Scaling Instant Payments in Africa:

Policy Choices for Central Banks

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Abstract

This white paper examines the expansion of instant payment systems across Africa, highlighting their vital role in driving financial inclusion and economic growth. While nearly half of African Union member states have implemented instant payment systems, significant policy and regulatory barriers—such as high compliance costs and unclear licensing for nonbanks—continue to hinder full adoption. Interviews and focus groups with private-sector payment providers in 20 African countries have identified a shortage of capacity within central banks, a lack of coordination across government agencies, an absence of clear business cases for providers, unlevel playing fields for payment service providers, and growing digital fraud as primary obstacles to achieving a mature instant payment landscape. To address these issues, the report urges central banks to move beyond simple oversight by acting as proactive catalysts and, in some cases, also as inclusive operators. It emphasizes that public-private coordination and the removal of discriminatory participation rules are essential for building consumer trust and a sustainable digital economy. Ultimately, the white paper provides a strategic framework for authorities to transition from a nonexistent or basic instant payment infrastructure to mature, interconnected payment ecosystems by 2030.

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Glossary

AACB	African Association of Central Banks
AfCFTA	African Continental Free Trade Agreement
FSP	Financial Service Provider
IPS	Instant Payment System
MAS	Monetary Authority of Singapore
PSP	Payment Service Provider
RTGS	Real-Time Gross Settlement System
UPI	Unified Payments Interface (India)

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Executive Summary

Instant payment systems (IPSs) are becoming critical national infrastructure across Africa, yet in many countries their economic and inclusion benefits remain unrealized. While almost half of African countries now have a live IPS, experience shows that building the payment rail alone is not enough. Usage, trust, sustainability, and fair competition—not technology—are now the binding constraints.

This white paper examines what differentiates IPSs that scale into economywide platforms from those that stagnate, drawing on global evidence and the experience of payment service providers (PSPs) in 20 African countries. It offers practical guidance for central banks, recognizing their multiple roles as regulator, overseer, catalyst, and—now more often—operator of an IPS.

This matters now for the following reasons:

Instant payments are becoming more systemically important: Retail instant payments increasingly underpin government transfers, merchant payments, remittances, and financial inclusion.

Policy choices are path-dependent: Early decisions on access, pricing, governance, and fraud liability are difficult to reverse and can shape market structure for decades.

Risks rise with success: As volumes grow, fraud, outages, and disputes can quickly erode public trust and participant support.

This white paper draws on interviews and focus groups with PSPs in 20 African countries at different stages of IPS maturity who were asked to identify and rank the barriers they faced in their settings. The following findings are key to addressing the barriers:

1. **IPS maturity is about governance and incentives, not features.** Successful systems move beyond launch to focus on reliability, dispute resolution, fraud controls, and sustainable economics.

2. **Central banks are pivotal—but can face conflicts.** Where the central bank operates the IPS, strong internal separation and transparent governance are essential to maintain credibility as overseer.

3. **Nonbank participation is decisive for scale.** Allowing regulated nonbanks to access IPSs—at least for clearing and, in some cases, for settlement in central bank money—has been critical to competition, innovation, and reach when done with appropriate risk controls.

4. **"Free payments" are not free.** Mandating zero end-user pricing without a clear funding model risks underinvestment, poor service quality, and hidden cross-subsidies that ultimately weaken the system.

5. **Trust is the new frontier.** Fraud, scams, and weak dispute resolution are now among the biggest threats to IPS adoption, particularly for first-time and low-income users.

This white paper argues that central bankers should judge IPS success against the following five outcome-oriented questions, not technical milestones alone:

1. **Is the system used by households, merchants, and government daily—or only occasionally?**
2. **Is IPS governance credible and insulated from conflicts of interest?**
3. **Is it trusted?**
4. **Is it financially and operationally sustainable?**
5. **Is it competitively neutral?**

Regardless of the maturity stage of their domestic IPS, central banks should consider the following high-impact actions:

- **Clarify the policy objectives of the IPS** (in terms of inclusion, competition, resilience, fiscal efficiency) and align pricing and access rules accordingly.
- **Strengthen governance and oversight**, especially where the central bank is also the operator (which requires a clear separation of roles, transparent rule making, and published performance metrics).
- **Enable risk-managed nonbank access to the IPS itself and to settlement facilities**, with tiered participation, safeguarding requirements, and proportional supervision.
- **Establish minimum standards for fraud prevention and dispute resolution**, including service-level expectations and clear, scalable redressal processes.
- **If operating an IPS, adopt a sustainable funding and pricing model**, avoiding uncertainty and open-ended cross-subsidies that distort competition.
- **Track a small set of key performance indicators**, such as per-capita transaction volumes, system availability, fraud losses per transaction, dispute-resolution times, and merchant acceptance, that give a rounded picture of how the payment rails and the scheme are operating.

An IPS should be treated as a digital public infrastructure with marketwide impact, not merely or mainly as a technology project. Central banks that actively shape governance, incentives, and trust—while resisting the temptation to overcontrol pricing or access—are far more likely to see their IPS evolve into a foundation for inclusive growth, innovation, and financial resilience. This white paper provides a framework to help central banks make those choices deliberately—and avoid costly redesigns later.

01 Introduction

In 2025, 25 African countries,[1] representing just under half of African Union member states, had live domestic IPSs.[2] This represents an increase from 20 countries when first reported in 2022 (Mensah and Jumah 2025). However, there remains a large gap to close before all 54 of the African Union's member countries have a live IPS. And, of course, merely having the IPS infrastructure in place does not necessarily mean that it is reliable and widely used and contributes to achieving national policy goals like financial inclusion and economic growth. According to that higher bar of being inclusive in practice, the gap is greater still, even though total transaction volumes across the live IPSs continue to increase year on year at double-digit rates (Mensah and Jumah 2025). This white paper reviews new and existing evidence in order to support central banks that aim to close that gap.

The goal of having a live IPS in every African country arises from the convergence of several sources. First, domestic policy makers in Africa are responding to the mounting evidence that having an effective IPS contributes to vital national policy goals, including both faster economic growth and higher rates of financial inclusion. The Payments Systems Integration Task Force of the African Association of Central Banks (AACB) has applied its mind to how to do this, convening a meeting in Mozambique in June 2024 at which the barriers to digital payments were discussed (AACB 2024). An IPS is now regarded as a foundational layer of the national digital public infrastructure stack (Clark et al. 2025). As a result, policy makers have started to prioritize the establishment of domestic IPSs: development is currently under way in 19 more countries (Mensah and Jumah 2025). Second, the Digital Trade Protocol of the African Continental Free Trade Agreement (AfCFTA) passed by the African Union's heads of state in 2024 and, specifically, its annexes, which were passed in 2025, explicitly commit member states to "accelerate the adoption and use of digital payments through facilitating the provision of fast, low-cost, innovative digital payment products and services such as instant payments, e-money, mobile money."[3] While the focus of the Digital Trade Protocol is on promoting cross-border payments, this goal is aided by having operational domestic IPSs that conform to agreed-upon standards and can interoperate. The need to modernize domestic payment infrastructures in order to enhance cross-border payments is also recognized in the *G20 Roadmap for Enhancing Cross-border Payments* (FSB 2025, section 1.1.1). Third, the Gates Foundation has actively supported the development of IPSs around the world as an effective way to promote financial inclusion. In pursuit of this, the foundation has adopted the explicit goal of working toward having a live IPS in every African country by 2030.[4]

1 Mensah and Jumah (2025). In the literature, the term "instant payments" is used interchangeably with other terms, such as "fast payments," "real-time payments," and "immediate payments." They are all characterized by the 24/7 operation of the underlying payment infrastructure and the instant crediting of the payee's account during an instant payment transaction. Note that some countries have more than one IPS; hence, the number of IPSs on the continent exceeds the number of countries with at least one.

2 The focus of this white paper is domestic instant payments. We acknowledge that in some African countries, end users can still obtain access to domestic instant payments via regional IPSs, especially for countries that might be part of a currency union.

3 AfCFTA DTP, Cross-Border Digital Payments, annex article 5: 4(a).

4 Within regional currency unions like the Economic and Monetary Community of Central Africa, regional payment systems provide service in member countries equivalent to domestic IPSs.

The partner organizations that coauthored this white paper–the AfricaNenda Foundation, the Arab Monetary Fund, the Better Than Cash Alliance, and the World Bank–already support many governments, central banks, and regional bodies across the continent and are also all partners of the Gates Foundation, which funds or cofunds their activities in this area. We all share the goal of seeing inclusive IPSs across the continent. In support of this, we embarked on the project of understanding and classifying the barriers that stand in the way of this goal, focusing primarily on those that are under the control or influence of the central bank, as the custodian of the national payment system. This motivation is also in line with the provisions of the Digital Trade Protocol that members would seek to craft an enabling environment for digital payments inter alia "by eliminating regulatory and technical barriers to the interoperability of digital payment and settlement systems."[5] However, we also recognized the need to supplement and deepen our own understanding of barriers by seeing them through the eyes of participants in payment systems who may experience them on a day-to-day basis.[6] We sought to understand the views across participants drawn from African countries at different stages of IPS maturity as a context in which to consider and recommend how best these barriers under control of central banks may be addressed.

The purpose of this white paper is primarily to inform and support central banks and, secondarily, other financial authorities and other promoters of IPSs in Africa as they seek to develop their domestic IPSs. However, the paper is also relevant for those development funders and agencies that support them and, indeed, for the current or potential participants in IPSs to be able to benchmark their own experience against the landscape presented here. We consider common characteristics of clusters of countries based on their level of IPS maturity as a basis from which relevant authorities can draw conclusions for their own environments as a next step. This white paper does not prescribe solutions; rather, it creates a basis for engagement and dialogue around classes of solutions to legal, regulatory, and policy barriers that can move the process forward.

This white paper is structured as follows:

In section 2

We review the growing evidence of the impact of instant payments. This evidence helps to prioritize the development of IPSs in the face of other infrastructure options and choices.

In section 3

We consolidate fresh evidence from focus groups and interviews with industry bodies and PSPs across 20 African countries to understand and analyze the barriers they encounter. To do this, we first create a common language around the issues we wish to describe.

In section 4

We discuss considerations and options to address the priority clusters of barriers that were identified. The conclusion then points to the way ahead.

5 AfCFTA DTP, annex on digital payments, article 9(c).

6 This is also mentioned in the DTP annex on cross-border digital payments (article 9d), which encourages "collaborating with digital payment service providers, regulators, payment aggregators, and relevant industry associations on common standards and technical solutions."

02 Why Instant Payments? A Consolidated Review of the Recent Evidence Base

IPSs have been one of the most successful structures adopted locally by many jurisdictions, indicating that this has been able to address many of the demands of EMDEs. These changes empower people, expand global access, and reshape economic growth.

G20 Presidency 2025.

