiguous, and transparent. The board will also be responsible for monitoring the performance of senior management.

Committees with specific roles need to be established by the board as part of the governance framework. Most prominently, this will include a committee to oversee the risk-management framework and an audit committee. These committees need to be equipped with their own clear and transparent governance framework, defining the interactions between the board and the committees as well as their specific integration, remit, responsibility, and accountability.

Additional committees operating under the delegated authority of the board may be required. They may include consultative committees that have no formal powers as such but have to be consulted as part of the decision-making process of the board. Such committees can comprise board members, management, and/or representatives of the wider stakeholder community in order to fulfill the wider policy objectives of efficiency and transparency. Box 7 provides a comparison of governance arrangement in securities market that provides a lead on the options of governance for retail payment systems.

Box 8: Comparison with Governance Arrangements of Securities Market Infrastructure

Central securities depositaries (CSDs) and counterparty clearing houses (CCPs) face governance issues similar to those faced by retail payment systems. They have gone through waves of change similar to those being experienced in retail payments. Hence, it may be useful to compare arrangements for their governance with those of retail payment systems.

Like for retail payment systems, the governance arrangements of CSDs and CCPs should address not only the interests of their owners but also the needs and interests of their stakeholders and users as well as the broader national or international interest in minimizing risks. In Europe in the late 1990s and early 2000s, innovation, consolidation, and internationalization also led to changes in the governance of these infrastructures. In the European Union, the aim of promoting the single market also played a role in the consolidation and governance considerations.

In a 2004 occasional paper published by the European Central Bank, the authors outline different mechanisms to address the interests of customers (that is, users) of CSDs. These were (i) the user-ownership model, also prevalent in retail payment systems; (ii) the establishment of board-composition requirements, (iii) the use of advisory committees; and (iv) the obligation for board directors to solicit and take account of the view of customers—for example, through formal consultations.
Similarly, the report also outlined some of the mechanisms in use to ensure that such infrastructures also address the public interest. Many of these mechanisms can be useful for retail payment systems. They include (i) licensing regimes and requirements regarding company form, fit-and-proper requirements, or control of shareholding; board-composition requirements are also noted as potential mechanisms to be used in promoting the public interest.

Transparency is considered an important pillar of governance arrangements for CSDs and CCPs. But the 2004 report also noted that disclosure practices varied widely among institutions.

Competition is also a concern in this field of financial infrastructure. And as with retail payment systems, a common practice to address such concerns is to put in place rules that allow for (more) open access to the infrastructure.


4.6 Qualifications of Board Members and Senior Management

It is essential that both the board and management have appropriate qualifications and relevant experience. These should be clearly defined with reference to the particular responsibilities associated with their roles in the management and operations of a payment system.

The members of the board of directors must possess the distinct qualifications required for fulfilling their roles as members of the board of the particular retail payment system. This may include possessing appropriate and sufficient business knowledge from a user/provider/operator’s perspective and knowledge of risk management, regulatory aspects, and/or other relevant specialist information. Each board member should be proposed for appointment and assessed against these concrete criteria before being formally appointed to the board. Once appointed, there should be periodic assessments of the performance of the board collectively, and of the board members individually.

Applicable legal and regulatory requirements may set separate fit-and-proper requirements for the board. Fulfillment of them, possibly requiring background checks, may be a prerequisite for approval by the regulator of any proposed appointments to the board.

The board of directors is responsible for appointing senior management and defining the qualifications required for senior management to fulfill the relevant roles appropriately. For senior management, there may also be separate fit-and-proper requirements that stem from company law or separate licensing requirements in combination with a formal approval process by the relevant regulator. Risk management should be a particular focus when assessing the qualifications of senior management. As a payment system evolves, the specific requirements regarding the qualifications of senior management will change. It is the responsibility of the board to ensure that management continues to be fit for the purpose, and the board will be required to undertake assessments of the general performance of senior management in an ongoing basis. Ultimately, the board will also be responsible for terminating the employment of individual members of senior management.

4.7 Involvement of Relevant Stakeholders

A retail payment system is of direct importance to stakeholders beyond its immediate participants and users. Retail payment systems fulfill a purpose that is different from many other private-sector entities. In their role of facilitating payments between different parties in the economy, they are important to other parties in the broader economy. This is reflected, among other things, in the considerations regarding promoting efficiency and supporting the stability of the wider financial system, as spelled out in Principle 2. A payment system can generate both positive and negative network effects with implications for the wider society. In some economies, retail payments are increasingly regarded as a utility-type service,
implying, for example, universal access and interoperability. Given these wide policy objectives and the potential reach of retail payments, a retail payment system is obliged to consider and assess the implications of its decision-making for relevant stakeholders and to seek the input of relevant stakeholders as appropriate.

A retail payment system needs to recognize and address the interests of all relevant stakeholders in its setup and in the manner in which it operates. It needs to ensure the involvement of relevant stakeholders in governance arrangements and ensure that they are reflected therein. In practice, stakeholder involvement can be in the form of establishing a special consultative body or a consultative committee representing the interests of the wider user base that has to be consulted on a regular basis or in relation to particular board decisions. Dedicated committees can also be set up to consult on, for example, new products or pricing. This shall be combined with mechanisms that ensure that any differing views are appropriately reflected and addressed.

Stakeholder involvement can also include the requirement that certain types of decisions have to be made public for a wider consultation as part of the decision-making process.

Stakeholder involvement should not be a static process. The board shall assess the processes for stakeholder involvement on a regular basis, including by seeking the views of the relevant stakeholders and making changes to the composition of consultative committees as appropriate, or by seeking other means of ensuring the involvement of relevant stakeholders.

It is important that arrangements for stakeholder involvement are transparent. Clear and open disclosure about stakeholders’ role in decision-making within a retail payment system will be an important minimum first step toward proper involvement, even without a formal stakeholder-involvement process.

**Box 9: Engaging with Public-Interest Bodies and other Stakeholders**

Governance arrangements may formally define mechanisms to ensure that systems engage in proper consultation with non-shareholders or members.

Ultimately, it is the regulator or overseer that can require appropriate engagement with and accommodation of these stakeholders’ interests. Most often, this takes place through informal and consensual methods. A few examples of arrangements and mechanisms include the following:

At the BKM in Turkey, service provider members have been included in specific committees to inform market and product proposals. The BKM has separate committees—for instance, for market development, security, product development, and operations and technology.

The Australian Payments Council and the Payment Systems Board of the Reserve Bank of Australia have a memorandum of understanding that sets out a framework of engagement to support the broader strategy objectives of payment systems. It states that engagement may include regular meetings between the institutions and liaison between the chair of the council and the deputy chair of the board.

The CEC in Belgium operates a client committee that includes indirect participants and is mandated to address issues specific to relationships between different kinds of participants.

### 4.8 The Role of Independent Directors

The appointment of independent directors or non-executive independent directors to a board is a common and widely used approach to help ensure effective and neutral decision-making. It can assist in minimizing the occurrence of conflicts of interest in the decision-making process of a board and in the operations of a
company and facilitate that the individual board members, and the board as a collective, exercise their roles and defined obligations and responsibilities with a high degree of independence and objectivity.

The exact definition of an independent director will depend on the relevant legal and regulatory framework. Various definitions exist. The International Finance Corporation has created an indicative definition of an independent director: “Independent Director” means a Director who has no direct or indirect material relationship with the Company other than membership on the Board.” This definition is combined with a number of very detailed criteria that spell out the meaning of independence in concrete terms. (See appendix C.)

Subject to applicable law, a retail payment system will have to define the meaning of independence and the manner in which it is to be applied through its governance arrangements and make the definition publicly available. In addition, it should be disclosed which members of the board are regarded as independent directors. Independent directors could (i) be persons who are independent, both from the owners and the management of a company, (ii) constitute either a minority or majority of the board, (iii) be appointed by the shareholders of a company (but not always), and (iv) be non-executive members within the board.

4.9 Risk-Management Framework

Together with efficiency, safety is a primary policy objective of a retail payment system. It should be supported and promoted by the governance arrangements. The governance arrangements shall include the creation and facilitation of a detailed and comprehensive risk-management framework.

Managing and mitigating different types of risks is the most integral and prominent part of the operations of any payment system. Risk management includes liquidity and credit risk, cyber risk, operational risk, settlement risk, legal risks, and, increasingly, reputational risk. A comprehensive risk-management framework needs to be put in place and kept up to date in order to manage the different types of risks appropriately. The board of directors is ultimately responsible for the establishment, application, and revision of the risk-management framework.

