



FOCUS NOTE

A PRACTITIONER'S GUIDE TO GOVERNANCE OF FAST PAYMENT SYSTEMS

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FINANCE, COMPETITIVENESS & INNOVATION GLOBAL PRACTICE

Payment Systems Development Group

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1 EXECUTIVE SUMMARY

Retail fast payments (also known as instant, real-time, immediate, or rapid payments) across payment service providers allow for immediate fund availability to beneficiaries and can be used on a 24/7/365 basis. As fast payment systems (FPS) evolve, they enable a diverse set of payment service providers, including banks and non-banks, and support a variety of payment instruments, use cases (domestic and cross-border), transaction channels, and overlay services.¹ The *“G20 Policy Recommendations for Advancing Financial Inclusion and Productivity Gains through Digital Public Infrastructure”* has identified FPS as one of the three digital public infrastructures (DPis) in advancing financial inclusion. FPSs are proliferating worldwide in both advanced and emerging economies.²

Ensuring that FPSs are well-governed is becoming a key policy concern for central banks and economic policy makers worldwide, as it can significantly impact the financial health of a national economy. However, setting up the best possible governance framework can be challenging: the issues are complex and interdependent, the community of affected stakeholders is large and diverse, the technology evolves quickly, and no two financial ecosystems are exactly alike. Specialist help is likely to be needed.

Much has been written on general corporate governance, and there are other reports on governance issues related to retail payment systems and financial market infrastructures (FMIs).³ However, there is no specific practical guidance on how to set up a governance framework for FPS. This guide is aimed at policy makers and system managers tasked with this challenge.

Section 2 provides a set of guidelines for establishing a governance framework for FPS, encompassing both the external framework and internal arrangements, which comprise 10 key elements. The suggested methodology is to develop a Governance Plan for the FPS that addresses these 10 key elements



in sequence, thereby creating a comprehensive and consistent design for the FPS's governance. The elements are the following:

1. Scope and mandate of the FPS
2. Stakeholder composition
3. Public policy objectives
4. Adherence to regulatory and oversight framework
5. Development of the Governance plan
6. Formal structure and ownership
7. The board
8. Scheme rules⁴
9. Transparency and public disclosure
10. Risk management

Section 3 provides the background and context, while section 4 elaborates the methodology in more detail, with section 5 referencing the relevant international standards. Sections 6 to 15 provide a closer look at each of the 10 elements, examining key questions that must be addressed when designing the governance framework and offering guidelines for each respective element. Governance frameworks of six FPS case studies of emerging markets and developing economies (EMDEs) are used as illustrative examples to indicate how external framework elements and internal arrangement elements have been addressed.⁵ The report concludes with section 16.



2 GOVERNANCE GUIDELINES

Following is a complete set of the Governance Guidelines for the 10 key elements of FPS governance. For each element, the guidelines are supported by more detail in a separate section later in the guide.

ELEMENT 1 **The Scope and Mandate of the FPS**

The developers of a new FPS should develop a comprehensive Governance Plan, starting with a clear statement of the FPS scope and mandate that takes into account the interests of all stakeholders and supports relevant public interest considerations.

The scope and mandate should be articulated inclusively, highlighting desired community and economic benefits and balancing relevant public policy objectives with the common interests of system participants.

The FPS's financial objectives should be clearly articulated, published to the stakeholder community, and internalized by the board and management. If an FPS is intended to operate for profit, this should be explicitly stated, along with clarity on the safeguards to ensure it aligns with, rather than detracts from, public policy goals.

ELEMENT 2 **Stakeholder Composition**

An FPS's Governance Plan should include a "stakeholder map" with a broad and inclusive view of the FPS's stakeholder community, encompassing end-user beneficiaries, participants, and any other relevant stakeholders. In each case, stakeholder groups should be subdivided according to their ability to influence the FPS and their interests and priorities in relation to the FPS.

ELEMENT 3 **Public Policy Objectives**

The FPS Governance Plan should reference the public policy guidelines issued by the central bank and ensure that they align with these objectives.

ELEMENT 4 **Adherence to Regulatory and Oversight Framework**

National payments system legislation should clearly apply to the FPS. As part of preparing the Governance Plan for the FPS, applicable legislation should be reviewed by the FPS to identify and plan for

- licensing, authorization, or designation of FPSs, and
- other oversight and regulatory requirements, including those relevant authorities involved in matters such as

conducting regulations to support policy outcomes (consumer protection, fair and open markets, system interoperability, and so on).

If there are self-regulatory elements in the governance framework, their scope and authority must be clearly specified in the Governance Plan, as well as the manner in which public oversight of self-regulatory processes is to be achieved.

ELEMENT 5 **Development of the Governance Plan**

The FPS operator is responsible for developing and implementing the Governance Plan. The operator must possess professional competence to consider the interests of various stakeholders while pursuing public policy objectives. Where the central bank operates the FPS, it must engage with the relevant stakeholders.

An FPS development could also consider engaging professional, dedicated project management resources charged with formal planning, developing an information database, harnessing industry expertise, engaging and communicating with all stakeholders, and coordinating sound decision-making arrangements, if required.

The Governance Plan should facilitate extensive and continuous engagement with all stakeholders, particularly participants, throughout the FPS development phase to ensure a successful market launch through effective coordination.

Where governance arrangements are changing, those stakeholders whose interest or influence may be adversely affected should be identified and engaged. Where supervening public interest necessitates it, the central bank may need to exercise its authority to direct the change.

The transition from program governance to operational governance requires careful planning and clear articulation to affected stakeholders.

ELEMENT 6 **Formal Structure and Ownership**

The Governance Plan should propose a formal structure for the FPS, which

- enables and supports the scope and mandate,
- is legally sound and compliant with applicable laws,
- is widely supported by stakeholders, and
- includes the capability to adapt to future market evolution.

The FPS Governance Plan could consider using pre-existing governance arrangements for the FPS, such as an existing self-regulatory body or operator, which can enhance market engagement and reduce the time to market. However, arrangements that were appropriate for different kinds of systems—particularly those without the extended participation and retail characteristics of an FPS—may need modification to be appropriate for an FPS.

ELEMENT 7 **The Board**

An FPS Governance Plan needs to establish the board's composition and proceedings, including the scope and mandate, as well as the interests of owners. If an existing national operator is to house the FPS, this option involves considering whether the special needs of the FPS warrant changes to existing governance arrangements.

The FPS board should fairly reflect the ownership of the FPS, but it is also important to consider access to subject matter expertise, diversity of perspective, and external credibility by having independent directors.

Public interest and independent directors should be considered in addition to owner appointees, as they can be critical in mediating and managing competing stakeholder interests, including formal conflicts of interest.

FPSs are prone to potential conflicts of interest in several dimensions and need transparent, effective protocols for managing any conflicts.

The role of the chair is often a key appointment because the chair controls board processes and can, if necessary, mediate among divergent stakeholder interests. The Governance Plan should specify how the chair is to be appointed.

Under the chair's leadership, the board should establish clear criteria for director appointments, including those made by stakeholder owners, and a director performance review mechanism that has the support of stakeholder owners.

The Governance Plan should consider the optimal mix and composition of board committees to ensure efficient decision-making, taking into account both general corporate needs and specialized payment system requirements. Committees dealing with sensitive subject matter may need independent leadership, membership, or both.

ELEMENT 8 **Scheme Rules**

The Governance Plan for an FPS should provide for the establishment of a comprehensive set of scheme rules covering

- the rights and obligations of each participant as against each other and as against the operator in relation to fast payment activity,
- clear definition of different classes of participation and the ongoing requirements of each, and
- fast, fair dispute resolution, rules compliance procedures, and disciplinary proceedings.

The scheme rules should be administered by the board or a committee appointed for this purpose, ensuring that the views of participants and the central bank are taken into account in rulemaking for the FPS.

Consideration should be given to how the central bank will be engaged in rulemaking, including whether the oversight function needs to be proactively involved in proposed rule changes and whether a formal approval or nonobjection process is in place.

ELEMENT 9 **Transparency and Public Disclosure**

The Governance Plan for an FPS should factor in structured, regular governance disclosure by the operator, which may include scheme rules, ownership details, board constitution, and governance processes.

Using the stakeholder map (see Element 2), the Governance Plan should outline the mix of engagement models that will be employed to ensure that all stakeholders are part of an ongoing discussion with the FPS on issues relevant to them.

ELEMENT 10 **Risk Management**

The Governance Plan for an FPS should consider the need to promote the best possible management structure and corporate culture for addressing the special strategic and risk issues associated with an FPS. The ownership structure is relevant, but it should not dictate the organizational structure.

The management structure should explicitly consider the following:

- How to manage the diverse interests of multiple stakeholders with regard to the stakeholder map
- How to continuously balance public policy objectives with service to participants and their customers
- How the special risks associated with fast payment processing can be effectively integrated into operations management



3 BACKGROUND

The World Bank has been closely monitoring the development of FPSs by central banks and private sector players worldwide. This comprehensive study has resulted in a policy toolkit designed to guide countries and regions on the likely alternatives and models that could assist them in their policy and implementation choices when they embark on their FPS journeys. As FPSs grow and proliferate, they become more important both to increasing numbers of individuals and businesses and to the health of national economies. Getting their governance right becomes a key policy concern for central banks and economic policy makers.

Work on the FPS Toolkit is supported by the Gates Foundation under Project FASTT (Frictionless Affordable Safe Timely Transactions).

The toolkit and other relevant resources of Project FASTT can be found at fastpayments.worldbank.org and consist of the following components:

- The main report, “Considerations and Lessons for the Development and Implementation of Fast Payment Systems”
- Case studies of countries that have already implemented fast payments
- A set of short focus notes on specific technical topics related to fast payments

This note is part of the third component of the toolkit and aims to provide input on the governance of FPS. This topic is relevant given the increase in the number of countries adopting FPS worldwide and the significance that FPS typ-

ically have in terms of economic and public policy for the jurisdictions they serve. Ensuring that national FPSs are well run is rapidly becoming a key issue of national economic policy in emerging and developing economies (EMDEs).

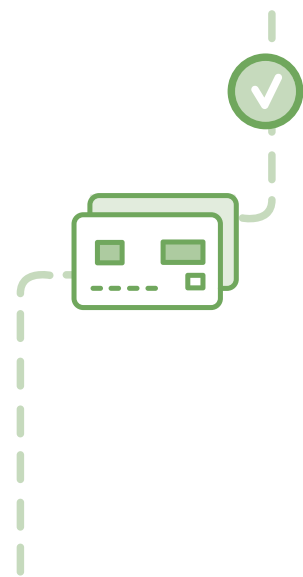
Conversely, poorly run FPSs can cause multiple problems. Slow and inefficient decision-making can hinder the entire marketplace from implementing new technologies and improved processes. Lack of regard for public policy priorities can undermine government efforts to improve the economy; disregard for stakeholder interests can create frustrated, disengaged participants and low take-up of services.

The rapidly evolving world of FPSs presents a special governance challenge: the issues are complex and interdependent, and no two environments are alike. There is a wave of global development activity, particularly in EMDEs. Yet each jurisdiction has its own economic, policy, and often political concerns. In FPS, more than in other payment systems, different stakeholder groups like mobile money operators, digital wallet operators, remittance services, and social media platforms bring new and sometimes conflicting perspectives and interests.

This report is accordingly aimed at both policy makers and practitioners to enable them to address all issues pertaining to setting up a sound governance framework for the FPS consistent with the best international practices and standards while taking into account each jurisdiction’s payments ecosystem. Noting that setting up a governance structure and its associated processes is a complex task, the guide provides a holistic perspective on the various steps

involved in this process. Accordingly, the external factors and internal arrangements that influence the governance framework are identified, and various elements under each of these respective heads are further broken down. Each element is discussed in detail, with key questions listed to guide policy makers and practitioners in ensuring that all relevant issues have been taken into account when devis-

ing a sound governance framework. To this end, the guide provides illustrations of select FPS governance frameworks drawing from six case studies. The guide accordingly should be read and understood from the wholistic perspective as it seeks to help the reader navigate the complexities involved in this process.



4 METHODOLOGY

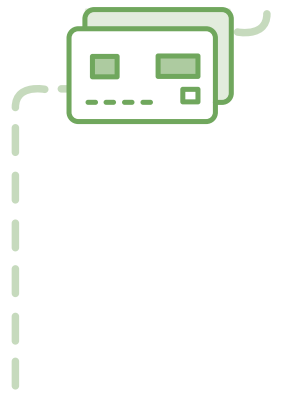
An expansive view of the FPS governance framework includes both external and internal elements that affect FPS decision-making.⁶ The 10 elements presented in this report distill the available international standards. The *external governance framework* comprises elements that have a substantial impact on decision-making, such as the make-up of the stakeholder community and the regulatory and public policy environment. These influence the *internal governance arrangements*, which comprise the structures and processes for FPS decision-making, particularly its board. A foundational linking element is the FPS's scope mandate, which describes why and for whom the FPS exists.

Although these governance elements are complex and interdependent, this guide responds to the challenge of setting up FPS governance by arranging the 10 elements in a way that can be addressed in sequence:

- First, the scope and mandate of the FPS.
- Second, four external elements:
 - Stakeholder composition
 - Public policy objectives
 - Adherence to the regulatory and oversight framework
 - Development of the governance plan
- Finally, five internal elements:
 - Formal structure and ownership
 - The board
 - Scheme rules
 - Transparency and public disclosure
 - Risk management

The international standards being referenced in the guide comprise the following: (a) *G20/OECD Principles of Corporate Governance* (OECD Principles);⁷ (b) The CPSS-IOSCO *Principles for Financial Market Infrastructures* (PFMI);⁸ (c) “Policy Recommendations for Advancing Financial inclusion and Productivity Gains through Digital Public Infrastructure” (DPI Guidelines);⁹ and (d) the World Bank’s “Governance of Retail Payment Systems: Keeping Pace with Changing Markets” (Keeping Pace Paper) in 2021.¹⁰

Each element is discussed in detail in subsequent sections, along with key questions to be addressed and references to the relevant international standards that underpin the respective element. The design issues pertaining to the element are drawn from the relevant case studies.¹¹ The specific governance guidelines for the particular element are provided.



5 ELEMENT 1 SCOPE AND MANDATE OF THE FPS

The scope and mandate of the FPS have a bearing on determining its governance arrangements. FPS may be set up by the public sector or the private sector or through a joint public and private sector collaboration. Depending on the type of ownership, the articles of association of the entity (operator of the FPS) will articulate the scope of activities, the services to be provided, and the communities to be served, which would constitute its mandate. A clear articulation of these lines is essential to designing the governance arrangements for a successful FPS development.

KEY QUESTIONS

The following questions may assist in articulating the scope and mandate:

- **Problem Statement:** What is the unmet need or problem the FPS intends to address? Who will benefit?
- **Core Purpose:** What are the explicit objectives for which an FPS has been established, and where is this expressed? Are there limits on its activities? Does the mandate acknowledge both public and private interests? Where are there any differences, and how are they resolved?
- **Financial Objectives:** Is the FPS privately or publicly funded? Do owners/investors expect it to generate a return on investment, and if so, over what time frame? Can it distribute profits? Must it be self-sustaining, and if so, does it merely need to cover operating costs, or must it also generate capital for future reinvestment?
- **Market Context:** What role does the FPS play in the economy and the value chain to end-users? Are there competing or substitutable services or platforms?
- **Jurisdictional Context:** Does the FPS operate only within one jurisdiction or across multiple jurisdictions? Are its services domestic or cross-border?

INTERNATIONAL STANDARDS

The PFMI highlights the importance of striking a balance between public interest objectives and those of relevant stakeholders. Principle 2, Key Consideration 1, says:

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.¹²

The DPI Guidelines approach the issue in Principle 2 by advocating for “well-designed” DPs. Within the central theme of promoting productivity gains and financial inclusion, the guidelines recommend that public authorities adopt design and operational principles to ensure efficiency, inclusivity, resiliency, privacy, and security.¹³ Principle 4 explicitly references the desirability for sound internal governance of DPs to include an explicit objective to act in the public interest.¹⁴

In the Keeping Pace paper, Consideration 3 reinforces this by stating, “Appropriate public interests should be acknowledged, clearly defined and addressed.”¹⁵ The paper discusses

potential conflicts between public interest and corporate or community objectives, as well as the need to articulate goals clearly in a way that balances competing interests.

DESIGN ISSUES

Public versus Private Interests

The drive for the development of an FPS often comes from the national treasury or the central bank because, in EMDEs, FPSs are increasingly a focus for economic development. Therefore, consistent with the published guidance, public policy goals like economic development, digitization of the economy, promotion of a “cashlite” society, and financial inclusion will naturally be central to the development of an FPS. For example, in Poland, KIR’s articulation of its strategic roles explicitly mentions its economic relevance for Poland; in Malawi, Natswitch’s constituent documents explicitly restrict it from activities not in the common interest. For Ghana’s Ghana Interbank Payments and Settlement Systems Limited (GhIPPS), central bank ownership amplifies public policy objectives in inclusive governance arrangements that seek to strike a balance with industry interests. In the case of Brazil’s Pix, operation within the central bank means that strategy is explicitly framed as an extension of central bank policy.

But industry interests are also important. Payment service providers like banks, mobile money operators (MMOs), and social media platforms may be both owners and participants. As financial service providers operating in a competitive marketplace, they expect an FPS to be a service that extends or enhances their service offerings. Some FPSs are developed by industry-owned bodies whose focus is the collective interests of industry participants. The recent launch of PayShap by BankservAfrica in South Africa is an example. Accordingly, the mandate of the FPS will also need to take into account the legitimate common interests of participants, such as reduced operating costs and risks, increased market coverage, or an open, competitive marketplace.

Such participant common interests often align well with the broader public interest in providing better payment infrastructure for the economy, making it easier to balance public and common participant interests. However, tension between the two can arise. For example, when an FPS’s owners—typically banks—have little interest in opening the FPS beyond the banking community and in encouraging diverse participation, that position can be a conflict with central economic policy interests like promoting competition and increasing financial inclusion.¹⁶ The central bank may need to

take a championing role in articulating the extended scope of the FPS. The World Bank’s “Fast Payments Championing Handbook for Central Banks” provides practical guidance to central banks on how to lead FPS development initiatives.¹⁷

Most national FPSs make this balancing of public and participant common interests paramount. However, it is also possible that the FPS is set up as a commercial enterprise—that it must provide a return to investors. This commercial objective is assumed in most discussions of general corporate governance because it is the default state for the great majority of companies. Where it occurs in the special case of an FPS, however, it needs to be explicit in the scope and mandate, and the balancing of commercial interests, participant common interests, and public interests needs to be articulated. The economic significance and diverse stakeholder interests of an FPS can potentially create some design challenges in establishing its scope and mandate. These challenges relate principally to balancing public and participant interests.

Financial Objectives

Depending on the balance of stakeholder interests, it will usually be important to ensure that all stakeholders understand and agree on the financial objectives of the FPS and that these objectives are clearly articulated to the management team, which is charged with business planning and financial management. FPSs can be for-profit or not-for-profit but almost always generate their revenue on a “fee for service” basis. Following are some common configurations:

- A “pure” publicly owned model is one that relies on public financing, such as Brazil’s Pix, for which the FPS’s initial build was financed through the central bank’s budget, and fees were charged by the central bank finance operations.
- A self-sustaining not-for-profit model is one in which a public or industry-owned entity recovers fees to cover both operating costs and provision for future reinvestment or expansion without an expectation of paying a return on investment to owners. Ghana’s GhIPPS is a publicly owned example, and Poland’s KIR provides an industry-owned example.
- A commercialized or for-profit model is one in which the operator is incentivized to grow and add new services by generating sufficient revenue for operations, future investment, and a return to investors. This model is still comparatively rare in FPSs. In South Africa, BankservAfrica’s corporate constitution allows for the making of

profits and the distribution of dividends, although the strategic focus of the company today is on operational cost recovery and so is more aligned with the self-sustaining model.

Cross-Border Linkages

Special governance considerations arise when an FPS operates across multiple jurisdictions and is, therefore, subject to multiple legal and regulatory frameworks. The complexities of this model are beyond the scope of this general note.

However, the G20 has identified the governance and oversight of cross-border payment system interlinking arrangements—in particular of FPS—as a priority action in helping to achieve its 2027 cross-border payments targets. With a final report planned for the end of 2024, this will likely provide specialized guidance.¹⁸

GUIDELINES

1. The developers of a new FPS should develop a comprehensive Governance Plan, starting with a clear statement of the FPS scope and mandate that takes into account the interests of all stakeholders and supports relevant public interest considerations.
2. The scope and mandate should be articulated inclusively, highlighting desired community and economic benefits and balancing relevant public policy objectives with the common interests of system participants.
3. The FPS's financial objectives should be clearly articulated, published to the stakeholder community, and internalized by the board and management. If an FPS is intended to operate for profit, this should be explicitly stated, along with clarity on the safeguards to ensure it aligns with, rather than detracts from, public policy goals.



6 ELEMENT 2 STAKEHOLDER COMPOSITION

Every FPS serves a community of stakeholders, including payment service providers—banks, mobile operators, retailers, and fintechs. However, through them, the FPS also serves “end-users”—that is, the citizens and organizations that are customers of payment service providers. FPS developments should map the key stakeholder groups and understand their interest and priorities. They should also consider how the community is changing.

KEY QUESTIONS

Relevant questions to ask are the following:

- **Beneficiaries:** Who stands to gain from the FPS? Those who gain need to include end-user beneficiaries like citizens, businesses, and government authorities, as well as different groups of service providers who are likely to be system participants. How are different groups impacted? As with any network service, an FPS simultaneously delivers different benefits to different stakeholders. A complete stakeholder analysis of the FPS, including all beneficiary groups, is critical for good governance design.
- **Stakeholders Adversely Affected:** Who might oppose aspects of the FPS, and why? Intermediaries may lose business; alternative payment methods may experience competition or even displacement. A new FPS can have a large net positive effect for a community but still disadvantage specific groups. The FPS’s success may depend as much on fairly addressing unintended

disadvantages to existing stakeholders as on delivering overall net benefit.

- **Evolution:** Are there future stakeholders to consider as well? Many FPS services begin with a basic level of service and expand to reach new participants and end-users over time. If this can be anticipated in governance design, so much the better.¹⁹

INTERNATIONAL STANDARDS

Key Consideration 7 of Principle 2 in the PFMI states:

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.²⁰

The DPI Guidelines place emphasis on public/private communication and collaboration, including the need to reach all relevant stakeholders. Key Consideration 1.3 states:

“Public and private sector coordination and collaboration can be helpful for the effective development and operation of DPIs, and could be considered [and] actively promoted across the DPI lifecycle.”²¹

This guideline is reinforced by the observation that “Ensuring all relevant stakeholder voices are considered in the design and ongoing operations of DPIs is critical.”²²

The Keeping Pace paper points out that retail payment systems (including FPSs) are unusual in their economic reach, touching multiple parties in the broader economy: “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.”²³

DESIGN ISSUES

Banks versus Non-banks

In nearly all FPSs, including those set up or owned by central banks, banks are key stakeholders, as they use the FPS to deliver fast payment services to end-users. The governance arrangements need to be clear on how they are engaged. There can also be important subdivisions of interest among banks—large versus small, commercial versus community or publicly owned, domestic versus international, incumbent versus new entrant.

However, FPSs often also attract a community of participants beyond traditional banks. Globally, FPSs have led the way in integrating non-bank payment service providers such as MMOs, digital wallet providers, and social media platforms into the national payments infrastructure. Particularly in EMDEs, alternative providers have often proved more successful than banks at extending the payment system's reach into the financially underserved communities. An FPS governance design must recognize the different economic impacts and interests of these alternative players, how they will connect, and how they will be engaged in decision-making.

Typically, these communities of potential participants exhibit both competitive and cooperative characteristics. The FPS needs to ensure that its governance encourages cooperation on legitimate common interests (as identified in the scope and mandate) while ensuring individual participants' competitive interests do not dictate FPS decision-making. Board processes, including management of potential conflicts of interest, will be important, as discussed further.

End-User Stakeholders—Businesses and Consumers

FPSs need to recognize their end-user communities as the ultimate service beneficiaries, even though they are not typically owners or participants in the FPS. Here again, there are many different interest groups to identify: banked and underbanked citizens, government welfare recipients, foreign visitors, government authorities, large businesses and merchants, small and medium enterprises, microbusinesses and cash traders, and charitable and community groups.

Because the FPS governance will be setting strategy and directing activities that affect these groups, the range of interests needs to be understood.²⁴ The articulation of public policy for FPSs (discussed in the next section) may do some of the work, in that community interests are reflected in public policy.

Other Payment Services

Last, the FPS's relationship with alternatives, competitors, and substitutes needs to be considered. Larger payment service providers (such as big banks or leading mobile operators) may see their customer network as a competitive

BOX 1 REPRESENTATION OF STAKEHOLDER GROUPS IN CASE STUDY COUNTRIES

In Poland's KIR, which is the operator of the Elixir Express FPS, large banks are shareholders. They are directly represented on the board, but other banks are represented through shareholding and board representation by the banking association. In South Africa, BankservAfrica (operator of the PayShap FPS) has four large banks as shareholders. A number of smaller banks are shareholders in a representative company, Dandyshelf Pty Ltd, which is a shareholder of BankservAfrica. Each shareholder, including Dandyshelf, appoints a director to the board.

In Ghana, GHiPPS implemented a retail fast payment solution between bank accounts, then enhanced this service with a switch connecting MMO networks to enable wallet transfers across networks. In Egypt, EBC initially developed a connecting network for mobile wallets, then developed a bank account-to-account network later. In both cases, mobile wallet providers were not formally incorporated into the board, although they were engaged and consulted. In Malawi, Natswitch Instant EFT began as a bank-driven service, adding MMOs later. MMOs then became shareholders with board representation.

advantage which a new FPS will reduce; other retail payment systems (such as ACH and domestic and international card schemes) may see the FPS as a direct competitor.

The impact of this on FPS governance may, in part, depend on the structural relationship between the FPS and other payment systems. Many FPS operators, such as Ghana's GhIPPS, South Africa's BankservAfrica, and the Arab Republic of Egypt's Egyptian Banks Company for Technological Advancement (EBC), are also operators of national card schemes or bulk/ACH systems. In such cases, it will be important to ensure that the interests of FPS participants and their customers who are not also participants in affiliate retail payment systems are appropriately taken into account. In Brazil, where the central bank operates the Pix FPS as well

as bulk credit and debit systems, the special interests of Pix participants are catered to in the Pix advisory forum.

GUIDELINE

1. An FPS's Governance Plan should include a "stakeholder map" with a broad and inclusive view of the FPS's stakeholder community, encompassing end-user beneficiaries, participants, and any other relevant stakeholders. In each case, stakeholder groups should be subdivided according to their ability to influence the FPS and their interests and priorities in relation to the FPS.



7 ELEMENT 3 PUBLIC POLICY OBJECTIVES

A clear balancing of public policy objectives is an important input to governance design. The public policy objective, for example, could include providing low-cost, safe, and efficient payments to end-users, which could be another public policy objective, along with promoting digital payments and enhancing financial inclusion. Other objectives could include promoting innovation and competition.

KEY QUESTIONS

Some relevant questions to ask are:

- **Payment System Objectives:** How does the FPS governance framework align with the public policy objectives outlined by the central bank?

INTERNATIONAL STANDARDS

PFMI Principle 2 requires an FMI “to place a high priority on the safety and efficiency of its operations and explicitly support financial stability and other relevant public interests.” The concept of public interest is a broad one that could include, for example, fostering fair and efficient markets.²⁵

The DPI Guidelines in Policy Recommendation 4 advocate promoting sound internal governance arrangements with the objective of acting in the public interest.²⁶

The Keeping Pace paper includes Theme 3, which states that “the governance arrangements of a retail payment system shall recognize and support ‘public interest considerations’” and indicates that these should be addressed.²⁷

The Keeping Pace paper provides examples of public policy interests, which, among others, include enhancing competition and stimulating innovation, fostering market integration, expanding access and usage in the context of financial inclusion and particularly in developing and emerging markets, and balancing competition and cooperation to create (or preserve) a level playing field and ensure market contestability.”²⁸

DESIGN ISSUES

Public Policy Interests

The governance framework would benefit from a clear articulation of public policy interests by the regulator. In the six case studies under reference, the central banks have outlined their public policy interests.

- In Brazil in 2014, Banco Central do Brasil (BCB) invited industry participants to propose a new fast payment service as a way of addressing national reliance on cash. BCB’s board adopted and publicized specific policy objectives for the exercise of its payment regulation powers, including financial inclusion, reduced paper usage, and the development of interoperable mobile and fast payment services.²⁹
- In Ghana, in 2019, the Bank of Ghana (BoG) published its “Payments System Strategy (2019–2024)”. The strategy includes a clear statement of overall vision and strategy, plus specific, time-framed responsibilities that are allocated to BoG, GhIPPS, other government bodies, and

the industry. The 2019 strategy is a successor to multiple coordinated public statements on the national payments strategy, including

- an earlier 2014 BoG strategy;
 - a 2017 Digital Payments Roadmap prepared by the Ministry of Finance, "Toward a Cash-Lite Ghana";³⁰ and
 - a 2018 National Financial Inclusion and Development Strategy 2018–2023, also prepared by the Ministry of Finance.³¹
- In 2013, the Reserve Bank of Malawi adopted a direct, practical approach to articulating policy requirements: a memorandum of understanding (MOU) between it and the Banking Association of Malawi acting on behalf of its members. The MOU records the importance of establishing the retail switch in furtherance of the public policy goal of increasing access to finance. The commercial banks commit to establishing the switch, and the MOU records that

- Fair access to its services will be provided for new banks and appropriately regulated non-bank institutions.
- The program will limit itself to switching and related services so as to avoid conflicts of interest.
- The program will be open to new user shareholders with equal rights.
- The program will be self-sustaining through service charges.

GUIDELINES

1. The FPS Governance Plan should take into account public policy guidance (issued, if any) and incorporate it into the governance design. Where explicit public policy guidance has not been publicly disclosed, the FPS operator should engage with the regulator.