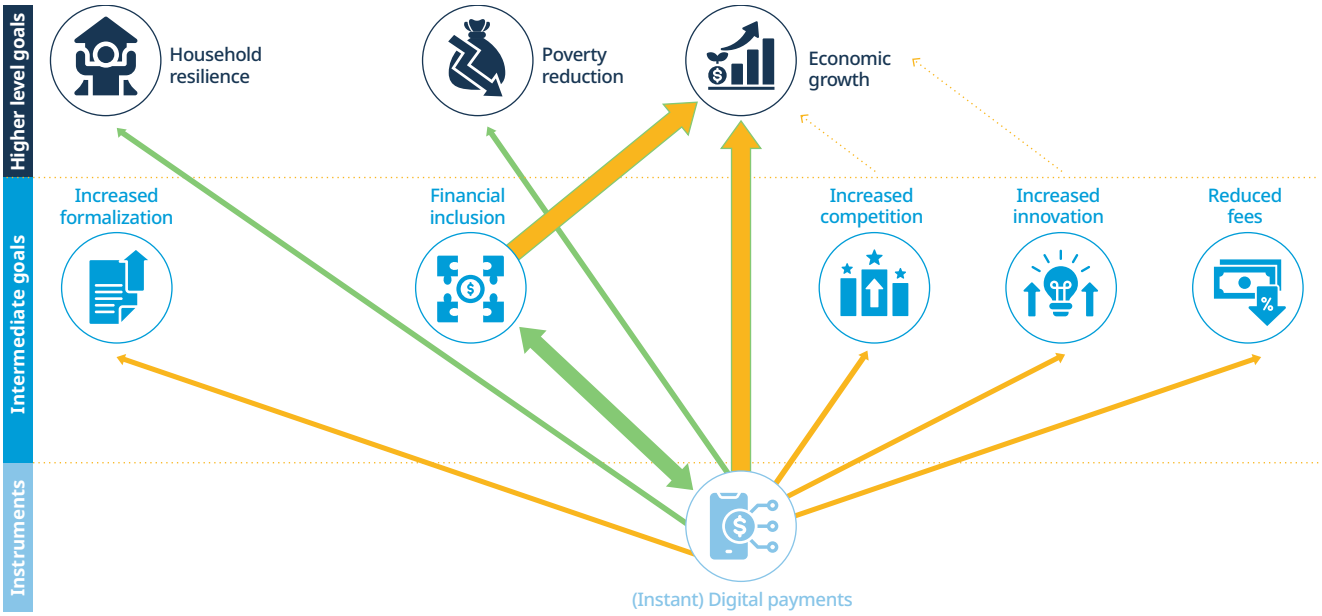
Instant payments are one category of digital payment instruments, alongside debit and credit cards, e-money, and credit transfers and direct debits. These other digital payment instruments have been available at sufficient scale for long enough for researchers to be able to measure how much their use contributes to national economic and social goals. Digital payments in general have been found to contribute to a range of desirable outcomes, such as innovation, competition, and formalization (figure 1). Those outcomes in turn also support higher levels of economic growth. However, measured both by the volume and quality[7] of available evidence, the strongest links exist between digital payments and economic growth, and digital payments and financial inclusion. A growing literature also causally links the two goals, showing how financial inclusion leads to growth (Khera et al. 2021).

Instant payments exchanged through IPSs became available only after the mid-2000s in certain jurisdictions. As is commonly encountered in an emerging field, a variety of terms is used interchangeably for instant payments. For example, while we have adopted the convention of referring to "IPS," some organizations follow the convention of the Bank for International Settlements of referring to "fast payments" or, in some cases, "real-time payments." These terms all refer generally to the same core attributes: the availability of funds to payees is near real time, and the system is available 24/7/365. As the adoption and usage of IPSs have grown, especially over the past decade, researchers have increasingly been able to study the links between IPSs specifically and these two areas of national priority for financial authorities. This evidence supports the assertion made by the South Africa G20 Presidency (2025) that IPSs "empower people, expand global access and reshape economic growth." In this section, we first review the general evidence linking digital payments with these outcomes and then highlight specific recent studies that isolate the effect of IPSs in particular.

7 As indicated by the number of peer-reviewed publications.

FIGURE 1

Linkages of Digital Payments to Economic Objectives



Key:
Width of arrow corresponds to number of published sources evidencing the linkage. Green indicates high robustness of methodology (as in peer reviewed).

2.1 Digital Payments and Financial Inclusion

The proportion of adults globally with a payment account has risen from 51 percent in 2011 to 79 percent in 2024 (Klapper et al. 2025). Having any type of payment account, issued by a bank or nonbank, is an essential enabler for individuals or businesses to conveniently and affordably send, receive, and store money safely and pay for goods or services (Demirgüç-Kunt et al. 2021). The relationship between account ownership and digital payments also appears to move in the other direction; the ability to receive a digital payment from the government or an employer motivates 40 percent of account owners to open their first account (Klapper et al. 2025). Receiving digital payments also encourages saving and facilitates access to credit by creating a digital "data trail" (Aguilar et al. 2024).

In Sub-Saharan Africa, mobile money has been the main catalyst behind the growth in formal financial inclusion, with 40 percent of adults in the region owning a mobile money account. The benefits of mobile-enabled payments extend beyond financial access and use. Jack and Suri (2014) found that households using **M-PESA** in Kenya increased their ability to smooth consumption during a financial shock by tapping into their social network for remittance support. Another study conducted on M-PESA in Kenya between 2008 and 2014 found that mobile money helped lift 194,000 households (2 percent of the population) out of poverty (Jack and Suri 2016).

While studies like those refer to instant digital payments in general, recent evidence from India and Europe now supports the idea that an interoperable IPS ecosystem specifically helps deepen the use of financial services beyond basic account access to enable savings and access and use of credit or insurance services.

A study on the impact of India's Unified Payments Interface (UPI), which launched in 2016, focused on customers who already had bank accounts (Greenland and Toth 2023). Combining data from the annual

Financial Inclusion Insights Survey of 2018, a nationally representative survey, and Reserve Bank of India data on bank market share by district, the researchers found that customers who used UPI were 35 percent more likely than non–UPI users to formally save in an account, 60 percent more likely to pay bills digitally, and 42 percent more likely to receive wages digitally. UPI users are also more likely to receive wages and purchase insurance and make investments through digital channels.

Petrakis, Karanikolas, and Abdou (2025) analyzed the impact of the Single Euro Payment Area instant payment regulation from 2017, which mandated price parity between instant payments and traditional bank credit transfers. Using data from the European Central Bank on the payment attitudes of consumers in the euro area between 2019 and 2024, they found that instant payment users were more likely to have savings accounts, loans, and investments and use online payments, with the caveat that IPS and digital payment use was higher among older, wealthier, and more urban adults, all demographic groups more likely to use these financial services.

Looking specifically at the relationship between IPS and credit, Alok et al. (2025) found that using UPI created a rich digital-transaction history that banks and fintechs could use to inform credit offers for existing and new borrowers. Using loan data from one of India's largest credit bureaus on 180,000 households, as well as transaction data from multiple sources dated between October 2015 to January 2019, the researchers found that by enabling credit scoring using alternative data, UPI increased access to credit for end users with accounts, including new borrowers, without increasing payment defaults. This finding highlights the robustness of instant payment data for identifying creditworthy consumers as part of deepening financial inclusion.

2.2 Digital Payments and Economic Growth

Academic researchers have found a positive correlation between the adoption of digital payments and GDP growth (Khera et al. 2021; Birigozzi, De Silva, and Luitel 2025). Most studies have analyzed the relationship between digital payment instruments such as debit cards, credit cards, and e-money and GDP, either at the country level or across multiple countries. The four variables used to measure impact on growth—household consumption, private investment, government expenditure, and net exports—are positively affected through one or more of the following mechanisms:

Reducing transaction costs through enabling faster and cheaper access to money

Improving efficiency in government payment collection and disbursement

Reducing informal employment and expanding access to credit, enabling previously unbanked individuals and micro, small, and medium-sized enterprises to invest in revenue-generating activities

Despite the general finding that the use of digital payments contributes to GDP growth, only a few studies have quantified the impact. For instance, Zandi, Singh, and Irving (2013) studied the impact of card payments on GDP growth in 56 countries from 2008 to 2012. They reported that a 1 percent increase in debit and credit card volumes resulted in 0.032 percent increase in GDP growth. Pang, Ng, and Lau (2022) further contributed to this body of research by focusing on three distinct payment instruments: debit cards, credit cards, and e-money. Through a cross-country panel regression from 2013 to 2019 covering 27 countries that are members of the Committee on Payments and Market Infrastructure, they found that all three payment types support economic growth, though only e-money payments have a statistically significant impact, with a

1 percent increase in e-money transactions volumes leading to 0.0009 percent increase in economic growth. The impact was greater in developed economies than in developing economies. This can be explained by the short sampling period, which did not account for the digital acceleration that took place in many developing economies post-COVID-19, and by the limited number of observations (189) in the sample. A third group of researchers (Aguilar et al. 2024) has calculated that a "one-percentage-point increase in digital payment volume is associated with a 0.10 percentage point increase in GDP per capita growth over two years."

Narrowing the focus specifically to the impact of IPS, emerging evidence from UPI in India provides strong support for IPS influencing consumption and investment to support local economic growth. For example, in a natural experiment that leveraged banks' staggered onboarding onto the UPI platform, Dubey and Purnanandam (2023) assessed the impact of IPS on end users' adoption of financial services. They found that access to credit increased within the first three years of UPI's availability. The researchers calculated an 8 percent increase in household income in early-adopter districts and a 12 percent increase in household income among entrepreneurs in the same region. IPS adoption also positively impacts competition and financial intermediation, as shown in an analysis of the effects of Pix in Brazil (Sarkisyan 2021). Pix enabled smaller banks to compete based on deposit mobilization, thus leveling the playing field with market incumbents. This change in the market power dynamic increased the supply of credit in Brazil, thereby expanding access to savings and lending for households and businesses to invest in productive activities.

This growing evidence base supports the contention that a widely used IPS is likely to contribute to achieving both financial inclusion and economic growth. The emerging realization of these positive effects has encouraged the increasing interest in the establishment of a domestic IPS in many African countries. However, it is important to note that the benefits accrue not from having the payment infrastructure alone, but from its widespread usage. One branch of research isolates the factors that contribute to greater use of instant payments. Frost et al. (2024) find that having more use cases, allowing nonbank participation, and cross-border linkages are all associated with higher IPS volumes.

03 What Are the Main Policy, Legal, and Regulatory Barriers to IPS Development?

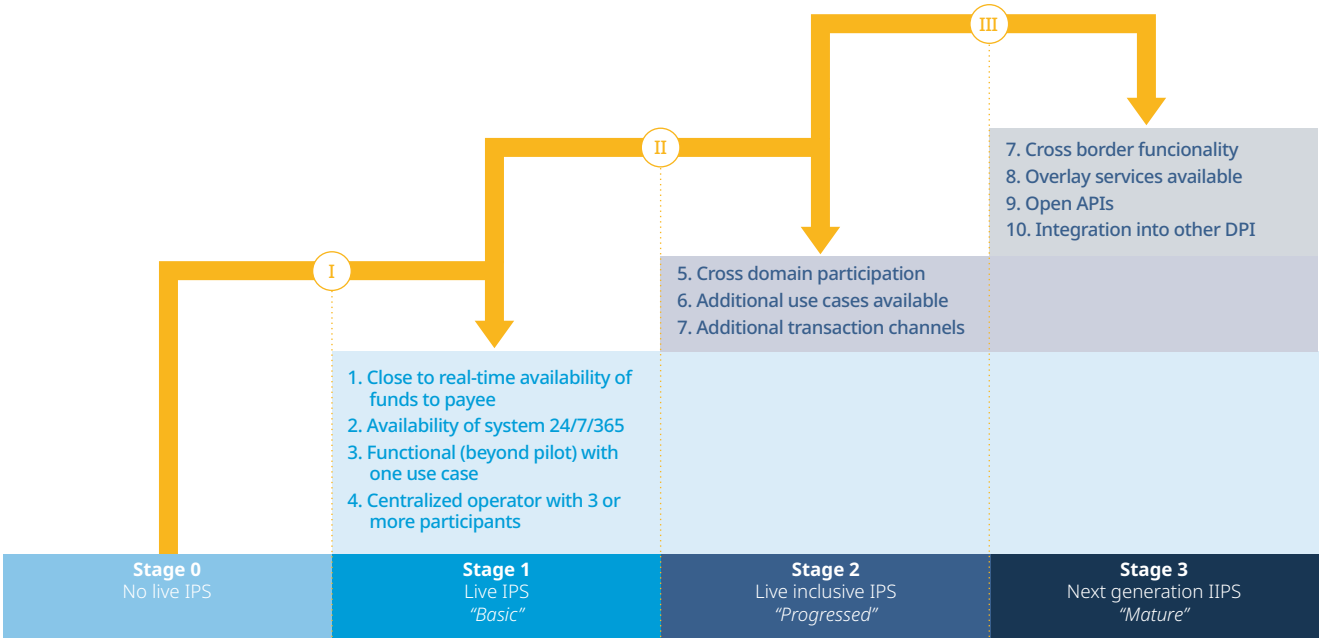
3.1 Building a Common Language

To understand the barriers to IPS, we have adopted a simple four-stage classification model of IPS maturity (figure 2). This is because IPS development does not end with launching an IPS. Going live is the first stage on a longer journey toward mature instant payments. The barriers to IPS development are likely to change in materiality and prevalence along the way.