The governance arrangements should clearly articulate the specific roles, responsibilities, and accountabilities of the board and management regarding risk management. This should include the procedures that need to be followed and the tasks that need to be undertaken. In addition, the governance arrangements shall mandate and support the creation of specific risk-management functions and structures, such as a risk committee (as a committee of the board) as well as independent day-to-day risk-management and audit functions. The day-to-day risk-management function should be sufficiently equipped and have direct access to the board and/or the board’s risk committee.

The board shall ultimately be responsible for ensuring that the risk-management framework is effective, up to date, and appropriately implemented. It shall therefore ensure that the risk-management framework is assessed on a regular basis and revised as appropriate. PFMI Principle 2 specify that; “The board should establish a clear, documented risk-management framework that includes the FMI’s risk-tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies. Governance arrangements should ensure that the risk-management and internal control functions have sufficient authority, independence, resources, and access to the board”.

4.10 Transparency, Disclosure and Clarity

The PFMI emphasize the importance of the clarity and transparency of objectives and arrangements. This is part of Principle 2.

Attention should be paid to ensure that the documentation of governance arrangements is clear and transparent. They should be drafted in a clear and comprehensive manner to ensure that the objectives, responsibilities, accountabilities and risks within a retail payment system are
known, understood, and recognized not just by the parties directly concerned but also by the wider stakeholder community. Transparency also means that the governance arrangements should be disclosed not just to the users of the payment system but also to all relevant stakeholders, and where relevant, they should also be made available or published to the benefit of the wider public, as further specified in Principle 23.

The organizations and individuals in charge of drafting and agreeing to the governance framework shall ensure not only clarity of language and context but also transparency. Transparency needs to remain a guiding principle regarding the governance of a retail payment system. The strategy and decisions made should be communicated widely in a clear manner, possibly by publishing minutes or a summary of board meetings or by publishing general updates on a regular basis.

Transparency is separately highlighted in Principle 18 regarding fair and open access, which requires that the criteria for participation to be publicly disclosed. In addition, Principle 23 of the PFMI sets wider requirements for the transparency and clarity of information about fees and costs that users and participants of a payment system will need to understand and assess the requirements, obligations, and risks that their participation entails or will entail. While the general information needs to be provided to the users and participants of the payment system, some information about governance also needs to be made available to the wider public or to be published regularly. Retail payment systems may also be required to publish particular information as set out in Principle 23 of the PFMI.
5 Themes for Consideration

The following themes are designed for consideration when making decisions about the setup, or reform, of the governance framework and governance arrangements of a retail payment system. Governance should be acknowledged as an important policy tool and while the actual governance arrangements of a retail payment system always have to be defined in the context of the concrete needs and circumstances of a market, the PFMI provide essential guidance regarding the different requirements, objectives, and considerations for governance. These can be used as a starting point while taking into account additional guidance of relevance specifically to retail payment systems.

These considerations are based on and anchored in the PFMI and the key considerations. The guidance is centered around Principle 2 of the PFMI and its associated key considerations, but also a number of the other PFMI Principles which link to Principle 2 or which elaborate particular aspects considered in Principle 2. It is intended to highlight the specific contexts and considerations in applying the PFMI regarding the governance of retail payment system in relation to both the governance arrangements and the governance framework. The considerations are targeted at the various stakeholders involved in defining or exercising the governance of retail payments systems, including those that may not be formally covered by the PFMI. The guidance is of relevance both in relation to the governance arrangements and the governance framework.

Each consideration is, where relevant, linked to the relevant PFMI, the key considerations and explanatory notes.

5.1 There is no one-size-fits-all blueprint for governance arrangements

The governance arrangements of different retail payment system should be context specific and will inevitably differ. Governance arrangements must be specific to the market, policy and institutional context of each given retail payment system. They should help to address public policy interests relevant to the country, the market and political context while balancing these with the interests of users, owners, operators and participants.

The governance arrangements of a retail payment system should reflect the concrete circumstances of the particular payment system and the market in which it operates. Consequently, they should either be robust enough to accommodate changes or evolve as the market itself changes. While best practices and examples can be used as precedents, there is no one-size-fits-all model regarding governance.

It is important to recognize that the governance arrangements of a retail payment system concern many more specific issues than those covered by general corporate governance principles. The considerations of relevance to retail payment systems also go beyond those incorporated within general company law. They include broader considerations of the public interest, efficiency, the overall functioning of the markets, and stakeholder focus.

Governance should adapt around a system’s legal form. The legal structure of retail payment systems will mandate and guide aspects of the formal governance arrangements but shall not preclude achieving relevant policy objectives. Specific requirements for the policy objectives that guide a retail payment system can often also be included within the governance arrangements irrespective of a particular structure. Public authorities can mandate or encourage the inclusion of specific policy objectives to promote efficiency or public interests as part of the governance arrangements, including specific policy objectives regarding financial inclusion. The owners may be limited in share of ownership or the number of board seats they may control. Protections may be introduced for minority owners or for stakeholders other than the owners. In addition, requirements can be introduced for the inclusion of non-executive directors or independent directors within the board.
In the explanatory note 3.2.3 of Principle 2 it is stated; “No single set of governance arrangements is appropriate for all FMIs and all market jurisdictions. Arrangements may differ significantly because of national law, ownership structure, or organizational form.”

5.2 Governance arrangements should be reviewed regularly

Governance should remain a living topic. The governance arrangements should be regularly reviewed especially in the context of structural changes to the market, to policy or the institutional environment as well as industry innovation.

Periodic or event-driven reviews may need to be mandated. The obligation to undertake regular governance reviews may be formally embedded both in the governance arrangements and as part of governance framework. An appropriate authority, most often the payments oversight authority, should be required to initiate period reviews and where the PFMI are directly applicable, a governance review in line with Principle 2 will be undertaken as part of the oversight process. The payments oversight authority should also be expected to play an active role in rectifying any shortcomings.

The boards of directors of payment systems shall be responsible for conducting the reviews—ideally, at least once every two years—of a system’s own governance arrangements, including a review of the board’s own performance. Since the governance arrangements depend upon the governance framework in which they operate, any review of the arrangements should also take place in coordination with any changes of the governance framework. In particular, the review will need to take stock of any relevant changes to laws, regulations, or the mandates of authorities under which the system operates. The review process should be guided by an assessment of the effectiveness of the existing governance arrangements combined with a forward-looking evaluation of expected requirements. It should be noted that applicable company law, rules regarding corporate governance, or requirements stemming from licensing or oversight may also require regular assessments of the performance of the board and management, and in such cases the reviews should be coordinated.

The ownership model may need to be assessed as part of a review. Ownership is a key aspect of the governance arrangements and should never be static. The particular ownership model chosen for a retail payment system is central to its governance arrangements and the particular ownership model chosen should be regarded in the context of the market it serves. As and when circumstances change, the ownership model should be assessed in terms of its continued appropriateness for supporting the particular policy objectives and conditions of the market.

External events may also prompt a review. For instance, a review could be called for, if and when there is a material change in legislation, regulation, or market structure. These should be conducted in cooperation with other authorities with pertinent policy interest or authority over retail payments systems or services.

The review process, findings and outcomes shall be properly documented and transparent. The process for reviewing the governance arrangements should be set out as part of the governance arrangements to ensure transparency and familiarity. This should include the period within which the regular governance reviews should be undertaken, topics of the review, dissemination of the results and the follow-up.

Principle 2 defines the main components which need to be accommodated with the governance arrangements on an on-going basis: “An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders”.

Key consideration 2 further states that: “The board should review both its overall performance and the performance of its individual board members regularly”.

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5.3 Appropriate public interests should be acknowledged, clearly defined and addressed

The governance arrangements of a retail payment system shall recognize and support “public-interest considerations.” Public interest considerations is a broad and evolving concept that policy makers and authorities must strive to define, adapt, and clearly communicate, in accordance with their own policy and market context and as part of the governance framework which need to be properly reflected within the governance arrangements of a retail payment system.

Public interests shall include but extend beyond safety and efficiency, as stated in the PFMI. The governance of retail payment systems should also consider and elaborate the more specific public interests and their implications for its specific arrangements. This means taking into account the interests of the broader stakeholder community in particular. The principle of efficiency can be further specified in its implications for rules on access, interoperability or standardization. With regard to retail payment systems, the public interest could also include the objective of financial inclusion—that is, ensuring that payment systems facilitate, indeed, promote, comprehensive and active participation by all population groups, including those at the margins of or excluded from banking services. In the context of market developments e.g. in relation to open banking, the topic of data protection regarding user data will likely become more prominent as a topic to also be considered within the perspective of public interests.