8 ELEMENT 4 ADHERENCE TO THE REGULATORY AND OVERSIGHT FRAMEWORK

There can be a complex interdependence among regulation (the applicable legislative framework, including licensing or recognition regimes), oversight (the administration of the regulatory framework by an appropriately empowered authority), and governance. For example, the central bank may, for a given FPS, make regulations, grant a license, exercise oversight, or participate in governance, all of which makes the regulatory and oversight framework an important input to governance design choices.

KEY QUESTIONS

Relevant questions to ask are the following:

- **Regulatory Powers:** How does general financial legislation apply to the FPS? Is there separate payment systems legislation? How does it apply to the FPS?
 - **Licensing/Recognition:** What is the licensing/approvals framework for the FPS?
 - **Governance Compliance Obligations:** Are there ongoing compliance obligations relevant to governance, such as regular reporting, approval of office bearers, and stakeholder consultation? Are there specific oversight obligations, such as compliance with PFMI (or a subset of PFMI) or a formal risk management framework?
- **Regulatory Authorities:** Apart from adhering to the oversight and regulatory framework of the central bank, the FPS is subject to the regulatory powers of other authorities, such as the consumer protection and competition authorities. What rules apply?

INTERNATIONAL STANDARDS

The PFMI report and the Keeping Pace report stress that the governance arrangements of the FPS should be consistent with the oversight objectives of the central bank. The governance framework should have specific measures, for example, for promoting access to the FPS and enhancing financial inclusion while ensuring the safe and efficient functioning of the FPS. The governance framework should be flexible enough to accommodate and take on board the market catalyst interventions of the central bank. The DPI Guidelines in Recommendation 4 also highlight that the internal governance arrangements should adhere to the public interest. The governance arrangements should be reviewed periodically to ensure that they are fully aligned with the stated public policy objectives.

DESIGN ISSUES

Adherence to the Regulatory and Oversight Requirements

The governance framework should take into account the authorization and licensing requirements and any designation of systems by the central bank, including a framework for the comprehensive management of risks.

All six of the case study jurisdictions (Brazil, Poland, Malawi, Ghana, South Africa, and Egypt) have national payment systems legislation that applies to the domestic FPS. This legislation provides for the licensing, authorization, or designation of FPSs. In some cases, the regulatory and oversight framework also addresses issues related to consumer protection, fair and open markets, and system interoperability. Relevant examples are given in boxes 2 and 3.

Segregating Oversight Functions from Governance Functions in the Central Bank

Where the central bank is engaged in FPS decision-making and also exercises regulatory oversight, the central bank will be concerned with ensuring supervisory impartiality. In Egypt, Brazil, Ghana, and Poland, the central bank is involved in FPS's internal governance in some way. In each case, the central bank has protocols for segregating the parts of the central bank responsible for oversight and governance of the FPS:

- In Brazil, the regulatory and operational functions for Pix are in different directorates, with separate management reporting lines up to the board level.
- In Ghana, GhIPPS was established as a wholly owned subsidiary with a management team and board; the central bank appoints board representation. The Payment Systems Department of the central bank exercises independent oversight of GhIPPS, which ensures executive separation.
- In Poland, the central bank is a shareholder and its representative chairs the board, but, again, the management team is separate from and overseen by the central bank.

GUIDELINES

As part of preparing the Governance Plan for the FPS, applicable legislation should be reviewed to identify and plan for licensing, authorization, or designation of the FPS.

The Governance Plan of the FPS should reflect public policy objectives in terms of the role envisaged for the FPS and the market environment in which it will operate.

1. If the central bank is also involved in the direction or management of the FPS, care must be taken to segregate functions appropriately and articulate the segregated arrangements clearly to the marketplace.

BOX 2 GHANA'S LEGISLATIVE FRAMEWORK

In Ghana, the Payments Systems and Services Act 2019 applies to GhIPPS Instant Pay and provides for the following:

- A uniform application to banks, other deposit-taking institutions, electronic money issuers (including MMOs), payment service providers, and affiliates and agents of these organizations.
- A general grant of authority to the Bank of Ghana for all matters related to payments, clearing, and settlement systems, elaborated with detailed responsibilities such as
 - Safety and soundness of payment systems
 - Regulation of e-money business
 - Promotion of financial inclusion
 - Broad powers of policy formulation, licensing, and authorization
- Comprehensive compliance requirements for payment service providers (both bank and non-bank), including detailed governance requirements.
- Specialized authorization and compliance requirements for electronic money businesses, including a special license category of “dedicated electronic money issuer.”
- Powers to operate or designate payment systems and to allow or prohibit access to payment systems.
- Comprehensive monitoring and oversight powers.

BOX 3 MALAWI'S AND ARAB REPUBLIC OF EGYPT'S INTEGRATED INFRASTRUCTURE APPROACHES

In 2017, the Reserve Bank of Malawi announced in the gazette the Interoperability (Interoperability of Retail Payment Systems) Directive, which requires banks, mobile operators, and all other payment service providers to continuously connect their network infrastructure to Malawi's FPS, Natswitch, and comply with Natswitch rules and standards.³² There is an explicit prohibition on deploying a standalone or closed-loop system and a requirement to comply with Natswitch revenue sharing arrangements—in effect, interchange fees.³³ There are substantial monetary penalties for any non-compliance and an explicit allocation of responsibility to the board and senior management of each payment service provider to ensure compliance and to develop and implement a compliance policy.³⁴

In Egypt, the regulatory framework for the national FPS is comprehensively provided by a set of “Rules Reg-

ulating Services for Instant Payment Network” issued by the Central Bank of Egypt (CBE) in October 2021. The rules build on more general regulation of financial transactions, in particular, the “Law Relating to Usage of Non-cash Payment Methods.”³⁵

The rules provide for the key governance aspects of the payment notification (IPN's) operation, including

- Designating EBC as an operator with appropriate powers of operational rulemaking, setting minimum access criteria, setting tariffs, and network risk management
- Setting minimum access and compliance criteria for banks to act as participants and to sponsor MMOs
- Criteria for third-party providers and fintechs to be given access
- Continuing obligations of all participants



9 ELEMENT 5 DEVELOPMENT OF THE GOVERNANCE PLAN

Establishing a new governance framework or modifying an existing one is a complex project that involves many stakeholders. Generally the project or program governance setting up an FPS evolves into the governance arrangement for the operations of the new FPS once it is launched. In this manner, the program governance often affects the design choices made for the FPS operational governance. In addition, necessary processes should be in place to review and modify the existing governance framework to reflect market ecosystem developments and any changes to the oversight and regulatory framework.

KEY QUESTIONS

Where a program for the development of FPS is initiated, the issues that need to be considered while putting in place a governance framework are explained in Elements 1-4. Where the existing governance framework is being reviewed to take into account new market developments or policy changes, the following questions need to be considered:

- **Changes to the FPS Governance Framework:** What is the role played by the FPS board in initiating the changes to the governance arrangements? How are resources assigned to spearhead changes to the governance arrangement? Is external expertise utilized in the process of review and change?

- **Stakeholder Engagement in Changes to the Governance Framework:** What is the process followed for consulting stakeholders? How is stakeholder consensus built up and commitment obtained?

INTERNATIONAL STANDARDS

Key Consideration 3 of Principle 2 of the PFMI underlines that the board should review both its overall performance and the performance of its board members on a regular basis. This review is intended to ensure that the governance arrangements continue to be clear and transparent and remain relevant and fit for purpose with the changing market developments while taking into account public interest consideration and stakeholders' interests. The DPI Guidelines in Recommendation 4 echo the need for the governance arrangements to be reviewed periodically. The Keeping Pace report indicates the need for governance arrangements to be reviewed regularly under Theme 5.2. The review of the governance arrangements would need to be undertaken in the context of structural changes to the market, to policy, or the institutional environment, as well as industry innovation.

DESIGN ISSUES

Changes to the Existing FPS Governance Framework

The changes to the existing governance framework should be carried out by the board of the FPS system, taking into

consideration relevant market developments and policy changes. These would include, for example, changes to the risk management framework, the introduction of new products and services, and changes to access and participation requirements.

In EMDEs, the central bank, as an overseer in its catalyst function, is often the driving force for changes to the existing governance framework of the FPS system to enable it to continue to meet public interest considerations, including any regulatory policy changes. In cases where the central bank itself is the operator of the FPS, it should have the necessary processes and procedures in place to effect and reflect the changes in its governance arrangements. In Brazil, the central bank was the final decision-maker as it is the operator of Pix and in the case of South Africa, the central bank, in its role as overseer, was an observer. In Poland, the central bank chaired the supervisory board of KIR (FPS operator), with leading banks represented on the board, which enabled extensive stakeholder engagement and commitment to changes to the governance framework with the central bank guiding the process.

Evolution of Governance Arrangements

Changing governance arrangements that have already been established can be extremely challenging unless the change is purely procedural because, by definition, a material change in governance implies a change in relative power or influence over decision-making among different stakeholders. For example, adding new owners or directors to an FPS may dilute the voting power of existing owners or directors. Unsurprisingly, the stakeholders who are negatively impacted by the change have little or no incentive to support change, even where it is clearly in the public interest. In FPSs, which often have diverse participation and stakeholder communities, this can be especially difficult—attempts to change governance arrangements may exacerbate already diverse stakeholder views and interests.

It is possible to “future-proof” the governance arrangements by including provisions that allow governance to evolve with the market. For example, the constitution of the FPS board could provide that any participant initiating more than, say, 5 percent of FPS transactions is entitled to appoint a director. The effect of such a provision is to ensure that the board of the FPS remains reflective of the participant community as it changes over time.

Otherwise, the influence of the central bank may be needed to drive governance change when it is needed. In Malawi, the central bank signed an MOU with the banking association, leaving direction and management to the

industry but within tight guidelines in the MOU and supporting legislation. Initially, all commercial banks could appoint a director. When the evolution of Natswitch's services meant that the major MMOs would become customers of Natswitch alongside banks, the central bank had the influence to ensure the MMOs could also become part-owners and join the Natswitch board, even though this had the effect of diluting the voting power of banks.

In South Africa, the industry development program for PayShap was administered by an external consulting firm as program manager, reporting to a special purpose committee (SPC) of industry representatives. As the launch date approached, a new PayShap scheme was intended to provide ongoing governance through a scheme governing council. However, due to a combination of adoption challenges among participants and delays in finalizing the scheme arrangements, the SPC and the scheme governance coexisted for a significant period.

GUIDELINES

1. The transition from program governance to operational governance needs to be carefully planned and clearly articulated to affected stakeholders.
2. The board of the FPS should be responsible for developing and implementing the governance plan and making necessary changes to the existing governance framework based on relevant market developments and policy changes.
3. The board should have adequate resources earmarked for carrying out the necessary changes to the existing governance arrangements. External expertise, when required, should also be used to obtain objective, independent views after fair consideration of relevant information and developments.
4. Consultation with stakeholders should be carried out to build up consensus on the changes to the governance arrangement and to obtain stakeholder commitment and buy-in for the revisions.
5. The role of the central bank as an overseer would influence the changes to the existing governance arrangements. Where the central bank itself is the operator of the FPS, the governance arrangements should have processes and procedures for stakeholder consultation and buy-in when changes to the governance arrangements are being considered.



10 ELEMENT 6 FORMAL STRUCTURE AND OWNERSHIP

FPSs may be owned and operated by a central bank or by the private sector. FPS may also operate as a for-profit or not-for-profit entity. Depending on the FPS ownership structure and organizational form, there should be appropriate governance arrangements that define the structure under which the board and the management operate.

KEY QUESTIONS

The following are useful questions to ask:

- **Corporate Form/Legal Status:** Is the FPS composed of one organization or several with contributing roles? If so, how are any conflicts of interest and outsourcing issues addressed in the governance arrangements? Are the governance arrangements of the FPS adequate to ensure that the decisions of affiliated organizations are not detrimental to the FPS?
- **Ownership Structure:** Is the FPS owned by the private sector or the public sector, or is it owned jointly by the private and public sectors?
- **Plenary: Powers and Process:** What powers and rights should the owners have? How do they appoint or elect the board? What other powers do they have in a general or plenary meeting? How are voting rights allocated? Do the owners have reserved powers over key corporate decisions?

- **Special Status or Powers:** Does the FPS enjoy any special status under local law, for example, exemptions from competition laws or tax-free status? Why are these needed?

INTERNATIONAL STANDARDS

Depending on the ownership structure, the FPS could be subjected to authorization and licensing requirements as indicated in Principle 1 of the PFMI.³⁶ Further, the ownership structure and the legal form have implications for other aspects of governance as laid down in Principle 2 of the PFMI. For example,³⁷

- An FPS that is part of a larger organization should manage any potential conflicts of interest that may arise between the parent entity and the FPS.
- An FPS that is, or is part of, a for-profit entity should place particular emphasis on managing income generation activities with public policy objectives.
- An FPS that also carries on other activities with a different risk profile (potentially higher risk profile) needs to consider separation of functions and other measures against risk contagion.
- If a central bank is the owner and operator of an FPS and is also the overseer, it needs to consider how to best address any potential conflicts of interest that may arise between these two functions.

The Keeping Pace paper points out the relevance of legal form to rights and responsibilities of ownership and control:

“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.”³⁸

The Keeping Pace paper observes that legal form is limited by the choices available under national law but may also be limited by the national law of payment systems, such as licensing requirements.³⁹ The paper identifies key issues such as the involvement of the public authority (for example, through central bank shareholding), the need for representation from the payments community, and the need for commercial investment.⁴⁰

The World Bank has also published a focus note on scheme rules for FPS, which includes a discussion of scheme governance arrangements.⁴¹ Discussing central bank-owned FPS, the focus note advises:

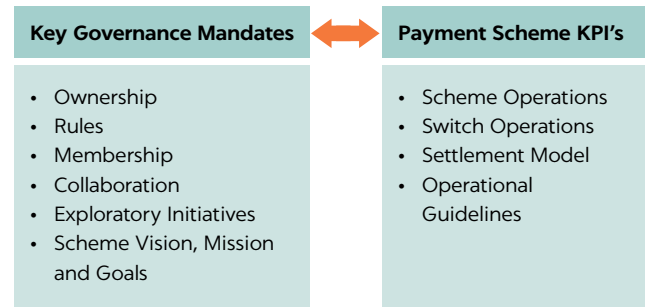
“Upon setting up of the FPS, the central bank needs to decide either to take control of the scheme governance arrangement or to delegate it to a dedicated entity under its broad supervision. The regulatory and legal frameworks should be applied in a consistent manner to other payment and clearing systems but can be amended to the FPS context.”⁴²

The focus note includes a discussion of the advantages and disadvantages of separating scheme governance from scheme operations. The note provides a useful categorization of the two sets of functions as shown in figure 1:

The note states further:

“Whether the governance and operational entities are kept separate or together is a decision that needs to be made by a country's relevant financial sector authority (or authorities), keeping in mind such factors as the country's overarching payment landscape, the strategy undertaken by the central bank, and the level of institutionalization required for multiple payment frameworks.”⁴³

FIGURE 1 Separation Model of Scheme Governance and Operation



Source: World Bank, “Focus Note: Scheme Rules in Fast Payments” (Part of the World Bank Fast Payments Toolkit, World Bank, Washington, DC, 2022), 33, https://fastpayments.worldbank.org/sites/default/files/2022-03/Scheme%20Rules_Final_0.pdf.

Note: KPI = key performance indicator

DESIGN ISSUES

In developing the governance plan for an FPS, the choice of legal and ownership structures are the major decisions to be taken after determining the scope and mandate.

Existing national operators

In five of six cases (Egypt, Ghana, Malawi, Poland, and South Africa), the FPS is one of multiple payment systems that are the responsibility of a national operator.⁴⁴ This configuration is common for FPSs, which have typically been established later than other national systems like bulk credit or debit systems and national card systems. The same board and management processes and resources are also used for FPS governance, which, on the one hand, could rationalize operating costs. On the other hand, this could also pose challenges based on the mandate of the board across different verticals. FPSs may need to compete for strategic attention, resources, and focus with other systems as they typically have different service sets (like central addressing services and specialized arrangements for real-time settlement) and different participation communities (especially non-banks like MMOs). Another challenge that needs to be addressed in the case of a common board is the likelihood of significant participant shareholders, such as large banks, exercising a greater role in decision-making in board deliberations, as can be seen in the South African and Polish examples, where large banks active across multiple payment types have significant influence.

The legal form and ownership structure would need to take into account public policy priorities where there has been a historical preference for private sector initiatives. The payments community invested in FPS solutions, as wit-

nessed in the cases of Malawi, Poland, and South Africa. Policy objectives such as digitization of the economy, financial inclusion, and central bank experience and expertise in operating payment systems would result in the public sector (central bank or national treasury) taking up sole ownership or a majority stake in the FPS. Brazil, Egypt, and Ghana took the latter approach.

Central banks often find it necessary to lead FPS development, but as infrastructures mature, there may be value in stepping back from leadership and oversight roles. In Ghana, earlier proposals for an industry-led FPS did not gather industry support, leading the central bank to undertake its own development. More recently (and with the success of the operator, GhIPPS), there are proposals to re-engage participants in shareholding in GhIPPS. In Malawi, the central bank's difficulties with public ownership led it to step away from ownership and the direction of Natswitch, insisting that the industry take responsibility.

The pros and cons of using the existing governance arrangements of the national operator should be carefully weighed so that the new service is not burdened with an inappropriate governance structure. The case in Malawi is an illustrative example of this. An earlier attempt to establish a government-owned FPS operator (called Malswitch) struggled for support from commercial banks. Natswitch, an industry-owned FPS operator subject to formal oversight by the central bank, eventually superseded it.

Scheme versus Operator?

Separation of scheme governance and scheme operations is less common in EMDEs and in FPSs generally. The governance implications will depend on how any separation of the two functions is proposed to be implemented. In South Africa, the separation of functions between a self-regulatory body and an operator, each with legal relationships with participants, results in separate decision-making structures, which together make up the governance arrangements for the payments system.

Ownership Structures

Alternatives extend along a spectrum, from full central bank control and ownership to full industry ownership and control, with many variations in between. The six cases studied can be ordered along that spectrum, as shown in figure 2.

The models exhibit the following:

- Integrated division of a central bank (Brazil's Pix)
- Wholly owned subsidiary of a central bank, with corporatized management (Ghana's GIP/MMI)
- Majority central bank ownership with some bank representation (Egypt's IPN)
- Industry-owned mutual firm with some central bank ownership and direction (Poland's Express Elixir)

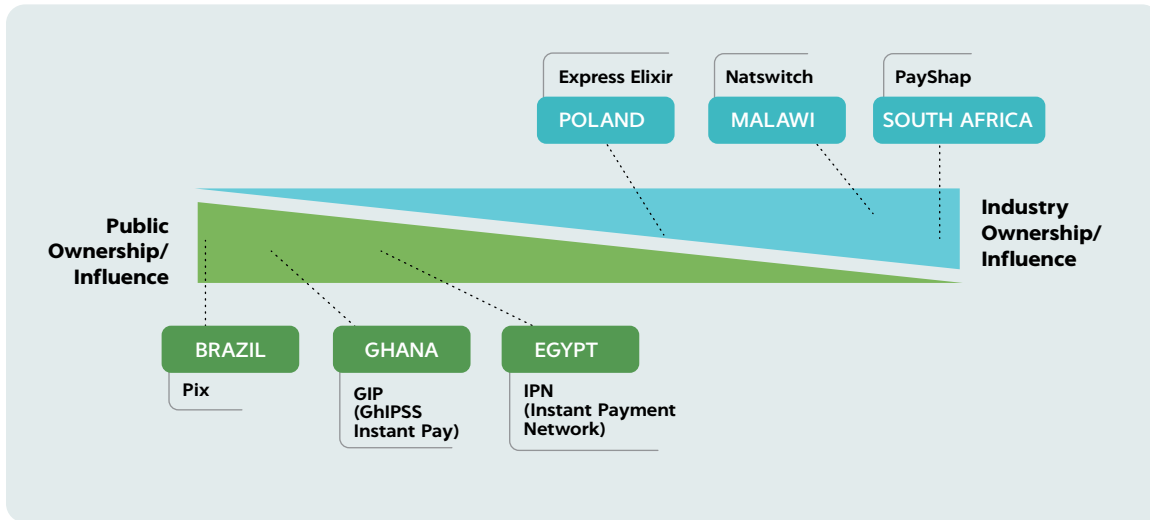
BOX 4 FORMAL STRUCTURE OF SOUTH AFRICA'S PAYSHAP

The evolution of PayShap's governance structure demonstrates the extent to which it must reflect pre-existing local governance habits and practices or risk a lack of credibility in the community it serves. In South Africa's case, there appear to be three elements:

- A long history of community cooperation and self-reliance led to a strong preference for community ownership and direction.
- The unusual historical split of functions and powers between a self-regulatory system "manager" (PASA) and an industry-owned system operator (BankservAfrica) meant that decision-making tended to be split across two different industry-operated organizations for each payment system.

- The long success of banks in delivering payment services to financially included parts of the community meant that, in practice, banks would dominate decision-making, even though there is a significant community underserved by banks and many non-bank providers.

The result has been (subject to future regulatory reforms) that even though PayShap was a new service with a new purpose-built governance structure (a PayShap scheme with its own governing council), it also needed to recreate the "split" governance structure of other South African payment systems, with both PASA and BankservAfrica having governance responsibilities as well.

FIGURE 2 FPS Ownership Spectrum

Source: Original figure for this report.

- Industry-owned mutual firm with formal agreements establishing central bank rights (Malawi’s Instant EFT)
- Quasi-mutual with semicommercial mandate (South Africa’s PayShap)

Malawi, Poland, and South Africa used different approaches that each exhibit elements of mutuality that provide owner participants with the levers to influence decision-making. Because owner participants have “skin in the game,” they remain committed to supporting the success of the FPS. For example, in Malawi, the central bank strategically committed to industry ownership of the national payments operator so as to maximize prospects that banks and, later, MMOs would support it. The MOU signed with the Banking Association provided that banks be equal shareholders in Natswitch.

However, a major challenge in mutual ownership structures is how to keep them fairly representative as the marketplace evolves. Small banks merge or grow to become big banks; new banks enter the market; MMOs or other non-bank service providers emerge and grow to prominence, and so on. If the logic of mutuality is for ownership to reflect or represent participation, such market evolutions have to be reflected in ownership. If this does not happen, the quality of decision-making may suffer over time because incumbents continue to have a large influence even when newcomers make up a large and increasing part of the market. To over-

come such instances, the central bank usually exercises its influence to motivate changes in existing ownership structures. For example, in each of the cases of Malawi, Poland, and South Africa, the central bank influenced the ownership structure of the national payments operator to ensure that the structure is aligned with system participation.

GUIDELINES

1. The Governance Plan should propose a formal structure for the FPS, which
 - enables and supports the scope and mandate;
 - is legally sound and compliant with applicable laws;
 - is representative of the stakeholders, and
 - includes the capability to adapt to future market evolution.
2. The FPS Governance Plan could consider using pre-existing governance arrangements for the FPS, such as an existing self-regulatory body or operator, which can increase market engagement and reduce the time to market. However, arrangements that were appropriate for different kinds of systems—particularly those without the extended participation and retail characteristics of an FPS—may need modification to be appropriate for an FPS.



11 ELEMENT 7 THE BOARD

The board of the FPS is the apex decision-making body responsible for the governance arrangements. The constitutional role, responsibilities, and functioning of the board are of paramount importance to the safe and efficient functioning of the FPS.

KEY QUESTIONS

Relevant design questions are

- **Composition and Size of the Board:** How should the board be constituted with regard to the scope and mandate and the ownership structure? What should the size of the board be?
- **Director Selection:** What are the eligibility criteria for directors? How are directors elected, appointed, or selected? Do directors represent stakeholders, and are there term limits? Are there any independent or non-executive directors? How are potential conflicts of interest managed?
- **Committees:** Has the board constituted any committees for audit, risk management, and any other relevant areas? Can these committees obtain independent external advice?
- **Board Functioning and Performance:** How does the board monitor the performance of the management and implementation of board decisions? How is the performance of the board, individual directors, and commit-

tees assessed and reviewed? Does the board have a structured, periodic review process?

INTERNATIONAL STANDARDS

The OECD Principles set out the substantial body of best practices that have been developed in the context of public companies, particularly listed companies. The core governance principle (Principle V) is

“The corporate governance framework should ensure the strategic guidance of the company, the effective monitoring of management by the board, and the board’s accountability to the company and the shareholders.”⁴⁵

The board, therefore, is the fiduciary overseer of management on behalf of owners. The OECD Principles elaborate on the fiduciary role of the board in terms of ethical standards, duties of care and loyalty, fair treatment of shareholders, and avoidance of conflicts of interest. They also discuss the board’s core functions, including setting and reviewing corporate strategy, risk management, financial oversight, reviewing management performance and reward, and communicating with shareholders, regulators, and the public.

The principles also emphasize the board’s ability to exercise objective, independent judgment on corporate affairs.⁴⁶ One aspect of this is the role of “independent” directors. This concept typically relates to the ability to exercise independent judgment after fair consideration of all relevant information and views and without undue influence from

executives or other parties or interests. Principal VE.1 recommends:

VE.1. Boards should consider assigning a sufficient number of independent board members capable of exercising independent judgement to tasks where there is a potential for conflicts of interest.⁴⁷

Another aspect of exercising objective judgment is the use of specialist delegates to assist the board. Principle VE.2 recommends:

VE.2. Boards should consider setting up specialised committees to support the full board in performing its functions, in particular the audit committee—or equivalent body—for overseeing disclosure, internal controls and audit-related matters. Other committees, such as remuneration, nomination or risk management, may provide support to the board depending upon the company's size, structure, complexity and risk profile. Their mandate, composition and working procedures should be well defined and disclosed by the board which retains full responsibility for the decisions taken.⁴⁸

Finally, under this heading, the importance of board self-assessment is made clear:

VE.4. Boards should regularly carry out evaluations to appraise their performance and assess whether they possess the right mix of background and competences, including with respect to gender and other forms of diversity.⁴⁹

Key Considerations 3, 4, and 6 of Principle 2 Governance of the PFMI guides the roles and responsibilities of the board.

KC 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.

KC 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).

KC 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.⁵⁰

The Keeping Pace paper applies this guidance to retail payment systems. Aspects that arise for special consideration include these:

- **Managing Conflicts of Interest:**⁵¹ The diversity of stakeholders and the likelihood of directors representing certain constituencies (central bank, large individual participants, groups of participants, and so on) make careful, transparent conflict management important: "All conflicts of interest shall be declared or identified, recorded, and mitigated in a transparent manner."⁵²
- **Responsibility and Accountability of the Board:**⁵³ This includes rules of director appointment, documenting the unique responsibilities of the board, setting strategic direction, appointment of senior executives, and establishment of specialist committees appropriate for the system.
- **Qualifications and Performance Assessment of Board Members:**⁵⁴ The distinct qualifications required to serve on a payment system board should be recorded and used in assessing proposed appointments and in reviewing director performance. Once members are appointed, there should be periodic assessments of the collective performance of the board and the board members individually. Theme 5.6 also requires the board to "Anticipate changes to skills and qualifications of the board and senior management."⁵⁵
- **The Role of Independent Directors:**⁵⁶ They can play a central role in reducing and addressing conflicts of interest. "Independence" must be not only from the interests of the FPS operator itself but also from the interests of owners, participants, or both.

On the subject of board committees, the Keeping Pace paper points out the value of using special purpose committees to resolve two kinds of common dilemmas for retail payment systems:

- Consultative committees can be used to ensure a wide range of stakeholder interests is taken into account in decision-making and
- Issues that might otherwise trigger conflicts of interest among stakeholders (such as pricing and product development) can be assigned to special-purpose committees for attention.⁵⁷

DESIGN ISSUES

Board Composition

In a publicly owned FPS, the composition of the board is determined by the central bank statute. Where the FPS is a private sector initiative or a joint public and private sector initiative, each shareholder or group of shareholders would likely have the right to appoint a director. The composition of the board could include the following:

- **Public interest directors**, usually senior officers of the central bank or other government authority
- **Participant directors**, affiliated with a participant owner or group of participant owners
- **Independent directors**, appointed for their particular skills or qualifications and without affiliation to the organization or its owners
- **Management/executive directors**, such as the chief executive of the FPS or other senior executives.

Some examples from the six case studies illustrate the multiplicity of possible board compositions:

- In Egypt, Ghana, and Poland, the central bank is either the sole or a majority owner and uses that power to appoint senior officers of the central bank and, in some cases, other public officials as directors.
- In Malawi, Poland, and South Africa, banks are shareholders with the right to appoint a director, typically a senior executive of the bank, which brings a depth of payment expertise to the board but also requires careful management of potential conflicts of interest.
- Poland's KIR and South Africa's BankservAfrica are bank-owned operators that have a mechanism for smaller participants to be collectively represented in shareholding and on the board alongside large banks that appoint their own directors. At KIR, this role is performed by the banking association, and at BankservAfrica, a special corporate vehicle is owned collectively by smaller participants who have the right to appoint a director.
- In Egypt and Ghana, the central bank (as sole or majority shareholder) also uses its powers to appoint independent directors, chosen for their skills and credibility.
- In South Africa, the board itself appoints a minority of independent directors to sit alongside owner-appointed directors, bringing different perspectives and skills to the board.

- In Egypt, Ghana, and South Africa, the chief executive of the FPS operator is a director. In Poland, KIR follows the European practice of having both a non-executive Supervisory Board and a separate Executive Board.

Qualification of Directors and Assessment

The FPS board has limited influence over the selection of directors and relies on owners to nominate or appoint directors as laid down in the board charter. For instance, the board charter could specify the qualifications and expertise requirements for being appointed as a director of the board. In addition policies and procedures should be put in place for regular reviews of the performance of the board of each individual director.