At stage 0, there is no live IPS in a country, while stage 3 is dubbed "Next-Generation IPS" because the features there are not widely available today in Africa. The figure lists the core attributes that are added as a country advances along the maturity scale. For example, to move from stage 1, which corresponds to the "basic" level outlined in the report *The State of Inclusive Instant Payments in Africa* (Mensah and Jumah 2025), to stage 2, the key added attributes are cross-domain participation (that is, participation by more than one type of PSP, not only banks or only mobile money operators) and having at least one additional use case and additional transaction channels. Our aim here is to create a framework to understand each of the three shifts necessary to advance, on the hypothesis that the barriers would likely differ by stage. As such, we recognize that the attributes in each maturity category might not be exhaustive.

FIGURE 2

Stages of IPS Maturity



Note: Terms in italics below the chart relate the stages to the terminology used by Mensah and Jumah (2025).

To assess how central banks can respond to barriers, we need to distinguish the roles played by central banks in the context of IPS development. The literature typically refers to the following four roles (CPMI 2016):

Regulator: Responsible for creating the legal/regulatory framework to facilitate the operation, collaboration and competition of PSPs and payment systems.

Overseer: Ensures the safety and efficiency of the entire payment ecosystem.

Catalyst: Champions, enables, convenes with, and engages with participants and other stakeholders to overcome coordination issues and encourage IPS development, outside of formal mandates or direct provision.[8]

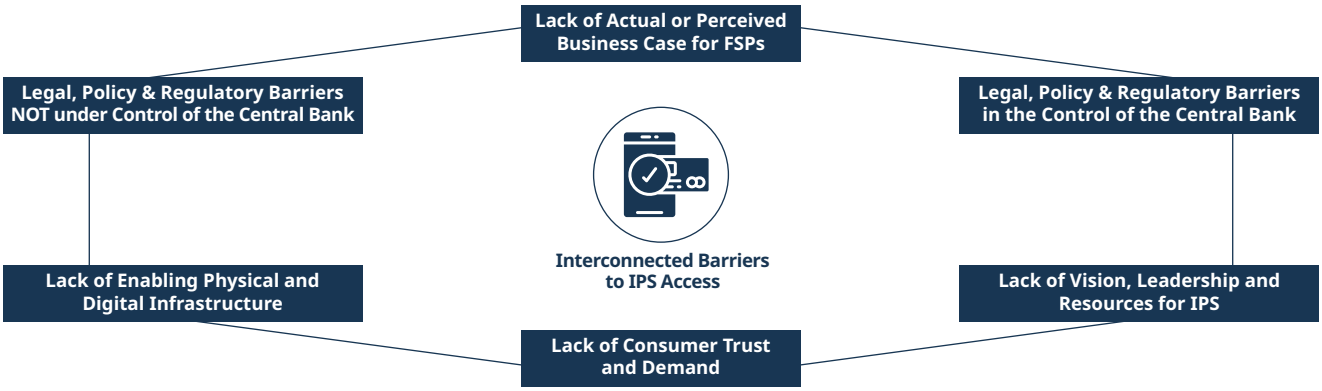
Operator: The traditional role of the central bank with respect to real-time gross settlement systems (RTGS) and, in some cases, ACHs as well, but there has been a recent increasing trend toward central banks directly owning and operating IPSs. Mensah and Jumah (2025) report that 17 of the 33 live domestic IPSs in Africa fall into this category.

Some central banks may play all four roles, which are divided accordingly among different dedicated units and teams.

To have meaningful engagement about barriers, we also sought to create a simple taxonomy comprising six main potential categories of barriers (figure 3).[9] These include both demand-side barriers (that is, the lack of business cases for PSPs to participate and the lack of end-customer trust or demand) and supply-side barriers (the lack of enabling physical and digital infrastructure of connectivity and electricity and of supporting reliable processing power and storage). Any payment system, including IPS, has several layers that go beyond just the technical infrastructure rails. Other important components include the scheme rules, the underlying legal/regulatory and oversight framework, overlay services, use cases, transaction channels, and supported payment instruments, among others. The identified barriers and policy considerations discussed in this paper apply also to these different components, not only the infrastructure rails.

FIGURE 3

The Main Categories of Barriers



8 As an example of how a central bank described this role: "The role of the ECB [European Central Bank] as a catalyst is to facilitate private sector efforts to improve market efficiency. The integration of European market infrastructures, including payment services, is a market-driven process, but coordination problems can arise and the interests of different stakeholders need to be balanced. As a neutral party, the ECB tries to balance conflicting interests while promoting the following objectives: safety and security, efficiency, and market integration." Available via https://www.ecb.europa.eu/paym/integration/retail/ecb/html/index.en.html.

9 This taxonomy builds on the main categories of obstacles to IPS development identified in CPMI (2016)—namely, costs, demand and business case, and coordination issues.

While this categorization serves as a starting point, by separating out the categories, it risks diluting the essential point: that many barriers are interrelated across categories. For example, a regulatory policy that makes compliance onerous and costly for PSPs would affect the business case for participating actively in an IPS. Similarly, unreliable physical or digital infrastructure could affect consumer trust. Although these six categories of barriers are listed discretely, they are clearly interrelated.

Our main concern in this white paper is the legal, policy and regulatory barriers under the control of a central bank. However, because the central bank may have influence over other domestic actors, especially when the bank plays an active catalyst role, we were also interested in the barriers that are under the control of other regulatory agencies, such as IT or data-privacy regulators or tax authorities. When they additionally play the role of IPS operator, they may have more influence over certain categories, such as the business cases of PSPs or the lack of resources. In reality, there is a spectrum of influence depending on the roles that central banks choose to, and are able to, play. Only in one category—ICT infrastructure, referring to connectivity, electricity, and storage—do they typically have no direct influence.

FIGURE 4

How the Categories of Barriers Relate to the Influence of the Central Bank

	Under control of central bank	Under influence of central bank	Neither
Lack of business case for PSPs		☑	
Policy, legal and regulatory	☑		
Lack of vision, leadership and resources		☑	
Lack of consumer digital trust		☑	
Lack of enabling ICT infrastructure			☑
Other regulators and policy makers' actions		☑	

3.2 Building an Evidence Base

We sought first to understand the main obstacles experienced in practice across the range of environments in which IPSs already exist or are needed across Africa. Since we did not have the time to consider every country on the continent, we sought evidence from a diverse enough range of countries across the IPS maturity spectrum and from the different regions of the continent to form an overview. To select the sample of countries, we also needed to account for how feasible it was to access credible private-sector voices within the time frame of research. To do this, we engaged with two umbrella bodies for national financial sector industry associations across the continent (figure 5), with an emphasis on hearing from nonbank PSPs that are not always represented in formal consultations. We also sought to engage with payment system operators that convened at a side event during the Mojaloop Conference in October 2025.

FIGURE 5

Summary of Evidence Sources

Alliance of Digital Finance and Fintech Associations	An umbrella body with national member associations across Africa and worldwide, Alliance of Digital Finance and Fintech Associations conducted focus groups in 10 countries with 79 people from fintechs, banks, mobile mony operators and industry bodies.
AFRICA FINTECH NETWORK	An umbrella body of fintech associations in Africa started in 2020, Africa Fintech Network conducted in depth interviews with 13 non-bank PSPs, from unicorn to smaller firms, draw from 10 countries.
mojaloop foundation	The body promoting and supporting the open source payment systems, Mojaloop, the Foundation convened a focus group of hub operators from 7 African countries to consider the barriers they face.

Our objective was to sample not scientifically, but indicatively, based on the two main criteria of diversity in IPS stages and regions, and on the feasibility of access to participants. By interpolating between these criteria, we settled on a list of 20 countries shown in figure 6 with the attributes shown in table 1.[10] As a side benefit, we also sought to test how effective a rapid survey approach can be.

FIGURE 6

Map Showing Countries where Focus Groups or Interviews with PSPs Took Place

10 Note that 8 of the 20 are also considered fragile and conflict-affected countries according to the World Bank classification, which can have an effect on availability and reliability of digital infrastructure, as well as domestic capacity and resource constraints.

TABLE 1

Country Sample Diversity Characteristics

UN Geographic Zone	Number of Countries in Sample	Sample Percentage of Total Countries in Each Zone	IPS Stage (based on figure 2)	Number of Countries in Sample	Percentage of the Total
North	3	50	Stage 0	5	25
South	2	40	Stage 1	6	30
East	9	50	Stage 2	9	45
West	4	25			
Middle	2	22			

Note: Stage of maturity for each country was based on Mensah and Jumah (2025) and triangulation with working-group assessment.

Across these countries, two different methodologies were followed:

Focus groups were convened by the Alliance of Digital Finance and Fintech Associations in their assigned 10 countries, with 79 attendees drawn from a mix of nonbank PSPs (41 percent of overall participants), banks and deposit-taking institutions (22 percent), mobile money providers (14 percent), and industry associations (9 percent) in each market. Forty-eight attendees also completed an online survey.

Structured interviews were undertaken with a sample of senior executives (usually CEOs and managing directors but also chief legal officers, innovation officers, and chief regulatory/compliance officers) from 13 nonbank PSPs drawn from 10 markets, ranging from very large (a payment "unicorn") in one case to quite small in others, depending on the market. The interviews were preceded by online surveys.