Governance should help to resolve and where necessary play a role in optimising trade-offs between the objectives and interests of different stakeholders including “public interests”. The success and utility of retail payments ultimately involve reconciling the objectives and interests of the different stakeholders as well as the public-interest considerations. Retail payment systems involve the interests of many different types of stakeholders, directly and indirectly, and will also have both social and economic impacts. While there will always be some tensions or conflicts between the different objectives, appropriate and effective governance arrangements can provide the framework within which they can be articulated and addressed.

The relevant public interests should be clearly defined as part of the governance arrangements and published and amended as appropriate. Mechanisms shall be in place to record and reconcile possible conflicts that may arise due to different objectives and public interests.

Support of the relevant public interest consideration is included within Principle 2: “An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders”.

Key consideration 1 further states that: “An FMI should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and other relevant public interest considerations”.

5.4 Stakeholder Involvement is of key importance

Effective involvement of relevant stakeholders is an essential element of a retail payment system’s governance. Mechanisms should be in place within the governance arrangements to support the involvement of stakeholders. In close combination with transparency mechanisms, stakeholder involvement can help to ensure that the board is aware of, and appropriately considers, the interests and input from relevant stakeholders in its decision-making.

Stakeholders will comprise a broad array of different parties. They include constituents beyond just the direct or indirect users and participants of a retail payment system. In particular, they will include those who are directly or indirectly affected by the payment system’s actions and decisions, such as the end users of different payment services supported by the payment system. As markets evolve, the user community may change, and new types of users who are neither members nor owners may appear.
The involvement of the direct users is required. The users of a retail payment system can range from owners to pure customers. In retail payment systems where the users are also the owners, the immediate user involvement is easier to achieve but attention may have to be given to the involvement of smaller vs. larger owners. Nevertheless, especially in the case of owner/user governance, particular attention should be given to how the wider stakeholder community is involved. Conversely, in a retail payment system which is not user owned and governed specific considerations need to be given to also making the direct users part of the stakeholder involvement.

The involvement of different stakeholders can be achieved through a variety of mechanisms, depending on the context. The board may e.g. establish dedicated committees on which the stakeholders are present or represented. The board may then be required to seek input from these committees as part of its decision-making process. The views of the individual committee(s) may carry different weight, ranging from purely consultative to having to be considered and reflected in the actual decision-making.

The emergence of new types of users may give rise to the need for new ways or means to involve users. They could ultimately be granted representation rights similar to the incumbent users. But other models can be developed in which, for instance, users collectively have the right to appoint members to the board of directors or whereby some users with a certain volume of transactions have such rights. Often it will be important that stakeholders with similar functions or business models have organizations that represent their interests collectively, rather than individually. For instance, with the rise of fintech service providers in payments, it has been helpful for such companies to form and articulate their interests through fintech industry associations that can be given a collective right of representation.

In all cases, the board should agree on the formal commitment and process for stakeholder engagement. This may require making the following items integral parts of the governance arrangements: a clear definition of the types of stakeholders to be consulted, a definition of the types of decisions to be sent out for consultation, and the process by which stakeholders actually engage, including how to record and reconcile different views appropriately.

Transparency into the operations and decision-making of a retail payment system can be an important means for enhancing the involvement of various stakeholders. Transparency measures will create the opportunity for stakeholders to follow and remain informed about the decisions made and the directions taken. Nevertheless, stakeholder engagement goes beyond the formal requirements for transparency and requires taking steps to actively seek input from relevant stakeholders.

Supporting the objectives of relevant stakeholders is specified in Principle 2: “An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders”.

Key consideration 7 further states that: “The board should ensure that the FMI’s design, rules, overall strategy, and major decisions reflect appropriately the legitimate interests of its direct and indirect participants and other relevant stakeholders. Major decisions should be clearly disclosed to relevant stakeholders and, where there is a broad market impact, the public”.

5.5 Access rules should evolve with the market

The access, membership, and participation rules of a retail payment system should be regularly evaluated and aligned with changes in the policy and market contexts. Such evaluations shall be guided by the development needs of the economy, the retail payments market, the role of new types of payment service providers, and with respect to the other policy objectives and considerations for preserving the safety and integrity of systems.

As a guiding principle, the rules governing access to a retail payment system should be based on
transparent, clear, and objective criteria. They should be focused on promoting fair and open competition and maintaining a level playing field. Ensuring fair and open access is also an important step in facilitating market access for new entrants; however, ownership or representation of new entrants in a retail payment system is another relevant factor which can be considered in addition to formal access criteria. As part of the considerations regarding access, the core governance arrangements, including the composition of the board, may require adjustments to ensure that the decision-making reflects and balances the interests and requirements of all users, old as well as new.

Access and participation rules should be designed to strike an appropriate balance between sometimes conflicting objectives. These are primarily (i) promoting more convenient and efficient usage, and (ii) the need to protect the integrity and safety of a system, both for direct users and with regard to a system’s potential impact on the broader payments ecosystem. But as the market evolves, so may the context of these aims as well as the mechanisms available to address them.

As more payment systems operate in parallel and the market evolves, authorities should evaluate the relative importance of having access to a given system. The role and prominence of a payment system may evolve over time. Its importance could increase or diminish, and with it, the private and public interest of having access to it. The access rules of systems that become (or remain) more critical and central than others to the financial system may warrant greater scrutiny, to ensure broader participation in the interest of greater efficiencies, inclusion, or convenience or, indeed, to address possible issues deriving from market power in one market being used to enhance a position in another—for example, through cross-subsidization. Other systems may become less “essential” in the sense used by competition authorities and hence warrant less stringent guidance or rules governing access criteria.

Risk-management mechanisms and arrangements are also evolving. Technology improvements may have rendered some access restrictions designed to protect safety either inefficient, because there are now better alternatives, or redundant. If such material changes do occur, a review of access rules should be required as elements of the governance arrangements, and whether they still strike an appropriate balance within the mandate of the system, or in reference to the broader public-interest objectives, should be considered.

Principle 18 covers the principles regarding access: “An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.”

The key considerations of Principle 18 further state that:

1. “An FMI should allow for fair and open access to its services, including by direct and, where relevant, indirect participants and other FMIs, based on reasonable risk-related participation requirements.

2. An FMI’s participation requirements should be justified in terms of the safety and efficiency of the FMI and the markets it serves, be tailored to and commensurate with the FMI’s specific risks and be publicly disclosed. Subject to maintaining acceptable risk control standards, an FMI should endeavor to set requirements that have the least-restrictive impact on access that circumstances permit.

3. An FMI should monitor compliance with its participation requirements on an ongoing basis and have clearly defined and publicly disclosed procedures for facilitating the suspension and orderly exit of a participant that breaches, or no longer meets, the participation requirements”.

In the explanatory note 3.2.2 of Principle 2 it is further stated that: “For all types of FMIs, governance arrangements should provide for fair and open access (see Principle 18 on access and participation requirements) and for effective implementation of recovery or wind-down plans, or resolution”.

5.6 Anticipate changes to skills and qualifications of the board and senior management

In the context of the often constant and increasing change in retail payments, it is important to
ensure that both the board and senior management possess the skills, qualifications, and experience necessary to fulfil their roles. The board of directors is the focal point of the governance arrangements of a retail payment system. It is responsible for setting objectives, establishing the risk-management framework, monitoring performance, and hiring senior management and must as a collective possess the relevant skills and qualifications for being able to undertake the different and changing responsibilities.

The board of directors is responsible for ensuring that its members' skills and qualifications are up to date and aligned with the emerging challenges and structure of retail payments. This means that, for instance, given the growing relevance of technology, individual board members as well as the board as a collective will need to pay special attention to their qualifications in areas such as technology, security, and risk management. It may also be necessary to make more frequent recalibrations to the board composition. Regular reviews should be undertaken of the performance of the board which should include an assessment of the individual skills and qualifications of the board members.

The board is also responsible for making sure that senior management continues to have the appropriate skills and experience for conducting its different roles and responsibilities. Maintaining the right skills and qualifications of senior management as the retail payment market and technology develop should be a goal when hiring senior management and evaluating their performance.

Specific considerations should be given to including non-executive directors on the board of directors, as a minimum. Further consideration should also be given to including independent directors on the board who could take on specific roles as chairs of selected board committees.

The key considerations 2-5 of Principle 2 set out requirements for board and management.

1. .....  
2. An FMI should have documented governance arrangements that provide clear and direct lines of responsibility and accountability. These arrangements should be disclosed to owners, relevant authorities, participants, and, at a more general level, the public.  
3. The roles and responsibilities of an FMI’s board of directors (or equivalent) should be clearly specified, and there should be documented procedures for its functioning, including procedures to identify, address, and manage member conflicts of interest. The board should review both its overall performance and the performance of its individual board members regularly.  
4. The board should contain suitable members with the appropriate skills and incentives to fulfil its multiple roles. This typically requires the inclusion of non-executive board member(s).  
5. The roles and responsibilities of management should be clearly specified. An FMI’s management should have the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of the FMI.  
6. .....  