Conflicts of Interest and Independent Directors

As the Keeping Pace paper notes, governance arrangements in retail payment systems are more prone to conflicts of interest because of the nature of the business and its potential impact on society, as well as the diverse types of users involved in a retail payment system. In the case of the FPS, there are multiple stakeholders, including the banking community, mobile network operators, and end-users—individuals and businesses. Where directors are appointed from these groups, the risk of conflict between the corporate interests of the FPS and the interests of the particular stakeholder group is likely to arise, and this should be balanced by taking public interest considerations into view. Accordingly,

- **Directors appointed by regulators need to manage any potential conflict of interest between public policy goals and the interests of the FPS.** These measures should also assist directors appointed by regulators in meeting the fiduciary obligation to avoid conflicts—such directors should be segregated from oversight activities.
- **Directors appointed by participants are at risk of conflicting with the FPS and the participant's interests.** FPS participants are collaborators in governing the FPS but competitors in their businesses. Successful FPSs devise effective ways to manage divergent interests. So, for example,
 - Malawi's Natswitch has a board charter that provides for the declaration and management of conflicts of interest at the board level among representative directors.
 - A clear, agreed definition of the common interest being served by the FPS helps manage debates that might otherwise be affected by self-interest. KIR in

Poland includes a clear statement of corporate objectives in its published strategy, tied back to the public interest and the common interest of the banking community.

- Especially in major strategic debates (new classes of participants, new services), the central bank often plays a key role as a trusted, neutral party among competitors, which may have a structural element (as in Ghana and Poland, where the central bank chairs the board) but is also often an informal, influencing role. In Malawi, the central bank used its influence under an MOU with the banking association to ensure MNOs were added as participants and part owners alongside banks.

Independent directors can bring a nonaligned perspective to controversial issues. Public interest directors can often play a similar role since the overall public interest and the corporate interests of a national FPS will often be in close alignment. On occasion, these two groups may be the only directors able to act on a particular decision. An example might be the fee structure to be applied to transactions where non-independent directors have a clear conflict of interest.

Board Procedure and the Role of the Chair

The Board of the FPS should have a strategic vision and plan to address the interests of all stakeholders, keeping in view the larger public policy considerations. The board can achieve this fine balance through the following measures:

- Management to submit credible persuasive proposals to the board that take into account but transcend sectional stakeholder interests;
- Sound board procedures that ensure all relevant information is provided, divergent views are aired and discussed with reasonable time for decision-making; and
- A credible, neutral chair who is able to shepherd the board debate to an actionable decision.

The case studies provide examples of the role played by the chair in the board of the FPS:

- In Poland, the central bank representative chairs the board and is able to mediate among participant owners.
- In South Africa, the chair is an independent professional director with stature in the business community. Once again, this can supply credibility and authority, plus the ability to mediate among participants.
- In Egypt, the chair of EBC is an executive role held by the chief executive, which means the person is highly knowl-

edgeable and credibly neutral between participants (although not independent of the FPS itself).

Board Committees

As outlined in Principle 2 of the PFMI, the board's committees are constituted for areas such as auditing, risk management, and compensation. An operator of an FPS is also likely to need similar board committees for those areas. Among the case studies, both KIR in Poland and BankservAfrica in South Africa are examples of organizations with lengthy histories and well-developed committee structures broadly conforming to the model.

Effective use of independent directors and committee delegation can overcome many of the potential conflicts of interest that arise in FPS operators. It is common practice in general corporate governance to have sensitive review committees like audit, risk management, and performance reviews led by independent directors, often composed of a majority of independent directors. In the specific case of an FPS, the diverse stakeholder community can make for complex conflicts when corporate decisions affect different interest groups differently. The use of independent directors and board committees can also help manage these conflicts. South Africa's PayShap has its own scheme board drawn from participants, with specific delegated powers from the BankservAfrica board.

In public-owned FPSs, rather than having specific committees of the board, there could be other bodies assisting the board.

- In Ghana, the Payment Systems Advisory Council is set up under the statute and advises the Bank of Ghana on payment system matters. PSAC has formed five working groups of industry participants to assist in its work. The groups include representatives of GhIPPS, MMOs, merchants, consumers, payment service providers, fintechs, and third-party providers.
- In Brazil, the central bank-led working group expanded into the large body that eventually became the Pix Forum—around 200 organizations. Specialized working groups provide expert input on specific issues, such as business, technical, messaging, and security.

Re-use of an Existing National Operator

If (as is often the case) a new FPS is to be housed in an existing national payments operator,⁵⁸ the designers should carefully consider whether adjustments could be made to the existing governance arrangements to better serve the specialized needs of the FPS. In such cases, the following issues would need to be considered:

1. **Should board membership be expanded to accommodate new types of participants?** In Malawi, when the country's two leading MMOs were added to the participant community, the mutual philosophy established under an MOU between the central bank and the bankers associated led to the MMOs becoming shareholders in Natswitch and acquiring the right to appoint directors.
2. **Should the board set up a subcommittee, advisory board, or other supporting body with a specific focus on the FPS?** In South Africa, BankservAfrica established a new, specialized PayShap Scheme, including its own Scheme Governance Council comprising representatives of PayShap participants. However, the ultimate decision-making body remained the BankservAfrica board.
3. **Is there a need to adapt board processes to ensure focus on the particular challenges of the FPS, especially at critical times?** For example, in Brazil, as the launch of Pix approached, the BCB Board of Governors held separate weekly Pix meetings.

GUIDELINES

1. An FPS Governance Plan needs to establish the board's composition and proceedings, including the scope and mandate, as well as the interests of owners. If an existing national operator is to house the FPS, this option involves considering whether the special needs of the FPS warrant changes to existing governance arrangements.
2. The FPS board should fairly reflect the ownership of the FPS, but it is also important to consider access to subject matter expertise, diversity of perspective, and external credibility by having independent directors.
3. In cases of conflict of interest in several dimensions, there needs to be transparent and effective protocols for managing the conflicts.
4. The role of the chair is often a key appointment because the chair controls board processes and can, if necessary, mediate among divergent stakeholder interests. The Governance Plan should specify how the chair is to be appointed.
5. The Governance Plan should consider the optimal mix and composition of board committees to ensure efficient decision-making, taking into account both general corporate needs and specialized payment-system requirements. Committees dealing with sensitive subject matter may need independent leadership, membership, or both.



12 ELEMENT 8 SCHEME RULES

The World Bank report “Scheme Rules in Fast Payments” defines scheme rules as rules that 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.⁵⁹ Scheme rules specify the minimum requirement framework applicable to all members for operating while upholding the safety, security, soundness, integrity, and interoperability of the retail payment system. They are key components of the overall governance arrangements and have a direct operational impact on the overall aims of owners, stakeholders, and policymakers. They are applicable to FPS as well.

KEY QUESTIONS

The following questions can be considered:

- **The Legal Framework:** What is the legal basis for the scheme rules of the FPS? How are participant rights and obligations articulated? Role of the central bank in approving scheme rules.
- **Participation and Access Criteria:** What are the access criteria for participation in the FPS? Are there different classes of participation, for example, direct and indirect participants?
- **Dispute Resolution:** How are disputes among participants resolved? Are there formal procedures, and are there appeal rights?

- **Compliance and Enforcement:** How is compliance with ongoing FPS requirements ensured? Are there disciplinary procedures, and what sanctions for noncompliance exist?

INTERNATIONAL STANDARDS

The PFMI requirement for a well-founded legal basis for FPS activities has already been discussed.⁶⁰ Principle 1’s Key Considerations 2 and 4 are as follows:⁶¹

2. An FMI should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulations.
4. An FMI should have rules, procedures, and contracts that are enforceable in all relevant jurisdictions. There should be a high degree of certainty that actions taken by the FMI under such rules and procedures will not be voided, reversed, or subject to stays.

Principle 23 focuses on the transparency of scheme rules for the benefit of participants, requiring

“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.”⁶²

The Keeping Pace paper explores mechanisms by which scheme rules are created, including the possibility of separation of processing, operations, and control (that is, rules administration) into separate units or even separate legal entities.⁶³ Other factors highlighted include legal and regulatory considerations.⁶⁴

The World Bank has also published specific guidance on scheme rules for FPSs, dividing them into individual components addressing specific areas (figure 3).

DESIGN ISSUES

Scheme Rules Framework

A key FPS governance design issue is how to set up clear, comprehensive, legally enforceable scheme rules. There are usually four standard components:

1. **Scheme rules**, set by the FPS operator, apply to all participants and set out their key business and legal obligations and rights against each other and the operator; the central bank should approve scheme rules.
2. **Access agreements** are standard form contracts that are separately executed between each participant and the FPS operator.⁶⁵ The contract specifies the participation type of the services to be accessed and binds the participant to comply with the scheme rules;
3. **Technical requirements** such as messaging and security standards, procedure manuals, and technical specifications deal with practical and operational aspects of the system. They are referenced in and derive binding authority from the scheme rules.
4. **Settlement arrangements** support the final movement of funds for fast payments through the national settlement infrastructure (RTGS).⁶⁶ Normally, each FPS participant will either be a member of the RTGS or will have an

arrangement with a bank or other entity that manages fund movements on its behalf.

In this way, the economic and legal relationships of all participants are governed by a web of contracts among all participants, the FPS operator, and major service providers. Many FPS follow this general model, whether they are participant-owned (such as KIR, operator of Express Elixir in Poland) or central bank-owned (such as GhIPPS in Ghana).

The degree to which these elements are bundled together or kept separate will reflect local variations in service provision. The simplest model is for each participant to have an access agreement with the FPS operator, which binds them to the scheme rules and technical requirements and membership of the national RTGS.

A variation on this theme arises when the scheme rules administration and the technical operation are separated into different entities. In the case of South Africa, each participant has several contractual relationships for FPS: one with a scheme company for the scheme rules and one with an operator for operational processing, including compliance with technical requirements.

The South African example integrates delegated regulatory authority with contractual arrangements to create the rule framework. In other countries, the close involvement of the central bank in the FPS means that regulatory authority may also be used to bind participants more directly. For example:

- In Brazil, bank licensing powers were used to require all large banks to participate in Pix. Although this affected only 39 of more than 700 participants, it instantly created a critical mass of participation because of the large numbers of account holders at large banks.
- In Malawi, a central bank directive requires banks, mobile operators, and all other payment service providers to continuously connect their network infrastructure to

FIGURE 3 Key Components of Scheme Rules



Source: World Bank, “Focus Note: Scheme Rules in Fast Payments” (Part of the World Bank Fast Payments Toolkit, World Bank, Washington, DC, 2022), 6, https://fastpayments.worldbank.org/sites/default/files/2022-03/Scheme%20Rules_Final_0.pdf.

BOX 5 THE PAYSHAP FRAMEWORK IN SOUTH AFRICA

South Africa has an unusual rule structure for its domestic payment systems, reflecting the delegation of regulatory power to a self-regulatory industry association, PASA, separate from the operator, BankservAfrica. There are layered agreements and rulesets:

- PASA has established a regulatory management committee for PayShap (the Rapid Payments Payment Clearing House Participants Group; PCH PG) and a set of Rapid Payments Clearing Rules, including entry and participation criteria. All banks and other participants wanting to offer fast payments are required to become members of PASA.
- PayShap participants must also sign a master services agreement (MSA) with BankservAfrica, which

includes an annexure of terms and conditions specific to PayShap. The MSA binds the participant to comply with operating rules for each payment system, covering technical requirements and processing arrangements.

- PayShap also has the PayShap Scheme, which covers matters like marketing, service delivery, and business development. The scheme comprises a scheme constitution, scheme rules and procedures, a PayShap governance charter, and a governance council. PayShap participants are bound under their MSAs to comply not only with PayShap operating rules but also with scheme rules.

Natswitch and comply with Natswitch rules and standards, including revenue sharing.⁶⁷ The directive also places strict requirements on Natswitch to set and enforce business, operational, and technical requirements.⁶⁸

- In Egypt, a set of “Rules Regulating Services for Instant Payment Network” was issued by the central bank in October 2021.⁶⁹ The rules provide for the key governance aspects of the IPN’s operation, including
 - Designating EBC as an operator with appropriate powers of operational rulemaking, setting minimum access criteria, setting tariffs, and network risk management.
 - Setting minimum access and compliance criteria for banks and MMOs to act as participants.
 - Criteria for third-party providers and fintechs to be given access.
 - Continuing obligations of all participants.

These examples highlight the regulatory role played by central banks.

Classes of Participation

An FPS’s participants may have different business models and different service needs from the FPS, and they may also present different risks to be managed by the FPS. A commercial bank, a mutual savings bank, an MMO, a retailer, and a fintech company may serve different kinds of end-users,

have different licensed or authorized activities, and different degrees of prudential and other oversight, yet the success of the FPS may depend on them interacting with each other through the FPS so that fast payments can flow freely among those end-users.

One way FPSs can manage these challenges is by establishing different classes of participation so that rights and responsibilities under the rules apply to participants in a way appropriate to their particular circumstances (including the risks involved). As noted in the PFMI, this may take the form of a tiered participation arrangement under which indirect participants are “sponsored” by (use the services of) direct participants. But many other configurations are possible. For example, a non-bank participant (such as an MMO) may be a direct participant (in the sense that the MMO can access the system directly to initiate fast payments and is directly subject to the scheme rules) yet be required to use the services of a bank settlement agent to settle net payment obligations, because the MMO does not have access to the RTGS system which provides settlement facilities to the FPS.

Different classes of participation may encourage greater participation in the FPS, increasing its reach in the community and enhancing its economies of scale. For example, a participant (such as a small bank or a fintech company) may choose to become an indirect participant due to the high costs of direct participation.

If different classes of participation are introduced, care must be taken to ensure that access criteria and applica-

tion of rules are clear, objectively based, and fair. In practice, this can sometimes involve difficult policy judgments. If a new class of participants is proposed with a different status under the rules, existing classes may see this as an undesirable increase in competition and be inclined to resist. For example, in Malawi, the intervention of the Reserve Bank of Malawi was required to ensure the admission of MMOs to the FPS. Therefore, it took the form of an Interoperability Directive issued in 2017.

Dispute Resolution, Compliance and Enforcement

Scheme rules have mechanisms for addressing end-user transaction-related disputes, usually occurring because of fraud, authorization errors, or processing errors. These guidelines include the delineation of roles, responsibilities, and liability allocation that reasonably protects end customers against losses related to fraud or errors and adheres to applicable laws or regulations. Scheme rules accordingly mandate participants to adhere to predefined dispute-resolution guidelines to resolve disputes on transactions that had been processed earlier.

Scheme rules also cover dispute resolution between and among participants or between participants and the operator. Given the wider range of participants and business models typically involved in FPS relative to, say, card payments, this can be challenging.

If the FPS operator forms the view that noncompliance has occurred, the scheme rules will usually provide for sanctions to be imposed. These may be moral (such as public censure), financial (such as a fine or penalty), or more seri-

ous, such as suspension or termination of access. Fairness requires that if the FPS operator imposes a penalty, the participant has an opportunity to challenge the finding. This challenge leads to a disciplinary procedure much like the dispute resolution procedure previously described.

GUIDELINES

5. The Governance Plan for an FPS should provide for the establishment of a comprehensive set of scheme rules covering
 - the rights and obligations of each participant as against each other and as against the operator in relation to fast payment activity,
 - clear definition of different classes of participation and the ongoing requirements of each, and
 - fast, fair dispute resolution, rules compliance procedures, and disciplinary proceedings.
6. The scheme rules should be administered by the board or a committee appointed for the purpose, ensuring that the views of participants and the central bank are taken into account in rulemaking for the FPS.
7. Consideration should be given to how the central bank will be engaged in rulemaking, including whether the oversight function needs to be proactively involved in proposed rule changes and whether a formal approval or nonobjection process is in place.



13 ELEMENT 9 TRANSPARENCY AND PUBLIC DISCLOSURE

The FPS operator should engage with all relevant stakeholders in a structured manner on all issues of relevance and seek their input in the decision-making process in a manner that appropriately reflects the legitimate interests of the stakeholders. All major decisions should be clearly disclosed to relevant stakeholders and, where there is a broad market impact, the public. Examples include, among others, scheme rules, ownership structure, board constitution, and governance processes.

KEY QUESTIONS

The following questions are relevant:

- **Structured Engagement with Stakeholders:** How are stakeholders consulted? What is the periodicity of such engagements? How do stakeholders contribute to decision-making?
- **Transparency and Disclosure:** How are major decisions disclosed to relevant stakeholders and the public? For example, are scheme rules, ownership structure, board constitution, and governance processes transparently disclosed?

INTERNATIONAL STANDARDS

Engagement and Consultation

In general principles of corporate governance,⁷⁰ there is no particular assumption about gathering stakeholder views as part of the decision-making process since the board is solely

responsible to the shareholders for general corporate performance and must decide what information to gather in discharging that responsibility.

Stakeholder engagement and consultation are, however, embedded in the governance framework in the case of FMIs. PFMI Key Consideration 7 of Principle 2 Governance highlights the need to take into account stakeholder views:

“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.”⁷¹

The diversity of stakeholder interest requires clear procedures for “identifying and appropriately managing the diversity of stakeholder views and any conflicts of interest between stakeholders and the FMI.”⁷²

The Keeping Pace paper emphasizes effective stakeholders involvement in retail payment system decision-making. The paper elaborates:

“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.”⁷³

The paper reiterates the importance of ongoing consultation as a tool for promoting sound decision-making that reflects the legitimate interests of stakeholders.

Disclosure

General corporate governance principles emphasize proper disclosure of information, reflecting the importance for listed companies in managing the flow of information that could affect the share price:

“The corporate governance framework should ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including the financial situation, performance, sustainability, ownership, and governance of the company.”⁷⁴

In the context of FMIs, the emphasis is on the disclosure of rules, key procedures, and market data, as spelled out in Principle 23 of the PFMI report.

“Principle 23: Disclosure of rules, key procedures, and market data

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.⁷⁵

Theme 8 of the Keeping Pace paper states that: “Governance arrangements must be transparent.” The principle encourages the publication of a wide range of information:

- Ownership and individual share(s) of ownership
- Bylaws or equivalent articles of association or incorporation
- Composition of the board, including 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 principles⁷⁶

DESIGN ISSUES

Consultation

FPSs have special stakeholder engagement needs and challenges in managing the range and diversity of stakeholders, including end-users. There are typically five ways that can be used in combination to engage and consult with stakeholders. These include

1. Relying on public policy processes to ensure the interests of all relevant stakeholders are taken into account;
2. Placing stakeholder representatives in key positions (that is, as owners, directors, or committee members) in the decision-making process of the board;
3. Establishing advisory or consultative forums to allow stakeholders who are not part of formal decision-making to raise issues and provide expertise;
4. Conducting formal public consultation (such as publishing white papers) and inviting public feedback and comments; and
5. Using business-oriented market research techniques (surveys, focus groups, test marketing, and so on) to test specific proposals.

Public policymaking

Both Egypt (see box 6) and Ghana (see box 7) use the levers of public policymaking to subsume the FPS engagement process within its larger fold.

BOX 6 EGYPT'S NATIONAL PAYMENTS COUNCIL

Egypt's NPC is established under statute, chaired by the president of the republic, and comprises senior government ministers beginning with the prime minister. All key infrastructure developments—such as the establishment of the Meeza national card and other payment directives—were explicitly authorized by the NPC. They form part of a broad, multiyear, whole-of-government program called the “Less Cash Transformation Network.”⁷⁷

BOX 7 GHANA'S NATIONAL PAYMENTS ADVISORY COMMITTEE AND NATIONAL PAYMENTS STRATEGY

The Payments System Advisory Committee is established under statute and advises on all payments and clearing-related matters.⁷⁸ PSAC is chaired by the central bank governor and includes senior representatives from government departments and authorities as well as relevant industry representative bodies like the Bankers Association.⁷⁹ PSAC has formed five working groups of industry participants to assist in its work. The groups include representatives of mobile network operators,

merchants, consumers, payment service providers, fintechs, and third-party providers. PSAC meets at least twice a year.

In 2019, BoG published its “Payments System Strategy (2019-2024).” The strategy includes a clear statement of overall vision and strategy plus specific, time-framed responsibilities that are allocated to BoG, GhIPPS, other government bodies, and the industry.

In the case of Brazil, proposals by the central bank for industry-led FPS development struggled with implementation, even when the banking community had the opportunity to have a guiding role, which led the central bank to take a leading role while continuing to engage with the industry to take into account its needs and interests and gather industry buy-in to enable a successful implementation of the FPS.

Participatory Decision-Making

The second method of stakeholder participation in decision-making is used extensively in participant-owned organizations, including Poland's KIR, South Africa's BankservAfrica, and Malawi's Natswitch (as discussed previously in the sections on ownership and the composition of the board). However, where there are numerous and diverse stakeholders, composite representation could be used where a board member represents an entire community (such as the Polish Banking Association representing smaller Polish banks on KIR's board).

Advisory Forums

Advisory forums can be used to give representation to a wide community of different stakeholders and to help them utilize their technical expertise. To lend credibility to the process, the advisory forum meetings should be held on a regular basis. Key issues need to be presented and discussed. In addition, the FPS operator should demonstrate that the views expressed in the advisory forums have been properly examined and considered, even if they have not been adopted for implementation. Brazil's Pix Forum is an example of a successful advisory forum. Deriving originally from an informal working group of banks and other indus-

try participants, the Pix Forum now comprises around 200 organizations and meets regularly under the chairmanship of the central bank.⁸⁰ The forum guides major design decisions through multiple working committees.

Public Consultations

Public consultation can be an effective tool to reach a wider audience, especially when a major structural change is being advocated, such as a proposed new fast payment system. An example is South Africa's modernization of payments, which eventually led to PayShap. PayShap began in 2017 with a public concept paper and a series of industry-open forums to explore the implications.⁸¹

Market Research

Some operators adopt market research techniques drawn from the private sector, which can be very effective for identifying the industry, community, and customer benefits of a proposed new service or a service enhancement. Such an approach tends to be associated with a more corporate approach to management, regardless of ownership structure. Ghana, Poland, and South Africa used market research.

Disclosure

Addressing challenges of transparency and disclosure is valid for FPSs, as is the case for other retail payment systems. However, there appears to be no standard practice to address the same based on the six case studies:

- One operator (KIR in Poland) publishes its operating rules; one operator (EBC in Egypt) has the scheme rules published to participants by its regulator; the other four operators do not publish rulebooks.

- In two cases (Poland and South Africa), the operator provides public governance disclosures in relation to shareholdings, board appointment rights, board decision processes, and other aspects of internal governance in annual reports.
- The other four provide limited information about board membership on a website.

GUIDELINES

1. The Governance Plan for an FPS should factor in structured, regular governance disclosure by the operator, which may include scheme rules, ownership details, board constitution, and governance processes.
2. Using the stakeholder map (see Element 2), the Governance Plan should outline the mix of engagement models that will be employed to ensure that all stakeholders are part of an ongoing discussion with the FPS on issues relevant to them.



14 ELEMENT 10 RISK MANAGEMENT

The board should establish a clear, documented risk management framework that includes the risk-tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies. The management of the FPS should have the appropriate experience, mix of skills, and integrity necessary to discharge their responsibilities for effective risk management as per the documented risk management framework laid down by the Board for the smooth and efficient functioning of the FPS.

KEY QUESTIONS

The following questions are relevant:

- **Role of the Board:** How does the Board establish and oversee the risk management function and material risk decisions, including addressing decision making in crises and emergencies? How does the Board ensure that the risk management and internal control functions have sufficient authority, independence, resources, and access to the board? Is there an independent risk committee of the board? How does the board appoint skilled risk management personnel and review their performance?
- **Role of Management:** Does management have the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the implementation of risk management functions? Do the risk management personnel have sufficient independence, authority, resources, and access to the board to

ensure that the operations of the FPS are consistent with the risk management framework set by the board? International Standards

In general corporate governance, while the board has ultimate responsibility for corporate performance, operational responsibility along with risk management is delegated to a management team, which may be configured in different ways depending on the jurisdiction. The OECD/G20 Principles summarize the main management functions where the board and management need to interact:⁸²

- Reviewing and guiding corporate strategy, major plans of action, annual budgets, and business plans; setting performance objectives; monitoring implementation and corporate performance; and overseeing major capital expenditures, acquisitions, and divestitures.
- Reviewing and assessing risk management policies and procedures.
- Selecting, overseeing, and monitoring the performance of key executives, and, when necessary, replacing them and overseeing succession planning.

However, these general principles say little about how the management team contributes to good decision-making. In fact, the management team is tasked with the responsibility of making decisions about day-to-day operations within the strategy, policy, and budgetary guidelines set by the board. Management also has significant practical influence and contribution to the decision-making of the board on strategy, policy, and budget.

The PFMI guides the roles and responsibilities of the Board and Management. KC 6 of P2 of PFMI states:

“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.”⁸³

In addition, KC 5 of P2 outlines the role of management in implementing the risk management policy laid down by the board.

“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.”⁸⁴

Further, KC 1 of P3 states the importance of having a framework for the comprehensive management of risks:

“An FMI should have risk-management policies, procedures, and systems that enable it to identify, measure, monitor, and manage the range of risks that arise in or are borne by the FMI. Risk-management frameworks should be subject to periodic review.”⁸⁵

The Keeping Pace paper draws attention to the respective roles played by the board and management:

“[The board] 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.”⁸⁶

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 develops should be a goal when hiring senior management and evaluating their performance.⁸⁷

There is also guidance on the importance of a sound risk management framework:

“Managing and mitigating different types of risks is the most integral and prominent part of the operations of

any payment system . . . 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.”⁸⁸

DESIGN ISSUES

Risk management governance of the FPS

The risk management governance of the FPS assumes critical importance as FPSs operate on a 24/7 basis and provide for real-time availability of funds to the payee. These features of FPS, therefore, demand specialized risk management skills in both the board and management, as they are ultimately responsible for managing the risks. The board’s role should be to determine an appropriate level of aggregate risk tolerance and capacity for the FPS. The board should be composed of suitable members with an appropriate mix of skills, including strategic and relevant technical skills) and experience. The 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 FPS. Taken together, the board and senior management should establish policies, procedures, and controls that are consistent with the laid down risk tolerance and capacity of the FPS. The risk policies, procedures, and controls should address all relevant risks, including legal, credit, liquidity, general business, and operational risks, and should cover routine and non-routine events. This framework for the comprehensive management of risks should be reviewed and updated periodically and shared with the relevant authorities.

It is important to note that the board lays down the overall risk policy framework. It is the role of the management to implement the policy through a set of processes to mitigate the risks and ensure the safe and efficient functioning of the FPS. The management team of an FPS must, therefore, have strong risk management skills and expertise, including the ability to identify and manage a wide range of risks, including operational risk, on a daily basis and should cover both routine and nonroutine events. More recently, it has become common for FPS to have dedicated risk teams led by a chief risk officer. The risk management team’s role is not only to manage the entire range of risks but also to establish a framework for identifying, monitoring, and reporting evolving risks to the senior management and the board. To this end, the risk management team should have sufficient skilled resources. Inputs provided by the team and senior management will feed into the overall framework for the comprehensive management of risks, which will be

approved by the board's risk committee (where available) or by the larger board itself.

Regardless of ownership structure, most FPS operators have a distinct board and management structure focused on providing national payments infrastructure as their principal business. In 5 of the 6 cases studied (Egypt's EBC, Ghana's GhIPPS, Malawi's Natswitch, Poland's KIR, and South Africa's BankservAfrica), the FPS is operated by a special purpose national payments system operator with its own board and management structure which is fit for purpose with adequate resources for risk management governance, which provides a basis for synergies between FPS and other national payment infrastructure and reflects FPS's special strategic and risk management challenges.

The sixth case study is Brazil's Pix, which Banco Central operates in Brazil (see box 8).

GUIDELINES

1. The Governance Plan for an FPS should consider the need to promote the best possible management structure and corporate culture for addressing the special strategic and risk issues associated with an FPS. The ownership structure is relevant, but it should not dictate the organizational structure.
2. The board of the FPS should lay down a documented risk management framework.

BOX 8 PIX'S RISK MANAGEMENT GOVERNANCE STRUCTURE

Pix has enjoyed success since its launch at the end of 2020. It has been developed and is operated as an integrated service within Banco Central do Brasil, with risk management, business, technical, rulemaking, and other functions distributed within the central bank, which may be related to a strong historical culture of payment system development within BCB. It is rather unique as even where FPSs are owned by the public sector, a separate governance structure for payment systems is more usual. It remains to be seen whether this structure will continue into the future or whether BCB may choose to explore other policy options.



15 GOVERNANCE IMPLICATIONS FOR CROSS-BORDER FPS

With the proliferation of FPSs in many jurisdictions across the globe and the trend toward greater interoperability at the technical level, the opportunities to foster interlinking FPSs have grown. The CPMI report “Linking Fast Payment Systems across Borders: Governance and Oversight” notes that determining a workable governance arrangement could be more challenging considering the multijurisdictional, cross-border, or cross-currency nature of such interlinking arrangements.⁸⁹ The report focuses on the governance of the FPS interlinking arrangement itself and not that of individual component FPSs. It discusses the main decisions to be taken by operators in developing the governance approach for FPS interlinking arrangements with respect to bilateral links and the hub and spoke model. These decisions include questions on the legal setup, ownership, operational structure, governing body type, and stakeholder engagement.

The report notes that the scope of governance arrangement depends on the type of the interlinking model. In the bilateral model, the governance arrangements apply to the relationship between the two component FPSs. The governance arrangement will deal with collective decision-making aspects, including risk-related decisions, and is limited to the cross-border operations supported by the interlinking FPS arrangement. The governance arrangement for a hub and spoke model applies to the relationship between the component FPSs and the hub and the internal governance arrangement for the hub itself, where such a hub is a separate entity.