3.3 Understanding the Barriers

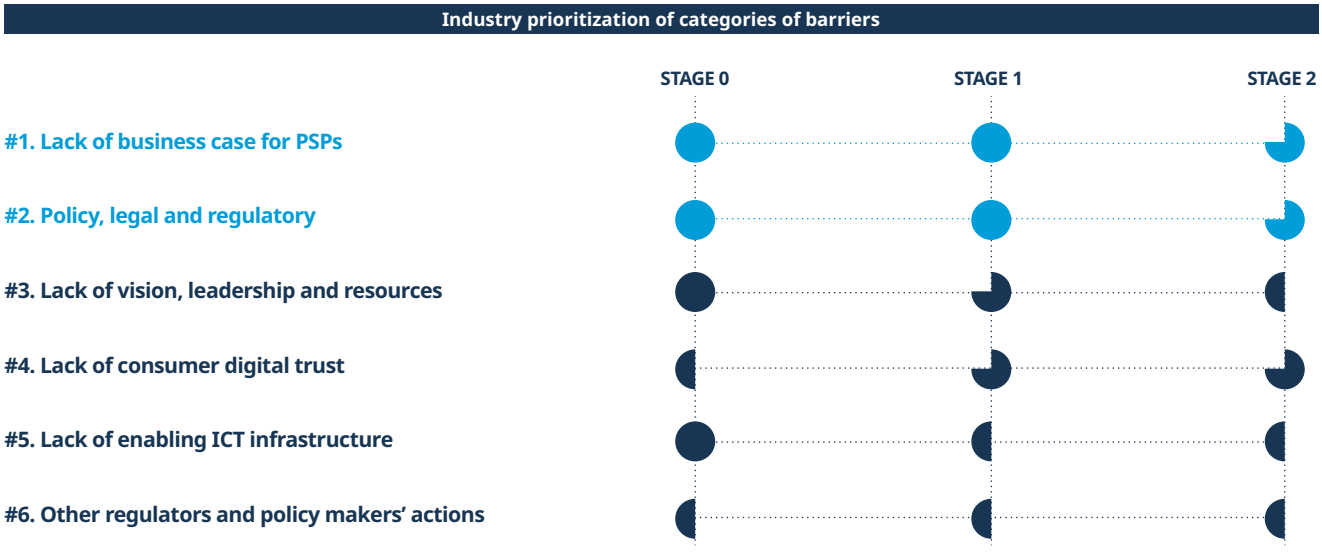
There is clearly a long list of potential barriers to IPS development. The salience of the six main categories introduced in figure 3 was tested in the focus groups and interviews, where participants were invited to rank how binding each category was in their current experience.

This led to an overall ranking of the materiality of each category (figure 7). The top-ranked categories across all stages of IPS maturity were lack of business cases, followed by policy, legal, and regulatory issues under the control of the central bank. This ordering corroborated previous surveys by fintech firms in which regulatory barriers also ranked second to funding and business-case issues.[11]

11 Unpublished research on African fintechs undertaken for the Africa Fintech Network in 2024.

FIGURE 7

Industry Prioritization of Categories of Barriers across Market Stages



Key: a full circle represents highest importance assigned for this stage, to semi-circle representing least important.
Source: Arising from interviews and focus groups undertaken for this white paper.

While those two categories featured at the top across all stages of market maturity, the ranking of other factors varied. Unsurprisingly, in markets at the early stage 0, a lack of vision and resources to start a scheme ranked higher than factors in markets that were moving ahead. In stage 1 markets, operational constraints caused by unreliable connectivity or switch uptime often featured prominently among the barriers. As markets matured, a lack of consumer trust became a more binding constraint, especially in markets without adequate means of resolving consumer disputes easily and quickly. In these cases, growing exposure to online scams threaten consumer trust and require concerted attention through regulatory and nonregulatory solutions.

While figure 7 showed the ranking of general categories of barriers, the interviews and discussions resulted in a list of more specific barriers within the general category "under the control of the central bank." These are listed in table 2, together with a comment on the implications of each and the stage of IPS maturity at which they are most likely encountered.

TABLE 2

Specific Barriers under the Control of the Central Bank and Their Implications

Private-Sector View of Barrier	Implications of This Barrier	Stage(s) at Which Most Relevant to IPSs
1. Licensing requirements for nonbank PSPs are unduly onerous, expensive, or slow	This is a commonly encountered barrier that will result in fewer nonbank PSPs entering and participating in the payment market; lower levels of competition and agility in the digital-payment market are likely to follow. However, this can be a function of legacy laws and regulations, the amendment of which a central bank can influence but often does not control.	0,1,2
2. IPSs do not allow direct participation by nonbank PSPs in clearing and/or settlement, or if do, they impose unnecessarily onerous/expensive requirements	The obstacle to nonbank PSPs becoming direct participants for clearing is less common in newer IPSs in Africa, but most nonbank PSPs can participate in settlement only indirectly. This barrier forces nonbank PSPs to enter agreements with participant banks as indirect participants in the IPS, which may restrict participation or add costs that will limit nonbanks from becoming significant competitors to banks.	1,2
3. Free end-user pricing for IPS is mandated, undermining business case for categories of PSPs	This norm has become more common in newer IPSs, especially where the central bank is also the operator. Uniform pricing for IPS end users can encourage greater usage but also affects the incentives of participants. The effect of a pricing mandate on IPS participation will depend on the following: • How the mandated level is set and whether it is reviewed and updated periodically • The business and funding models of PSPs that are either already in the market or likely to enter the market in future	1,2
4. A shortage of suitable consultative mechanisms that enable PSPs, especially nonbank PSPs, to communicate their experience on an ongoing basis	An absence of feedback loops when developing a new IPS can lead to delays in identifying and addressing issues and may perpetuate misunderstandings. Effective consultation requires regularity and structure, as well as ensuring that a range of voices can be heard, not just those of the largest or best-funded PSPs. Maintaining this requires capability and capacity in the central bank.	0,1,2,3
5. Few suitable innovation-facilitation opportunities and spaces in which to test or demonstrate innovations (such as sandboxes)	Sandboxes and innovation offices are approaches to encouraging innovation, but they are not a panacea, as various studies have found.[12] They require effort and commitment to run effectively. Central banks also use other approaches to signal their openness to engage with innovative products and approaches.	0,1,2

12 See, for example, World Bank (2020) or the CGAP repository on regulatory sandboxes available here.

Private-Sector View of Barrier	Implications of This Barrier	Stage(s) at Which Most Relevant to IPSs
6. Lack of enforceable consumer protection measures saps consumer trust and confidence in digital payments	Adoption and usage of an IPS will depend on consumer trust that it is reliable and safe and that they have effective recourse when things go wrong. If consumers do not experience reliability and safety early on, they are less likely to use the IPS, limiting its growth and scale.	1,2
7. Lack of capacity to develop appropriate payment regulations and oversee them	Central banks require the capacity to draft new regulations and/or review and modify old ones, as well as to enforce them. In the absence of this capacity, central banks may be tempted to copy regulations or rules from other jurisdictions without adequate consideration of local conditions.	0,1,2
8. Shortage of capacity inside the central bank to catalyze/champion IPS development at the senior and/or technical level	The lack of active engagement or consultation by an independent but powerful party like the central bank will likely slow progress toward the establishment of an IPS and evolution toward greater inclusivity. Without an honest broker role to work across different interest groups, participation in an IPS may be more exclusionary.	0,1,2
9. Constrained capacity inside the central bank to coordinate with other regulators or agencies with an impact on IPS (including data, IT, competition, and tax)	Especially as IPSs develop, they are more likely to encounter barriers originating from other regulatory domains. For example, IT authorities may restrict nonlocal cloud access; tax authorities may take an interest in adding transaction taxes or having access to payment data; and data-privacy rules may limit cross-border linkages. A lack of coordination across key government agencies is likely to add impediments to IPS development and takeoff.	1,2,3
10. Onerous compliance burden arising from regulatory reporting and submissions	Recurring compliance checks mandated by central banks or payment authorities often account for 20–30 percent of total compliance expenses, as seen in some jurisdictions in Africa. The multiplicity of reporting obligations increases compliance fatigue. Fragmented regulatory structures, where PSPs report separately to financial, data, and telecom authorities, drive duplication and inefficiency.	All

Participants identified barriers that arise in the specific cases when the central bank also takes on the role of IPS operator (table 3).

TABLE 3

Specific Barriers Arising when the Central Bank Is the IPS Operator

Barrier	Implications
1. Reduced accountability over switch reliability (uptime) and business continuity of the IPS	If the operator cannot provide adequate reliability of services, and if there is no alternative, this will likely affect both consumer trust for time-critical use cases like person-to-merchant payments and participant willingness to invest substantially in a rollout. This may be affected by constraints in other infrastructure (such as connectivity quality or electricity supply) but must be accounted for by the operator of an IPS.
2. Shortage of capacity inside the central bank to manage and operate an IPS at a senior and/or technical level	The culture and employee value proposition of a 24/7/365 payment environment require the operational capacity and organizational culture to sustain and grow it over time. If a central bank cannot provide this, the shortage may manifest in switch-reliability issues (as in the first barrier above) or else restrict the ability of the IPS to add other use cases and innovations over time as would be expected and required for greater volumes.
3. The role of the central bank as operator of the IPS creates uncertainty and risk of conflict of interest with its oversight role	If there is no adequate separation in practice between the roles of the central bank as overseer and operator, this may create the perception, and even the reality, of a lack of oversight over the IPS infrastructure. The result would likely be reduced confidence from participants, which may manifest in lower investment and commitment to IPS rollout. This risk can be mitigated through a clear separation of roles, which may be achieved structurally by placing IPS operations in a subsidiary or separate legal entity.
4. The lack of oversight of payment system resilience and operational reliability	Even in more mature markets, innovation by PSPs is stifled by the absence of clear service-level agreements between IPS operators and participants to guarantee minimum uptime and some fair basis of access and the sharing of critical data. Incumbency is reinforced in such situations and denies the markets the benefits of competition. Central banks play a pivotal role in mandating and enforcing service-level agreements across payment system operators and participants. Formalized agreements that are anchored in clear performance benchmarks, incentives, and penalties are essential to aligning stakeholder behavior, minimizing systemic downtime, and strengthening accountability within the payment infrastructure/system.

04 Considerations for Central Banks to Address IPS Barriers

There is no single path to success. As shown in this paper, different economies have followed their own model, tailored to local needs and impacts, infrastructure, and policy environments. Yet a common thread binds all effective systems: they are accessible, user-centric, and underpinned by strong public–private coordination.

G20 Presidency 2025.

Section 3 outlined the diverse range of barriers experienced by PSPs across the African continent today. In this section, we wish to outline possible ways that central banks may address these barriers and, indeed, highlight examples of where they are already doing so. The quote above from the 2025 G20 Presidency paper captures well the spirit of these considerations: that while each jurisdiction indeed has unique features that need careful consideration before intervention, there are "common threads," or cross-cutting themes, and there are lessons to be learned from jurisdictions that have had success in the implementation and uptake of instant payments. We have clustered the considerations into five themes to address the factors underlying those barriers over which the central bank has some agency.

4.1 Central Banks Need Enhanced Internal Payment Capacity

What Do We Mean by This?

In many countries in the African Union, the proliferation of new technologies over the past 20 years has led to burgeoning digital payment options offered by PSPs, both bank and nonbank. But these options have often led to greater fragmentation in the absence of legal and technical interoperability frameworks. IPSs are often portrayed as the next step in the natural evolution of retail digital payments, but the reality is that the change is often more revolutionary than evolutionary in its effects on the payment ecosystem. The national payment system has always been a complex "system of systems," but it is becoming more complex still, with other technological developments besides IPS, such as the issuance of stablecoins and the rising use of AI-enhanced services.

Amid this growing complexity sits the central bank as the only entity with the authority, and potentially also the capacity, to try to ensure that the national payment system serves national needs of efficiency and soundness while also advancing interoperability and inclusion. These are challenging goals to achieve well in any context, and even more so in environments where digital skills, proficiencies, and financial and human resources might be scarce. A shortage of capacity within a central bank will constrain its ability to address several of the barriers listed earlier, which require sufficient people with an appropriate blend of skills and experience to overcome.