5.7 Potential conflicts of interest should be identified and addressed

Governance arrangements need to acknowledge and pay specific attention to potential conflicts of interest. Retail payment systems are more prone to conflicts of interest than other corporate structures. This is primarily because of the nature of the business and its potential impact on society more widely, as well as the diverse types of users involved in a retail payment system.

Retail payment system governance arrangements should take account of the full scope of potential conflicts of interest across the entire set of stakeholder groups and their interactions. Conflicts of interest can arise at, or between, multiple different levels of the governance arrangements, including the board, management, users, and wider stakeholder community. Some conflicts of interest will be explicit, while others may be less transparent. The ownership structure of a retail payment system will often comprise
entities that are competitors; among them, the focus should be on both facilitating cooperation and maintaining competition in the market. This may require governance arrangements that are different from other companies—for example, in relation to managing conflicts of interest. It may also require a particular focus on the composition of the board and on the voting rights of the individual board members as well as wider considerations of balancing the interests of big and smaller users and other stakeholders.

All conflicts of interest shall be declared or identified, recorded, and mitigated in a transparent manner. Special focus should be given to decision-making by the board of directors and by management and the users/owners. The board and also management should be given special obligations for exposing and declaring relevant conflicts of interest e.g. through specific declarations as part of the decision making process.

Independent directors can play a central role in reducing and addressing conflicts of interest. Including independent directors on the board, in addition to non-executive directors, should be considered carefully, as they can assist in reducing the risks of conflicts of interest, ensuring independence, and maintaining the relevant focus in the decision-making process.

Key consideration 3 of Principle 2 covers conflicts of interest: “The roles and responsibilities of an FMI’s board of directors (or equivalent) should be clearly specified, and there should be documented procedures for its functioning, including procedures to identify, address, and manage member conflicts of interest”. This is further clarified in the explanatory note 3.2.5” Depending on its ownership structure and organizational form, an FMI may need to focus particular attention on certain aspects of its governance arrangements. An FMI that is part of a larger organization, for example, should place particular emphasis on the clarity of its governance arrangements, including in relation to any conflicts of interests and outsourcing issues that may arise because of the parent or other affiliated organization’s structure”.

5.8 Governance arrangements must be transparent

Transparency is a hallmark of good governance and an important and effective mechanism to promote it. Transparency stands out as a core principle common to all guidance on corporate governance, and it is specifically highlighted in Principle 2 of the PFMI and supplemented with additional requirements for the disclosure of specific information in Principle 23. In general, transparency should be used widely and strengthened where possible.47

The use of appropriate disclosure standards and arrangements has many dimensions and confers practical benefits by the following means:

(i) Ensuring an appropriate level of transparency into the governance arrangements of a retail payment system will warrant a basic understanding of the operations and purpose of the payment system, who owns and controls the payment system, who can access the payment system, and how the decision-making process functions. This can help stakeholders to identify potential deficiencies or shortcomings and subsequently makes it more likely that issues are addressed. Transparency can thereby enhance stakeholder coordination and involvement and strengthen the clarity of arrangements and the roles and rights of payment systems members, participants, and other stakeholders.

(ii) Providing insight into the decision-making of the board of directors—for instance, by making relevant board decisions or regular updates available or publicizing them—will assist in making the actual workings and outcomes of the governance arrangements transparent.

(iii) Ensuring that users have access to all rules and procedures regarding rights and obligations and fees associated with joining and interacting with the retail payment system will help users assess the risks associated with using the payment system, as specified in Principle 23 of the PFMI. Overall, through these different effects, transparency can support wider policy objectives related to efficiency and other public interests.
As a minimum, transparency requires that information regarding the current governance arrangements of a retail payment system shall be published. Through the use of technology, the burden of publishing the relevant information will be negligible. Transparency of the governance arrangements shall include information about the following:

- Ownership and individual share(s) of ownership
- Bylaws or equivalent articles of association or incorporation
- Composition of the board, including information regarding executive directors, non-executive directors, and independent directors, and the criteria and methods for their selection, election, or appointment
- Rules and procedures of the board of directors
- Board committees, their composition, and remit
- Details regarding the decision-making process, including obligations to seek input through consultations
- Access and participation forms and criteria, including any conditions regarding access
- Scheme rules and procedures for the interaction between payment system users
- Pricing, including the pricing principles

Principle 23 further states: “An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed”.

5.9 Application and effectiveness of the Governance Framework should be regularly assessed

The scope of application of the governance framework and its alignment with governance arrangements should be assessed regularly. It is important to ensure that, where necessary, legal powers and mandates appropriately empower authorities to intervene in governance and that they have the appropriate capacity to do so in an effective manner. In a rapidly changing market for retail payments and related financial services, the required authority and capacity may change. Hence, authorities should regularly assess whether elements of the governance framework for retail payments—existing legislation, oversight arrangements, and regulation—are aligned with, and appropriate in scope to, the activities, risks, and usage of various retail payment services for which governance principles are applicable.

Attention should be paid to changes in the market that may require amendments to existing regulations. This may often occur through required changes in licensing requirements or access mandates. As new types of payment service providers emerge, regulatory requirements regarding access to payment systems may have to be reinterpreted or the rules regarding access may have to be clarified or amended through regulation. Changes in licensing may also usher in whole new payment systems and prompt considerations about the application of rules or policies intended to maintain or establish a level playing field.
The governance framework principles should be applied to different retail payment systems in a consistent and transparent manner. These may include new and less traditional systems, as well as incumbent or legacy systems. A new retail payment system may not automatically be subject to the existing governance framework or elements thereof. Hence, new retail payment systems may not initially be subject to existing licensing or oversight requirements. Nevertheless, basic considerations regarding such matters as representation, user involvement, and consultation should be included in the governance of retail payment systems from the outset.

The PFMI are directly applicable only to systemically important retail payment systems but are often used as the basis for developing specific oversight activities for non-systemically important retail payment systems as well. Policy makers and authorities should carefully define to what extent the PFMI or alternative principles are also “relevant” to the broad range of other retail payment systems; they should consider what “relevance” means in their specific market context and then determine the criteria for designating to which systems (some, all, or adapted) principles should apply. Authorities may thus need to redefine the different types of retail payment systems for which some or all elements of the governance principles or recommendations are applicable or binding. A key consideration should be to ensure a fair application of the principles as part of facilitating a level playing field between different retail payment systems.

Authorities should also ensure that their powers of action and enforcement are consistent with their role in the governance framework. They should ensure that they are consistent with the intended scope of activities, service providers, and systems for which governance arrangements recommendations or obligations are to apply. The field of action of regulators and overseers should also be considered to include more nuanced powers and mandates to intervene in a consultative or advisory role in governance—for instance, to facilitate relevant market developments through non-legislative means.

Responsibility A, B, and C of the PFMI address regulation, the powers required by central banks and market regulators and disclosure of policies.

**Responsibility A:** FMIs should be subject to appropriate and effective regulation, supervision, and oversight by a central bank, market regulator, or other relevant authority.

**Responsibility B:** Central banks, market regulators, and other relevant authorities should have the powers and resources to carry out effectively their responsibilities in regulating, supervising, and overseeing FMIs.

**Responsibility C:** Central banks, market regulators, and other relevant authorities should clearly define and disclose their regulatory, supervisory, and oversight policies with respect to FMIs.

### 5.10 The different roles of public authorities should be acknowledged and addressed

Public authorities have different and often changing roles and responsibilities in the governance of retail payment systems. These may range from owner and operator to regulator, overseer, settlement agent, and, of course, user. While the roles as regulator and overseer will be long term in nature, the relevance of the other roles may likely evolve and change over time and as markets change. In particular, public ownership and operation may change over time. The role(s) of public authorities, including central banks, in the governance arrangements of retail payment systems have to be considered and defined clearly. More likely than not, such roles will need to evolve over time and should be reassessed and redefined as appropriate.

Governments, or public authorities, may be called upon to play an essential role as catalysts, conveners, and coordinators. This is in addition to their roles in policy making, legislation, and enforcement. The cooperation that payment systems require between private market participants is not always easy to achieve and maintain without some outside influence or incentives. Public authorities, notably the central bank, can be critical, for instance, in the start-up
phase of a payment system, in taking an active role as the owner and operator of the payment system, and in such cases may also be called upon to provide initial funding and capital for investments and operations. Public ownership, however, is not a substitute for having carefully crafted governance arrangements. Generally, a publicly owned payment system should be set up as a separate legal entity with its own separate and distinct governance.