The report provides a toolkit for relevant stakeholders to establish the governance for the FPS interlinking arrange-

ment. It sets out the key decisions to be taken in developing the governance arrangement. The process starts with the identification of the partner FPSs, followed by a planning phase. In the planning phase, the partner FPSs will need to agree on the common objectives for the interlinking arrangement. Common objectives could cover which market segments and use cases would be served, whether this would be a for-profit model or a cost recovery model, and whether there are plans for future expansion into additional markets. Distilling these objectives into guiding considerations during the planning phase would enable the component FPSs and other relevant stakeholders to make decisions on the governance framework. The guiding considerations include the following:

- Ensuring neutrality in decision-making and a level playing field between the parties involved, with conflicts of interest being properly identified and managed
- Flexibility in decision-making, noting that interlinking arrangements will operate in an intrinsically dynamic environment, and its governance structure must enable it to adapt
- Inclusivity of all relevant stakeholders—participants, operators, and owners—and inclusion of other payment systems and end-users so that the concerns of different stakeholders are addressed in a way that is effective and compatible with the robust long-term strategy for the interlinking arrangement
- Scalability to address future expansion into other use cases or corridors

- Ensuring business viability by defining whether the interlinking arrangement will be based on a for-profit model or will work on a cost recovery basis

The likely evolution of the central bank's role during the life cycle of the interlinking arrangement would need to be recognized by the governance arrangement of a privately operated interlinking arrangement. For instance, the central bank could potentially be actively involved in the initial design of the arrangement, provide initial financial and human resources (in some cases), and transition to a less direct role (such as a focus on oversight) when the interlinking arrangement matures and becomes self-sustaining.

The objectives and guiding considerations would influence the choice of the interlinking arrangement—that is, either a bilateral link or a hub and spoke model.

In the next stage of the design phase, issues related to the legal setup, ownership structure, and operational aspects should be addressed, including the following:

- **Legal Setup:** This would include examining whether contractual arrangements between the involved FPSs would suffice versus creating a new legal entity. The bilateral contracts and agreements between the two component FPSs of a bilateral link can have different degrees of formality. A multilateral hub and spoke arrangement will typically involve the establishment of a separate legal entity. Where an interlinking arrangement may require the establishment of a separate legal entity, selecting the home jurisdiction requires careful evaluation because the home jurisdiction determines the legal and regulatory framework under which the legal entity operates, covering aspects including consumer protection, anti-money laundering/countering the financing of terrorism, data privacy, and oversight and supervision requirements.
- **Ownership Structure and Management:** These would be determined by the objectives of the arrangement, including whether it will be a for-profit venture. Further, public or private ownership (or a mix thereof) of the interlinking arrangement will depend on the ownership of the component FPSs (where one or more of the component FPSs are themselves publicly owned), and some level of public sector ownership of the link is likely. Public sector ownership of the interlinking arrangement is unlikely if the component FPSs are privately owned. Ownership arrangements could also evolve, for instance, when bilateral link arrangements might grow into a hub and spoke model, or in other instances when an interlinking arrangement could become a profit-seeking venture in the steady state or it might want to raise funds to expand further. Accordingly, periodic reviews of the ownership structure could prove to be useful to identify whether changes are needed.
- **Governance Structure of the Interlinking Arrangement:** This structure could vary according to the type of the link. Whereas a separate legal entity has been created, as in the case of a hub and spoke model, the home jurisdiction will have (legal) requirements for members of the board of directors. The responsibilities and accountabilities of the board should be clearly documented and should be assessed regularly in terms of their appropriateness and effectiveness. On the other hand, a more informal and lighter governance arrangement could be adopted when there is a bilateral link between two domestic FPSs. In addition, a clear separation of roles between overseer and operator in central bank-owned interlinking arrangements should be put in place to avoid any potential conflicts of interest.
- **Comprehensive Risk Management Framework:** This is an essential component of the governance arrangement. Typically, the risk management framework should outline the respective roles and responsibilities of the board and management, as well as risk policies and procedures to be followed with a dedicated independent risk management function and structure. Whether it is a bilateral link or hub and spoke model, all of the aspects will require some form of coordination and agreement between the FPSs of the different jurisdictions that already have their respective risk management frameworks in place.
- **Stakeholder Engagement:** Mechanisms need to be put in place as part of the FPS interlinking arrangements. These mechanisms can include broad stakeholder representation on the board of directors and board committees (such as including non-shareholders) or in user committees and public consultation processes.



16 CONCLUSION

This guide aims to provide practical guidance on how to set up a governance framework for an FPS, considering the distinct and unique role being played by FPSs in the national payments system. This guide is aimed at policy makers and system managers tasked with the challenge of setting up a governance framework. The guide highlights a series of elements (both external and internal) that should be taken into account when setting up an effective fit-for-purpose governance framework for the FPS. The 10 elements outlined in the guide are distilled from the relevant international standards.

An effective governance framework is built by

1. properly identifying the environment, particularly the stakeholders' requirements;
2. accurately characterizing the scope and mandate of the FPS, having regard to not only the present but also a strategic futuristic vision; and
3. applying these considerations to develop a "fit for purpose" design.

There are many moving parts and a complex interplay between external framework elements—such as the stakeholder community, the public policy objectives of the regulator, and the oversight requirements—and internal arrangements—such as the formal legal structure and ownership, the structure and processes of the board, scheme rules, stakeholder engagement, and risk management. A single pass through the elements may not be enough; there are feedback loops, trade-offs, and differing stakeholder opinions to consider. However, the pathway suggested in this guide serves as a yardstick for measuring progress and enabling the development of a governance design that is optimized to the needs of the proposed FPS and its market environment.

Finally, good governance is organic; it is continuously evolving. As environment, scope, and mandate change, so must the design.



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APPENDICES
CASE STUDIES



APPENDIX A

BRAZIL CASE STUDY (PIX)

PIX GOVERNANCE: KEY LESSONS

- Pix is a Brazilian FPS that has enjoyed rapid growth since its launch in late 2020. It stands as an example of how a central bank can fully internalize conceptualization, feasibility, design, build, launch, operation, and governance for a national FPS and achieve success.
 - Banco Central do Brasil (BCB) built the FPS as an entirely in-house development—a rare and notable achievement. This note explores some possible lessons that can be drawn from BCB’s work:
 - **Full internalization ensured control of execution.** Doing everything in-house allowed BCB to apply existing governance structures, set the pace and direction of market innovation, and coordinate regulatory, technical, and operational elements.
 - **A small team of committed managers was critical.** The proposal for Pix was conceived and pursued through the commitment of a small team of BCB managers, who were involved at every step. BCB’s governance and culture enabled this “bottom-up” effort.
 - **There was always an executive sponsor.** In BCB’s structure, executive deputy governors (DGs), along with the governor, make up the board. They are independently appointed to defined areas of responsibility, and they control the resources they need. For Pix, progress depended on the continuous support of the responsible DG.
 - **Stakeholder engagement was extensive.** BCB established industry working groups and forums as needed at each stage of the project, allowing extensive, ongoing two-way exchanges within the industry.
 - **The governing body provided clear policy direction and oversight.** BCB’s board set clear policy goals early, but thereafter its role was to enable rather than lead: it monitored, approved, provided strategic guidance, and resolved disputes as required.
 - **Project and operational resources were internally reallocated, not externally acquired.** Consistent with its culture, BCB harnessed internal resources as needed for the project, without external assistance. This took advantage of in-house specialized skills, simplified project administration, and improved strategic coordination.
- As Pix evolves, there is room to consider whether governance reform could improve market responsiveness and continuous innovation into the future. A wide range of models are possible, from simple process reforms to more complex structural changes. In a rapidly evolving strategic landscape, governance review may help build on initial success.

INTRODUCTION TO PIX

Overview

Brazil's Pix system for real-time retail payments has enjoyed stunning success since its launch in 2020.¹ It brings together banks and non-bank service providers in a 24/7 payments service with instant (pre-funded) settlements and a centralized register of unique aliases or "keys" for payment.

The service comprises two operating platforms, both accessible via API interfaces:

- The Transaction Accounts Identifier Directory (DICT)—a database that links "keys" and users' account information to allow payment to convenient, unique identifiers such as mobile numbers;
- The [Instant Payments System \(SPI\)](#)—a real-time gross settlement (RTGS) infrastructure designed for high-volume, low-value payments that settles transactions between participating organizations in a few seconds.

Pix is a fast payment scheme featuring a widely recognized retail brand, a rule book (which includes minimum requirements for retail products and services using Pix), and a compliance framework for participants. The scheme is designed to ensure a consistent customer experience for all users. Participants are charged low transaction fees on a cost-reimbursement basis, and retail use of the system by individuals is free (commercial users can be charged for business usage). Participation is mandatory for larger financial institutions.²

In terms of central bank involvement in provision of FPS, Pix is a relative outlier.³ The system was conceived and developed entirely in-house by staff of BCB. Today, the Pix system and payment scheme are operated and administered by in-house BCB resources using internally developed software, an in-house operations and service desk, and a rule book set and administered by BCB. Industry consultation is managed through the Pix Forum, which comprises more than 200 industry representatives, but BCB retains full decision-making authority. The governing body is the Board of Governors of BCB.

As of October 2022, the system was processing in excess of 2 billion transactions per month with 135 million registered users out of a population of 213 million people.⁴ The approach taken during design, build, test, launch, and initial operation was very successful, resulting in Pix rapidly becoming the preferred method for person-to-person and consumer payments in Brazil.⁵

Pix is, therefore, an instructive example of how a central bank—typically an organization of careful deliberation and risk minimization—can act boldly and with agility to deliver

highly successful retail payments infrastructure. This case study explores how the governance arrangements at BCB operated to deliver this outcome.

Institutional, Regulatory, and Policy Context

In 1964, the Brazilian Banking Law⁶ created both BCB and the [National Monetary Council \(CMN\)](#), Brazil's highest macroeconomic and financial policy body. Under this institutional framework, BCB is the national monetary, regulatory, and supervisory authority, operating under broad policy guidelines (for example, monetary policy targets) issued by the CMN. The CMN now comprises three members: the Minister of Finance, the Minister of Budget and Planning, and the Governor of BCB.⁷

BCB has possessed explicit powers to regulate the payments system and all payment schemes since 2013. It must do so under guidelines established by the CMN. The law prescribes an institutional focus on interoperability, financial inclusion, and the use of mobile telecommunications.⁸

In 2021, BCB's constitutional underpinnings were updated. It was given structural autonomy from the federal administration to pursue its core policy objective of price stability, including fostering the stability and efficiency of the financial system.⁹

The Board of Governors of BCB has evolved and expanded over the years. Now, under the 2021 law, it is established as consisting of the governor and eight DGs, all appointed directly by the president of Brazil for up to two fixed four-year terms. Appointments are subject to a public nomination and consultation process. The board members serve as executives rather than independent directors, and each is appointed to a directorate responsible for a specific area of activity. These are designated by public-delegated legislation based on decisions of the CMN.¹⁰ This concentric organizational structure means that each DG has a relatively high degree of autonomy within their designated areas of responsibility, subject to the policy guidelines established by the CMN.¹¹ In turn, each DG's directorate tends to have its own priorities and protocols, at least for day-to-day operations.

Large projects require collaboration across multiple directorates to achieve the desired objectives. BCB uses an annual budget and planning cycle, with the opportunity for each directorate to nominate strategic projects for the year, which are then approved by BCB's board. BCB uses a formal project methodology of the "waterfall" variety for interdisciplinary projects, and there are protocols for strategic projects that prescribe a formal budgeting and reporting framework and an internal steering committee. The formal protocols are supported by extensive informal collaboration

across directorates. Further, human resource needs for projects are usually met by internal reallocation.

GOVERNANCE EVOLUTION OF PIX

Prehistory: Seeking Industry Engagement

In 2013, following the grant of regulatory responsibility for payments systems,¹² BCB invited industry participants to propose a new fast payments service as a way of addressing national reliance on cash. It did so through industry consultation meetings and bank publications. BCB's board adopted and publicized specific policy objectives for exercise of its payments regulation powers. In 2013, its Payment System Oversight Report articulated the following general policy goals:¹³

- Financial inclusion through payments
- Reduced usage of paper instruments
- Wider usage and interoperability for mobile payments
- Creation of fast payment services with broad interoperability across diverse providers

In the course of extended industry discussions and consultations, several industry proposals emerged, but they were of a limited participation or closed-loop nature. After nearly five years, there was little progress toward a broad and open model.¹⁴

Developing the Proposal

At the beginning of 2018, staff in the Department of Banking Operations and Payments System (Deban), part of the Monetary Policy Directorate (Dipom), proposed a radical solution: a BCB-developed and -operated, open-access FPS. This was the first time BCB had considered retail payment operations. The proposal for a feasibility study won the support of the DG Dipom and was adopted as a strategic project. During 2018, staff within Deban developed the proposal, using around six existing departmental staff. A working group of industry participants was formed and met regularly, chaired and administered by Deban staff. This exploratory work was not separately funded or resourced but rather relied on the proposing staff to find time as part of their day-to-day duties.

This work culminated in a submission to the board by the DG on December 20, 2018. The submission proposed a set of short but clear "Guidelines for the Brazilian Instant Payments Ecosystem." The board duly approved, as announced in a communiqué issued the next day.¹⁵ These general guidelines established the key features for what became Pix, although

the design evolved significantly thereafter. For example, within Pix, indirect and non-bank participation is provided for, as is real-time "prefunded" settlement; but the guidelines are silent on payments addressing and do not specify the retail scheme elements of Pix such as branding and use of business rules to control the customer experience.

Design, Build, and Launch

Following the approval, a major project commenced to design, build, test, and launch the new FPS. This eventually involved up to 40 information technology (IT) staff—all allocated from existing internal resources. This option reflects BCB's depth of skills in IT development as a result of previous development projects. The project also gathered support from multiple other directorates within BCB, using only existing internal resources.

In early 2019, reorganization and reappointment of the BCB board roles by the federal administration led to an extensive reorganization of BCB departments. The strategic project was reallocated to a newly appointed DG, who needed to be brought up to speed. The new project champion was the DG for Licensing and Resolution (Diorf).

The reorganization also had the unintended result that many members of the project management team were reallocated across five different directorates, with different responsibilities. However, the individual staff that had conceived of the project remained personally committed, despite reallocation of roles and responsibilities, and continued to work collaboratively on the project.

During 2019, the project expanded and multiple different units within BCB became involved. A number of strategic and design-related debates arose among different departments. For example, the original proposers of the new service advocated for the development of a full retail scheme, with branding, business rules, and a focus on consistent end-user experience. Other staff saw the FPS as infrastructure, with presentation to the end user left largely to market participants. This was a key strategic debate that affected many aspects of the system design.

The concentric organizational structure meant that strategic issues, as described previously, could only be resolved at a relatively senior level—either between DGs or by the board. The project gradually assumed increased importance at board level, and the board became more involved in oversight and strategic direction-setting. During 2019, the board considered and resolved several of these strategic debates. In particular, the board resolved the "scheme or infrastructure" strategic issue in favor of establishing a full retail scheme.

Consistent with this, the board adopted other key recommendations of management:

- Regulatory licensing powers were used to require all large banks to participate. Although this affected only 39 of more than 700 participants, it instantly created a critical mass of participation because of the large number of accountholders at the large banks.
- A set of business rules was established and, after launch, administered by BCB, governing not only the operation of the infrastructure but also the way participants may offer the service, so as to ensure a seamless, consistent customer experience across all participant services.
- The board resolved to regulate Pix's end-user pricing to promote BCB's public policy objectives. Consumers cannot be charged by providers for a Pix payment. Commercial users, those receiving more than 30 payments a month, can be charged a commercial fee. This struck a good balance between maximizing user uptake and leaving enough commercial incentive for participants to compete and to offer profitable services.

Industry consultation intensified as the project's size and momentum increased. The BCB-led working group expanded into the large body that eventually became the Pix Forum, made up of around 200 organizations. There were specialized working groups to provide expert input on specific issues, such as business, technical, messaging, and security. The consultation program was led and administered by staff within Decem, part of the Diorf Directorate.

The project made rapid progress in 2019 and 2020. As indicated, the project became the leading strategic development as the launch date approached, and separate weekly board meetings operated as the peak decision-making body for Pix. Pix was formally launched in November 2020.

PIX TODAY

Currently, responsibilities for different aspects of Pix (including technical, operational, regulatory, and business development) are distributed among the eight BCB directorates. Business responsibility currently resides in the Directorate of Licensing and Resolution (Diorf) under its DG. Within Diorf, the Department of Competition and Financial Market Structure (Decem) is one of three departments. The executive responsible for Pix is the deputy head of Decem. He leads a team of around 23 people, responsible for participant engagement, operations desk, business development, and strategy.¹⁶

Technical support for the underlying systems, DICT and SPI, is provided by a team of approximately eight technology staff within BCB's Department of Information Tech-

nology (Deinf), within the Directorate of Administration. The board of BCB remains the overall governance body for Pix, with Pix-related matters being included in the board's scheduled meetings. The Pix Forum remains active, providing feedback on new proposals and emerging issues and risks. BCB management retains motivational responsibility for future evolution.

In this way, BCB has brought to bear its mature operational culture and structures to the operation and future development of the new service.

Governance Lessons

A generation of management theorists have argued that modern organizations need to be transformed along "agile" lines in order to innovate. It has been suggested that innovative companies have the following:¹⁷

- Flat organization structures, relying on empowerment of small units and lateral collaboration
- Organizational flexibility, rapidly deploying dedicated task teams to drive innovation projects in a collaborative, open environment
- Customer-focused structures and decision-making
- Processes to gather large amounts of market data to drive rigorous decision-making

However, the governance history of Pix, as summarized previously, suggests that innovative "agility" can also be achieved within mature, relatively hierarchical public structures, such as that of BCB. BCB is organized around the eight DG directorates, supported by formal departmental structures with well-defined roles. Strategy is focused on the articulation and execution of policy objectives, and market engagement and data collection in the payments system are largely focused on financial institutions.

Some observations follow on the governance factors that contributed to the remarkable systemic innovations achieved through Pix.

Full internalization ensured control of execution

The fully internalized approach to governance allowed BCB a remarkably high degree of direct control over the project, and over its future evolution. When FPSs are built and operated by market participants, a central bank always has significant influence: it has regulatory power and often has significant persuasive influence, given its central policy role. But it cannot usually dictate the pace or path of development, nor all the design details. BCB itself experienced this situation from 2013 until the decision to develop internally was made in 2018.

Fully internalized design, build, and operation overcomes the problem, as long as the central bank has the in-house resources to execute effectively—which BCB has demonstrated in the case of Pix.

A small team of committed managers was critical

Throughout the entire Pix development, from initial conception to full operation, the team of no more than six individual managers within BCB provided the commitment and passion to drive the project forward. This small group had the advantage of tenured employment within BCB; yet in the earlier stages of evolution, the members had formal roles unrelated to Pix and had to work on the Pix concept in addition to those roles. Because of fixed budgets and strict human resource management protocols, BCB did not have a culture of flexible reallocation or adjustment of the headcount for shifting strategic priorities.

BCB's organizational structure underwent change during the period of Pix's development, but for reasons unrelated to the imperatives of the project itself. It could be argued that the restructure in early 2019 actually made progress on Pix more difficult in the short term by reallocating key staff across several different departments with different core responsibilities.

Nevertheless, the governance and culture of BCB enabled the development precisely because it gave expert staff the scope and support to pursue their own passion for the development. This allowed the project to be driven “bottom-up” but also provided strategic support and endorsement when required. The staff who conceived of the original idea were able to

- make their strategic case for initial feasibility work; then, having demonstrated feasibility;
- secure designation of a strategic development project; and
- during development, secure directional guidance from BCB's board as required.

BCB's structure enabled the focus and commitment of a small core team to drive and deliver an agile and innovative solution guided by BCB's public policy objectives, with the BCB board providing oversight and support as required.

There was always an executive sponsor

From conception to operation, Pix governance was integrated into general BCB structures. There was no segregated Pix development team, and there is no “general manager for Pix” or “Pix department.” Business leadership was and is located within a department that itself has a range of

other responsibilities; operational, technical, regulatory and administrative resources were distributed across multiple departments with diverse other responsibilities.

That said, BCB governance provided a clear path for bottom-up project effort to secure strategic endorsement and direction from the board—including internal dispute resolution when required. Within BCB's concentric structure, the governance link was a DG sitting at the board table as an executive sponsor. In 2018, the DG for monetary policy sponsored the initial feasibility work and secured board strategic approval for the development. In 2019, a different DG, for licensing and resolution, had responsibility for the development, including increasing board focus on what became a major strategic project. When needed, key strategic issues were taken to and resolved by the board, and through board endorsement, resources needed from other directorates of BCB could be obtained. The key was DG sponsorship coupled with endorsement by the larger BCB board, which ensured buy-in for the project development.

The sponsor DG, as indicated earlier, is an independently appointed member of the Board of Governors, with well-defined responsibilities and a separate departmental budget and resources. Notwithstanding this, board endorsement of the project enabled the engagement and the support of other resources within BCB as needed. This contributed to the success of the project.

Stakeholder engagement was extensive

The Pix project and ongoing operations show a marked commitment to continuous stakeholder engagement, even though industry participants did not have any ownership or decision-making rights. From the feasibility stage onward, BCB staff actively engaged with a wide range of industry participants, with regular consultative meetings administered and chaired by BCB managers. In the development phase, participant engagement intensified through multiple task-specific working groups. Since its launch, the Pix Forum has continued to provide a meaningful engagement platform.

Throughout, engagement has been two-sided: BCB has conscientiously brought its thinking at each stage to the community and improved it based on feedback; participants have felt that they have an opportunity to raise concerns and issues, which will be taken into account, recognizing that the final decision on any issue always rests with BCB.

Anecdotally, industry participants have generally been happy with this level of engagement. For them, as long as issues can be raised and are properly considered, they are content for BCB to take final responsibility, given its public policy orientation and structural neutrality.

One factor in the general acceptance of BCB's role was its management of perceived conflicts of interest. BCB ensured careful policy transparency, combined with open service design.¹⁸ BCB's rationale for action was clearly and persuasively stated to the market through extensive consultation. Then, through careful design of the service, BCB demonstrated open access to all service providers, bank and non-bank alike, and plenty of scope for competitive activity by participants.

The governing body provided clear policy direction and oversight

As far back as the creation of new direct regulatory powers over payments in 2013, BCB was articulating the relevant policy priorities.¹⁹ This provided a clear strategic problem statement for the Pix development. But the solution itself was provided bottom-up by a core group of managers, rather than through a top-down direction. For its part, the board of BCB provided a place for ongoing review, strategic endorsement (leading to resource allocation), and, where necessary, resolution of strategic debates and issues.

Project and operational resources were internally reallocated, not externally acquired

As described, BCB has an annual budget cycle, a relatively fixed organizational structure and strict procurement and human resource protocols. This created an organizational preference for reallocating internal resources to execute strategic projects, rather than buying or hiring in from outside. For the Pix project to succeed, this meant reallocation of management staff with diverse skills to design, develop, test, and launch the operations of Pix with relevant rules.

Board decisions and prioritization enabled strategic cooperation across directorates. The need to utilize internal resources from multiple directorates meant extensive lateral interaction among teams occurred informally, coordinated by the core team of managers involved. This was underpinned by formal project management protocols with regular formal reporting to an internal steering committee.

The board also approved adopting the retail scheme approach with a national retail brand for the service to give it a strong market presence, and a comprehensive retail scheme rule book including minimum standards for consumer interfaces.

The reliance on internal resources had significant governance benefits during the development project:

- Project administration was simplified by more immediate and direct access to staff and resources, without the delay and complexity of procurement.

- All project resources worked within, and deeply understood, BCB's organizational culture and operational protocols.
- Strategic coordination was facilitated by the ability to resolve directional debates once and for all at the DG or board level.

PIX GOVERNANCE: FUTURE CHALLENGES

In the future, the governance structure of Pix would need to be highly responsive to market evolution and innovations. The strategic landscape for payments is changing fast, not just in Brazil but the world over with new network technologies and social change enabling new payment alternatives, from mobile money through social media wallets to stablecoins.

A future review of Pix's current governance might consider whether better incentives and pathways for innovation are needed. Currently, much of the responsibility to drive Pix forward falls on the same small team of managers who originally promoted the concept. No doubt much can be achieved, but there is room to consider whether a differently structured management team would be better equipped to sustain market-oriented innovation. The Pix Forum can be a source of ideas and advice, but motivational responsibility rests solely with BCB management, subject to general strategic oversight from BCB's board, which itself has a much broader strategic focus.

A range of governance reforms could be considered, starting with relatively simple process reforms:

- BCB board could establish a Pix subcommittee, to increase top-line focus on Pix governance.
- A published, regularly renewed Pix strategy road map would spur debate and increase transparency.
- An annual strategy event focused on Pix could bring together the board, representatives of the industry drawn from the Pix Forum and management to create a more inclusive framework for articulating Pix strategy.

More complex structural reforms might also be considered, taking a lead from other jurisdictions:

- Corporatization of Pix's management structure—for example, appointment of a Pix CEO reporting to a special purpose board, with a financial mandate to become self-sustainable;

- Inviting industry participation in governance through industry representation in a new governance body distinct from, albeit subordinate to, the BCB board;
- Inviting industry participation in ownership, for example, by incorporating the Pix scheme and establishing participant mutual ownership.

Many other possibilities and variations exist. There is no immediate pressure for such reforms, given recent rapid growth. However, with some timely thinking now, BCB has an opportunity to establish a long-term governance framework that will enable Pix to build on this success.

ENDNOTES

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10. "Historical Composition of the Board of Governors," Banco Central do Brasil, https://www.bcb.gov.br/content/about/compositionBoardGovernors/composition_BCB_structure_en.pdf.
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15. See Communiqué 32,927 of 2018, available at https://www.bcb.gov.br/content/financialstability/Communique_ps_docs/Communique_32927.pdf.
16. See further, appendix A—BCB's organogram.
17. The literature on "agile" corporate leadership and organization is extensive. See, for example, "The Fashion for Agile Management Is Spreading," *The Economist*, July 5, 2018, available at <https://www.economist.com/business/2018/07/05/the-fashion-for-agile-management-is-spreading>.
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APPENDIX B

POLAND CASE STUDY (EXPRESS ELIXIR)

EXPRESS ELIXIR GOVERNANCE: KEY LESSONS

- Express Elixir (EE) is the fast payments service of Krajowa Izba Rozliczeniowa SA (KIR), the bank-owned national payments clearinghouse of Poland. It was one of the earliest FPSs, having been launched in 2012, and evolved to be a highly successful addition to the Polish market. The governance authority is the Supervisory Board of KIR, consisting of representatives from 10 commercial banks plus the central bank, Narodowy Bank Polski (NBP), and Związek Banków Polskich (ZBP), the banking association. Regulatory oversight is also provided by NBP using the Polish law and the *Principles for Financial Market Infrastructures* (PFMI) and the Eurosystem's oversight framework.
- This structure is a successful example of mutual-style banking-community governance of payments infrastructure, with extensive central bank involvement. Some key lessons are the following:
 - **A trusted, quasi-mutual operator was the venue for balancing public and private interests and building industry collaboration.** KIR is long-established and bank-directed, with decision-making reflecting the interests of major bank users, thereby incentivizing their engagement in the new service. Equally, NBP's dual role as overseer and governance participant helped ensure its support.
 - **The regulator provided support to an important industry infrastructure while managing potential conflicts of interest as board member and as overseer.** NBP exercised a formal role by being closely engaged in governance decision-making so as to ensure that the strategic developments served the public interest. It was also the overseer of the payment system, effectively managing any potential conflicts of interest.
 - **Professional management played a key role in success.** EE was conceived, developed, and managed as a self-sustaining commercial service by an integrated, professional management team. As part of this, management provided valuable mediation among multiple different stakeholder interests.
- EE's successful governance model has not evolved in line with the global trend toward greater non-bank and end-user participation in governance. This could be attributed to the particular characteristics of the Polish market.

INTRODUCTION TO EXPRESS ELIXIR

Overview and Market Context

EE was one of the first in the global wave of real-time payment systems, launching only a few years after the United Kingdom's Faster Payments.¹ The system provides instant transfers between bank accounts using the ISO 20022 mes-

sage standard. Settlement occurs in the SORBNET2 real-time gross settlement system operated by the central bank, NBP, using a pre-funded clearing account, ensuring that payments can be posted to payee accounts within a few seconds.

EE was launched in 2012 by KIR, the bank-owned payments clearing operator for Polish banks. KIR already operated Elixir, Poland's bulk interbank credit and debit payments service, and a number of other services. Unlike similar services elsewhere in Europe, Elixir already had three intraday settlement cycles. However, EE was conceived and developed in a rapidly evolving and competitive financial services market, with significant bank exploration of new services as well as fintech activity.

For example, in 2012, two Polish entrepreneurs with a history of web-based innovation launched the Blue Cash Payment System (BC) through their company Blue Media.² The system relied on a combination of correspondent accounts operated at each participating bank and integration with bank and merchant payment systems to deliver point-of-service (POS) payments from bank accounts and a real-time interbank payments system at a time when such services were rare. The system attracted participation from a number of banks and developed critical mass within a few years.

In 2013, a group of six Polish banks formed Polski Standard Płatności, Polish Payment Standard (PPS), as a joint technology utility for payment services. Their service, Blik, offered in-store mobile payments from accounts at participating banks.³ In 2015, PPS added a person-to-person fast mobile payment service, using mobile phone numbers as addresses and using EE for fast payment execution. Blik has become a major contributor of volume to EE.

Around the same time in 2015, regulatory action changed the risk profile and therefore the attractiveness of real-time services. The action prohibited use of fast payments for identification purposes, a practice which was then common in Poland.⁴ As a result, a number of banks which had previously resisted joining EE for risk reasons then became participants.

From 2016 onward, the combined effect of increased consumer convenience through the Blik mobile addressing service and a safer risk environment for banks led to rapid growth in volumes. Figure 1 illustrates the relative performance of EE and BC between 2012 and 2022, showing both volumes and values.⁵ Until late 2016, BC processed more volume than EE and grew faster; but from then on, EE rapidly outstripped the commercial service. In 2022, EE processed 227.5 million fast payments, over 16 times the volume in BC. EE has become the standard way to make person-to-person payments in Poland.⁶

Regulatory and Policy Context

From the 1990s onward, NBP oversaw the emergence of the Polish national economy from an era of state ownership and central planning into a modern market economy with a floating currency. By an act of 1997,⁷ NBP was established as the central bank with responsibility for the national currency and powers to organize payments in Poland. By an act of 2001,⁸ the president of NBP was given power of approval over Polish payment systems other than those operated by NBP.