The capacity constraints are not limited to payment oversight alone. The *State of Suptech Report 2025* (Barasa, di Castri, and Grasser 2025) consolidates feedback from 148 financial authorities across 105 countries on the challenges they faced around digital transformation. Over half of regulators (56 percent) reported limited internal capacity to supervise technology-driven innovations, particularly with the rising prevalence of AI-based tools and models. Close to half (47 percent) also have outdated or fragmented IT infrastructure, and many (38 percent) experience persistent weaknesses in data governance that limit their ability to use data effectively in supervision and increase the risk of breaches. These weaknesses in capacity were compounded by inadequate budget for suptech development for over half (53 percent). In the area of payment oversight specifically, the authors of the report found that "supervisory attention is shifting toward system performance, fraud detection, liquidity and settlement risk, and the integrity of data flowing through high value and retail payment systems" (Barasa, di Castri, and Grasser 2025, 169).

Under any scenario of IPS (r)evolution, as payment regulator, overseer, and, in some cases, operator, the central bank is required to play a greater role in enabling change than ever before. This is true across all stages of IPS maturity. To play these roles well requires the following:

Appropriate skills profiles in payment system departments: skills such as data analysis, digital project coordination, and system orchestration are required at new levels.

Sufficient budget to attract the right level and sufficient skills: payment system departments have often been relatively small in budget and staffing relative to other areas such as bank supervision, but growth in this area may challenge the resource allocation.

A culture that embraces learning and mechanisms that ensure that skills are updated and relevant.

What Can Central Banks Do to Enhance Their Core Payment Oversight Capacity?

Capacity can be strengthened over time but will require intentional sustained focus to achieve through actions like the following:

- Equipping payment system departments appropriately by
  - Hiring appropriate staff and ensuring a division of labor across different teams within the central bank;
  - Allocating appropriate budget for the scale and level of activity;
  - Taking stock of the global landscape to internalize lessons learned and adapt to the local circumstances; and
  - Identifying opportunities for ongoing training and development with international partners to ultimately build in-house expertise that would make the central bank self-sufficient.
- Adopting suptech applications where these are available and suitable; the report *State of Suptech 2025* found that the highest-priority suptech use cases for payments included real-time payment monitoring, instant performance analytics that allow scheme oversight of payment infrastructure, and surveillance of retail payment fraud. The report concluded that payment oversight remained early in its suptech implementation

process and was lagging in advanced systemic-risk modelling and cross-border supervision capabilities. Adopting new solutions will require avoiding the "sunk-cost bias"—that is, staying with existing systems even when they no longer cater to needs.

- Providing controlled environments for innovation and testing: While full-blown regulatory sandboxes can be expensive to establish and maintain, other initiatives—such as accelerators, which require fewer resources and can be done in coordination with the private sector—could be a useful tool for testing new business models and technologies in a controlled environment and giving central bank staff the opportunity to learn.

The Role of the IPS Operator Requires Particular Attention

When a central bank decides to take on the role of operator (and owner) of an IPS, special attention to structural and capacity issues is required. In fact, 17 of the 33 African IPSs identified by Mensah and Jumah (2025) are owned and operated by a public body—if not the central bank itself, then usually one controlled by the central bank. The shift away from systems owned and operated by industry to systems with strong central bank influence and control is notable across the world (Porteous 2025). It has come about for the following reasons:

- Coordination failure, leading to no industry-backed solution arising, especially across different categories of PSP (such as banks and mobile money operators)
- Ongoing delay by incumbent institutions, leading to frustration by the central bank
- A desire to reduce costs and improve affordability by absorbing or reallocating costs
- Capacity constraints in the private sector
- Concerns over the loss of digital sovereignty by relying on foreign operators

Seldom has a central bank taken on the role of operator out of pure preference: often it has been as a last resort after trying other options first. This is how the Brazilian Central Bank came to operate Pix. This hesitancy is often wise, because operating a 24/7/365 payment system carries a level of operational challenges that are different from those associated with operating the RTGS/ACH, which has defined operating hours. Nonetheless, there are cases in which the central bank identifies the IPS as a necessary digital public good and, as such, considers itself a natural actor for the operating role, to ensure that the system serves the public-policy objectives linked to a digital public good.

If the central bank decides to be the operator, it needs to choose between viable models of IPS development with different cost and human-resource implications. A central bank could decide to build the system fully in-house (for example, the Central Bank of West African States), which requires high-level internal expertise. Alternatively, the central bank could rely fully on open-source technology to build the system (for example, Rwanda).[13] This could lower the up-front cost but still requires in-house technical capacity and expertise for the integration, maintenance, and upgrading needed (World Bank 2025c). It could also utilize off-the-shelf system solutions from external vendors, which is the most common scenario observed in Africa and other parts of the world.

13 The choice of the open-source technology, developed by Mojaloop Foundation, that was deployed in the second phase of the Rwandan eKash IPS is described in AfricaNenda Foundation (2025).

While the choice of technology approach is one consideration, the ownership and operation model is another one. Here also there are a range of scenarios with different tradeoffs in terms of the resource requirement from and control by the central bank:

- The system is owned and operated by the central bank
- The system is owned by the central bank but operated by a dedicated external entity
- The system is owned and operated by the private sector (for example, a consortium of banks and/or nonbanks)
- The system is owned and operated by a dedicated entity derived from a public-private partnership

There are also intermediate scenarios in which the central bank starts operating in-house initially and, with time, passes the operation to an external entity that could be either under central bank ownership, under a combination of public and private ownership, or entirely under the ownership of the private sector. Naturally, under the in-house operation scenario, the requirements are higher from a financial and human-resource perspective, given the 24/7 operation, particularly if the system has been built fully in-house or through open-source technology, as there is no vendor support.

Regardless of who is the operator, appropriate cybersecurity practices are foundational to sustainable IPS growth. As transaction volumes increase and systems become more interconnected, IPS operators and participants face heightened risks from coordinated cyberattacks, systemic outages, and data breaches. Central banks, therefore, need to prioritize having in place robust cybersecurity regulatory frameworks, including real-time incident response protocols and clear public communication strategies, so the IPS can safeguard the system's integrity and resilience. A recent World Bank focus note (World Bank 2025d) describes good practices for managing cyber risk for IPSs.

Regardless of the ownership and operational model of an IPS, a better indicator of success is how inclusive its governance is. The Pix Forum in Brazil and the forum created by the central bank of Colombia around its new IPS (case 1) offer examples of how to engage a large number of stakeholders in a structured way.

CASE 1

Inclusive Governance Mechanisms for IPSs: Pix Forum (Brazil) and Bre-B (Colombia)

Launched in 2020, **Pix** is the IPS owned and operated by the Central Bank of Brazil. While the central bank is the clear owner and operator of Pix and must approve any changes to the Pix rule book, the central bank established the Pix Forum as a standing advisory body, through which it could consult with Pix participants and wider groups of stakeholders, including consumer bodies–more than 130 members in total.[14] The forum discusses and proposes improvements in the following areas:

- New Pix products/features
- Technical requirements and standards
- Security/fraud controls

The Pix Forum has a variety of working groups that focus on specialized themes. The Plenary Forum is convened periodically by the central bank and had met more than 20 times by the start of 2025.

Banco de la República, the central bank of Colombia, launched its new IPS **Bre-B** in 2025. Alongside this, the central bank created a new payment system forum as a platform where all stakeholders in the industry could engage in dialogue. As summarized in a recent World Bank focus note on IPS governance: "The objective of the platform is to understand the incentives needed by all players to transform their business models and adopt fast payments. Separate working groups to discuss different aspects of FPS development were constituted, promoting the participation of different stakeholders with the objective of understanding mutual needs and challenges. After the enactment of a new regulation in the country, the forum became the Fast Payments Interoperability Committee. The committee helped to define details for setting standards, protocols, and procedures. As Banco de la República will regulate and operate the system, to manage conflict of interest, the secretariat of the committee is headed by the banking operation deputy office, instead of the payment systems department. Moreover, to foster and safeguard coordination, the central bank chairs an interinstitutional roundtable with the Superintendency and the Ministry of Finance" (World Bank 2025a, 10).

14 https://www.l1p.org/market-illustration/brazils-pix-forum-a-multi-stakeholder-convening-to-inform-design

What Can Central Banks Do about the Operation of an IPS?

Operating an IPS demands a higher level of operational capacity than operating an RTGS. For this reason, central banks need to assess this option carefully up front, understanding that it will evolve with the size and scale of the system:

- Explore up front the different models of design/implementation (in-house proprietary, open-source, market solution), undertaking a cost-benefit analysis for each and understanding the broader pros and cons. In the process, take into account the implications for medium- and long-term requirements as well.
- Develop a checklist of internal capacity requirements to directly operate a 24/7/365 payment system and use this to assess readiness to undertake the role.
- Develop and enforce minimum cybersecurity standards and real-time incident-reporting protocols for the IPS operator and participants.

- Investigate the different ownership/operation models in terms of the cost-benefit analysis.
- Ensure that there is clear separation of reporting lines and roles between operations of the IPS and oversight of it, and also that the mandate of the IPS operator has clear scope boundaries, to avoid the risk of scope creep, which may constrain private-sector payment services built on top of the infrastructure.
- In the process, explore private-sector and/or public-private partnership options carefully, and even if not viable initially, plan to revisit this question later, especially as the system matures.
- Regardless of the ownership/operational model, ensure that the system has an inclusive governance mechanism, where the different interests (for example, banks, nonbanks, merchants and consumers) are represented.

4.2 Central Banks Should Champion IPS Development

Whether or not central banks decide to take on the operator role, there is both a need and an opportunity for them to rally all relevant stakeholders for IPS development. This means functioning as a champion both within the financial sector and across other regulatory bodies and public authorities. This role may be especially important in the early stages of IPS development, when coordination failure can halt or slow progress significantly. But it remains necessary even at more-advanced stages, when coordination with other regulators may assume even more importance. With the advent of cross-border IPS linkages at later stages of maturity, the need may grow stronger for championing internationally as well as domestically.

The growth of the digital world has a well-documented way of blurring traditional sectoral boundaries. For example, mobile network operators have become mobile money operators in many African Union jurisdictions, and tech platforms and e-commerce providers have become third-party application providers that have played a key role in the success of some IPSs, such as India's UPI. At the same time, more jurisdictions have passed data-protection laws that safeguard personal data but make it harder than before for data to transfer across or within jurisdictions in a compliant manner. If all these different cross-sectoral policy and regulatory issues are not coordinated better, then even if a central bank succeeds in launching a well-designed IPS, the system may be constrained in its growth by issues resulting from a lack of cross-regulator coordination.

While this digital blurring of boundaries is happening at a domestic level, it is also happening at a regional and global level. As countries advance ambitious goals for regional/cross-border IPSs—which are now live in the West African Economic and Monetary Union, the Groupement Interbancaire Monétique de l'Afrique Centrale, Northern Africa and the Middle East, and the Southern African Development Community's Regional Economic Commission, with the East African Community now following—the need for cross-border harmonization grows as well. The AfCFTA Digital Trade Protocol commits nations to this harmonization, but the practical implementation is usually left to central banks.

What does championing involve? The World Bank has outlined the following five specific aspects of this role for central banks to play in IPSs:

1. Position: Define the goals of introducing fast payments within the broader retail payment strategy of the jurisdiction and define the role to be played by the central bank.

2. Engage the ecosystem: Onboard all relevant stakeholders and build commitment around a shared vision.

3. Inform development: Underpin the decision-making on design and implementation with broad participation and dynamic discussions.

4. Promote adoption and usage: Deploy a thorough communication strategy to build awareness and educate, support uptake by both consumers and merchants, and foster adoption of system services by market players.

5. Drive and support: Ensure that ongoing advisory and technical support is available throughout the project (World Bank 2024a, 5).