The role of central banks in governance may transition from active to more arm's length as the market evolves. Over time and as systems mature, the operator and ownership role of a central bank can be phased out gradually or be handed over to a separate entity, such as a national payments company. In such phases of transition, particular focus should remain on the required changes to the governance framework in terms of ownership, board composition, and appropriate stakeholder involvement. As part of the transition of the involvement of a central bank at the board level, the central bank may require that its seat on the board be taken by independent directors to further strengthen the governance arrangements. While the role of a central bank may change in relation to serving as the sole operator and owner of a retail payment system, its role as a catalyst will remain. This role will also remain important, in order to address possible governance issues, unblock situations that may arise in relation to stakeholder involvement, or, for instance, if market consolidation (for example, mergers) reapportions control between shareholder banks in a manner that upsets the balance of interests between participants.

Responsibilities A, B and C of the PFMI address regulation, the powers required by central banks and market regulators and disclosure of policies.

Responsibility A: FMIs should be subject to appropriate and effective regulation, supervision, and oversight by a central bank, market regulator, or other relevant authority.

Responsibility B: Central banks, market regulators, and other relevant authorities should have the powers and resources to carry out effectively their responsibilities in regulating, supervising, and overseeing FMIs.

Responsibility C: Central banks, market regulators, and other relevant authorities should clearly define and disclose their regulatory, supervisory, and oversight policies with respect to FMIs.

5.11 Attention should be paid to the critical role of the central bank

The oversight activities of a central bank play a critical role in ensuring effective and appropriate governance of retail payment systems. As an overseer, the central bank should ensure that governance arrangements and the conduct of a payment system’s governing bodies are consistent with oversight objectives. The central bank may also need to make specific interventions to promote access to the system and the interests of financial inclusion, by representing those stakeholders outside of, or poorly served by, the financial system and a given payment system.

The central bank might also need to play a role as a market catalyst. The aims of safety and efficiency are integral to the role of the central bank as an overseer and/or regulator of payment systems. But the mandate of some central banks may not explicitly state their role as a catalyst, to influence and shape the governance arrangements of retail payment systems. This may be increasingly necessary, however, and hence should be considered when reviewing the overall role of the central bank within the broader governance framework for retail payment systems.

The central bank is still uniquely placed to play a pivotal role in retail payments systems and hence must take on a proactive and responsible stance toward governance. In all activities regarding retail payments and retail payments systems, a central bank shall consider relevant aspects of the governance framework and governance arrangements. The central bank should ensure that governance remains a live issue and continue to influence developments both directly and indirectly. The central bank/overseer should make public the reasoning and rationale for its interventions in the governance arrangements of retail payment systems.
Responsibility A, B and C of the PFMI address regulation, the powers required by central banks and market regulators and disclosure of policies.

**Responsibility A**: FMIs should be subject to appropriate and effective regulation, supervision, and oversight by a central bank, market regulator, or other relevant authority.

**Responsibility B**: Central banks, market regulators, and other relevant authorities should have the powers and resources to carry out effectively their responsibilities in regulating, supervising, and overseeing FMIs.

**Responsibility C**: Central banks, market regulators, and other relevant authorities should clearly define and disclose their regulatory, supervisory, and oversight policies with respect to FMIs.”
### Appendix A: Selected References, Original Governance Documents

#### Governance Reference Document List, Original Sources

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<td>AUS</td>
<td>Reserve Bank of Australia (RBA)</td>
<td>NPP Functionality and Access Consultation: Conclusions Paper</td>
<td>06/2019</td>
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<td>AUS</td>
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<td>Memorandum of Understanding—the Payment Systems Board and the Australian Payments Council</td>
<td>21/08/2015</td>
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<td>BE</td>
<td>National Bank of Belgium (NBB)</td>
<td>The Bank’s role in oversight and prudential supervision of financial market infrastructures, custodians, payment service providers and other market infrastructures and critical service providers</td>
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<tr>
<td>BE</td>
<td>CEC</td>
<td>Statuts du Centre d’Échange et de Compensation (CEC)</td>
<td>24/04/2020</td>
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<td>BE</td>
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<td>Conselho Administrativo de Defesa Economica (CADE) &amp; BCB</td>
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<td>28/02/2018</td>
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<td>CADE</td>
<td>Cadernos do Cade—Mercado de Instrumentos de Pagamento</td>
<td>10/2019</td>
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<td>By-Laws of Camara Interbancaria de Pagamentos</td>
<td>04/30/2020</td>
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<td>Regulation on Open Banking, Joint Resolution no 1 of May 4th 2020</td>
<td>04/05/2020</td>
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<td>BR</td>
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<td>Regulamento Operacional—Sistema de Liquidacao Diferida das Transferencias interbancarias de ordens de credito—SILOC</td>
<td>17/12/2019</td>
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<td>DE</td>
<td>EURO Kartensysteme (EKS)</td>
<td>Annual Report 2019</td>
<td>31/12/2019</td>
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<td>DK</td>
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<td>17/05/2017</td>
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<td>29/04/2015</td>
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<td>EU</td>
<td>ECB</td>
<td>Eurosysterm oversight policy framework</td>
<td>07/2016</td>
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<td>Revised Oversight Framework for Retail Payment Systems</td>
<td>02/2016</td>
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<td>ECB</td>
<td>Revised assessment methodology for payment systems</td>
<td>06/2018</td>
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<td>EU</td>
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<td>Revision of the Regulation on oversight requirements for systemically important payment systems (the SIPS Regulation)</td>
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<td>EU</td>
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<td>Oversight Framework for Direct Debit Schemes</td>
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<td>EU</td>
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<td>Oversight Framework For Card Payment Schemes – Standards</td>
<td>01/2008</td>
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<td>Country</td>
<td>Organization</td>
<td>Documents</td>
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<td>Revised oversight framework for retail payment systems</td>
<td>02/2016</td>
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<td></td>
<td></td>
<td>Pursuant to Article 81 of the EC Treaty in Case of</td>
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<td></td>
<td>Groupement des Cartes Bancaires</td>
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<tr>
<td>FR</td>
<td>CORE</td>
<td>List of participants in CORE (FR)</td>
<td>05/06/2020</td>
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<td>FR</td>
<td>CORE</td>
<td>Criteria for Access</td>
<td></td>
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<td>FR</td>
<td>BdF</td>
<td>Chapter 10: Les systèmes de paiement de détail</td>
<td>17/12/2018</td>
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<tr>
<td>FR</td>
<td>STET</td>
<td>Modification of the article 17.2 of the statues of STET with</td>
<td>28/11/2019</td>
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<tr>
<td></td>
<td></td>
<td>regards to its designation as a systemically important payment system</td>
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<tr>
<td>FR</td>
<td>STET</td>
<td>Statuts—Articles of Association</td>
<td>28/11/2019</td>
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<tr>
<td>FR</td>
<td>STET</td>
<td>Extract from the official registry of commerce and companies</td>
<td>03/07/2020</td>
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<tr>
<td></td>
<td></td>
<td>stating the names of directors of STET</td>
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<td></td>
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<td>Infrastructures</td>
<td></td>
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<tr>
<td>FR</td>
<td>STET</td>
<td>Rules of Governance</td>
<td>10/2018</td>
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<tr>
<td>IN</td>
<td>NPCI</td>
<td>Shareholding pattern as on 15th June 2020</td>
<td>15/06/2020</td>
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<td>Terms of Reference for (i) Audit Committee, (ii) Business Strategy</td>
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<td></td>
<td></td>
<td>Committee, (iii) Committee of Independent Directors, (iv) Corporate Social</td>
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<tr>
<td></td>
<td></td>
<td>Responsibility Committee, (v) HR Committee, (vi) Management Committee,</td>
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<td>(vii) Nomination and Remuneration Committee, (viii) Risk Management</td>
<td></td>
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<td>Committee, (viii) Technology and Project Management Committee</td>
<td></td>
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<tr>
<td>IN</td>
<td>RBI</td>
<td>Oversight Framework for Financial Market Infrastructures (FMIs) and Retail</td>
<td>06/2020</td>
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<td>Payment Systems (RPSS)</td>
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<td>MY</td>
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<td>Central Bank of Malaysia Act 2009</td>
<td>19/08/2009</td>
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<td>Financial Services Act 2013</td>
<td>22/03/2013</td>
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<td>BNM and Malaysia</td>
<td>Memorandum of Understanding between Bank Negara and the Malaysia</td>
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<td>Competition Commission</td>
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<td>MY</td>
<td>PayNet</td>
<td>Guidelines for Assessment of Compliance to Participation in the</td>
<td>03/06/2019</td>
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<td></td>
<td></td>
<td>Rules and Operational Procedures for PayNet’s Services</td>
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<td>MY</td>
<td>BNM</td>
<td>Financial Services (Designated Payment Instruments) Order 2013</td>
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<td>MY</td>
<td>Systemwide</td>
<td>WB &amp; IMF Assessment of Observance of the CPSS-IOSCO Principles for</td>
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<td>Financial Market Infrastructures</td>
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<td>PK</td>
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<td>1/11/2019</td>
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<td>RSA</td>
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<td>RSA</td>
<td>South African Reserve Bank</td>
<td>The National Payment System Framework and Strategy Vision 2025</td>
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<td>TR</td>
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<td>Exemption order issued by the Turkish Competition Authority</td>
<td>23/09/2016</td>
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<td>UEMOA</td>
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<td>UEMOA pour la mise en place d’un système monétique interbancaire-régional :</td>
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<td></td>
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<td>retrait d’espèces et paiement par carte interbancaire.</td>
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<tr>
<td>UK</td>
<td>Vocalink</td>
<td>Articles of Association</td>
<td>04/12/2019</td>
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</table>