NBP's primary objective is to ensure the efficient and safe functioning of the payment system.⁹ In performing its payment system oversight policy, NBP is guided by the rule of transparency, developed on the basis of the Polish law, and also applies international standards, PFMI, and the Eurosystem Oversight Framework.

Institutional Context

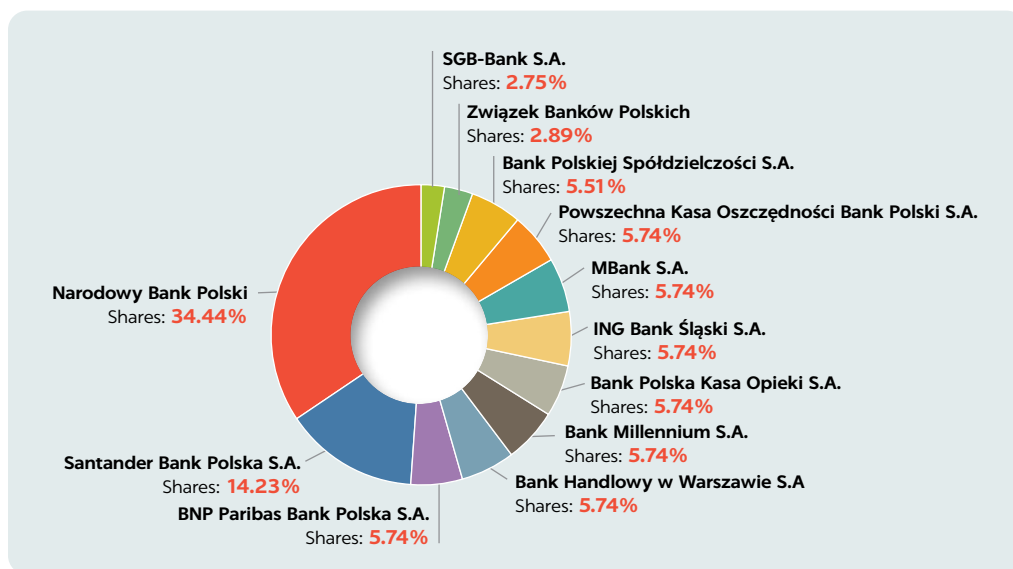
The operator of EE is KIR, Poland's national payments clearinghouse. KIR was established in 1992 to provide interbank clearing services for Poland's emerging commercial banking sector and is one of the regulated payments operators recognized by NBP.

KIR's mandate is described in its published strategy 2023–2025 in terms that focus on the delivery of value to its key stakeholder community, the Polish banking sector. It also recognizes its important public economic role:

KIR is a key entity of the Polish payment system, . . . We actively support the Polish banking sector in the use of new technologies and open banking. . . . We support the digitization of the economy, ensuring the quality, reliability and security of digital services. The new strategy of KIR for 2023–2025 . . . is a continuation of the consistent strengthening of the position of KIR as an important entity in the infrastructure of the Polish payment system.¹⁰

In addition, NBP is a major shareholder alongside leading commercial banks, and currently chairs the supervisory board of the company. The company's current shareholders are as illustrated in figure B.1.

KIR started life with 16 bank shareholders; current shareholdings reflect the evolution of the Polish banking marketplace with mergers and some bank withdrawals from the market. NBP's large shareholding arose from the need to even the levels of commercial banks and rebalance the shareholding, rather than from original design. The Banking Association, Związek Bankow Polskich (ZBP), has a small share, and its deputy CEO currently serves as deputy chair. Each shareholder appoints a director to serve on the supervisory board, and each director has an equal

FIGURE B1 Shareholding in KIR

Source: KIR website, accessed June 2023.

vote. NBP has more than one-third of the shares on issue and chairs the board.

Constitutionally, KIR is quasi-mutual—while not all participants are shareholders, ownership and direction are clearly oriented toward the collective interest of the banking community, tempered by the presence of the public policy maker in all deliberations. Banks not directly represented on the supervisory board are explicitly represented by ZBP, the banking association. Where a proposal may affect the status of the company's regulatory compliance, the approval of NBP as regulator may also need to be sought.

Day-to-day management of the company is vested in a full-time executive management board, which currently has three members, a president and two vice presidents. The management board is responsible for preparing strategic proposals, budgets, and other matters calling for supervisory board decisions, and submitting these to the supervisory board. KIR has an integrated approach to service management; each management board member has a portfolio of management responsibilities, which are arranged functionally rather than by product. Thus, the responsibility to manage the EE service falls on the Settlement Department, which reports to the president; but the service is also supported by the IT department, the operations center, legal and financial services, and so on. Around 10 staff members are directly involved in management of EE, with support from many other units.

In order to promote long-term sustainability and organizational efficiency, KIR's management approach is com-

mercial in outlook, although some services with a significant public interest component are provided at cost. This is a pragmatic response to a competitive market environment, where KIR has no special legal or regulatory status relative to other licensed payment providers, notwithstanding its close association with NBP.

GOVERNANCE EVOLUTION OF EXPRESS ELIXIR

Genesis

After 2005, when the Elixir service was launched and paper payments clearing declined, KIR began consulting with its owner-user community on possible service extensions that might benefit them. It operated a user group called the "Elixir Club," open to representatives of all banks engaged in using KIR services, with a membership of around 50. The idea of a fast account-to-account payments service was extensively discussed, leading to an informal consensus among the larger banks to develop such a service. In 2011, KIR formalized the emerging consensus by conducting a survey among Polish banks, collecting their views on the proposed service. With this endorsement, a business case proposal was put to the supervisory board and was approved.

KIR management then conducted a market tender to select a service provider to develop the new service—at that time, there were no off-the-shelf products for fast

account-to-account services, and KIR selected a software development house to build the new service. It was also necessary to formally seek NBP oversight approval and develop a rule book to provide the commercial and legal framework.

The new service, EE, was conceived as an offering to all banks that would operate on commercial principles—transaction fees would be set to deliver a future return on capital invested. At around the same time, the BC service began engaging banks and developing integration with bank and merchant systems. While not a primary driver of the KIR development, the existence of a potential commercial alternative acted as a spur to complete and launch the service.

The EE service ultimately launched in 2012, with support from major bank shareholders of KIR. The supervisory board provided continued support to the development of the service and the director representatives acted as points for coordinating bank preparation and KIR service development.

Market Developments

Before 2010, in the Polish banking market several attempts were made to create a mobile payment system based on KIR, while at that time, due to technical reasons, two general agreements were needed. One of them was an agreement between most banks (which was initially possible), and it was also necessary to reach an agreement with telecommunications operators, which finally failed. As a consequence, in 2013 several banks agreed and created the PPS based on the existing mobile payment solution developed by the largest Polish commercial bank (PKO BP), operationally launched in 2015. It was assumed that this would be a common solution, but it was decided to start with a few of the largest Polish banks in order to speed up decision-making and implementation processes, which was particularly important at the beginning of this new product.

From inception, the intent of PPS was to use EE as the infrastructure for the Blik fast payments service. The opportunity to collaborate with Blik was suggested by the common bank shareholders of KIR, and management conducted a strategic review and prepared a business case for the supervisory board. With five of Blik's six shareholders on the board, its support was secured. In this way, a market initiative developed by banks for their own commercial purposes was taken up, standardized, and enabled for the entire community by KIR's infrastructure. The results demonstrate the value of the development.

GOVERNANCE LESSONS

A trusted, quasi-mutual operator was the venue for balancing public and private interests and building industry collaboration

KIR was an experienced, community-oriented operator that had built trust with the banking community through a long history of infrastructure delivery and operation, and trust with the public authorities through the governance involvement of NBP. In this way, it was uniquely placed to balance and build a market consensus integrating NBP's desire to promote modern payments infrastructure, the collective interest of the banking industry in network utilities, and finally the private, commercial interests of individual banks. Like many mutual and quasi-mutual clearinghouses, KIR sat at the intersection of public and private interests.

KIR is not a "strict" mutual company, in the sense that owners and users are distinct but overlapping groups. Nevertheless, corporate strategy, board membership, and deliberative proceedings all reflected the identification and pursuit of community interests rather than a pure corporate-commercial outlook. The supervisory board was chaired by NBP but driven by majority decisions of the leading banks, each bringing their own perspective on common interest. This created an effective mix of incentives for collaboration. Individual banks had sufficient investment—both as owners and heavy users of KIR's services—to work collaboratively on the EE development.

This governance structure maximized the likelihood that the EE development would respond to the common business needs of the Polish banking sector. In addition, and as a consequence, it maximized the likelihood that leading Polish banks would commit to and support the EE development through adaptations to their own back-office systems and customer service offerings. A specific instance of the reciprocal commitment can be seen in the use by PPS (a utility service provider for six banks) of EE transaction services for Blik.

Equally, the engagement of NBP not only as regulator but also governance participant ensured ongoing trust and confidence from the key public stakeholder. KIR, as the only automated clearinghouse (ACH) in Poland operating under the Polish banking law and owned by banks, met all the conditions of being a service provider for Blik via EE. It was done with the full approval of the NBP allowing the central bank to influence and to shape developments as necessary and to allow control and direction to remain with the banking industry.

The regulator provided informal support to an important industry infrastructure while managing potential conflicts of interest

As a central bank, NBP had a formal oversight role that required it to be impartial between competing non-public payment system operators. This is consistent with a basic economic orientation in Poland toward open, competitive markets. This responsibility was discharged through the formal authorization process for all payment system operators by the president of NBP within the NBP's oversight framework, using international standards such as PFMI to assess operators and ensure minimum standards of efficiency, reliability, safety, and transparency. The policy documentation of NBP displays a recognition of the public importance of such privately owned structures.

At the same time, as outlined previously, NBP had extensive formal involvement in the governance of KIR, which despite its quasi-mutual structure and community outlook, was in a regulatory sense just one of several alternative infrastructures. This direct engagement of NBP in KIR's governance framework facilitated the development of new payments infrastructure with critical mass and wide community usage.

The potential conflict of interest emanating from participating in the governance arrangement of KIR and as an overseer was managed by NBP through an internal separation of roles for officers charged with oversight, and those involved in KIR governance.

Second, pursuit of both roles requires continuous exercise of judgment to strike the right balance between ensuring new payments infrastructure rapidly attains critical mass while not stifling competitive market innovation and the development of new services. In the early, expansionary days of EE's development, NBP's engagement allowed KIR and the banks to rapidly develop beneficial new national infrastructure. But this development has the potential risk of impeding the competitive development of non-bank solutions. As the market evolves, there may be the need to consider a wider community of interests across technology companies, start-ups, and other organizations. This is explored further under "Future Challenges."

Professional management played a key role in success

In identifying and balancing the competing interests that arise from the critical industry role of FPSs, the importance of professional management can often be overlooked. In the case of KIR, the existence of the management board highlights the dual role of management. As in all organizations, management must intelligently execute strategy set by the

supervisory board; but in industry mutuals like KIR, there is an additional, more challenging mediation function which can manifest in three ways:

- Management must support the strategy formulation process, bringing a perspective independent of all other stakeholders and impartially focused on the success of the company. This is especially valuable where, as in the case of KIR, there are no nonexecutive independent directors to provide an independent perspective.
- Management may need to shape and articulate the strategic debate to maximize prospects of a "best fit" consensus among the community of users and owners, each of which has its own vision of industry evolution.
- Management may have to help mediate between commercially oriented desires of participants and public policy expectations of the regulator, again seeking a best fit outcome.

It appears that the evolution of EE benefited from these kinds of support. In addition, KIR's management displayed a market-oriented professionalism in supporting the stakeholders and the supervisory board. The management board prepared strategy papers, a business case, a project plan including a competitive tender procurement and business rules formulation. The review of compliance with PFMI shows a well-developed risk management framework.¹¹

The management team also showed responsiveness to market developments, such as adaptation to support the Blik service from 2015 onward.

FUTURE CHALLENGES

KIR's governance approach for EE has clearly been well-calibrated to the needs of the Polish market and so has achieved critical mass as a fast payment service. It has also displayed the capacity to improve services over time in response to market needs.

However, notwithstanding rapid evolution of financial technology services in Poland, there seems to have been little market pressure for governance structures to be more inclusive of end users and indirect participants. This is to be contrasted with significant evolution in this direction in world best practice, and in other broadly comparable jurisdictions. This best practice trend can be traced back to PFMI Principle 2, Key Consideration 7, which advocates "reflect[ing] appropriately the legitimate interests of [the infrastructure's] direct and indirect participants and other relevant stakeholders."¹²

The World Bank's guidance states:

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.¹³

This has not happened in Poland. In explaining the relative lack of pressure for governance change in Poland, some Polish participants make the argument that, from a relatively early time, the Polish market embraced an open banking approach consistent with the intent of PSD2.¹⁴ The argument is that this form of openness gave non-bank participants sufficient access to payments infrastructure, such that there was little demand for greater participation in infrastructure governance.

As financial technology evolution drives new players and more market change, and as EE increases its reach in the Polish market, it remains to be seen whether the historically successful bank-driven governance structure will experience pressure for change to reflect broader stakeholder interests.

ENDNOTES

1. Further details on Express Elixir's services and operations can be found in the World Bank Fast Payments Toolkit, Case Study: Poland, https://fastpayments.worldbank.org/sites/default/files/2021-09/World_Bank_FPS_Poland_Express_Elixir_Case_Study.pdf.
2. Marcin Adamczyk, "Poland Is a Leader in Instant Payments," *Blue Media*, January 15, 2017, <https://blue-media.pl/baza-wiedzy/badania-i-raporty/polska-przoduje-w-platnoscach-natychmiastowych>.
3. Blik's in-store and online services compete directly with credit and debit card payments, which are operated in Poland by the international schemes and are heavily used by Polish consumers.
4. In the absence of a national digital identity system, citizens would send and receive small amounts using the early fast payment services in order to establish the correct destination for a later, more substantial payment. This insecure practice in turn attracted various kinds of fraudulent activity.
5. In figure 1, the columns indicate value in billions of PLN using the left-hand scale; the lines indicate millions of transactions on the right-hand scale, which is logarithmic (base 10). This more clearly shows the relative performance of the two systems over time.
6. Constitution of the Republic of Poland, Article 227, adopted April 2, 1997, <https://www.sejm.gov.pl/prawo/konst/angielski/kon1.htm>.
7. "The Act on Narodowy Bank Polski of 29 August 1997," Journal of Laws of 2022, item 2025, https://nbp.pl/wp-content/uploads/2022/10/the_act_on_the_nbp.pdf.
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12. Committee on Payment and Settlement Systems (CPSS) and International Organization of Securities Commissions (IOSCO), *Principles for Financial Market Infrastructures* (Basel, Switzerland: Bank for International Settlements, 2012), 158, <https://www.bis.org/cpmi/publ/d101.htm>.
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14. European Central Bank, "The Revised Payment Services Directive (PSD2) and the Transition to Stronger Payments Security," March 2018, https://www.ecb.europa.eu/paym/intro/mip-online/2018/html/1803_revisedpsd.en.html.



APPENDIX C

MALAWI CASE STUDY (NATSWITCH)

NATSWITCH: KEY LESSONS

- National Switch Limited (Natswitch) is Malawi's industry-owned, publicly funded central retail payments switch, supporting "any-to-any" fast payments between mobile wallets on two mobile networks and accounts at nine commercial banks.
- The growth of mobile money supported by government-mandated interoperability with bank accounts has significantly increased digital financial inclusion, as shown by World Bank Findex data.
- Malawi's regulatory framework, administered by the Reserve Bank of Malawi (RBM), directly mandates interoperability through Natswitch and is supported by business licensing regulation that requires retail businesses to offer digital payment alternatives to customers.
- Although it has direct regulatory support and public funding, Natswitch is owned and directed by its major customers, with no formal governance participation by RBM. However, public funding is structured as a loan by RBM to Natswitch and is guaranteed by the commercial banks through their association; the banks have made commitments to ensure Natswitch pursues only publicly beneficial activities.
- The following observations can be made:
 - **A clear legal framework supports effective national payments policy.** Although Malawi had a draft National Payments System Bill (the Act) as early as 2002, it was not enacted until 2016. In the interim, an RBM-sponsored smart-card solution struggled for industry adoption, and mobile wallets grew rapidly as separate networks under regulatory guidelines. As soon as the Act was passed, RBM was able to shape the market to promote industry-wide implementation and universal interoperability.
 - **There are many ways of balancing public and private interests.** In response to difficulties with Malswitch, an early smart-card solution, RBM adopted an explicit policy of not owning retail payment networks. Instead, RBM left ownership and direction to a mutual structure created by commercial banks, but it ensured public policy goals were pursued through a memorandum of understanding (MOU) with the Bankers Association of Malawi (BAM) and specific regulatory requirements combined with "soft" influence in decision-making.
 - **Market incentives are usually an important factor in driving industry coordination.** Malawi's commercial banks united to reach an agreement on the formation of Natswitch, when only a few years before, a retail switch had struggled for critical mass. However in the interim, mobile wallets had grown rapidly in Malawi and posed a new competitive threat to retail banking.
 - **Mutual structures are often challenged by a diversity of business models.** The initial formation of Natswitch by commercial banks coordinating through BAM was rapid and successful. However, when the time came to add mobile network operators to the mix, there was

a substantial delay, which was ultimately resolved by direct regulation.

- As more diverse businesses (such as fintechs, remittance companies, retailers, and so on) seek access to Natswitch services, governance tensions may continue to emerge. One possible response is to “design in” a formal onboarding process that covers allocation of governance rights as well as usage rights for all new participants. Such a response could help to future-proof Natswitch against disruption caused by divergent user interests, and many models are available for doing so.

INTRODUCTION TO NATSWITCH

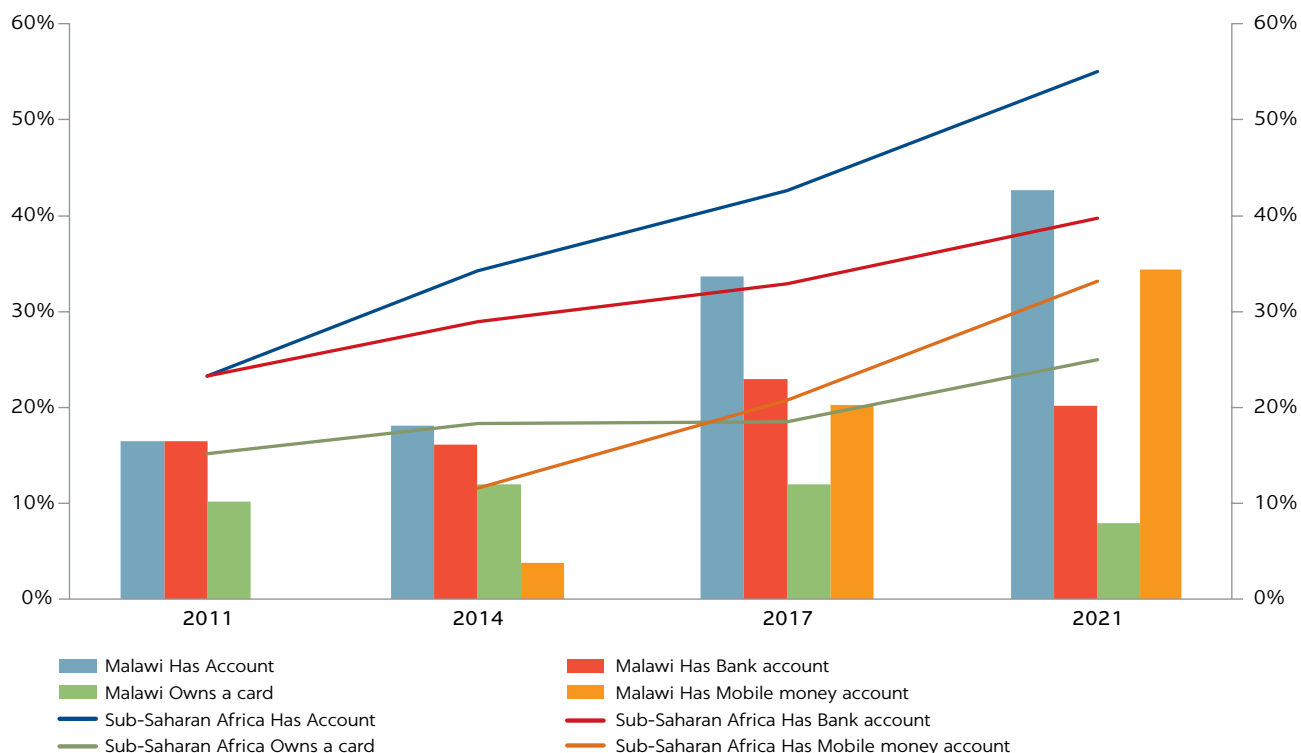
Overview and Market Context

As stated, Natswitch is Malawi’s industry-owned central payments switch. It commenced operations in 2015, offering card ATM and point-of-sale (POS) switching among Malawi’s commercial banks. Natswitch supported interoperability between Malawi’s two mobile money operators starting in 2017. In December 2022, Natswitch began providing an “any-to-any” fast payments service, supporting fast payments between all bank accounts and wallets at Malawi’s nine commercial banks and two mobile operators.

Malawi has made significant progress on financial inclusion. As in many African jurisdictions, Malawi has seen an explosion of mobile money use as more advanced mobile phones and supporting data networks become widely available. From 2014 to 2021, wallet ownership grew from 4 to 34 percent of the adult population, according to World Bank’s Global Findex survey. During the same period, bank account ownership increased from 16 to 20 percent. Not only has mobile wallet ownership now easily surpassed bank account and payment card ownership, but Malawi’s wallet ownership is on par with Sub-Saharan African peer countries, having lagged well behind a decade ago. Figure C.1 provides details.

Natswitch’s interoperability services add value to all these products by allowing anyone to pay anyone. Recent data suggest that the proportion of fast payments that pass through the switch is still small relative to all fast payments,¹ but its existence drives increased competition in the marketplace by allowing all service providers, large and small, to leverage the same national network in providing competitive payment services. This system reinforces and extends the benefits of financial inclusion already being delivered by mobile money.

FIGURE C.1. Account and Card Ownership, Malawi versus Sub-Saharan Africa



Source: Original figure for this report based on data from World Bank Findex 2021.

REGULATORY AND POLICY CONTEXT

Under the Payment Systems Act 2016 (PS Act), RBM has general powers of oversight, licensing, authorization, and regulation of payments systems and the power to establish and operate settlement systems and payment systems.² It must do so to “promote the soundness, safety and efficiency, integrity and reliability of payment, clearing and settlement systems in Malawi.”³ Any payment system or service operating in Malawi requires a license or authorization from RBM.⁴

Constituted under its own legislation,⁵ RBM is an independent government-owned body with the twin goals of price and financial stability.⁶ RBM's board of directors is appointed directly by the president and comprises the governor, deputy governors, the secretary to the treasury, and five other members. The board must always maintain a majority of financially expert nonexecutive directors.⁷

Payment systems policy is administered by the Payment Systems Department of RBM. Consultation with industry is provided through the National Policy Council, an advisory body chaired and administered by RBM that includes representation from the Ministry of Finance, commercial banks, and Natswitch.

RBM has used its formal regulatory powers to promote digitization and payments interoperability. In the process, it has designated Natswitch as the sole national interoperability hub. In 2017, RBM announced the Payment Systems (Interoperability of Retail Payment Systems) Directive (the Interoperability Directive), which requires banks, mobile operators, and all other payment service providers to continuously connect their network infrastructure to Natswitch and comply with Natswitch rules and standards.⁸ An explicit prohibition on deploying a stand-alone or closed-loop system was issued by RBM, along with a requirement to comply with Natswitch revenue sharing arrangements—in effect, interchange fees.⁹ RBM also instituted substantial monetary penalties for any noncompliance, as well as an explicit allocation of responsibility to the board and senior management of each payment service provider to develop and implement a policy to ensure compliance.¹⁰

Interestingly, the Interoperability Directive also places strict requirements on Natswitch:¹¹

- Set and enforce business, operational, and technical requirements.
- Ensure it has the technical and business capability onboard all service providers as per the directive.
- Comply with the RBM's other directives and pronouncements.

Again, there are financial penalties for failure to comply.

This integration requirement is extended into the retail market by the Business Licensing (Deployment and Usage of Electronic Payment Channels) Regulations, passed in 2019 but brought into full effect in 2022. The regulations require all licensed businesses in Malawi to deploy and use at least one electronic payment channel—in practice, one or more of card POS devices, mobile money wallets, or bank fast payments. This requirement, coupled with extensive community education through a National Taskforce on Electronic Payments,¹² was designed to fast-track digital payments in Malawi.

INSTITUTIONAL CONTEXT

Natswitch was created as a Malawian private company in 2015 with 11 members of BAM—the nation's commercial banks—as founding shareholders. Subsequently in 2017, the two national mobile network operators (MNOs) became equal shareholders with the banks, so that the shareholding base now consists of 13 equal shareholders. However, there is no formal requirement for users to be shareholders, and as Natswitch's services expand, new customers will not automatically become shareholders.

Although the Malawian banking community provided initial seed capital, the bulk of capital required to develop Malawi's central retail switch was provided as financial assistance from the World Bank to the government of Malawi under a Financial Sector Technical Assistance Project (FSTAP). The program has been administered by the RBM. In 2014, RBM and BAM (acting on behalf of the commercial banks) signed an MOU under which FSTAP funds were provided as an interest-bearing loan, enabling the banking community to sign the technology supply contract for the national retail switch.

The MOU records the importance of establishing the retail switch in furtherance of the public policy goal of increasing access to finance. Participating commercial banks make the following commitments:

- Incorporation and physical establishment of Natswitch
- Establishment and execution of an agreed business plan for Natswitch
- A collective guarantee of loan repayment

The MOU explicitly recognizes Natswitch's mutual nature and states that:

- its shareholders would essentially be its customers,
- fair access to its services will be provided for new banks and appropriately regulated non-bank institutions,

- it will limit itself to switching and related services so as to avoid conflicts of interest,
- it will be open to new user shareholders with equal rights, and
- otherwise, it will be self-sustaining through service charges.

The board of Natswitch consists of the senior executives of a major payment service provider and user of Natswitch's network services. A chief executive officer reports to the board and, in recognition of the special role of RBM under the MOU, also has a "dotted line" reporting relationship with the Payment Systems Department of RBM. In practice, there is close consultation with RBM on strategy and business planning.

Natswitch has made available to the community its operating guidelines,¹³ which set out Natswitch's rules of operation. The operating guidelines specify membership of Natswitch to include "affiliates of Bankers Association of Malawi (BAM), all MNOs, and every other financial service provider who issues out, acquires electronic funds, cards and or are involved in electronic funds transfers." All are legally bound.¹⁴

Natswitch services are clearly positioned as a long-term strategic initiative delivering essential components of an effective national economy, as well as cost efficiencies and economies of scale for members.¹⁵ The guidelines note that payment service providers are obligated to become members and set out the criteria and responsibilities for membership, as well as a penalty framework for noncompliance.

The board is recognized as the ultimate authority for Natswitch operations, and the guidelines also recognize the need to cooperate with RBM and other authorities "to enhance coordination of policy development and implementation."¹⁶

GOVERNANCE EVOLUTION OF NATSWITCH

Natswitch represents a relatively unusual (by global standards) balance of public and private interests in the national FPS. Malawi arrived at this configuration through its own history and experience. This section briefly records two contributing historical elements—the first attempt at a national smart-card system and the process for admission of MNOs to full membership in Natswitch.

MALSWITCH

The Malawi Switch Centre was Malawi's initial vehicle for centralized payments processing and was established as a separate government-owned and controlled company in 2002 as Malswitch Limited. It administered Malawi's first real-time gross settlement (RTGS) and check-clearing services until their replacements in 2014 with new services operated by RBM.¹⁷

An additional service developed by Malswitch was an early FPS—a smart-card fast payment solution. RBM's 2008 NPS Vision and Strategy establishes a goal of developing a business plan for Malswitch to achieve "viability" by 2011; a project for its privatization is also proposed.¹⁸

The smart-card service struggled for acceptance and engagement by Malawi's commercial banks, possibly because it included card issuance and card acceptance services, which would in part have competed with commercial bank offerings. Four banks became members and offered the solution to customers, but this was insufficient to attain critical mass, and the service never attracted large volumes.¹⁹ From 2012 onward, the proposal to use FTSAP funds to develop a domestic card and fast payment switch (ultimately, Natswitch) dominated the industry's attention. Malswitch was terminated by the time Natswitch commenced operations in late 2014.

ENGAGING MOBILE OPERATORS

From 2012 onward, Malawi began to experience the explosion in mobile money usage that has become a familiar story in many African countries. Because mobile money builds on telecommunications infrastructure being deployed for core mobile services to a large retail community, such services do not usually require unique, separate investment in the central infrastructure—switching is predominantly done within each MNO network. However, interoperability between MNOs and between mobile networks and the banking industry are critical for long-term economic development, as was clearly recognized by the RBM/BAM MOU.

Although they had not been parties to the original MOU, in 2017, the two national MNOs were persuaded to connect to Natswitch, supporting an initial wallet-to-wallet interoperability service. Connectivity with mobile money was envisaged as an important element of the new switch from inception in 2014,²⁰ but the governance framework for this took some time to be developed. The 2017 Interoperability Directive (see "Regulatory and Policy Context" section) had the effect of legally requiring MNOs to connect, and also of

legally requiring Natswitch to enable connection, making it impossible for any existing shareholder to object. Consistent with the mutual orientation of Natswitch, this eventually led to the MNOs joining as equal shareholders with their own chief executives as directors on the board.

GOVERNANCE LESSONS

An interesting aspect of Malawi's experience is the effect of the unsuccessful attempt to create a national FPS through Malswitch. The failure of Malswitch presents the opportunity to consider what governance changes were made after its termination and how these contributed to later success via Natswitch.

In Natswitch's private mutual structure supported by an MOU with BAM, there is a clear intent to ensure maximum engagement from the commercial banking community. In exchange for commitments to build, operate, and govern Natswitch in accordance with RBM policies, public development funding was made available to support collective development by the banks.