Central banks require adequate mandates and political will, as well as the resources and capacity to carry off this full role throughout the life cycle of IPS development. If they lack capacity, it is possible for central banks to delegate some or all of the aspects above except for the first (setting goals of the IPS in context and defining the role of the central bank). For example, the IPS scheme operator may promote adoption and usage, while industry bodies may help with engagement and informing design and implementation.

A core part of championing involves effective and ongoing engagement with industry stakeholders. Doing this successfully is one of five characteristics for regulatory success in addressing innovation identified in a CGAP working paper (Jeník et al. 2025). Based on interviews with many regulators who have played this role, the following attributes of effective industry engagement emerge:

- Stakeholders of various types are adequately represented.
- The right level of industry management is involved.
- The process becomes a routine, not merely prompted by special occasions such as drafting a regulation.
- Industry players are empowered to initiate the engagement, rather than wait for the regulator's initiative.

The CGAP working paper recognizes the value of industry associations as a way to harness and engage in a more effective manner. It also cites examples where financial regulators like the Monetary Authority of Singapore have gone so far as to catalyze the formation of new industry associations to support industry engagement.

Because of the wide-ranging implications of the IPS, ongoing forms of engagement with other national regulatory bodies are likely to be helpful and usually may be necessary. Specifically, in most countries, the list is likely to include the following:

Tax authorities: Under increasing fiscal pressures, an increasing number of African countries have imposed taxes on mobile money transfers. Senegal joined this list in 2025 by imposing a new levy of 0.5 percent on all mobile money transfers (Paul 2025). The effects of these taxes are often controversial: while they may raise revenue, they also affect the affordability of digital payments and lead to declines in transaction volumes.[15] Central banks may need to engage with tax authorities and tax policy makers at finance ministries to ensure that uncoordinated tax changes do not have inhibiting effects on IPS transactions. In addition, tax authorities also increasingly seek access to digital payment records to assess income or sales taxes. The pressure may be especially acute when the central bank also operates the IPS. When a change in regulations allowed the Brazilian tax authorities access to Pix transfer information in 2024, it triggered large misinformation and disinformation campaigns that discouraged use of Pix (Luciano and Fleck 2025). Central banks as promoters of IPS will need to engage with tax authorities regarding the sequencing and communication regarding new taxes and use of payment records that could affect consumer trust in an IPS, especially at the early stages.

15 For example, see the position taken by GSMA (2020), the mobile network operators' industry body.

Data-protection commissions: Most African countries now have data-protection laws in place, and many also now have operational data commissions charged with implementing the law through regulations and enforcement action.[16] These actions will affect all cases where privately identifiable information is shared, and especially where it crosses national boundaries. This obviously can influence how IPS operators and their participants exchange this type of data and, more generally, their data-protection policies in an environment of rising cyber risks. Having access to sufficient relevant data is an important part of addressing the digital frauds and scams that arise within digital payments (see consideration 3 below), so central banks would benefit from engagement with data-protection commissioners to ensure at least that data-protection regulations do not restrict the rapid flow of information when needed. If there is uncertainty regarding the application of new regulations and rulings, this could slow market development, as reputable PSPs are unwilling to risk running foul. Central banks may be able to assist data commissioners in providing guidance that reduces uncertainty.

Digital government agencies: The rise of digital public infrastructure as a whole-of-government and even whole-of-society approach to digital transformation has raised the profile of existing digital agencies in government or led to the creation of new units, often under the office of the president or prime minister or within ICT ministries. These agencies are charged with coordination and innovation across government departments. Since IPSs are regarded as a foundational category of digital public infrastructure, these agencies are likely to take a keen interest in the development of a national IPS. Their support can be very positive for the IPS if central banks can harness the convening and coordinating power of these agencies. While not all digital agencies will have the same capability or influence, central banks cannot afford not to engage with this type of agency.

ICT policy makers and regulators: ICT regulators typically play an important role in overseeing the quality and reach of data connectivity in a jurisdiction and also, in some cases, its cost. The lack of connectivity was one of the key categories of barriers identified earlier, and central banks may benefit from engaging with ICT regulators to understand the plans and policies for expanding reliable connectivity. In some jurisdictions, ICT regulators also play a role in the licensing and oversight of certain categories of nonbank PSPs, such as mobile network operators, and where this is the case, central banks have had to agree how to coordinate effectively in this role. Beyond licensing, ICT policy makers may also set rules and standards regarding the use of cloud storage and computing, especially if these involve nondomestic cloud providers. These rules and policies can have a large, though unintended, effect both on how IPSs operate and scale and on the cost base of participating PSPs.

NationaI ID authorities: The standards around identification for the opening of payment accounts are important for maintaining financial integrity, but disproportionately onerous requirements restrict the widespread adoption of payment accounts from and to which payments of all sorts, including instant payments, can be made. The availability of robust forms of foundational digital ID can greatly reduce the friction of account opening and facilitate appropriate electronic know-your-customer procedures. Central banks have an interest in the evolution of foundational ID schemes that can meet standards for financial-sector authentication. Digital ID is recognized as a foundational pillar of digital public infrastructure alongside instant payments. Central banks would benefit from engagement with ID authorities both to understand their plans and to align their ID standards appropriately, to ensure the most inclusive outcome of a new IPS.

16 According to the most recent World Bank Govtech Maturity Survey (2022), 29 of 48 reporting African countries had a data-protection law in effect, and of these, 21 also had an operational data-protection authority. The numbers have likely increased since then.

Competition authorities: In some African jurisdictions, central banks have direct responsibility for the oversight of competition within the financial sector, while in others they may share this with competition authorities. The rise of digital platforms has created new questions and challenges for competition regulators globally.[17] Depending on how IPSs are owned and operated, they may also raise questions of competition policy. Competition authorities may be natural allies for central banks seeking to create more level playing fields around participation for new types of entities like nonbank PSPs in IPSs. Even if their mandate does not extend to the financial sector, competition authorities may benefit from engagement with central banks, since their actions and interventions in other digital markets (such as e-commerce) may spill over to the IPS as well.

Distinct from governments' role in policy making and regulation, they are also usually big payers (of benefits and civil servant salaries) and receivers (of taxes and license fees) of retail payments. It may well be desirable for at least certain categories of these payments to be made via the IPS. Because of their scale, this may have a disproportionate effect on IPS development, both through the effect on citizens who become more familiar with instant payments and on the business cases of providers. Central banks in their role as bankers to the government may be able to influence and advocate, together with the responsible government agencies, how these payments are made in a way that is especially beneficial to gaining momentum in the early stages of IPS development.

What Can Central Banks Do about Championing IPS Development?

Regardless of who the owner/operator of an IPS is, the central bank needs to play the role of champion in driving the national instant payment agenda. Central banks can take the following steps:

- Draft a national payment strategy and place the instant payment agenda in that context in a process coordinated with other public-sector actors and the private sector.

- Establish or widen cross-coordination groups to include other regulatory bodies, beyond the financial sector. This could happen under the umbrella of a national payment council as in Egypt or an advisory committee, as in Ghana (case 2), or a national financial inclusion committee or other wider cross-regulator configuration, as in South Africa and the United Kingdom (case 3).

17 These are described more fully in UNCTAD (2024).

CASE 2

Central Banks Coordinating and Consulting while Operating IPSs[18]

Egypt's **National Payments Council** is a high-level, whole-of-government body established by presidential decree and chaired by the president of Egypt. Its membership comprises senior political and institutional leaders, including the prime minister; the governor of the Central Bank of Egypt (with deputy governors responsible for banking stability and payment systems); ministers responsible for finance, planning, communications and IT, justice, interior, and defense; heads of key oversight and security bodies; the chair of the Financial Regulatory Authority; representatives of authorities responsible for anti-money laundering and combating the financing of terrorism; and selected senior banking representatives. This composition reflects the council's role in setting national payment strategy, authorizing major payment-system initiatives, and coordinating policy across the government.

The **Bank of Ghana** convenes the statutory Payment System Advisory Committee, which is chaired by the governor and includes senior representatives from the National Information Technology Agency, representing the Ministry of Communication, Digital Technology, and Innovations and the Ministry of Finance, as well as six other members selected by the Bank of Ghana. Currently, these include representatives of GhIPSS (the payment system operator owned by Bank of Ghana), the Securities and Exchange Commission, Ghana Chamber of Telecommunications, Ghana Association of Bankers, the Association of Ghana Industries, and a consumer group. The advisory committee has set up five working groups of industry participants, including representatives of mobile network operators, merchants, consumers, PSPs, fintechs, and third-party providers. It meets at least twice per year. Engagement with the payment ecosystem also occurs via GhIPSS and licensed PSPs.

The **South African Reserve Bank** has launched the Payment System Ecosystem Modernization (PEM) Program[19] to enable fast, inclusive, and secure digital payments. Upgrading the IPS is one of the key PEM initiatives, which will create opportunities for nonbanks and fintechs to participate and enable real-time settlement. In 2025, the reserve bank took a 50 percent share in the operator of the IPS, PayInc. Also, as part of PEM, the bank convenes a number of technical working groups comprising industry participants who meet to address a range of topics, like QR code standards, digital financial identity, and fraud prevention. The South African Reserve Bank also convenes regular industry dialogues to provide opportunities to update and engage the industry as a whole on PEM activities.

- Establish coordination processes with other domestic regulatory agencies with memorandums of understanding to govern data flows and oversight of PSPs where there is joint jurisdiction. Several African central banks have done this in the past. For example, the Bank of Ghana with the ICT regulator,[20] and Egypt and Kenya have also sought effective cross-sectoral consultation and engagement.[21]

- Engage actively with credible industry bodies where they exist. This would mean inviting representatives to convenings and events and appointing some to sit on formal consultative bodies, such as Egypt's National Payments Council or working groups, and not reaching out only when there is a draft regulation to review.

18 World Bank (2025a). See more detailed descriptions of each in the case annexes on governance of Egypt's IPN and Ghana's GIP.

19 See https://www.resbank.co.za/en/home/what-we-do/payments-and-settlements/pem.

20 See https://www.afi-global.org/sites/default/files/publications/2017-10/AFI_AfPI_case%20study_AW_digital.pdf.

21 Described in two 2023 country reviews from the International Telecommunication Union on collaborative regulation for digital transformation in Kenya (https://digitalregulation.org/wp-content/uploads/22-00666_R3_Egypts-digital-transformation-and-collaborative-regulation_E-1.pdf) and Egypt (https://digitalregulation.org/wp-content/uploads/D-PREF-THEM.32_Kenya-2023-PDF-E.pdf).

In some cases, depending on capability and maturity, the central bank may be able to rely on industry bodies to perform functions such as screening for participation in sandbox processes.

- Catalyze the formation of industry associations where they do not exist or do not represent the views of categories of all IPS participants. Central banks have played this role in jurisdictions like Singapore (Jeník et al. 2025).
- Work together with other stakeholders to create an interoperability framework for IPSs, digital ID, and data-exchange systems as part of emerging national frameworks for digital public infrastructure.[22]
- Participate in regional payments forums, such as the AACB Payment System Integration Task Force, and equivalent bodies at the regional economic commission level.
- Adopt international standards (for example, ISO 20022 for messaging, EMVCo for QR codes, and APIs) for better domestic and cross-border interoperability, thereby ensuring the technical readiness of the domestic IPS to connect to regional and global hubs if and when this is decided.

CASE 3

Cross-Sectoral Regulatory Engagement Bodies

The scale of engagement necessary across regulatory bodies has led to the establishment of permanent working groups, in some cases with dedicated secretariats.