ACCC = Australian Competition and Consumer Commission; BACS = Bankers’ Automated Clearing System; BCB = Banco Centrale do Brasil; Bdf = Banque de France; BKM = Bankalararası Kart Merkezi; BNM = Bank Negara Malaysia; CADE = Conselho Administrativo de Defesa Econômica; CB = Cartes Bancaires; CEC = Centre d’Echange et de Compensation; CIP = Câmara Interbancária de Pagamentos; CMA = Competition and Markets Authority; ECB = European Central Bank; EKS = EURO Kartensysteme; FPS = Faster Payments Systems; GIM = Groupement Interbancaire Monétique; NBB = National Bank of Belgium; NPCI = National Payments Corporation of India; NPP = New Payments Platform; PSR = Payment Systems Regulator; RBA = Reserve Bank of Australia; RBI = Reserve Bank of India. n.a. = not available.
Appendix B: PFMI Principle 2: Governance

An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public-interest considerations, and the objectives of relevant stakeholders.

Key considerations:

1. An FMI should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and other relevant public-interest considerations.

2. An FMI should have documented governance arrangements that provide clear and direct lines of responsibility and accountability. These arrangements should be disclosed to owners, relevant authorities, participants, and, at a more general level, the public.

3. The roles and responsibilities of an FMI’s board of directors (or equivalent) should be clearly specified, and there should be documented procedures for its functioning, including procedures to identify, address, and manage member conflicts of interest. The board should review both its overall performance and the performance of its individual board members regularly.

4. The board should contain suitable members with the appropriate skills and incentives to fulfill its multiple roles. This typically requires the inclusion of non-executive board member(s).

5. The roles and responsibilities of management should be clearly specified. An FMI’s management should have the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of the FMI.

6. The board should establish a clear, documented risk-management framework that includes the FMI’s risk-tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies. Governance arrangements should ensure that the risk-management and internal control functions have sufficient authority, independence, resources, and access to the board.

7. The board should ensure that the FMI’s design, rules, overall strategy, and major decisions reflect appropriately the legitimate interests of its direct and indirect participants and other relevant stakeholders. Major decisions should be clearly disclosed to relevant stakeholders and, where there is a broad market impact, the public.
Appendix C: Independent Directors and Role Envisaged

“Independent director” means a director who has no direct or indirect material relationship with the company other than membership on the board and who:

(a) Is not, and has not been in the past five (5) years, employed by the company or its affiliates;
(b) Does not have, and has not had in the past five (5) years, a business relationship with the company or its affiliates (either directly or as a partner, shareholder [other than to the extent to which shares are held by such director pursuant to a requirement of applicable law in the country relating to directors generally], and is not a director, officer, or senior employee of a person that has or had such a relationship);
(c) Is not affiliated with any non-profit organization that receives significant funding from the company or its affiliates;
(d) Does not receive and has not received in the past five (5) years, any additional remuneration from the company or its affiliates other than his or her director’s fee and such director’s fee does not constitute a significant portion of his or her annual income;
(e) Does not participate in any share option [scheme]/[plan] or pension [scheme]/[plan] of the company or any of its affiliates;
(f) Is not employed as an executive officer of another company where any of the company’s executives serve on that company’s board of directors;
(g) Is not, nor has been at any time during the past five (5) years, affiliated with or employed by a present or former auditor of the company or any of its affiliates;
(h) Does not hold a material interest in the company or its affiliates (either directly or as a partner, shareholder, director, officer, or senior employee of a person that holds such an interest);
(i) Is not a member of the immediate family (and is not the executor, administrator, or personal representative of any such person who is deceased or legally incompetent) of any individual who would not meet any of the tests set out in (a) to (h) (were he or she a director of the company);
(j) Is identified in the annual report of the company distributed to the shareholders of the company as an independent director; and
(k) Has not served on the board for more than ten years.

For purposes of this definition, “material interest” shall mean a direct or indirect ownership of voting shares representing at least two (2) percent of the outstanding voting power or equity of the company or any of its affiliates.

Independent directors shall be persons who are independent, both from the owners and the management of a company. Independent directors will therefore be neutral and not be influenced by the interests of one owner or several owners of the company, or by management, and will thereby be better equipped and motivated solely by the purpose and objectives of the company in exercising the role and responsibilities as a member of the board.

The independent directors, who can constitute either a minority or a majority of the board, can further take on specific roles within the board, such as being the board chair. Independent directors may also serve as the chair of a specific committee, such as the risk committee, or the committee responsible for appointing and deciding the remuneration of company management.

As with other members of a board, independent directors will typically, but not always, be appointed by the shareholders of a company. The criteria, selection, and appointment process may be defined in the bylaws of the organization and/or could accord rights to an external body such as the oversight authority. Independent directors can also potentially be appointed directly to the board by defined stakeholders other than the owners of a retail payment system. A central bank, for example, could replace having a direct seat
on the board with the right to appoint independent directors to the board in order to distance itself from the
governance arrangements and remain at arm’s length in relation to its obligations as regulator or overseer.

The PFMI specifically highlight that ensuring the independence of the board from management will typically
entail including non-executive members on the board. The PFMI also include considerations about including
independent directors on the board, as appropriate. As a minimum, the board of a retail payment system
should thus include non-executive board members; however, including independent directors should be
considered as a possible prerequisite to ensure that the board is able to conduct its business with sufficient
independence and objectivity, also where the PFMI are not directly applicable. The retail payment system
shall disclose publicly which members of the board are regarded as independent directors.

The composition of the board should change as the market evolves. A smaller board comprised of non-
executive and executive directors may suffice at the initial stages of the development of a retail payment
system, while with growth and increased complexity of the business, the role of an independent director, as
a means to help maintain objectivity and independence, will become more essential. The board will be
required to assess and review the performance of the board as a whole and of individual board members,
and through such regular reviews, the need or requirement for changing the composition of the board and
including independent directors can be uncovered. Equally, the need for changing the composition of the
board can become apparent through individual or recurring conflicts of interest encountered by the board in
its decision-making.
## Appendix D: Overview of Governance Arrangements, Selected Systems