A CLEAR LEGAL FRAMEWORK SUPPORTS EFFECTIVE NATIONAL PAYMENTS POLICY

Malawi's 2008 NPS Vision and Strategy establishes a strategy of strengthening the legal framework for payments,²¹ principally through the enactment of the Payment Systems Act, which had existed as a draft as early as 2002.²² In the interim, RBM had regulated payment systems in exercise of original general jurisdiction under its own act. So, for example, MNOs were regulated through guidelines published in 2011.²³

In the years before the PS Act was implemented, RBM had sought to influence industry developments through direct intervention. The Malswitch development of a smart card service is a prime example. The result of this approach was that mobile services grew rapidly but experienced imperfect interoperability with the banking system; at the same time, the government-owned service struggled for adoption in the absence of a clear regulatory framework and business incentive for the banks.

The PS Act ultimately became law in 2016, leading to rapid structural changes in Malawian retail payments. The Act was followed quickly in 2017 by e-money regulations, the Interoperability Directive, and in 2019 by the Electronic Payment regulations. This comprehensive legal framework provided a clear, strong basis for the establishment of Natswitch as the nexus for retail payment interoperability, as described above.

Once the legal and regulatory framework was fully developed, governance and oversight of national retail payments became much more effective.

THERE ARE MANY WAYS OF BALANCING PUBLIC AND PRIVATE INTERESTS

It seems clear that the lack of success of the Malswitch smart card service had an enduring effect on public policy toward governance of national payments infrastructure. The 2008 NPS Vision and Strategy presents a clear policy preference for banks and other stakeholders to own—and therefore take risk and responsibility for—non-systemically important systems, leaving RBM to focus on oversight.²⁴

When RBM secured international development aid for a retail switch, RBM had public money to spend on national payments. RBM took the relatively unusual step of channeling that funding into a switch vehicle 100 percent owned by private interests—initially, commercial banks—which became Natswitch. Developing and implementing Natswitch carries out the policy imperative of the Vision and Strategy, which was for RBM to restrict itself to oversight of retail systems. However, it also raises questions about ensuring accountability, protecting against unjust enrichment of the banking sector, and increased risk of misuse of public funds.

The Bank's response was not to take an ownership stake in Natswitch, or even to accept a governance role on the board—both of which are common solutions in other countries. Instead, RBM developed a carefully crafted governance framework that used both regulatory and commercial checks and balances to ensure public money was well spent and delivered the desired outcomes. That framework included:

- Committing to a comprehensive governance structure through the MOU by the entire banking sector
- Structuring public funding as an interest-bearing loan from RBM guaranteed by the banks and callable in the future, giving RBM financial influence over future switch decision-making
- Limiting the scope of activities of the switch to noncommercial activities with public policy benefits
- Enforcing a direct regulatory requirement for interoperability backed by financial penalties, binding on all stakeholders including Natswitch itself²⁵
- Engaging with RBM through ongoing “dotted line” management reporting

By these means, RBM secured commercial bank assumption of responsibility and also ensured public policy goals are pursued. Natswitch is an unusual balancing of the interests, but it has proved an effective one.

MARKET INCENTIVES ARE USUALLY AN IMPORTANT FACTOR IN DRIVING INDUSTRY COORDINATION

Much of the effectiveness of the governance structure for Natswitch's mobile FPS services derives from the MOU with BAM, signed by all commercial banks. This high level of industry coordination took place before there was any regulatory imperative to do so, and it stands in sharp contrast to the partial and ultimately unsuccessful engagement in the predecessor system, Malswitch.

No doubt, developing a more effective policy and governance approach by RBM was important, as documented above. But the change in market circumstances is also significant. In the early 2000s, when Malswitch began offering services, mobile money did not exist to provide a competitive alternative to bank-driven digital payment services. By 2014, when the commitment to support Natswitch was secured, mobile money had become a significant threat to bank-owned retail payment systems. According to RBM data, bank-based mobile and internet payment transactions increased by 25 percent to 9.1 million in 2014, but in the same period, MNO-led mobile payment transactions grew by 141 percent, to 48 million.²⁶ The writing was already on the wall.

Therefore, it seems reasonable to surmise that by 2014, the desire of commercial banks to coordinate on national digital payments infrastructure to support their digital payment services acquired new urgency. Although fast payment interoperability and mobile money were always envisaged as within scope, it is likely to have enhanced effective coordination to commence Natswitch's development solely with the engagement of the commercial banks through their association. This group was economically aligned and incentivized to make rapid progress.

MUTUAL STRUCTURES ARE OFTEN CHALLENGED BY THE DIVERSITY OF BUSINESS MODELS

The downside of building a community with closely aligned business interests is that it can be hard to bring in new and diverse participants when the time comes to do so. This was the situation faced by the owners of Natswitch from

2015 onward. Having implemented national card switching within 12 months of formation of the company, Natswitch was encouraged by RBM to move on to the fast payments phase of the development agenda, starting with an interoperability switch between the two mobile money operators (MMOs).

Notwithstanding that this had always been explicit in RBM's vision and the MOU with banks, it took two years and direct regulatory intervention to achieve it. This took the form of the Interoperability Directive, previously discussed. At the same time this negotiation took place, individual banks and MMOs were establishing and offering bilateral commercial access agreements to allow payments between mobile wallets and bank accounts. However, the commercial implications of these arrangements ran counter to the interoperability vision of the RBM agenda. This dynamic may explain why full account/wallet interoperability was not achieved until the end of 2022, eight years after the original vision was articulated.

FUTURE CHALLENGES

The success of Natswitch in creating integrated FPS for the nation has enabled Natswitch to develop a substantial "order book" of adjacent public policy-driven projects. These include a national government e-payment gateway for both revenue collection and social funds disbursement as well as cross-border integrations.

Going forward, it may be of use to the community to have a clearer articulation of payment-systems strategy. This clarification could come from RBM through an update to the NPS Strategy and Vision, which is now 15 years old.²⁷ It could also come from Natswitch itself as an articulation of switch strategy, since there has not been a published statement of strategy to date.

As Natswitch's service set expands, the diversity of its participants also will inevitably increase. Already, several non-bank organizations licensed to initiate digital payments are connected, with many more likely to come.

Such growth creates an ongoing governance challenge, since with each new class of participant the divergence of interests between participants, and between participants and shareholder owners, increases. The first occasion this happened—the connection of MMOs to a bank-driven governance—an appropriate solution was negotiated. But without a well-defined pathway for integrating new participants into its governance framework, each new addition will present a new and potentially unanticipated negotiation challenge.

The public policy desire for open access and interoperability has been clearly expressed. But as the participant community broadens, there is a risk of creating new classes of participants whose interests are not sufficiently considered in decision-making. It may be impractical to renegotiate the MOU each time a new class of participant is onboarded.

A mechanism to manage the challenges of expansion could take several forms. For example, an advisory council for nonowner participants could be established, giving new participants a voice in Natswitch decision-making. New strategic proposals could be tested with the council before board decisions are made. In addition, the constitution of the company could be amended to provide that a new participant be offered the option of becoming members of the company (with attached rights and responsibilities), or of remaining a nonowner participant. This approach would need to define fair qualifications to trigger the offer, a well-defined process, and a clear statement of the rights and responsibilities involved.

Such structures may improve decision-making over time and help to avoid future governance challenges.

ENDNOTES

1. In Q1 2023, the switched volume was 0.5 percent of total mobile money payments See Reserve Bank of Malawi (RBM), "National Payments Systems Report First Quarter 2023," 2023, <https://www.rbm.mw/Payment-Systems/>.
2. Laws.Africa, "Malawi Payment Systems Act," ch. 74:01, part II, sec. 4, 2025, <https://malawilii.org/akn/mw/act/2016/15/eng@2017-12-31>.
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5. Now, the Reserve Bank of Malawi Act 2018, Part IV, sec. 44, <https://malawilaws.com/MalawiGnpdf1/GN%2019%20of%202018.pdf>.
6. RBM Act, Part II, sec.4.
7. RBM Act, Part II, sec. 7.
8. Bank of Malawi Payment Systems (Interoperability of Payment Systems) Directive 2017.
9. Interoperability Directive, secs. 6(7) and 7.
10. Interoperability Directive, sec. 5.
11. Interoperability Directive, secs.10–11.
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14. Operating Guidelines, sec.1.4, 6.
15. Operating Guidelines, sec. 2.1.
16. Operating Guidelines, secs. 4.2 and 4.3.
17. See, generally, RBM's "National Payment Systems Annual Report 2014," 2015, especially sec. 1.2 and appendix 1.
18. See *RBM, 2008, Malawi National Payment System Vision and Strategy 2009–2013*.
19. See RBM, *Malawi Strategy*.
20. See RBM, "National Payment Systems Annual Report 2014," (n. 16) at sec. 2.2.3.
21. See RBM, *Strategy*.
22. S. Madise, "Payment Systems and Mobile Money in Malawi: Towards Financial Inclusion and Financial Integrity," January 2014, sec. 3.2, https://www.researchgate.net/publication/269631135_Payment_Systems_and_Mobile_Money_in_Malawi_Towards_Financial_Inclusion_and_Financial_Integrity.
23. Under sec. 4(e) of the Reserve Bank of Malawi Act 1989. The current equivalent is sec. 24(f), Reserve Bank of Malawi Act 2018.
24. RBM, *Strategy*.
25. The Interoperability Directive, as discussed earlier.
26. RBM, National Payment Systems Annual Report 2014, secs. 3.2.3 and 3.2.4.
27. Industry interviews suggest RBM is working on a new payments strategy document.



APPENDIX D

GHANA CASE STUDY (GIP)

GHIPPS INSTANT PAY: KEY LESSONS

- Ghana's success in digital financial inclusion has been reviewed and analyzed repeatedly. Ghana Interbank Payments and Settlement Systems Limited (GhIPPS), a wholly owned subsidiary of the Bank of Ghana (BoG), has developed an extensive suite of retail payments systems including GhIPPS Instant Pay (GIP) and Mobile Money Interoperability (MMI), which provide "any-to-any" fast payments among bank accounts and mobile wallets. Digital financial inclusion has doubled to nearly 70 percent in 10 years using this system.
- Ghana enjoys a modern, open payments regulatory framework and clear policy and strategy environment; BoG plays a central role with responsibility for regulation, oversight, and payments industry strategy.
- GhIPPS is operationally distinct from BoG but is linked at the board level.
- GhIPPS utilizes a commercial approach in providing high-quality service delivery across the payments community.
- Regarding governance, the following observations can be made:
 - **Separation of functions can have multiple benefits.** Use of a subsidiary as the operator has managed potential conflicts and provides for effective focus in regulation, strategy, and market service delivery.

- **Clear, practical policy communication is important.** Ghana regularly publishes its payments policy and strategy, promoting consistency and market alignment.
- **Good governance allows for economic incentives.** BoG's approach is to understand market forces and seek practical solutions rather than force regulatory outcomes.
- **Consult, consult, consult.** BoG has extensive formal and informal consultation mechanisms, including a statutory Payment System Advisory Committee.
- **Good governance is dynamic and empirical.** The governance framework has evolved over time, applying lessons based on experience.
- A strategic debate on industry ownership of GhIPPS has been flagged. Given the vibrant, diverse competitive marketplace, finding the right model may prove challenging.

INTRODUCTION TO GHIPPS INSTANT PAY

Overview and Market Context

Ghana is a much-studied success story for digital financial inclusion.¹ Figure 1 shows that growth in account ownership in the last 10 years has easily outstripped the Sub-Saharan average, driven by remarkable growth in mobile money wallets. Today, six in 10 Ghanaian adults own a digital wallet.

Interestingly, over the same period both bank account and payment card ownership appear to have plateaued.

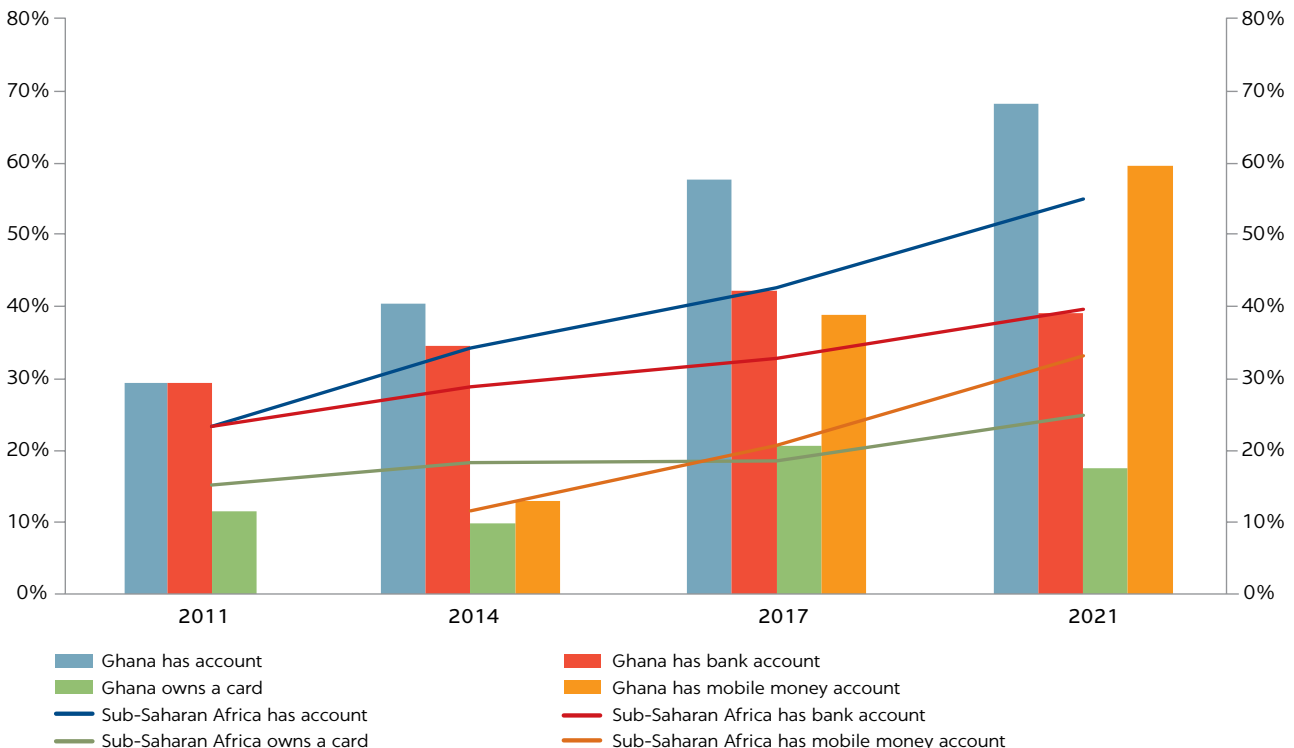
One aspect of Ghana’s success story is progressive development of a rich menu of retail payment alternatives paired with vibrant market competition across 23 banks, three mobile network operators (MNOs), and hundreds of other regulated financial institutions. The product mix includes the following:²

- A national stored-value biometric smart card, the E-zwich card, usable in dedicated terminals and in hybrid point-of-sale (POS) devices and ATMs
- A national scheme, the Europay, Mastercard, and Visa (EMV) card (Named for its originators, EMV is a standard and secured payments method designed to prevent fraud by embedding computer chips in debit and credit cards.)
- The Gh-link card, usable in POS devices and ATMs alongside international scheme cards
- GIP, a real-time interbank account-to-account credit transfer service
- Proxy Pay (alias addressing) and Request To Pay (bill payment) services built on the GIP service

- MMI, which links GIP with MNO networks to allow “any-to-any” fast transfers among mobile wallets, bank accounts, and card accounts
- A universal national quick response (QR) service, GhQR, which allows payment in store or online from a bank account, mobile wallet, or payment card using a QR code scanned or generated by a customer’s phone
- A national mobile wallet product, GhanaPay, allowing banks and other financial institutions to provide a mobile money service
- A range of corporate and merchant services designed to support convenient use by citizens of the listed services

All these products were developed and are supported by GhIPPS, which operates real-time transaction processing for card transactions and fast payments. Net interbank settlement takes place through Ghana’s real-time gross settlement (RTGS) system, GIS, which is operated by BoG. All of Ghana’s payment services organizations are interconnected through GhIPPS, either directly or indirectly, through sponsoring banks.

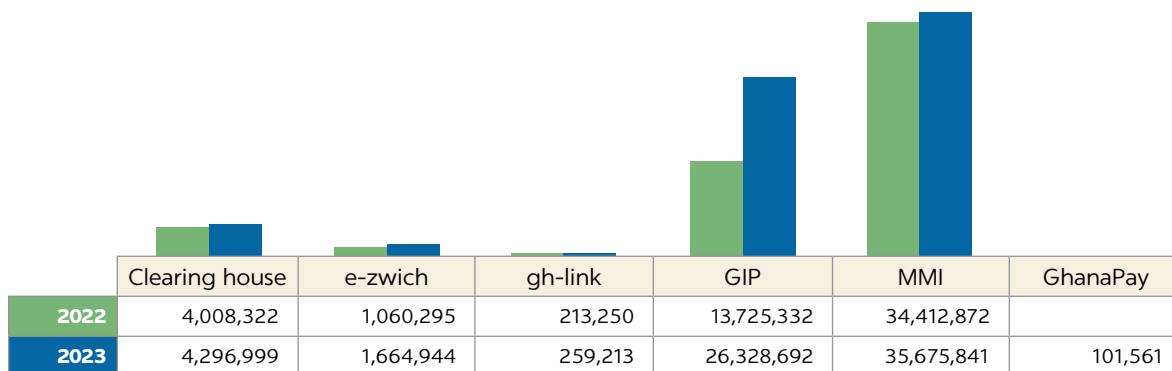
FIGURE D.1. Account and Card Ownership, Ghana versus Sub-Saharan Africa, 2011–21



Source: Original figure for this report based on World Bank Findex 2021.

FIGURE D.2 Comparative Volumes of Major Products

Comparative analysis for transaction volume in quarter one 2022 and 2023



Source: GhIPPs 2023 Q1 Industry Performance Report.

Figure D.2 gives a sense of relative significance of GhIPPS products. Although GIP is growing rapidly, MMI (which supports wallet-to-wallet fast payments across MNOs) is the largest product. This reflects the dominance of mobile money in overall payments activity. In 2022, there were over 5 billion mobile money transactions.³

REGULATORY AND POLICY CONTEXT

Ghana has a comprehensive, progressive payments regulatory framework. The Payments Systems and Services Act of 2019 (PSS Act) has the following notable features:

- Uniform application to banks, other deposit-taking institutions, electronic money issuers (including MNOs), payment service providers, and affiliates and agents of these organizations
- Authority of BoG for all matters related to payments, clearing and settlement systems, elaborated with detailed responsibilities such as
 - Safety and soundness of payments systems
 - Regulation of e-money business
 - Promotion of financial inclusion
 - Broad powers of policy formulation, licensing, and authorization
- Establishment of a Payment Systems Advisory Committee (PSAC) to advise BoG on payment matters
- Comprehensive compliance requirements for payment service providers (both bank and non-bank) including detailed governance requirements

- Specialized authorization and compliance requirements for electronic money businesses, including a special license category of “dedicated electronic-money issuer”
- Powers to operate or designate payment systems and to allow or prohibit access to payment systems
- Comprehensive monitoring and oversight powers

The public policy maker, regulator, and overseer for payments in Ghana is the BoG, established under the Bank of Ghana Act, 2002. BoG is also the principal payments strategy formulator, as shown by its published “Payments System Strategy (2019–2024).”⁴ As stated on the BoG website, the payments system objectives are clear and comprehensive:

The development of payment and settlement systems in Ghana has been premised on the following key objectives:

- To prevent and or contain risks in payment, clearing and settlement systems;
- To establish a robust oversight and regulatory regime for the payment and settlement systems;
- To bring efficiency to fiscal operations of the Ghana Government
- To deepen financial intermediation;
- To discourage the use of cash for transactions while encouraging the use of non-paper based instrument;
- To promote financial inclusion without risking the safety and soundness of the banking system; and
- To develop an integrated electronic payment infrastructure that will enhance interoperability of payment and securities infrastructures.⁵

BoG's governing body is the board of directors,⁶ which consists of the governor, who is also the chairman, two deputy governors, and 10 nonexecutive directors. The board is appointed by the president of the Republic of Ghana, in consultation with the Council of State. The governor and the two deputy governors are appointed for a term of four years. The nonexecutive directors hold office for three years.

As mentioned, BoG is supported by the PSAC, which advises on all payments and clearing related matters.⁷ Chaired by the governor, PSAC includes senior representatives from the National Information Technology Agency and the Ministry of Finance, as well as six other members selected by the BoG. Currently, these include representatives of GhIPSS, the Securities and Exchange Commission Ghana Chamber of Telecommunications, Ghana Association of Bankers, the Association of Ghana Industries, and a consumer group.⁸ To assist in its work PSAC has formed five working groups of industry participants. These groups include representatives of mobile network operators, merchants, consumers, payment service providers, fintechs, and third-party providers. PSAC meets at least twice per year.

In 2019, shortly after passage of the PSS Act, BoG published its "Payments System Strategy (2019–2024)." Relevant to this report, the strategy includes a clear statement of overall vision and strategy plus specific, time-framed responsibilities that are allocated to BoG, GhIPPS, other government bodies, and to industry. The 2019 strategy is a successor to multiple coordinated public statements on national payments strategy, including

- An earlier 2014 BoG strategy, (the 2019 strategy includes a review of progress under previous strategy)
- A 2017 Digital Payments Roadmap prepared by the Ministry of Finance, "Toward a Cash-Lite Ghana"⁹
- A 2018 National Financial Inclusion and Development Strategy 2018–2023, also prepared by the Ministry of Finance¹⁰

Institutional Context

As indicated, GIP and MMI (Ghana's two main fast payment services) are operated by GhIPPS, a wholly owned, not-for-profit subsidiary of BoG, established in 2007. GhIPPS is a designated payment system infrastructure and clearing house under sections 48 and 70 of the PSS Act, and thus GhIPPS is subject to oversight by BoG.

Participation in GIP and MMI is determined under the PSS Act, which gives BoG broad powers to grant and withdraw

participation rights. Terms of Participation are established under scheme rules and a Service Level Agreement (though these are not published).

A board of directors is GhIPPS' governing body, chaired by the BoG governor, and including the first deputy governor of BoG and the GhIPPS chief executive officer (CEO), together with six external directors. Currently, they include Ghana's deputy minister of finance, the president of the Ghana Association of Banks and four independent directors with relevant experience.

The CEO leads an executive team that is functionally independent from BoG, with its own product marketing, technology, operational, and administrative support functions. This team also operates its own systems and technology, relying on BoG for RTGS settlement.

While overall national payments strategy and policy is the purview of BoG's Payment Systems Department, GhIPPS develops, designs, markets and delivers its own services and presents to the market as a distinct market service provider, as indicated above. For example, GhIPPS invests significantly in public promotion of payment services, as indicated by the joint promotion with the banks association of the new GhanaPay bank wallet (which uses GIP).

GhIPPS' commercial approach to product development is further illustrated by a quarterly industry newsletter, the "GhIPPS Update." Using the Q1 2023 newsletter as an example,¹¹ there is extensive promotional material aimed at banks and other payment service providers to encourage take-up of GhIPPS services, including:

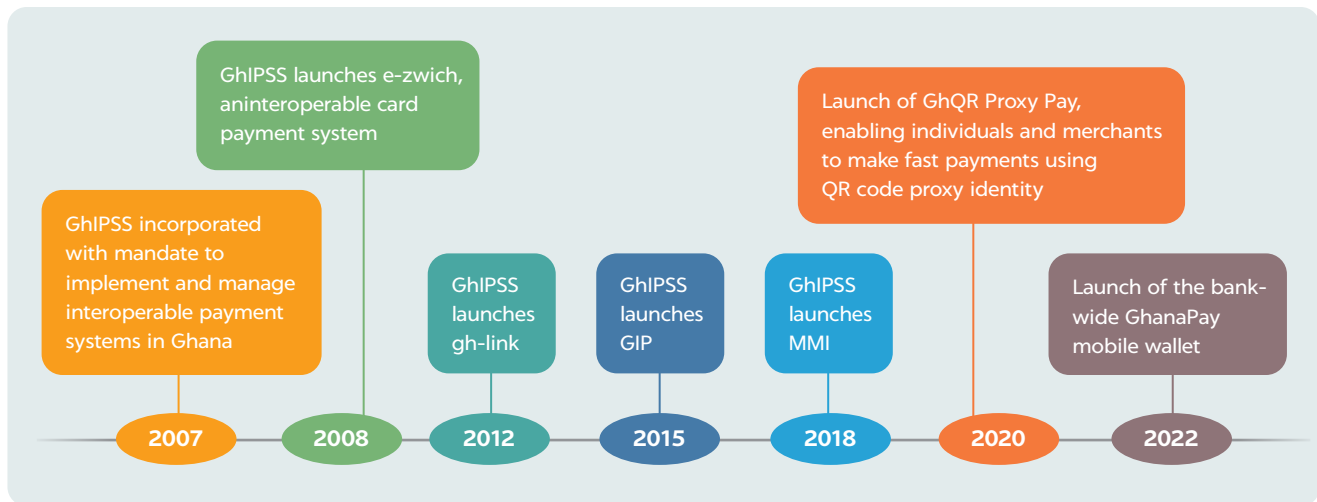
- Leveraging GhanaPay to drive revenue generation
- Mobile money agent prospecting opportunities
- Public experience fairs promoting the GhQR code product

Such wholesale marketing is usually not associated with a central bank brand.

GOVERNANCE EVOLUTION OF GHIPPS INSTANT PAYMENTS

The evolution of the current RPI governance framework in Ghana has taken more than 15 years. The Bank has displayed a willingness to adapt to market circumstances and to review and change direction when a governance approach has not delivered the anticipated results.

Figure 3 provides a timeline of major developments, which helps contextualize the discussion.

FIGURE D.3 Timeline of Major GhIPPS RPI Developments

Source: AfricaNenda 2022 (cited Note 1)

Early Days: Engaging Banks in E-zwich

Although BoG’s original intention was to invite commercial banks to participate in building national infrastructure, early consultations were not encouraging.¹² In 2007, BoG set up its own infrastructure company, GhIPPS, and began work on the initial service, e-zwich, the focus of which was to increase electronic payments, even in offline contexts such as rural settlements. However, industry consultation was limited, and the solution did not provide strong commercial incentives for banks to invest, partly because it required significant investment in terminal networks.¹³

Instead, BoG issued a formal mandate in 2008 to the banks to join the new system. Banks were reluctant, and usage was slow to develop.¹⁴ Banks remained slow to invest in the necessary infrastructure for some years.

Apart from a lack of commercial incentives, an additional contributory factor may have been that commercial banks perceived GhIPPS as unfairly competing with industry products and creating a conflict of interest for BoG as the regulator.¹⁵

Kick-starting Mobile Money: Betting on the Banks

Meanwhile, mobile money was beginning to emerge as an exciting new possibility, thanks to m-Pesa in Kenya. With Ghana’s first mobile money service already in commercial development, BoG was determined to respond quickly. In 2008, BoG published “Guidelines for Branchless Banking,” positioning mobile money as a channel for commercial banks to offer new services to the underbanked. An MNO required at least three bank partners as responsible entities for a mobile money service to enhance interoperability

and involvement of prudentially regulated entities.¹⁶ A governance side-effect of this approach was that the MNO was the bank’s agent, possessing no direct regulatory or consultative relationship with BoG and no ability to advocate for different regulatory treatment.¹⁷

Early results were discouraging. Mobile money developed relatively slowly in Ghana, hampered by costly chains of intermediaries and by controlling banks with little incentive to invest in growth.¹⁸

In 2011, BoG embarked on a review and redevelopment of mobile money regulation, starting with detailed consultation with MNOs. This led to the Electronic Money Issuers Guidelines in 2015, which allowed an MNO to establish a dedicated subsidiary to be directly licensed by BoG to offer mobile money. This policy change “stimulated massive investments in the ecosystem by telecommunication companies and resulted in impressive growth in mobile money accounts.”¹⁹

In hindsight, the policy change was a resounding success in financial inclusion and economic growth terms. But before implementation, it had to withstand a last-ditch attempt by banks to prevent the creation of independent mobile money operators. BoG was obliged to mediate between industry participants on this controversial policy change.²⁰

Establishing the Consultative Framework

Fortunately, BoG learned from experience. Outcomes such as the two evolutions summarized above encouraged a more consultative, flexible, and market-focused approach to policy formation and regulation. In formal terms, this beneficial approach was evidenced in

- Regular consultation on and publication of payments strategy, starting in 2014.²¹
- Structures for ongoing market engagement on policy and new developments through the PSAC structure of a peak council with five industry working groups. Established in 2019, PSAC was replaced an earlier advisory body with a similar structure.

GOVERNANCE LESSONS

Separation of Functions Can Have Multiple Benefits

When an RPI is wholly owned by the central bank, there are a couple of ways to organize: as an internal department of the central bank or as an autonomous commercial entity.

As stated, GhIPPS was established as a wholly owned subsidiary of the BoG and has its own board (with some common membership with BoG), its own executive, its own finances, its own functional divisions, and its own information technology. Nonetheless, BoG retains regulatory and supervisory responsibilities over GhIPPS and the industry and also sets national payments strategy. In effect, BoG sets the high-level strategic expectation for GhIPPS and assesses the results, leaving execution to GhIPPS.

This particular configuration has offered multiple benefits:

- Potential regulatory conflicts are transparently managed; GhIPPS is supervised by the Office of Payments Oversight within BoG as a designated payment system.
- GhIPPS has developed a distinct and relatively entrepreneurial culture, with high standards of service delivery, its own relations with market participants, and a marketing focus.
- National payments strategy remains well focused and coordinated.
- GhIPPS has the benefit of its own focused governing body, with a clear remit for design, development, and delivery of payments system services.

Clear, Practical Policy Communication Is Important

The successful development of fast payments infrastructure in Ghana rested on well-considered public declarations of policy, backed up by actionable plans.