In 2016, **South Africa** established the Intergovernmental Fintech Working Group with the aim "to understand the growing role of fintechs and innovation in the South African financial sector and explore how regulators can more proactively assess emerging risks and opportunities in the market." The working group comprises representatives primarily from across the financial regulators, together with the Competition Authority, the tax-collection agency, and National Treasury. Not only does the working group enable coordination across these agencies, but it also supports joint efforts—a regulatory guidance unit, a regulatory sandbox, and an innovation accelerator.

Recognizing that digital transformation has consequences reaching far beyond the financial sector, the **United Kingdom** set up the Digital Regulator Cooperation Forum (DRCF) in 2020. This nonstatutory forum includes not only the Financial Conduct Authority and Competition and Markets Authority but also the information regulator and ICT regulator. The forum has a small core secretariat funded by the four members that coordinates and supports project teams comprising experts from the members. This capacity enables the forum to undertake proactive engagement and research on cross-cutting issues.

In 2023, Digital Regulator Cooperation Forum launched the International Network for Digital Regulation Cooperation to cooperate and engage with similar bodies in other countries. At present, Australia, Canada, Ireland, and the Netherlands are part of group.

22 See, for example, Nigeria's DPI Framework, which was released in 2025 by the Federal Ministry of Communications, Innovation, and Digital Economy. It describes the IPS as one of the core legs of the national approach to digital public infrastructure.

4.3 Central Banks Should Support Proactive Measures to Bolster Digital Trust

Participants and policy makers recognize that digital trust matters for adoption and usage of instant payments. Higher levels of digital trust will likely enable more rapid adoption of an IPS at stage 1, but in some cases, earlier bad consumer experiences with digital banking or e-commerce will create trust barriers that need to be overcome. Even once customers adopt a new service, their levels of trust have to be maintained over time, especially in the presence of rising threats. Regardless of the starting context, trust can be slow to build but easy to break. As guardians of instant payments, central banks carry an especially heavy burden of responsibility in this area, even if their mandate does not extend directly to consumer protection or to the market conduct of PSPs.

Proactive, consistent, and credible communication from the central bank to the public about an IPS may help to bolster trust in the early stages of an IPS especially. The endorsement of the central bank may boost initial confidence to use an IPS. Thereafter, clear messaging about the expectations and channels for recourse may help to build confidence. If central banks are also in the role of operator, then their communication capabilities will have to reach a new level commensurate with what is required to promote the IPS. They may also be required to communicate quickly to address disinformation campaigns that may rapidly build momentum on social media and online channels: if not addressed promptly with a clear media strategy, incidents like these can affect volumes of usage.[23]

While some of the inherent features of instant payments as authorized push payments have reduced some opportunities for fraud and error compared with other payment instruments, they have increasingly opened others. For example, the speed of instant payments allows for the proceeds of a crime to be moved across mule accounts, while the large reach of instant payments has exposed a wide attack surface of people to proliferating incidents of fraud and scams that trick users into making unintended payments (World Bank 2023). Social engineering scams are growing rapidly around the world, in many cases enabled by large IPS schemes. India's UPI experienced a near doubling in fraud cases, resulting in losses of $131 million between 2023 and 2024, while Brazilian banks report losses from scams as exceeding $1.7 billion, with about 9 percent of Pix users experiencing fraud (Cavalcanti 2025). Africa is not immune from this global phenomenon, having experienced large-scale SIM swapping and other forms of digital fraud on mobile payment networks. Widespread experiences of loss like this sap consumer digital trust.

What Can Central Banks Do about Enhancing Digital Trust?

Enhancing digital trust is more than just a consumer protection issue; rather, it is the outcome of a complex set of factors. A World Economic Forum report (2023) defined digital trust as "individuals' expectation that digital technologies and services—and the organizations providing them—will protect all stakeholders' interests and uphold societal expectations and values." The authors argue that digital trust in a product or service results from the following three components:

1. Security and reliability, which would include practices embedding cybersecurity and privacy by design
2. Inclusive ethical usage, which includes notions of fairness and interoperability of services
3. Accountability and oversight, which covers transparency of terms that set expectations and redress mechanisms that resolve problems

23 See Luciano and Fleck (2025) for the case of the disinformation campaign around Pix, which surged in early 2025, forcing the retraction of a previously announced regulation and necessitating a response from the Central Bank of Brazil.

Even if central banks have no direct contact with IPS end users, they have influence over some of the components above. For example, if the central bank is acting as operator, the choice to ensure good cybersecurity practices may reduce breaches and interruptions. In the oversight role, the bank can influence how inclusive an IPS is. Likewise, oversight of redress mechanisms (as the operator, the provision of them) may ensure that disputes and grievances are quickly resolved. Of course, if the central bank is also the operator, it may have direct control over how disputes between PSPs are handled. Further, as a regulator, it can create the necessary legal/regulatory safeguards against money laundering and the financing of terrorism and fraud. Even as a catalyst, a central bank has influence over the norms and standards of behavior and performance in the payment sector that will determine what is and isn't regarded as trustworthy. The UN Principles for Responsible Digital Finance provide some guidance in this area.

In the face of rising challenges to digital trust, central banks can play several important roles that will help to support the development of the digital economy and of IPS channels in particular.

- Coordinate with other agencies to address fraud and scams.

Central banks are unable to address frauds and scams alone, which raise issues that extend well beyond the banks' mandate into the domains of financial intelligence centers, IT regulators, law-enforcement agencies, and industry initiatives. However, central banks are well placed to play an important role alongside these other agencies as part of national anti-scam centers. (See case 4, Singapore.) In Ghana, the Bank of Ghana has taken a joint approach with the Cyber Security Authority and Economic and Organized Crime Office to crack down on illegal online lenders.[24] Where the coordination does not yet exist, central banks that are promoting the development of domestic IPSs may need to play a catalytic role to ensure that the other agencies are ready for the upsurge of fraud. The successful addressing of fraud needs to occur at multiple levels—that is, at the regulatory, system, PSP, and end-user levels. This coordination will at least allow for greater understanding of the problem and can promote joint or synchronized initiatives to address it.

CASE 4

Monetary Authority of Singapore Participates in a Societywide Initiative to Counter Scams and Build Trust

In 2025, **Singapore** became one of the first nations able to report that reported fraud and scams was no longer trending upward. This change resulted from taking a comprehensive approach involving a consortium of government agencies, including the specialized AntiScam Command Unit of the Singapore police force, information regulator (IMDA), and central bank (the Monetary Authority of Singapore, MAS), as well as private-sector participation, especially from banks and telcos. The initiative includes the following proactive efforts to prevent fraud: widespread public education, a government app (ScamShield) that filters messages and calls and blocks malicious addresses, and a rapid-response capability, including a requirement that all banks offer kill-switch functionality to clients who suspect they have been exposed to a scam.

In 2024, MAS and IMDA introduced the Shared Responsibility Framework, which assigns responsibility and liability for scams to financial service providers and telcos, incentivizing them to implement robust measures.

MAS takes a comprehensive approach to combating scams: upstream measures to block messages, downstream measures that banks must take to detect and resolve fraud, and public education.[25] MAS has continuously updated its regulations to include stronger multifactor authentication and cooling-off periods of at least 12 hours before changes to account details take effect. Bank staff are colocated at the AntiScam Center to facilitate the rapid freezing of accounts and recovery of funds when a scam is detected.

24 See Awuni (2025), a news article about the launch of this initiative.

25 See https://www.mas.gov.sg/regulation/combatting-scams

- **Consider proactive measures for PSPs to combat fraud and scams.**

  Most IPSs have standard control features, such as transaction size caps and daily volume limits. Proactive measures require real-time monitoring of suspicious transaction patterns, which can be provided by specialized software.[26] However, depending on the context, there may be a need to adopt additional measures, such as the kill switch that all Singapore banks are required to implement. This feature allows customers to instantly freeze their bank accounts and block all transactions (digital, ATM, card, and transfers) as soon as they suspect a scam or data compromise, preventing further fund loss by disabling access to funds and self-service banking.

- **Ensure dispute-resolution mechanisms are built in from start of an IPS.**

  Disputes in an IPS can happen at various levels: between an operator and a participant, between participants, and between end users and participants. The World Bank (2025b) recently described the variety of dispute-resolution approaches in use across instant payments worldwide. It concludes: "Despite heterogeneity, common principles emerge: legal clarity, scheme alignment, robust end-user recourse, and layered fraud-prevention strategies." If the central bank operates an IPS scheme, then it would be directly involved in any disputes with participants and would require a fair and transparent mechanism for resolving them. However, even when acting as an overseer, the central bank has an interest in robust end-user recourse—that is, dispute resolution that functions effectively at the consumer level, too. Given the scale of likely disputes among end users and participants in an active IPS, the only way to handle these in a timely manner is to ensure that the IPS operator maintains an effective online dispute-resolution system. Online systems make it easy for consumers to lodge complaints, and they not only enable the case workflow to be managed as the complaint is investigated but also liability to be assigned according to agreed-upon rules to resolve the dispute.

- **Monitor trust levels in IPS users and be ready to counter disinformation.**

  While digital trust is hard to define, central banks can design dashboards to monitor a composite set of indicators of trust levels. These would include levels of uptime, as well as dispute trends and time to resolution by organization, but they would also need to include sentiment and topics expressed on social media. In early 2025, Brazil's Pix system suffered volume declines and a loss of trust because of disinformation about regulatory changes that originated in social media (Luciano and Fleck 2025). These channels can spread disinformation virally, and especially central banks that operate the IPS need to be quick to detect it and to be ready to respond.

- **Increase cyber awareness to enhance cyber resilience.**

  Cyberattacks can disrupt critical IPS operations and compromise access channels in ways that undermine public confidence in them. Apart from applying sound cyber risk-management practices, IPS operators and participants have an important role to ensure that consumers understand how the system is set up and to help them keep up with existing and new cyber threats to reduce the risk of becoming victims of cybercriminals.

26 Tazama is an example of an open-source software solution to real-time fraud monitoring that is being implemented in several African payment systems. See https://www.tazama.org.

4.4 Central Banks Should Account for the Business Cases for PSPs

While the growth of digital payments in general (and instant payments in particular) is almost inevitable in most places, the implications of this growth vary for different types of PSPs, depending on their business models and on the way in which IPS costs are carried. Aurazo et al. (2025) summarized the diverse cost models that are found in IPSs around the world.

The business case for IPS participation matters for central banks because it is deeply linked to the sustainability and health of the digital payment ecosystem. In most African countries, many if not all PSPs are privately owned, and while they may be mandated to participate in an IPS, what cannot be mandated is the level of investment, energy, and commitment that each PSP puts into its participation. If a critical mass of participants does not see a business opportunity for IPS participation, then even if the scheme itself is free for them, they will not invest the resources necessary to achieve the desired national level of adoption and usage. While the lack of a business case remains an issue for private participants throughout the IPS maturity stages, it is likely to be especially binding in the earlier stages, when PSPs are making decisions about whether to enter a new market and how much investment and priority to give to the promotion and support of instant payments. At later stages, when the IPS becomes entrenched in the business models of its participants, there may be less sensitivity. Equally, if and when there are large volumes of transactions, the average costs per transaction reduce and marginal costs of using the IPS infrastructure become very low.

The business case for participation in an IPS may be wider than the prospect of fee income directly from IPS transactions alone. Charging fees per transaction is only one category of payment business model. More generally, PSP business models fall into one of the following three categories:

- **Fee-based:** Where revenue derives from fees, either paid by clients per transaction or bundled at an account level or on a subscription basis, or else paid by other PSPs clients through interchange fees.