### Figure 9: Overview of Systems and Arrangements, Selected Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>System Operator</th>
<th>System/Schemes</th>
<th>Overseer</th>
<th>MOU w/ Competition Authority?</th>
<th>Legal Form</th>
<th>Profit / not for profit</th>
<th>Shareholders</th>
<th>Board / Management / Membership - selected public information</th>
</tr>
</thead>
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<tr>
<td>Australia</td>
<td>NPP</td>
<td>..</td>
<td>Reserve Bank of Australia (RBA)</td>
<td>Yes: RBA-ACCC</td>
<td>NPP is a public company - can pay dividends</td>
<td>Owned by NPPA, a public ltd co. RBA is a shareholder of NPPA along with 12 local financial institutions</td>
<td>Representation is for Members; Members must apply and subscribe to shares in the company</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>CIP</td>
<td>SILOC</td>
<td>Banco Central Do Brasil (BCB)</td>
<td>Yes BCB-CADE</td>
<td>CIP is a not for profit civil association</td>
<td>Owned by domestic banks</td>
<td>Representation of shareholders on the Board dependent on level of holding, arranged in three tiers, with bigger shareholders having more weight</td>
<td></td>
</tr>
<tr>
<td>Egypt</td>
<td>Egyptian Banking Co. S.A.E</td>
<td>123 debt; EG-ACH</td>
<td>Central Bank of Egypt (CBE)</td>
<td>No</td>
<td>Technically can make profit</td>
<td>Central Bank of Egypt, Ministry of Finance (MOF), and national and commercial banks</td>
<td>Board is chaired by representative of the CBE; the Board has 1 extra seat for CBE, 1 for the MOF, 2 for two state owned banks and 2 seats for commercial banks</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>STET</td>
<td>CORE-FR; STET-SEPA</td>
<td>Banque de France (BdF)</td>
<td>No</td>
<td>STET is a public limited company (S.A.) for profit</td>
<td>STET owned by 6 major local banks and the Carte Bleue GIE that runs local card scheme</td>
<td>Private company – internal management not disclosed CORE-FR has 10 direct and 177 indirect participants</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>EKS</td>
<td>Giro</td>
<td>Deutsche Bundesbank</td>
<td>No</td>
<td>EKS is a Limited liability company for profit</td>
<td>EKS owned by 3 main banking assoc.</td>
<td>Governance overseen by shareholders banking assoc. EKS mgmt focuses on 4 areas: Business Dev. for girocard, marketing, payment card security and Licensing.</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>NPCI</td>
<td>UPI, IMPS, Rupay</td>
<td>Reserve Bank of India (RBI)</td>
<td>No</td>
<td>NPCI is a not for profit company under Sect 25 of Companies Act</td>
<td>48 shareholders including locally authorised private and state owned banks</td>
<td>The current NPCI Board structure includes an RBI director, 4 independents, 6 directors for “promoter banks” and a nominee director for shareholder banks</td>
<td></td>
</tr>
<tr>
<td>Jordan</td>
<td>JoPACC</td>
<td>JoMoPay, ACH, ECC, eFWATERco</td>
<td>Central Bank of Jordan (CBJ)</td>
<td>n.a.</td>
<td>Private Shareholding Company</td>
<td>45% owned by the Central Bank of Jordan, and 55% shared between the 24 banks operating in Jordan</td>
<td>BoD consists of 11 members, they can be shareholders or non-shareholders. The CBJ is entitled to assign 3 members to it, as long as the CBJ is a shareholder. The elected board serves for a term of 3 years...</td>
<td></td>
</tr>
<tr>
<td>Korea</td>
<td>KFTC</td>
<td>Kcaeh, CDNetwork, IFT</td>
<td>Bank of Korea (BoK)</td>
<td>No</td>
<td>KFTC is a not for profit incorporated assoc</td>
<td>Owned by bank members, which are local banks in Korea</td>
<td>Board of Directors is composed of the president and deputy of KFTC and 8 non-permanent directors including a VP of BoK and 6 Members and 1 assoc. Member</td>
<td></td>
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<tr>
<td>Malaysia</td>
<td>PayNet</td>
<td>Jompay, MEPS, Durf,</td>
<td>Bank Negara Malaysia (BNM)</td>
<td>Yes BNM-MCC</td>
<td>PayNet is a Limited company (Sdn Bhd) not for profit</td>
<td>Owned jointly by BNM and 11 local banks. BNM is the single largest shareholder</td>
<td>Main governance bodies are the Nomination &amp; Remuneration, Audit, Rules and Group Management Committees; Chair of rules committee is from BNM</td>
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<thead>
<tr>
<th>country</th>
<th>System operator</th>
<th>System/ Schemes</th>
<th>Overseer</th>
<th>MOU w/ Competition Authority?</th>
<th>Legal Form Profit / not for profit</th>
<th>Shareholders</th>
<th>Board / Management / Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morocco</td>
<td>HPS Switch</td>
<td>CMI GP2M</td>
<td>Bank Al-Maghrib (BAM)</td>
<td>No</td>
<td>HPS-switch is private GP2M is a GIE*</td>
<td>Owned by a consortium of 11 local banks</td>
<td>The GP2M is run by an Administrative Council composed of 12 members, 7 from banks and 5 from payment institutions; Administrators proposed by their assoc.</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1Link Ltd</td>
<td>1BFT BPS</td>
<td>State Bank of Pakistan</td>
<td>n.a.</td>
<td>Guarantee limited company</td>
<td>Owned by a consortium of 11 local banks</td>
<td>The Board is composed of 11 directors from the shareholding banks and a CEO Director</td>
</tr>
<tr>
<td>Poland</td>
<td>Krajowa Izbą Rozliczeniowa S.A. (KIR)</td>
<td>Elixir Narodowy Bank Polski (NBP)</td>
<td>State Bank of Poland</td>
<td>n.a.</td>
<td>Private for profit</td>
<td>11 locally incorporated banks (including foreign banks) and the National Bank of Poland (34.44%)</td>
<td>Overseen by management and supervisory board. Supervisory board has representatives of the 11 private shareholder banks and is chaired by rep of the NBP</td>
</tr>
<tr>
<td>Romania</td>
<td>TransFond S.A.</td>
<td>SENT Banca Națională a României (BNR)</td>
<td>Banca Națională a României (BNR)</td>
<td>n.a.</td>
<td>Private for profit</td>
<td>19 locally operating banks and the National Bank of Romania</td>
<td>The shareholders appoint and elect, every 4 years, a Board of Directors of 9 members - Individuals who represent each and all shareholders of the company</td>
</tr>
<tr>
<td>South Africa</td>
<td>Bankserv Pty Ltd</td>
<td>EFT, RTC South African Reserve Bank (SARB)</td>
<td>None yet with the Comp Com (still pending)</td>
<td>n.a.</td>
<td>Private company</td>
<td>owned by 4 major local banks (equal shares totaling 92.5%) remaining 7.5% held by Dandyshelf (consortium)</td>
<td>Shareholders with 5% or more entitled to nominate one Director. The Board can appoint further 5 Independent Non-Exec Directors and up to 4 Executive Directors.</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>LankanClear (Private) Limited</td>
<td>SLIP Central Bank of Sri Lanka</td>
<td>Central Bank of Sri Lanka</td>
<td>n.a.</td>
<td>Private limited liability company</td>
<td>26 locally registered financial institutions plus the Central Bank of Sri Lanka, which holds 19.34% of shares</td>
<td>Chairman appointed by Governor of the Central Bank of Sri Lanka; of 7 Directors, 2 represent the Central Bank, 2 the 2 main state owned banks, 3 by bankers association</td>
</tr>
<tr>
<td>Switzerland</td>
<td>SIC Ltd</td>
<td>SIC Schweizer Nationalbank (SNB)</td>
<td>Comco has sole responsibility</td>
<td></td>
<td>Private company</td>
<td>SIX Group Ltd; shareholders of SIX Group are primarily (96.9%) local and locally operating foreign banks</td>
<td>Joint governance by SNB and SIX; SNB is the system manager, determines participants, accounts, settlement and processing; SIX provides the technical services</td>
</tr>
<tr>
<td>Thailand</td>
<td>ITMX Promptpay</td>
<td>Bank of Thailand (BoT)</td>
<td>ITMX is a private company without advisory board</td>
<td>No</td>
<td>Jointly owned by 10 domestic banks</td>
<td>Jointly owned by 10 domestic banks</td>
<td>ITMX is a company of the Thai Bankers Association. It is managed by a board of directors and through audit, risk and management committees</td>
</tr>
<tr>
<td>Turkey</td>
<td>BKM BKM-Express Visa, MC</td>
<td>Central Bank of Republic of Turkey (TCMB)</td>
<td>Central Bank of Republic of Turkey (TCMB)</td>
<td>No</td>
<td>BKM is a not for profit</td>
<td>Joint ownership by 10 domestic banks and the central bank</td>
<td>BKM governance defines Partners, Members and Service Providers; 6 committees exist in addition to the Board, covering Operations, Marked Dev. and Business Dev.</td>
</tr>
<tr>
<td>UEMOA</td>
<td>Groupement Interbancaire Mixte</td>
<td>GIM, Visa, MC BCEAO</td>
<td>BCEAO</td>
<td>n.a.a</td>
<td>Groupement d’Intérêt Economique (GIE)</td>
<td>Members are credit institutions and other financial institutions in the zone, including also the BCEAO</td>
<td>There are full Members and affiliate Members. Each member has a vote in the General Assembly. It is run by a Conseil d’Admin; each member state also has rep.</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Vocalink</td>
<td>FPS, Bacs, Paym</td>
<td>Payment Systems Regulator (PSR)</td>
<td>Yes PSR-CMA</td>
<td>Vocalink is a private company limited by shares</td>
<td>Owned by Mastercard Inc; Schemes are separately owned by Pay.Uk</td>
<td>Vocalink is no longer a membership based organisation; articles of association for Faster Payments and BACS do not specify criteria for membership eligibility.</td>
</tr>
</tbody>
</table>

*GIE = Groupement d’Intérêt Economique, a non-profit company structure run by members with no fixed capital.*
1 Van Kersbergen and Van Waarden, “Governance as a bridge between disciplines: Cross-disciplinary inspiration regarding shifts in governance and problems of governability, accountability and legitimacy” European Journal of Political Research 43 (2004). There the authors provide an overview of the different contexts in which governance is used and how it related to market and economic policy aims.