A well-reasoned, published policy promotes industry understanding and support and also promotes consistent application across regulators and other government bodies.

Good Governance Makes Allowance for Economic Incentives

As the section on “Governance Evolution” recounts, early attempts to use regulatory mandate without incentive alignment struggled for success. Later efforts took more time to understand the market dynamics at play and how to adapt them in support of policy goals, rather than simply impose a desired outcome.²²

Consult, Consult, Consult

Both BoG's and GhIPPS's experiences outline the benefits of extensive formal and informal market consultation. These include

- Presence of individuals with extensive market experience on BoG and GhIPPS governance bodies
- Establishment of PSAC, with its industry working groups
- Regular informal interactions on strategy and product development matters

Good Governance is Dynamic and Empirical.

Ghana has taken some time to evolve into its current governance configuration. At the establishment of GhIPPS, BoG explored the potential to set up an industry-owned national operator, but it could not secure bank commitment. The early development phase of national infrastructure may have placed too much emphasis on carrying out public policy using regulatory mandates, with later phases focusing more on consultation, aligning market incentives, and market-oriented service provision through GhIPPS.

It is likely that this consultative engagement approach will continue. The 2019 Strategy document includes a proposal to “[e]xplore the possibility of Payment Service Providers’ ownership of the processing infrastructure (i.e. GhIPSS).”²³ Public comments suggest a preferred structure could involve conversion of GhIPPS to some form of mutual, perhaps with a residual stake held by BoG.²⁴

FUTURE CHALLENGES

The central role of GhIPPS in Ghanaian payments is well-established. However, BoG's 2019 strategy outlines a challenging agenda of future projects, especially in regard to the growing fintech ecosystem and cross-border infrastructure linkages. In governance terms, Ghana appears to have arrived over time at an effective mix of public ownership and direction combined with extensive consultation and

market awareness. As technology continues to evolve (the regulation of crypto currency and discussion of a possible central bank digital currency), this flexibility will continue to be tested.

The recurring theme of industry ownership of infrastructure provides a challenging and potentially disruptive counterpoint. The idea of giving industry “skin in the game” is logical and aligned with global practice, but as participant business models diversify, the devil is very much in the details. Ownership conversations are always challenging because they affect future allocations of strategic influence and strategic risk in relation to the payments system among participants, with long term consequences.

In 2007, at the beginning of the mobile-money revolution, it was possible to explore the idea of a mutual of commercial banks, with confidence that those organizations would find significant common interest; pursuing this mutuality represented the main bulk of industry activity. Fast forward to 2023, and the outlines of industry ownership are much less clear. Mobile network operators now dominate banks in retail volume terms but have a very different strategic outlook. Remittance companies and aggregators are also highly active, yet have different interests. Still other fintechs have even more diverse interests from central infrastructure. Modern Ghanaian payments law allows a diverse community to have access to the payment system. But how all these various and sometimes competing interests can be fairly represented in ownership allocations remains unclear. A thousand models are possible, but it does not seem likely that any one model will garner universal approval.

At the same time, a controversial change might disrupt GhIPPS service delivery and market confidence. This means the industry conversation on GhIPPS ownership needs to be approached with care—carefully reasoned proposals need extensive consultation. The balanced governance, which has seen so much progress, should also be acknowledged and protected.

NOTES

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18. BFA Global, “Synthesis and Benchmarking of Instant Payment Schemes,” 20.
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APPENDIX E

SOUTH AFRICA CASE STUDY (PAYSHAP)

PAYSHAP GOVERNANCE: KEY LESSONS

- PayShap is South Africa’s next generation FPS, offering 24/7 real-time retail payments, and, in 2024, it implemented the request to pay in an open, flexible environment using either mobile phone number proxy addressing or account numbers. PayShap was launched by BankservAfrica, the bank-owned South African payments clearinghouse, in early 2023.
- Oversight of PayShap rests with the South African Reserve Bank (SARB), but the governance framework includes industry self-regulation through the Payment Association of South Africa, which performs a system management role. BankservAfrica has a direct contractual relationship with participants and maintains its own operating and technical requirements. A new PayShap scheme has also been set up with its own Scheme Council and Scheme Rules focused on ensuring a consistent end-user experience.
- At the time of writing this case study, key aspects of governance are still evolving, including proposals for legislative change, policy proposals from the SARB, and extensive industry debate. This situation provides an opportunity to explore the evolution of the governance design as it takes place. A few key observations on PayShap’s governance journey can be made:
 - **Governance structures owe much to market circumstances and history.** PayShap’s relatively complex governance framework has two drivers: the evolution over many years of a distinctive local practice of payment system governance and the emergence of a different policy approach in recent years.
 - **Governance is a moving target.** Legislative reform with major governance implications was announced in 2018 and is still pending. PayShap has had to develop interim structures with an eye to future transition as the legislative framework changes, without unnecessarily delaying rollout of an important new payment service.
 - **Is it possible to have too much stakeholder engagement?** There are five governance structures with some responsibility for PayShap governance. Four include representatives of BankservAfrica’s four largest shareholder banks. From the perspective of stakeholder engagement, this certainly ensures strong alignment and input from key players in decision-making. However, the combination of multiple decision-making bodies, each typically with different bank representation, makes for a complex path for any major strategic decision. A risk of delay arises from this complexity, and the relative influence of banks and other stakeholders is worth considering.
- Consideration could be given to reducing these risks and improving governance clarity through a collaboration mechanism, such as a PayShap coordination protocol.

If this were widely accepted and regulator-endorsed, it could improve coordination among multiple decision-making bodies.

INTRODUCTION TO PAYSHAP GOVERNANCE

Overview and Market Context

PayShap is South Africa’s next-generation FPS,¹ offering 24/7 real-time retail payments. In 2024, “request to pay” was implemented in an open, flexible environment using either mobile phone number proxy addressing or account numbers. It is designed as the backbone for modern credit-push payments and, importantly it is designed to provide affordable, inclusive digital payments to support South Africa’s developing economy.

PayShap launched in March 2023 after four years in design, development, and testing (figure E.1). At the time of writing, 10 banks have joined the scheme with several more planning to join.

South Africa has, by global standards, a sophisticated interbank payments system, and PayShap joins an already crowded retail payments marketplace. Card payments are common, with 60 percent of the population having a credit or debit card.² There are bulk net-deferred credit and debit payment services; there is also a widely used homegrown retail account debit service called DebiCheck—a consumer debit instrument that allows for real-time authentication of a debit order mandate.

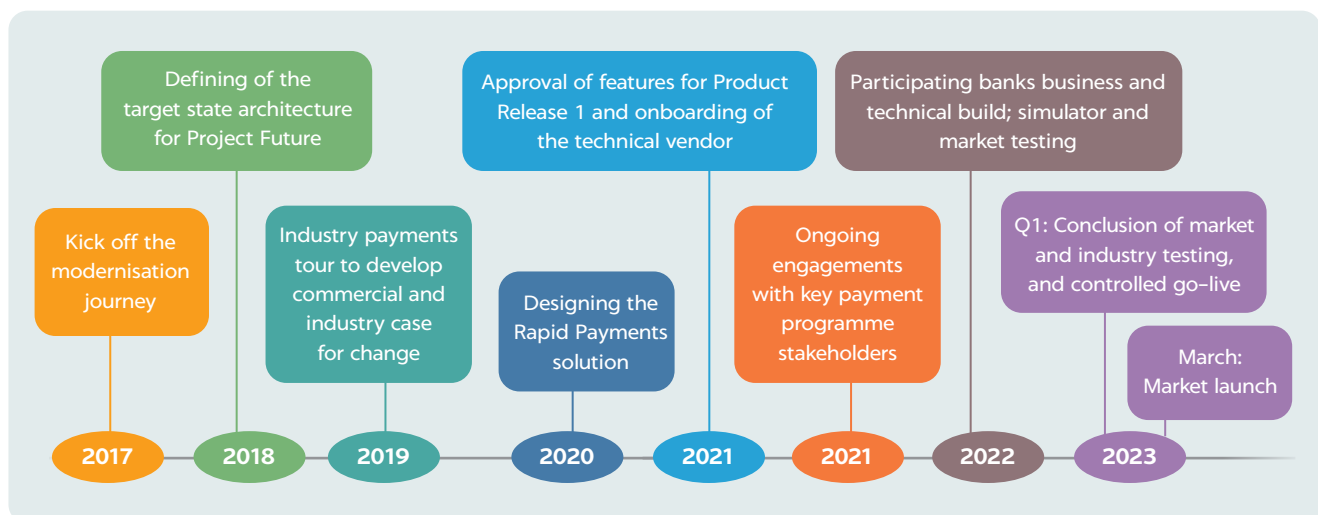
Since 2006, South Africa has had a fast account-to-account credit payment service called Real-Time Clearing (RTC), marketed by banks under a range of names. RTC was historically marketed and priced as a premium fast payment service, but a recent increase in competition among banks has seen rapid growth in this product, even during PayShap’s launch. At the time of writing this case study, RTC and PayShap coexist in the South African market as separate services; the future evolution of this relationship is not yet clear.

The PayShap operator is BankservAfrica, the bank-owned payments clearinghouse, which is the oldest and largest in Africa and the main supplier of payments infrastructure in South Africa. The regulatory framework is provided by the Payment Association of South Africa (PASA), a payment self-regulatory body, subject to oversight by the SARB.

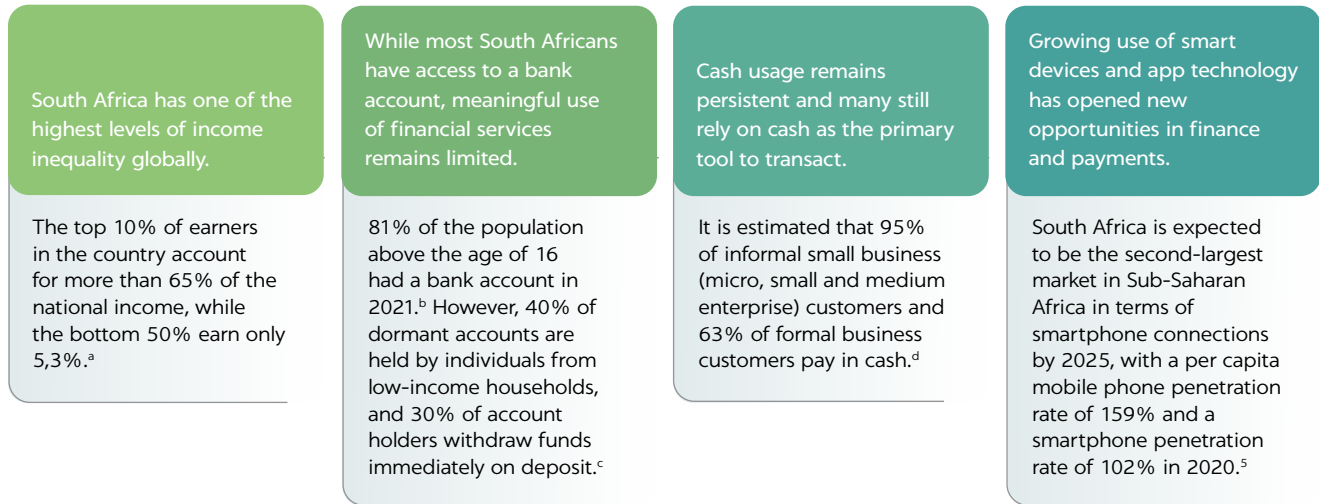
In addition to bank-driven services, national supermarket chains offer a range of consumer finance services effectively outside the banking system, including point-to-point payments. Remittance services supply domestic and cross-border payment options for specific payment corridors. Mobile money has yet to make a significant impact in South Africa, despite repeated attempts.

Notwithstanding the wide range of digital payment alternatives mentioned, social inequality is relatively high, unbanked communities are common, and cash is still heavily used. Figure E.2 shows a snapshot view provided by PASA.

FIGURE E.1 The PayShap Journey



Source: South Africa Reserve Bank, “National Payment System Department Regulatory and Oversight Report: 1 April 2022–31 March 2023,” (South Africa Reserve Bank, Pretoria, 2024), 7, <https://www.resbank.co.za/content/dam/sarb/what-we-do/payments-and-settlements/regulation-oversight-and-supervision/regulatory-and-oversight-reports/NPSD%20Regulatory%20and%20Oversight%20Report%202022-2023.pdf>.

FIGURE E.2 PASA's 2022 Payments Snapshot

Source: Payments Association of South Africa (PASA), "PASA Integrated Report 2022" (PASA, Parktown, 2023), 34, https://pasa.org.za/wp-content/uploads/2023/06/PASA_IAR_2022.pdf.

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Developmental Context

Following South Africa's early foray into real-time payments through the RTC service, the ambition to build a more flexible, more inclusive next-generation fast payment system was under discussion for several years. In 2017, payment modernization research was commissioned jointly by PASA and BankservAfrica, identifying the potential economic and social value of an open real-time service. In 2018, PASA undertook Project Future to develop a target design for such a system, and BankservAfrica launched the Rapid Payments Program (RPP) to develop the service.

RPP developed formal program governance. Interested banks signed a build agreement with BankservAfrica that contained some engagement and resource commitments and enabled them to participate in design, technology selection, business development, build, test, and launch phases. The RPP was administered by an external project management firm and governed by the Special Purpose Committee (SPC) of bank representatives, with observer participation from the SARB and PASA.

PayShap launched in March 2023, with operational management passing to separate governance arrangements (described later) while the SPC continues to administer the

development project as new participants come onstream and extra functionality is brought online. It is likely that, following rollout of further functionality, the project will transition to full operation and the SPC will disband.

POLICY, REGULATORY, AND OVERSIGHT CONTEXT

The SARB has jurisdiction over payment systems and infrastructure under section 10 of the SARB Act 90 of 1989, as amended. It carries out its responsibilities through the National Payment System Department (NPSD), reporting to a deputy governor who is a member of the board of directors of the SARB. In order for the NPSD to achieve the policy and regulatory objectives of promoting the effectiveness, integrity, safety, efficiency, and stability of the NPS, the NPSD executes its regulatory responsibility through the development of policies and issuance of legally binding directives under the NPS Act 78 of 1998, as amended. The NPSD also periodically issues nonbinding position and information papers to affirm and clarify its policy position on specific payment system issues.³

In discharge of its oversight responsibilities over payment systems, the SARB regularly conducts assessments of systemically important financial market infrastructures under the CPMI-IOSCO *Principles for Financial Market Infrastructures* (PFMI). BankservAfrica is one of four such financial market infrastructures (FMIs) identified by the SARB.⁴

Further, in May 2023, the SARB established a Supervision Unit within its Oversight and Supervision Division in a move to clearly delineate its supervisory objectives, responsibilities, resources, tools, and processes from its oversight objectives. The main objective of the Supervision Unit is to ensure that supervised persons and entities in the NPS continue to deliver payment services in a responsible, efficient, safe, and resilient manner.⁵ Those entities include BankservAfrica as the operator of multiple payment systems, including PayShap.

Under the NPS Act, only banks and designated clearing system participants may participate in payment clearing and settlement systems. The NPS Act provides for the recognition of a self-regulatory payment system management body (PSMB), established with the objectives of organizing, managing, and regulating the participation of its members in the payment system.⁶ The PSMB model was explicitly self-regulatory in intent.⁷ The PSMB may recommend participation criteria for all South African payment systems, subject to approval of the PSMB’s criteria by the SARB.

Since 1999, the PSMB has been PASA, a nonprofit association of clearing banks,⁸ which historically provided the self-regulatory framework for South African payment systems, including PayShap. PASA’s clearinghouse participation criteria have the effect that only PASA members can clear and settle payments in a clearing system.

PASA organizes, manages, and regulates its members’ activities within the South African payment system and collaborates closely with the SARB, contributing to the regulation and management of clearing and settlement systems.⁹ The PASA Constitution recognizes the SARB’s mandate as the public oversight body for payments.

PASA’s governance body is the PASA Council, comprising:¹⁰

- four representatives of larger banks;
- three more representatives collectively representing smaller banks;
- five independent nonexecutive councilors;
- the chief executive officer (CEO); and
- an ex-officio councilor appointed by the SARB.

The chair and deputy chair are independent nonexecutive councilors.

PASA’s responsibilities are discharged through PASA Structures—groupings of member bank representatives focused on specific clearing systems. In 2022, PASA established a Payment Clearing House (PCH) Participant Group as the management committee for a new Rapid Payments clearing system. The clearing system is governed under a PCH Participant Group Constitution and a set of Rapid Payments Clearing Rules including participation criteria.

Any organization that wants to participate in PayShap must be a member of PASA and join the Rapid Payments PCH by executing a PCH Agreement. The Rapid Payments PCH at PASA has appointed BankservAfrica as the Payment System Operator (PSO) for the clearing system. The Rapid Payments PCH Clearing Rules provide for the efficient processing of PayShap payment obligations among clearing members. This includes the orchestration of settlement through the SARB’s real-time gross settlement system, the South African Multiple Option Settlement (SAMOS) system.

INSTITUTIONAL CONTEXT

BankservAfrica’s central role as the bank-owned operator of South African payments infrastructure goes back 50 years, to a time before any formal regulatory framework existed. The prime movers in payments infrastructure were the leading commercial banks of the day. By the early 1970s, central clearing of paper instruments had been established, followed in the early 1980s by central clearing of card payments. This tradition of industry-led automation and centralization was reinforced in 2006, when BankservAfrica became one of the first national operators in the world to launch an account-to-account fast payments system: RTC.

BankservAfrica’s ownership structure reflects its industry origins. It has four leading South African banks as major shareholders, each with 23.125 percent of shares. A fifth composite shareholder called Dandyshelf holds the remaining 7.5 percent. Dandyshelf was created in consultation with the SARB in 1999 and exists to reflect the interests of other system participants. It currently has seven bank shareholders. In this sense, BankservAfrica can be regarded as participant owned, although there is no formal relationship between shareholding and usage of BankservAfrica’s services; a few large participants are shareholders, a few more participants have indirect interest through Dandyshelf, and other participants fall into neither category. BankservAfrica’s financial structure is that of a commercial organization funding its activities through usage charges, although consistent with its collaborative, community-based origins, it aims for finan-

cial sustainability rather than profit maximization and does not typically pay dividends to shareholders.¹¹

The shareholding structure drives decision-making. All five shareholders are entitled to appoint a director to the board, and the board itself appoints up to five independent, nonexecutive directors (currently four are appointed) with two executive directors: the chief executive officer and the chief financial officer. The company describes the governance outcome as follows:

[O]ur shareholder-appointed . . . directors strengthen our role as a mutual and ensure our sustainability as a utility in the industry. Our independent non-executive directors...ensure our activities and processes advance the core interests of the broader payment system and act in the public interest. Every director acknowledges that their primary fiduciary duty is to the company.¹²

Under the Constitution, the CEO is responsible for day-to-day management of the company and, for that purpose, has appointed an executive committee of senior staff (ExCo).

Users of BankservAfrica's payment system services sign a master services agreement (MSA) with BankservAfrica, which establishes the legal relationship between them and includes an annexure of terms and conditions specific to each payment system accessed by the participant. In the case of PayShap, Annexure A16 is required. In turn, the MSA binds the participant to comply with operating rules for each payment system. These relate to matters such as technical requirements and processing arrangements.

PayShap has an additional governance framework, also administered by BankservAfrica: the PayShap Scheme. It is designed to deliver a consistent end-user experience, covering matters like marketing, service delivery, and business development. This is a significant change in approach for BankservAfrica from a utility industry service provider to an end-user service promoter. BankservAfrica characterizes the Scheme as providing

a viable legal construct to enforce mutually-beneficial behaviours among participating members, and to provide a direct mechanism for participating members to influence and direct the desirable growth and evolution of their services. . . . it enables us to ensure that customers of our customers have a consistent market experience when using payments products.¹³

The scheme comprises a Scheme Constitution, Scheme Rules and Procedures, a PayShap Governance Charter, and a governance council, to be appointed by BankservAfrica's ExCo. The 10 current participants of the PayShap service are bound under BankservAfrica's contractual arrangements to

comply not only with PayShap operating rules, but also with the scheme rules.

The proposed Scheme Governance Council consists of a representative appointed by each PayShap participant, alongside BankservAfrica representatives appointed by the ExCo.¹⁴ Both PASA and the SARB have ex-officio representatives. The chairman is an independent, nonexecutive appointment and has the capacity to refer matters before council to the BankservAfrica ExCo for decision-making, exercising "reasonable discretion." In effect, therefore, the council directs PayShap scheme activities subject to escalation and reporting to the ExCo and, through it, ultimately the BankservAfrica Board.

A GOVERNANCE SNAPSHOT

The current and planned PayShap governance arrangements are presented in figure E.3. A participant in PayShap will be

- bound by two distinct membership agreements;
- subject to three sets of rules or requirements; and
- subject to governance decision-making from, potentially, five bodies.

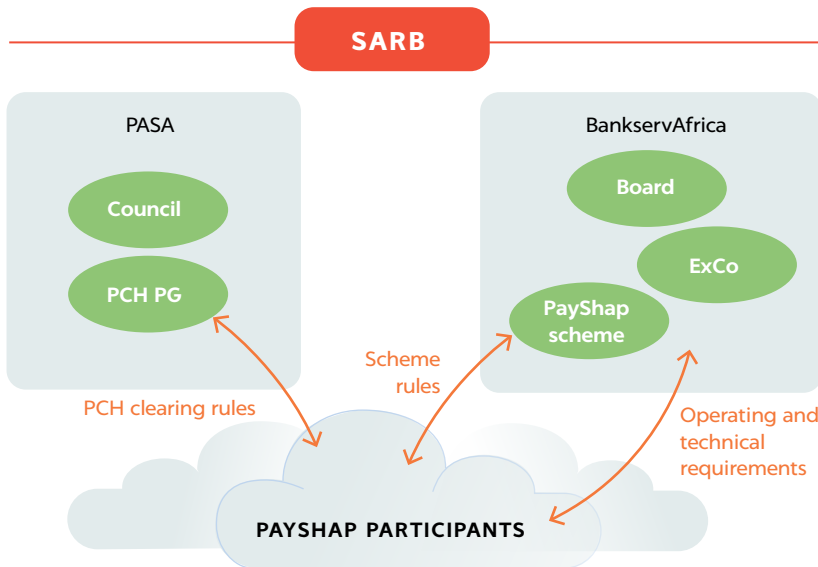
It should be noted that the governance arrangements are still evolving, and these may also undergo a transition consequent to the legal and regulatory changes. The current arrangements involve an unusual number of decision-making steps and extensive community participation for any major proposal.

GOVERNANCE EVOLUTION OF PAYSHAP

Self-regulation versus Public Regulation

The PSMB model for payments self-regulation established under the NPS Act¹⁵ came under sustained criticism in South Africa from around 2015 onward, culminating in a 2018 review, which proposed its removal from the NPS Act.¹⁶ The concerns raised included the following:

- Ineffective management of the conflict between the competing interests of members on one hand, and management in the interest of the system as a whole on the other hand;
- Lack of legislative clarity on the appropriate regulatory and governance structures; and
- The perceived slow pace of regulatory reform and service innovation.¹⁷

FIGURE E.3 Governance Snapshot of PayShap in mid-2023.

Source: Original figure for this report.

The proposed replacement framework focuses on a clarified role and mandate for the SARb as the regulator, overseer, and supervisor of the NPS, including the removal of recognition of the PSMB self-regulatory body. In effect, PAsA’s responsibility for regulatory management of payment systems would fall back to the SARb. The legislative amendments to bring this about were in progress at the time of writing.¹⁸

There has been extensive industry debate led by PAsA about the need for and the potential responsibilities of a new payment industry body (PIB) once PAsA’s self-regulatory responsibilities fall away. In November 2022, PAsA presented to the SARb a detailed design report on a future PIB. The report offers an exhaustive analysis of possible industry body functions and proposes an extensive role and framework for a future industry-led PIB in the governance of payment systems. Significantly, the design proposed would include a delegated “two tier” regulatory mandate, based on guidance from the SARb:

PILLAR I: Membership of the PIB as a licensing condition

All entities which require licensing for their payments activities will be required to be members in good standing of a PIB. This gives the PIB the ability to manage middle-mile interoperability across all parties and, further, to enforce the PIB rules and technical standards.

PILLAR II: Licensing of the PIB

The PIB itself will be licensed by the SARb to perform key functions, including writing rules, which will supersede scheme and operator rules, if required. The PIB will also manage the risks associated with interoperability. The SARb will oversee the PIB activities.¹⁹

Note that this design preserves for PAsA’s existing powers to make its own payment system rules. The SARb has indicated that it has “no objection” to PAsA’s PIB proposal.²⁰

As described, PayShap is currently subject to a set of clearing rules administered by PAsA through a PCH Participant Group. If the new PIB design is adopted, it is likely that the PAsA component of the

governance diagram in figure E.3 will be replaced by a new self-regulatory body—the PIB—that has mandatory powers to, among other things, enforce compliance with interoperability rules that operate alongside the scheme and operator rules within BankservAfrica’s sphere.

SCHEME RULES AND PAYMENT OPERATORS

Another consequence of the PSMB model is that rulemaking, which is recognized and enforceable under the NPS Act, can take place only through PAsA structures; the NPS Act has no framework for rulemaking by operators like BankservAfrica. The SARb has indicated that this means domestic operators like BankservAfrica do not have the power to set and enforce their own operating rules.²¹ It has been suggested that this may not fully comply with principles 1 and 2.3 of the PFMI, which require a clear, sound, transparent, and enforceable legal basis for payment systems, and to have clear and comprehensive rules and procedures.²²

The proposed changes to South Africa’s national payment systems legislation would address this. They would remove recognition of a PSMB, including its self-regulatory rulemaking functions. The SARb would license schemes and operators for payment systems, including the PayShap Scheme and BankservAfrica as its operator. In turn, the Scheme and Operator would have greater rights and responsibilities to establish and enforce their own rules governing the operation of PayShap and the activities of participants. They

would be required to publicly disclose rules and monitor compliance. The SARB would have appropriate powers to review Scheme and Operator Rules.²³

It was at least partly in anticipation of this legislative change that BankservAfrica established the PayShap Scheme framework.

BANKS AND NON-BANKS

Local and international reviews of South African payments regulation have repeatedly expressed concern over the bank-centric nature of payments regulation and governance and the lack of inclusiveness.²⁴ In its work on future evolution of the South African payments system, the SARB has recognized that technology-driven structural change is bringing new players and new products, and that maintaining international competitiveness requires the opening up of payment systems to new services and new business models.²⁵

Some progress has already been made under the existing governance model. Four of PASA's 35 members are non-bank "designated participants," and PASA administers a regulatory framework for 88 "system operators" and 298 "third party payment processors" (each category denoting an entity providing payment-related services).²⁶ In relation to PayShap, so far the only members are banks, and no non-bank entities are directly represented in its governance structures. PASA also operates consultative stakeholder forums that include non-bank stakeholders.²⁷

Nevertheless, the proposed new regulation is intended to go further. The SARB's proposals include access for non-banks to be able to clear payments in retail payment streams, including PayShap, and also to settle payments in the national RTGS system, SAMOS.²⁸

GOVERNANCE LESSONS

Governance structures owe as much to history and culture as to good decision-making

The complex evolution of PayShap's governance demonstrates the extent to which governance is a real-world exercise. It must reflect preexisting local governance habits and practices, or risk lacking credibility in the community it serves. In South Africa's case, there appear to be three elements to this:

- A long history of community cooperation and self-reliance encouraged governance choices involving community ownership and direction.
- The unusual split of functions and powers in earlier South African payment systems between a self-regulatory system manager (PASA) and a quasi-mutual system operator (BankservAfrica) meant that PayShap decision-making would need to be similarly split across two organizations.
- South Africa has a developing economy with a developed financial system. This has given rise to an influential banking community serving a large part of the community, alongside a significant, underserved community with a distinct, historically cash-based economy.

The result for PayShap governance has been something of a hybrid structure, mixing old with new. For both regulatory and cultural reasons, PayShap's governance structure had to fit into the South African historical model, splitting decision-making between PASA and BankservAfrica, with the banking community having the dominant voice in both cases. BankservAfrica itself was looking to change this model, partly in response to proposed changes to the regulatory framework. This led to the creation of a new scheme governance structure, as outlined in this case study. However, this has, in practice, led to a three-way split in the governance structure between a scheme manager, a self-regulatory manager, and an operator, each with its own relationship with each participant and its own powers over aspects of PayShap's strategy and operations.

GOVERNANCE IS A MOVING TARGET

Regulatory reform with significant governance implications has been on the agenda in South Africa throughout the conception, design, build, and launch phases of PayShap.²⁹ This has complicated governance design significantly. In order to launch in early 2023, PayShap adopted a governance structure that relied on an existing self-regulatory model for governance through PASA, even though the public regulator had, in 2018, announced its intention to do away with this model.

Similarly, BankservAfrica has known since 2018 that coming legislative reform would require it to establish its own operational rules and governance framework under direct public oversight. Yet it has been unable to fully implement a compliant framework without changes to the law.

HOW MUCH STAKEHOLDER ENGAGEMENT IS TOO MUCH?

As noted, there are five different structures involved in PayShap governance. Four of these feature a significant number of direct representatives of the participant community,³⁰ all of which are currently commercial banks. This is to be expected in a market where, for historical and regulatory reasons, banks are the principal suppliers of payment services to businesses and consumers. There are proposals for broader access, resulting from a number of reviews arguing in favor of it.

It is worth considering how well the current PayShap arrangements support a high level of stakeholder engagement. It is clear that current arrangements ensure a high degree of alignment and consensus among the bank participant community for any strategic decision-making. As a proposal makes its way through the decision-making structures, bank representatives have multiple opportunities to scrutinize, amend, and ultimately support the proposal.

There is, however, room to question the capacity for rapid and market-responsive decision-making, particularly where a proposal is controversial in the banking community. Then, any one bank participant who believes it is adversely affected has multiple opportunities to delay or divert the proposal. Extensive stakeholder engagement is inherently desirable, yet there is room to consider whether there is a need to mitigate against this risk of delay.