The OECD has published OECD Corporate Governance Factbook 2019, which provides a comprehensive global overview regarding corporate governance.


5 Bossone and Cirasino, Oversight of Payments Systems.

6 Under the PFMI, a payment system is covered by the following definition: “A payment system is a set of instruments, procedures, and rules for the transfer of funds between or among participants; the system includes the participants and the entity operating the arrangement. Payment systems are typically based on an agreement between or among participants and the operator of the arrangement, and the transfer of funds is affected using an agreed-upon operational infrastructure. A payment system is generally categorized as either a retail payment system or a large-value payment system. A retail payment system is a funds transfer system which typically handle a large volume of relatively low value in such forms as cheques, credit transfers, direct debits and payment card transactions. Retail payment systems may be operated either by the private sector or public sector, using a deferred net settlement mechanism or a real-time gross settlement mechanism.”

7 Retail payments are typically low-value transactions between consumers, businesses, and public authorities conducted by checks, payment cards, direct debit, and cash. The focus of this paper is on the retail payment systems that support electronic retail payments. E-money can include store-of-value cards issued by banks or non-banks and would include most “mobile money” schemes.

8 Within the European Union, a functional separation between a scheme and a processor is mandated under the Interchange Fee Regulation.

9 National payments companies have been established in Jordan, India, and Saudi Arabia, for example.

10 In the recent announcement of changes to the Regulation on Oversight for Systemically Important Payment Systems, the European Central Bank noted, “In the light of fast-moving technological trends and changing consumer preferences which may fundamentally change the way payments are made, it is considered important to ensure that all relevant factors can be taken into account when assessing the systemic importance of a payment system.”

11 The Eurosystem is proposing amendments to the existing oversight standards for payment instruments. The amendments would include “payment arrangements” in addition to payment schemes. A payment arrangement provides functionalities that support the end users of multiple payment service providers in the use of electronic payment instruments. It is managed by a governance body that issues the relevant rules or terms and conditions. A subset of the PFMI will apply to payment arrangements and payment schemes, including governance. Eurosystem Oversight Framework for Electronic Payments Instruments, Schemes and Arrangements: Draft for Public Consultation, October 2020 (European Central Bank).

12 Oversight Framework for Financial Market Infrastructures (FMIs) and Retail Payment Systems (RPSs).

13 Erstwhile known as the Committee on Payment and Settlement Systems.

14 While the PFMI are applicable to systemically important payment systems, some of the principles are also applied to retail payment systems. The European Central Bank, Bank of Canada, and the RBI, among other central banks, have used a subset of the PFMI for the oversight of retail payment systems. In the rest of the paper, the abbreviation FMI (financial market infrastructure) is used to indicate a payment system.

15 “Ownership and governance of the Operators ultimately determines how control is exercised over the payment systems in terms of their operation, access and development. We must be sure that appropriate governance...
measures are in place so that the extent and manner in which control is exercised over the Operators of payment systems does not adversely impact on our ability to further our objectives of competition, innovation and the interests of service-users.” Payment Systems Regulator.

16 Chapter 4.0 of the PFMI sets out the responsibilities of central banks, market regulators, and other relevant authorities for FMIs.

17 Including those responsible for market conduct, consumer protection, and national security.

18 Organization for Economic Co-operation and Development (OECD)

19 Committee on Payment Market Infrastructures and International Organization of Securities Commissions (CPMI)

20 Bossone and Cirasino, Oversight of Payments Systems.

21 The World Bank has issued guidelines for “developing a comprehensive national payments strategy” in which it is stated: “While there are a number of issues that are responsible for the persistence of inefficiencies in retail payment markets, the lack of a coherent, holistic strategy for the development of retail payment systems is among the most common.”

22 For instance, through the role of oversight authorities, policy makers recently played a pivotal role in creating and shaping the governance frameworks for new “faster payment” systems. In Australia, for example, the Reserve Bank of Australia led engagement and consultations with stakeholders on the creation of the New Payments Platform. Since its launch, the reserve bank has also reviewed key elements of governance, including the access regime and functionality. (See https://www.rba.gov.au/payments-and-infrastructure/new-payments-platform/functionality-and-access-report/introduction.html.) There have also been debates about whether or how mobile money providers should be able to have interoperability arrangements with bank-owned ATM networks, such as in Kenya.

23 In an article on efficiency, the Australian Competition and Consumer Commission states: “Dynamic efficiency reflects the need for industries to make timely changes to technology and products in response to changes in consumer tastes and in productive opportunities. Competition in markets for goods and services provides incentives to undertake research and development, effect innovation.” (See https://www.accc.gov.au/system/files/Network%20March%202017.pdf.)

24 This has been the case in a number of instances in relation to interchange fees within the European Union.


26 “Based on the knowledge of its own country, the overseer should define a payment system governance structure that supports the greatest involvement of the private sector in decisions of common interest and systemic relevance (for example, infrastructural standards and risk-management features), while protecting the competition or contestability of the domestic market for payment services.” Bossone and Cirasino, Oversight of Payments Systems.

27 According to data from the Global Payment Systems Survey, of the 120 countries included in the survey, 32 percent of the jurisdictions did not require a license for international card payment networks operating in the country, and 26 percent of the jurisdictions did not require a license for entities operating a domestic card payment network. Seventeen percent of the jurisdictions included in the survey did not require an entity operating an ACH to obtain a license.

28 The Payment Systems Regulator in the United Kingdom has issued directives regarding various aspects of governance and access to payment systems.

29 Banking Market Law, 5777–2017. Both Visa and Mastercard have been granted the right to own shares of 10 percent.


31 The RBI has laid down a governance framework for NPCI. The governance framework for central counterparties also illustrates the ability of public authorities to shape governance framework for FMIs. In Directions for Central Counterparties (CCPs), it prescribes: “The shares of an authorised CCP shall be held by persons who are users of the authorised CCP. If a person ceases to be a user, the CCP shall ensure that the person’s shares are divested,” and “no person shall transfer/divest/sell/buy equity shares of an authorised CCP without prior approval of RBI” if the shares are equal to or more than 5 percent or where the acquisition would increase the cumulative shareholding to 5 percent or more.
32 In 2005, Bank of Mexico opened access to SPEI (*Sistema de Pagos Electrónicos Interbancarios*) to non-banks.
33 The right of access should also be looked at in the context of the obligation of a payment system to monitor the adherence to the rules of participation on an ongoing basis.
34 https://www.npci.org.in/who-we-are/corporate-governance/appointment-of-directors
35 https://www.bis.org/cpmi/publ/d130.pdf
36 The European Central Bank uses the general term *Governance Authority* in this regard.
37 In some payment systems, the owners of a retail payment system are referred to as members. The terms are used interchangeably.
38 Visa Europe was acquired by Visa Inc. in 2016.
39 Prepaid Payment Instruments (PPIs) – (i) Mandating Interoperability; (ii) Increasing the Limit to ₹2 lakh for Full-KYC PPIs; and (iii) Permitting Cash Withdrawal from Full-KYC PPIs of Non-Bank PPI Issuers
40 In some countries, notably Switzerland and the United Kingdom, non-bank entities have recently been permitted to obtain settlement accounts, thereby facilitating their direct access to and participation in a specific payment system.
41 https://www.accesstopaymentsystems.co.uk/about-us
42 https://www.psr.org.uk/sites/default/files/media/PDF/PSR%20General%20Direction%205%20March%202020.pdf
44 The board of NPCI in India has four independent directors out of a total of 12 board members. At EFTPOS in Australia, two of its 12 board members are independent directors.
45 The PFMI indicate that independence means excluding parties with significant business relationships with the FMI, cross-directorships, or controlling shareholding as well as employees of the organization.
46 https://www.npci.org.in/board-of-directors
47 Transparency will need to be regarded in the context of the applicable regulatory requirements, and certain information may not be disclosed—for example, due to competition-law requirements.
48 https://www.bis.org/cpmi/publ/d130.pdf
49 The role as board chair at Benefit EFT in Bahrain is reserved for an independent director. While the central bank of Bahrain is the single biggest shareholder, it has only observer status on the board.
https://www.benefit.bh/About/boardofdirectors/