As a related aspect, it is also worth considering whether the large influence of some commercial banks in decision-making provides a balanced perspective. PASA has non-bank stakeholder forums which address, among other things, aspects of PayShap.³¹ But the relative degree to which commercial banks are involved might be seen to reinforce the concerns summarized earlier about a lack of inclusiveness.³² The inclusion of independent directors in decision-making bodies is a way to mitigate these concerns, as is the case with the PASA Council and the BankservAfrica Board. Nevertheless, consideration might be given to enhancing the roles and responsibilities of non-bank stakeholder forums as part of PayShap decision-making.

FUTURE OPPORTUNITIES

Current arrangements spread decision-making responsibility across multiple bodies, with the potential for jurisdictional disputes and a lack of clarity among them. In nearly every other FPS, one body, a scheme council or board, has decision primacy over each service—the rights and respon-

sibilities to its stakeholders to set the service strategy and direct its execution. Many parties may be involved in operations and development, but there is usually little doubt as to where the ultimate decision power lies. In PayShap, this may not be clear to everyone.

Nevertheless, several of the structures in question have evolved over many years and have a proven track record of delivery. They are widely understood in the South African industry and used every day across multiple systems. They are currently operating at a time when the future legislative framework is by no means certain. Structural reform in these circumstances is challenging.

A clear published and jointly adopted PayShap Coordination Protocol could address many of the issues raised. It could:

- clarify roles and responsibilities;
- establish joint strategic priorities for the PayShap service such as a migration-coexistence path for PayShap with RTC and other services, a process and timetable for the inclusion of fintech communities, and so on;
- be formally endorsed by the SARB Board, SPC, BankservAfrica Board, PASA Council, PCH Participant Group, Scheme Council, and (potentially) PIB Board;
- be debated and reviewed periodically;
- specify coordination and engagement activities; and
- describe the preferred evolution of governance as the law changes.

A well-written Coordination Protocol could put practical flesh on the bones of industry collaboration. It could go a long way to increasing confidence in the future governance of PayShap and thereby contribute to its future success.

NOTES

1. Further details of PayShap can be found at <https://www.payshap.co.za/#/home>.
2. World Bank, "Global Findex 2021," 2021 <https://www.worldbank.org/en/publication/globalfindex/Data>.
3. "South African Reserve Bank, "Oversight and Supervision," accessed July 2024, <https://www.resbank.co.za/en/home/what-we-do/payments-and-settlements/regulation-oversight-and-supervision>.
4. South African Reserve Bank, "National Payment System Department Regulatory and Oversight Report: 1 April 2023–31 March 2024" (South Africa Reserve Bank, Pretoria, 2024), 15, <https://www.resbank.co.za/content/dam/sarb/what-we-do/payments-and-settlements/regulation-oversight-and-supervision/regulatory-and-oversight-reports/NPS%20Regulatory%20and%20Oversight%20Report%202023.pdf>.

5. "South African Reserve Bank, "National Payment System Department Regulatory and Oversight Report," 16.
6. South African Reserve Bank, "Review of the National Payment System Act 78 of 1998" (Policy paper, SARB, Pretoria, September 2018), 12, <https://www.treasury.gov.za/publications/other/NPS%20Act%20Review%20Policy%20Paper%20-%20final%20version%20-%2013%20September%202018.pdf>.
7. South African Reserve Bank, "Review of NPS Act 78 of 1998," 3, 36.
8. Apart from licensed banks and government banking organizations, a few specialist non-bank organizations are also members for specific purposes. Diners Club is a member in order to offer Diners Club cards in South Africa, and since 2022, non-bank card acquirers began joining as Designated Clearing System Participants.
9. Payments Association of South Africa, "Payments Association of South Africa Integrated Report 2023," (PASA, Johannesburg, 2024), 14, https://pasa.org.za/wp-content/uploads/2024/07/PASA-IR-2024_FINAL_COM-PRESSED.pdf.
10. See PASA website at <https://pasa.org.za/about-us/structure/council-new/>, accessed June 2024.
11. BankservAfrica, "BankservAfrica Business Report 2022" (BankservAfrica, Johannesburg, 2023), 51.
12. BankservAfrica, "Business Report 2022," 46.
13. BankservAfrica, "Business Report 2022," 25.
14. At the time of writing, the updated Governance Charter for PayShap had not yet been finalized with participants. The description relates to the most recent discussion draft version.
15. See "Policy, Regulatory, and Oversight Context" section.
16. South African Reserve Bank, "Review of NPS Act 78 of 1998," 43.
17. South African Reserve Bank, "Review of NPS Act 78 of 1998," 37–38.
18. South African Reserve Bank, "National Payment System Department Regulatory and Oversight Report," 9.
19. Payments Association of South Africa, "Payments Industry Body," 2025, 75, <https://pasa.org.za/payments-industry-body/>.
20. Payments Association of South Africa, "Payments Industry Body," accessed June 2024.
21. In practice, BankservAfrica does make "rules," in the sense that it establishes both operational and scheme requirements, which are contractually binding for PayShap participants.
22. South African Reserve Bank, "Review of NPS Act 78 of 1998," 43–44.
23. South African Reserve Bank, "Review of NPS Act 78 of 1998," 44.
24. South African Reserve Bank, "Review of NPS Act 78 of 1998," 47–48.
25. South African Reserve Bank, "Vision 2025: National Payment System Framework and Strategy," 2018, 3.
26. Payments Association of South Africa, "PASA Integrated Report 2023," 16.
27. Payments Association of South Africa, "Committees and Forums: Regulatory Forums," accessed June 2024, <https://pasa.org.za/about-us/structure/forums/>.
28. South African Reserve Bank, "Review of NPS Act 78 of 1998," 47–51.
29. One reason for the long delays involved was undoubtedly the intervention of the COVID-19 pandemic from 2020 onward.
30. The exception is BankservAfrica's ExCo, which consists of company executives.
31. Payments Association of South Africa, "Regulatory Forums," accessed June 2024.
32. See the "Banks and Non-banks" section.



APPENDIX F

ARAB REPUBLIC OF EGYPT CASE STUDY (IPN)

IPN GOVERNANCE: KEY LESSONS

The Egyptian Banks Company for Technological Advancement (EBC) is the domestic payments system operator for the Arab Republic of Egypt. It has progressively developed a suite of retail digital payments infrastructure including Meeza Digital (2017) for instant payments interoperability of mobile wallets and the fast Payment Network (IPN), launched in 2022, for fast payments interoperability across bank accounts as well as with mobile wallets. The regulatory authority responsible for Egyptian payments is the Central Bank of Egypt (CBE), which, in 2017 led the establishment of the National Payments Council (NPC), a cross-government payment policy body with top-level governmental membership.

CBE is the majority owner of EBC, and a majority of EBC's board is aligned with CBE or other government authorities. In effect, EBC is the execution arm for national payment system policy.

The following observations can be made in relation to FPS governance in Egypt:

- **The regulatory framework shapes the marketplace.** CBE has issued specific rules for IPN, which designate EBC as operator and set access criteria and ongoing obligations for participation. This direct regulatory support ensures IPN's central role in Egyptian retail digital payments.
- **Effective policy coordination assists progress.** Egypt's NPC provides a clear framework for coordinating and prioritizing national payments policy on a whole-of-government basis.
- **FPS governance is determined by national operator governance.** The use of a preexisting national payments operator (EBC) to develop Meeza Digital and IPN had obvious and substantial benefits in terms of CBE's governance involvement, development expertise, culture, and operational track record. However, this means governance arrangements for the new FPSs are de facto those of the operator, and it is worth considering whether those arrangements are well-adapted for this new purpose.
- **Separation of functions can have multiple benefits.** EBC's governance strikes an effective balance between alignment with public policy imperatives established by CBE and significant autonomy in terms of operational design, delivery, and execution.
- **Banks and non-bank providers can coexist in a bank-centric regulatory framework.** Egypt has a bank-led oversight and regulation model: non-bank wallet providers (such as mobile money operators) must be sponsored by a bank. Non-bank providers appear to have no formal role in FPS governance, but this does not seem to have impeded their adoption of the FPSs, perhaps because of the public policy-oriented leadership of EBC.

Finally, the case study makes the suggestion that, in terms of governance transparency and stakeholder engagement, EBC's arrangements may not align very well with global published guidance on governance practices. This may be an area for further consideration as the services develop.

INTRODUCTION TO THE INSTANT PAYMENT NETWORK

Overview and Market Context

The EBC is the domestic payments system operator for Egypt. Established in 1995 to build and operate interbank network infrastructure and facilitate government payment processing, EBC has an extensive history of digital payments innovation for retail and government payments, including the following (figure F.1):

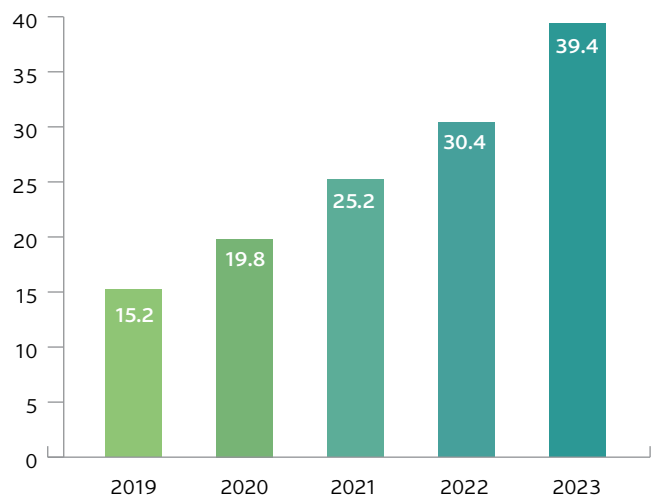
- 1997: 123 Shared Cash Interbank ATM network;
- 2010: National interbank ACH;
- 2017: Interoperable network for mobile wallets (subsequently “Meeza Digital”);
- 2018: Meeza national payment scheme for branded domestic debit and prepaid cards;
- 2022: IPN, providing interoperability across bank accounts and mobile wallets and enabling third-party connectivity using open APIs;
- 2022: The InstaPay application, an overlay service of the IPN, allowing access to multiple bank accounts.

Egypt has historically been heavily cash-based, with relatively low penetration of international scheme cards. Recent years have seen the adoption of a national financial inclusion strategy and rapid growth in the financial inclusion rate. According to CBE published data, the inclusion rate (adults with a transaction account, wallet, or prepaid card) has reached 70.7 percent across a population of 66.4 million citizens. This represents an increase of 174 percent since 2016.¹

Like many African markets, digital financial inclusion has involved rapid growth in mobile wallets, although the creation of a national debit and prepaid card scheme by EBC in 2018 led to rapid expansion in card usage. Although Egypt has a bank-led regulatory model, there is healthy market competition for non-bank mobile wallet services, which gain access to national infrastructure through bank sponsorship.

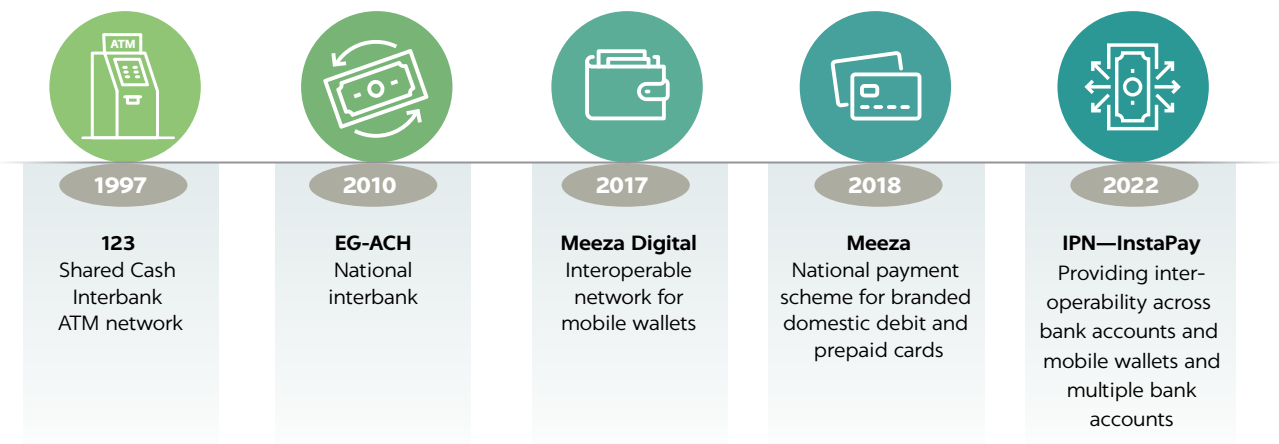
The recent establishment of the IPN as an open API-based network for universal payments interoperability marks

FIGURE F.2 Growth in Egyptian Mobile Wallets, 2019–23



Source: Central Bank of Egypt, “Financial Inclusion and Payment Systems and Services Indicators: December 2023,” 2024, https://www.cbe.org.eg/-/media/project/cbe/page-content/rich-text/financial-inclusion/infograph_financial-inclusion-and-payment-systems-indicators-english-final---dec,-d-,2023.pdf.

FIGURE F.1 Digital Payments Timeline



Source: Original figure for this report.

a critical milestone for Egypt. The IPN is designed to provide open, fair, competitive access to Egyptian payments in order to maximize innovation and efficiency on a stable, well-regulated, and publicly supported basic network. The InstaPay application, which is provided by EBC, supports multiple bank accounts and is designed to be the first of multiple overlay services using the IPN.

POLICY CONTEXT

The regulatory authority responsible for Egyptian payments is the CBE, established under the Central Bank and Banking System Law 194 of 2020 (the 2020 Law).² The CBE identifies the soundness and efficiency of payments as a key competency, along with developing frameworks to reduce the physical use of money. CBE is administered under its own statute, originally promulgated by a presidential decree in 2004,³ but it is now recognized under the 2020 Law. The statute gives CBE explicit power to supervise the national payments system under Article (6)H. Administration of these powers is the responsibility of the Payments Systems and Services unit of CBE, which reports through the Banking

Operations Directorate to the deputy governor for monetary stability (figure F.3).

Since 2017, levels of activity in payments regulation have increased markedly, with a stream of laws, regulations, and government-sponsored initiatives.⁴ As indicated, this appears to have supported significant network growth and increased financial inclusion. It appears that a key driver was the establishment in 2017 of an NPC. The NPC was initially established by presidential decree,⁵ but it now derives authority from Article 50 of the 2020 Law. The national seniority of the NPC membership underlines the public policy importance in Egypt of payments system development as a means of increasing financial inclusion.

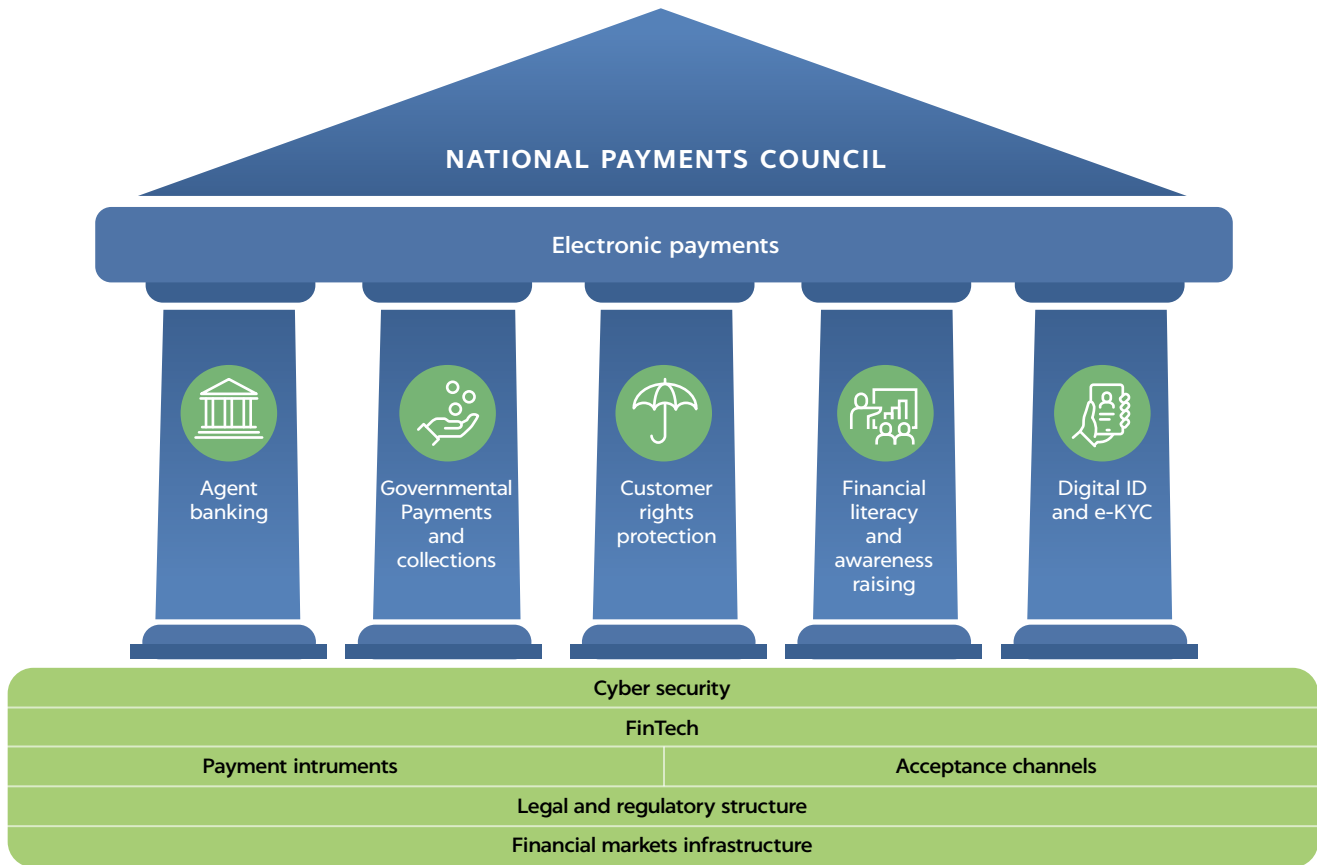
With an NPC consisting of the most senior government ministers, Egypt’s government can both demonstrate and carry out its commitment to payment system initiatives. Key infrastructure developments summarized in the “Overview and Market Context” section, including the establishment of the Meeza scheme and other directives, were explicitly authorized by the NPC. They form part of a broad, multiyear, whole-of-government program called the Less Cash Transformation Network. The scope of the program is summarized in figure F.4.

FIGURE F.3 Members of the National Payments Council (NPC)



Source: Central Bank of Egypt, “An Overview of The National Payments Council,” www.cbe.org.eg/en/payment-systems-and-services/national-payments-council-npc.

FIGURE F.4 The Arab Republic of Egypt’s Less Cash Transformation Framework



Source: Central Bank of Egypt, “An Overview of The National Payments Council,” www.cbe.org.eg/en/payment-systems-and-services/national-payments-council-npc.

REGULATORY CONTEXT

The strong policy guidance provided by NPC and CBE for payments innovation is reflected in clear regulatory frameworks. In the case of the IPN, the regulatory framework is comprehensively provided by the set of Rules Regulating Services for Instant Payment Network, issued by CBE in October 2021. The rules build on more general regulation of financial transactions, in particular the “Law Relating to Usage of Non-cash Payment Methods.”⁶

The rules provide for the key governance aspects of the IPN’s operation, including the following:

- Designating EBC as operator with appropriate powers of operational rulemaking, setting minimum access criteria, setting tariffs, and network risk management;
- Setting minimum access and compliance criteria for banks to act as participants;

- Criteria for third-party providers such as mobile money operators (MMOs) and fintechs to be given access; and
- Continuing obligations of all participants.

INSTITUTIONAL CONTEXT

If the NPC is the principal strategy-setting body for Egyptian payments, the execution arm is EBC. CBE is the majority owner⁷ and appoints five of the 10 directors on the board, including the chairman.⁸ Two more directors are appointed from the National Investment Bank, which is government owned. There are two directors from leading commercial banks (both under government ownership), and an executive chairman/CEO. Details of minority shareholdings are not public, but by interference from director representation, the government of Egypt is the ultimate controller of most of the shares.

EBC's strategic orientation reflects the close relationship with the central bank. Although EBC is structured as an Egyptian private company and has its own management team and financial resources, strategic developments are subject to close oversight by CBE, with developments directed by the NPC and EBC's role mandated by central bank regulation. Perhaps as a consequence of this, EBC publishes little in the way of corporate governance information. There is no separate annual report or other corporate reporting, no published strategy or business plan, and no financial information available.

EBC does not appear to have formal standing arrangements for consultation with industry stakeholders but nevertheless retains close relationships with network participants, including Egypt's banks and mobile network operators. EBC regularly engages in consultation and market research on proposed new services. Final decision-making remains a matter for the board, subject to central bank oversight.

GOVERNANCE LESSONS

The regulatory framework shapes the marketplace

As previously described, the regulatory framework provides the required certainty within which the market can prosper, and also makes clear the level of government support for the FPS. A key element of this in Egypt is the explicit designation of EBC as the operator of a national FPS under rules made by CBE as the authorizing central bank. Access arrangements (and compliance obligations) for banks and non-bank providers are similarly clear. The Egyptian law does not require banks (or others) to connect to IPN or Meeza Digital, as is the case in some other jurisdictions.⁹ Also, the law does not specifically prevent another network from developing in competition. However, the designation and the specific access and compliance obligations have the effect of ensuring all major payment wallet providers connect to Meeza Digital and all banks with large retail footprints connect to the IPN.

This is important for the success of the network services: For FPSs, as for all network services, the utility of the service to each end user is maximized when the service reaches the highest possible percentage of all potential users. By issuing specific rules for the IPN, CBE has provided the most supportive possible environment for it.

Effective policy coordination assists progress

Egypt's NPC provides a clear framework for coordinating and prioritizing national payments policy on a whole-of-government basis. Such policy councils are part of national payments policy and strategy formulation in many developing

countries because a well-developed non-cash payments system is seen as an enabler of economic development. What makes the Egyptian example relatively unusual is the seniority of the council members. This provides great confidence that policy priorities adopted by the council will be supported across the spectrum of government authorities and agencies.

FPS governance is determined by national operator governance

As in many developing economies, the policy imperative for developing new FPS services in Egypt came from CBE as the central bank. However, the job of actually developing them fell to a national payments operator that was already in existence: EBC. This has obvious and substantial benefits. EBC had already developed management and technical expertise relevant to the role and a culture of systemic innovation to build on. It had established contacts with key industry participants and an operational track record that gave confidence in its ability to deliver. Given the existing close strategic and policy alignment between CBE and EBC, this was the obvious choice with substantial net benefits.

However, when this occurs, there are also some other factors to consider. The new FPS inherits the governance structure of the existing operator. It is desirable to consider whether the governance needs of the FPS are different enough from those of other services provided by the operator as to necessitate different arrangements. For example, in Egypt multiple non-bank service providers need to be connected to the Meeza and IPN systems through bank sponsorship, creating a new stakeholder category. How this was handled in the case of EBC is discussed further in the section, "Banks and non-bank providers can coexist in a bank-centric regulatory framework."

Separation of functions can have multiple benefits

When an FPS is wholly owned by the central bank, there are multiple possible degrees of organizational separation from the bank itself. The FPS could be operated by an internal department of the central bank, under the direct control of the central bank's management structure and its board or council;¹⁰ but, at the other end of the spectrum, it could be a functionally autonomous commercial entity whose shares are owned by the central bank. No doubt the decision will be informed by history, culture, and policy priorities.

The governance of EBC strikes its own particular balance on this spectrum. The government owns a majority of the shares through various authorities, and it also contributes the majority of directors. High-level strategic goals, like increasing financial inclusion and reducing cash usage,

are set by the central bank.¹¹ However, in pursuit of those goals, EBC's management operates with significant autonomy to develop market-responsive services. EBC operates as a financially self-sustaining service provider, undertaking its own market research, service design, provider selection, and implementation. EBC appears to have used this degree of independence to its advantage in the delivery of attractive and widely used services.

Banks and non-bank providers can coexist in a bank-centric regulatory framework

FPSs, more than other digital payment systems, involve non-bank providers because of the economic alignment of digital payment wallets with mobile phones (hence "mobile money") and social media platforms in many jurisdictions. Egypt is no exception, with active and successful non-bank wallet providers. This can cause governance tensions in many jurisdictions. Where banks have (or are perceived to have) greater influence over system decision-making than other stakeholders, this situation can reduce support among non-bank providers for the system's services. It may also reduce the quality of decision-making, to the extent that the interests of some stakeholders are not adequately taken into account.

Egypt has a bank-led oversight and regulation model: payment services must be offered or sponsored by banks, and the regulatory framework is geared to oversight through bank licensing and supervision. Non-bank wallet providers must be sponsored by a bank. Further, mobile operators and other non-bank wallet providers appear to have no formal role in the governance of EBC, even though it provides important infrastructure for them, and the use of EBC's Meeza Digital network for wallets has grown rapidly.

Nevertheless, the absence of structured engagement for wallet providers in decision-making does not seem to have impeded the development of the IPN and Meeza Digital. This may be because

- EBC is perceived as generally serving the broader public interest through the strategic direction set by CBE;
- EBC engages in market-oriented service development, consulting with potential participants as needed; and
- Decision-making is not unduly influenced by other stakeholder groups, so there is no perceived risk of bias.

It is not always necessary for every stakeholder group to participate in decision-making, as long as the public perceives the process as focused on the public interest and free from bias.

FUTURE CHALLENGES

The ongoing success of EBC's FPS development program is undeniable. Yet there are aspects of its governance that appear not to align very well with global best practices. These fall into two main areas: governance transparency and stakeholder engagement.

As to governance transparency, general principles of corporate governance usually emphasize the desirability of timely disclosure of "all material matters regarding the corporation, including the financial situation, performance, sustainability, ownership, and governance of the company."¹² When these general principles are applied to payment systems, including FPSs, there is a particular focus on disclosure of business or operating rules, fees and charges, and decision-making processes, on the basis that these matters are highly relevant to FPS participants as they connect to the system and develop payment services for citizens and businesses. This can be seen in the leading international guidance, the *Principles for Financial Market Infrastructures* (PFMI),¹³ and also in the World Bank's specialized guidance on governance of payment systems, the "Keeping Pace" paper.¹⁴

As noted, in the case of EBC, there is no published annual report or published book of operating rules which would align with global guidance. The material available on the EBC website is relatively limited in relation to these matters. As Meeza Digital and IPN take a larger and larger role in the Egyptian marketplace, it may be worth considering whether disclosures aligned with global guidance would improve market efficiency and perhaps encourage greater investment in Egyptian digital payment services.

As to stakeholder engagement, global guidance applicable to FPSs also advocates for structured stakeholder engagement in FPS decision-making. This, too, can be seen in the PFMI¹⁵ and "Keeping Pace" paper.¹⁶ The underlying logic is that FPSs, like other kinds of financial market infrastructure, have a central role in the economies they serve. This means that decisions affecting aspects of their operation can affect a wide range of stakeholders, including both system participants and their customers, and they can do so in ways that are hard to predict. Therefore, having stakeholder input should improve decision-making and may also increase levels of support and commitment for the FPS from participants.

In the case of the IPN and Meeza, while it appears that both CBE and EBC undertake market research when considering new developments, it does not appear that there are structured arrangements for stakeholder engagement that are common in other jurisdictions, such as board represen-

tation, advisory committees, or user forums. As the IPN and Meeza Digital become increasingly important in the economic life of Egypt, it may be that some arrangements of this kind would improve the quality of decision-making over the medium to long term.

It should be emphasized that these matters are challenges of success: the rapid growth of Meeza Digital and the IPN are a testament to the success of CBE and EBC in contributing to Egypt's economic development through reduced cash usage and increased financial inclusion.

NOTES

1. Central Bank of Egypt, "Financial Inclusion Indicators: December 2023," 2024, <https://www.cbe.org.eg/-/media/project/cbe/page-content/rich-text/financial-inclusion/financial-inclusion-indicators--2023-en-v5.pdf>.
2. For more information on regulatory context, see the CBE website at <https://www.cbe.org.eg/en/about-cbe>.
3. Presidential Decree No. 64 of 2004.
4. For a summary, see Central Bank of Egypt, "An Overview of The National Payments Council," www.cbe.org.eg/en/payment-systems-and-services/national-payments-council-npc.
5. Presidential Decree No. 89 of 2017.
6. "Law Relating to Usage of Non-cash Payment Methods," Law No. 18 of 2019.
7. William Cook, Dylan Lennox, and Souraya Sbieh, "Building Faster Better: A Guide to Inclusive Instant Payment Systems" (Consultant Group to Assist the Poor, Washington, DC, January 2021), 18.
8. See the EBC website at <https://www.egyptianbanks.com/about-us/>.
9. For example, in Malawi, the national payments law requires banks to connect to Natswitch; in Brazil, large banks are obliged to connect to Pix.
10. This is the case in Brazil in relation to the Pix system.
11. See, for example, CBE's "Financial Inclusion Strategy," available at <https://www.cbe.org.eg/en/financial-inclusion/financial-inclusion-strategy>.
12. Organisation for Economic Co-operation and Development, "G20/OECD Principles of Corporate Governance," September 11, 2023, 27, www.oecd-ilibrary.org/governance/g20-oecd-principles-of-corporate-governance-2023_ed750b30-en.
13. Bank for International Settlements (BIS) and International Organisation of Securities Commissions (IOSCO), "Principles for Financial Market Infrastructures," April 2012, 121, <https://www.bis.org/cpmi/publ/d101.htm>.
14. World Bank Group, "Governance of Retail Payment Systems: Keeping Pace with Changing Markets," June 2021, 51–52, <https://documents1.worldbank.org/curated/en/539601630306074694/pdf/Governance-of-Retail-Payment-Systems-Keeping-Pace-with-Changing-Markets.pdf>.
15. BIS and IOSCO, "Principles for Financial Market Infrastructures," 26.
16. World Bank Group, "Governance of Retail Payment Systems," 47–48.