- **Float-based:** Where deposit-taking institutions are able to earn interest from wholesale or retail liquidity float. Because of instant clearing and usually fast settlement, IPSs reduce traditional sources of income for financial service providers (FSPs) arising from deferred settlement on wholesale balances, but because most IPS transactions are prefunded, the institutions require that customers maintain retail deposit balances on which the PSP may earn interest even without intermediating through credit.

- **Cross-sell:** Where the PSP receives fees, commissions, or interest from cross-selling their own or other FSPs' products: for example, offering merchant clients additional services, such as device leasing, for a fee (as PayTM or PhonePe in India do) or offering account-holding clients insurance policies or loans (also PayTM). This business model would also include selling advertising or product placement to their clients (as PhonePe and GooglePay[27] in India do).

The surge of venture-funded payment fintechs globally[28] suggests that there is plenty of money to be made in digital payments–and there likely is, on an aggregate basis.[29] But the outlook may be different for different classes of business models. The revenue outlook for pure fee-based models is already under competitive pressure that would be exacerbated when regulators mandate that IPS transactions must be free for consumers and merchants. For deposit-taking PSPs, the introduction of instant payments can

27 The US company Alphabet is a prime example of a tech platform with this business model: about three-quarters of its revenue comes from selling advertising, while it offers a wide range of free or freemium digital services like GoogleMaps or Gmail, which are widely used around the world. The wider Google business is able to monetize data trails sufficiently to earn a return on its substantial investment in GooglePay.

28 Payments remained the strongest area of fintech investment globally in 2024, according to KPMG (2024).

29 The 2025 McKinsey Global Payments Report (McKinsey 2025) forecasts that the overall profit pool from payments will continue to rise at 4 percent per annum.

reallocate traditional liquidity pools, affecting the ability to earn float interest. Nonbank PSP regulations often restrict revenues to these narrow banking-type categories, which are viable only at very large scale and then only with some element of cross-sell. Cross-sell opportunities are not equally available to monetize for PSPs in all markets. For example, cross-selling data for advertising is a globally competitive business with high barriers to entry. The ability to cross-sell credit to clients was traditionally considered an advantage for incumbent banks that held the clients' payment data, but moves toward open banking or, more generally, open finance increasingly level the informational playing field away from incumbent banks and open the field to disruptive entrants able to manage the data well. Open-finance regimes are intended to do this, but they have the effect of introducing greater uncertainty about the monetization of IPS participation for incumbents.

So the point is not that the business case for IPS is weak; rather, it may be negative for particular types of narrow business models, especially if free transactions are mandated. Incumbents may face the additional risk arising from cannibalization: if accepted on a large scale, IPS transactions may also cannibalize incumbent payment revenue streams by replacing card payments at the point of sale for card-issuing banks, or by reducing the need for agent-based cash-in and cash-out in mobile schemes. Even if the overall "digital revenue pie" grows much larger as a result, banks or mobile network operators with legacy channels face a harder business case to justify in accelerating instant payments, even if competition will force them to do so over time. Central banks will need to be alert to these concerns especially in the early stages of IPS development.

The discussion so far has focused on the revenue side of the business cases for IPSs, but the cost dimension also matters. The costs of setting up an IPS are not only the capital expenditure of the central switching infrastructure.[30] In schemes operated by a central bank, that cost is absorbed by the central bank and not passed on to participants as joining fees or equity investments. However, each participant will still be required to incur up-front costs related to the certification and testing of IPS integration into their apps or internet offerings, as well as costs to establish the capacity to oversee compliance with scheme rules and reporting, in some cases to upgrade their systems to the required standards, and, in all cases, to train staff in oversight and compliance and to market the service to clients. These costs may vary widely depending on the starting position of the PSP and its size and complexity. Because at least some certification and testing fees are fixed and also denominated in dollars, these initial participation costs may fall disproportionately on smaller entities in weak currency markets.

The costs of an IPS do not end with going live. The IPS operator will need an ongoing funding model to be sustainable. This will require access to capital to support the expansion of capacity and upgrading of systems as needed, as well as covering operational costs. Participants also need a funding model to cover ongoing costs. In addition to maintaining 24/7 banking infrastructure that can handle an increased volume of transactions, IPS participants will also incur ongoing staff time and attention to manage the new channel. Rising risks of fraud and scams discussed under theme 3 increase the level of capacity that it will be required to manage operational and reputational risks. For this reason, PSPs will likely need to expand their customer service capability to handle an expanded volume of customer queries and disputes. If their business case is strong, PSPs will actively invest in their ability to do this well, to build their client base. If not, it is likely that clients will experience increasingly poor service that may undermine their trust in the new channel.

Another category of ongoing cost relates to customer acquisition. The objective of many IPS is to reduce cash usage and to promote financial inclusion. Achieving this requires that PSPs are incentivized to incur substantial costs, especially costs associated with the acquisition of small merchants. Experience in India and elsewhere has shown that the acceptance of UPI and therefore its utility and usage would be far lower without large third-party app providers like PhonePe or GooglePay, which possess deep pockets and are willing to incur the substantial cost of acquiring millions of small merchants. In some jurisdictions, forms of state subsidy may be available to assist and encourage acquiring. More generally, a new IPS will need to consider carefully how to communicate its message to consumers—whether to allow PSPs to do this or invest in central marketing and communications.

30 See table 3 in Porteous (2025) for a summary of these cost categories.

What Can Central Banks Do about the Business Cases for PSPs?

Central banks are not directly responsible for the business case for private participation in the IPS, but they need to understand it and account for it in their approaches. There are several ways that central banks can ensure that the incentives are in place for a healthy, flourishing IPS system:

- **Understand the business models of current and potential players and take this into account in regulations and licensing.**

  For countries in the early stages of IPS development, understanding how the introduction of an IPS will affect the business models of incumbents is a good starting point. This can come from undertaking a business-impact assessment to understand how different approaches to financing and pricing affect the business cases for different types of participants in the IPS and the risks they perceive. Part of a business-impact assessment exercise may include documenting the difference in costs and risks from direct versus indirect participation in clearing to assess the need for mandating direct participation. This is not a one-off exercise, but one that should continue as the basis of ongoing conversation in payment councils and similar convenings. Central banks may consider whether the publicly available information about the payment market is adequate and, if not, whether they might collect and provide more information to attract attention and maintain awareness of this issue.

  The aim should be to ensure that at least several substantial PSPs see the appeal of participation in an IPS scheme and have the means to do so. This may mean looking beyond current participants to consider new players that may enter the market. This in turn may mean considering whether existing licensing categories make sufficient space for them. For example, are there domestic sources of capital that would fund new entrants able to take advantage of a new IPS, such as digital-only banks, and do existing licensing categories accommodate these models? If not, is there a need to attract foreign-owned PSPs that do have the capital and know-how to monetize instant payments, and are requirements for local ownership barriers to entry?

- **Consider the cost of compliance for PSPs of different sizes and risk levels.**

  The high and growing cost of compliance is an ongoing issue for FSPs in many parts of the world today, well beyond IPS only. The Africa Fintech Network's report identified four categories that shape the cost of compliance—audit and certification, technology and infrastructure, human capital and training, and regulatory reporting.[31] Some regulators have taken steps to assess the cost of compliance, and this is a welcome move.[32]

  Some areas of regulation affecting payments, like anti-money laundering and combating the financing of terrorism, are driven by compliance with international standards that are not amenable to the influence of individual central banks, but others are—especially the costs of participation in an IPS, and even more when that scheme is operated by the central bank. Even if the central bank is only the overseer, it has the mandate to ensure that standards for participation and integration are risk-appropriate: do they adequately accommodate smaller PSPs with simpler models, or are they designed to fit large, well capacitated organizations If a policy objective of the central bank is to promote financial inclusion, then it would be important to assess the costs of participation and compliance for pro-poor FSPs such as credit unions or microfinance banks in some jurisdictions and then consider how these costs might be reduced—for example, through collective training or shared facilities.

31 Africa Fintech Network (2025) Report, Theme Seven.

32 Reportedly done in 2025 by the Bank of Mauritius but not yet publicly available.

- **Set a clear policy and strategy for pricing and revisit periodically.**

A diversity of approaches to IPS pricing applies around the world (Aurazo et al. 2025), although there is a trend toward more mandated levels of pricing, especially for person-to-person payments (Porteous 2025). A mandate does not always mean free-to-consumer transactions, as it does in India and Brazil, however; it may mean setting a cap on a specific level of end-user pricing or creating uniformity that aids customer adoption. Where central banks also operate the IPS scheme, they will at least have control over any fees charged to participants for joining and for usage of the infrastructure. These amounts may be substantial, but because central banks wish to encourage and support low fees, those in jurisdictions from Pakistan to Colombia have chosen not to charge for the central infrastructure.

However, in other jurisdictions, the pricing decision is left to the market, perhaps under the oversight of a competition regulator who will ensure that there is no unlawful collusion in setting collective prices. Even in these cases, the central bank may have influence over pricing strategy—both indirectly, through the costs of compliance with its standards for participation, and more directly, through the entities it authorizes to compete in the payment market. The central bank also has a role to play in opening new business models—for example, by allowing and encouraging open-finance schemes that allow new players to benefit from historic data. In any case, nuances such as the type of use case must be accounted for when there is a decision to regulate end-user pricing.

The central bank can and should monitor the level of competition and the trajectory of end-user pricing for instant payment over time. Since new PSPs have to take multiyear investment decisions to enter and join an IPS, the central bank needs to set a clear policy approach to pricing and to clear milestones for reviewing the policy to increase the level of certainty. In the case of Colombia's Bre-B, the instant scheme launched in 2025, the central bank has made explicit its decision not to charge participants for the first three years, then to revisit the issue of switch fees, which provides at least a horizon of certainty. A clear central bank approach to pricing may help to unlock private participation, as the case of Pakistan suggests (case 5).

CASE 5

Creating Pricing Clarity and Incentives in an IPS Operated by a Central Bank[33]

Raast in **Pakistan** is an example of an IPS operated by a central bank where the bank has chosen not to charge fees to participants. Launched in 2021, Raast has seen relatively strong uptake of person-to-person payments (exceeding five transactions per capita per year in 2025), which are mandated to be free, but very limited person-to-merchant payments after this functionality was added in 2023. Pricing was not mandated for person-to-merchant payments, but the dominant expectation was that it would also be free. A 2025 report commissioned by the Better Than Cash Alliance probes the reason for the lack of uptake of merchant payments.

Based on an analysis of interviews with multiple FSPs and PSPs and a review of international evidence, the report concludes that participants have failed to see any business cases for promoting merchant payments because they have not seen a revenue stream and regard participation more as an act of compliance than of market opportunity. Based on an example from card acquiring where the central bank stepped in to create clarity regarding pricing caps that unlocked substantial investment in point-of-sale acquiring, the report recommends that a low but sector-adjusted cap (of 0.35 percent) be set for the acquirer of merchant payments to create incentives for this business line. They also recommend the establishment of a working group to assess and consider the complex issues in the merchant payment space, which overlaps with the domain of other government agencies, including tax and business licensing.

4.5 Central Banks Should Remove Unnecessary Barriers for Entry and Operation of Nonbank PSPs

Over time, the payment ecosystem has become more complex. New types of PSPs and payment products and services have emerged. As such, it is imperative for central banks in their regulatory role to keep up-to-date with market development and evolution, and to create a comprehensive legal and regulatory framework that is agnostic of the institutional nature of the PSPs and focuses instead on systems, products, services, and risks. This means creating a level playing field for both bank and nonbank PSPs with clear guidelines and licensing requirements and timelines that are aligned with transparency, clarity, simplicity, and innovation but do not compromise the safety of the broader ecosystem. Even though there has been a wide consensus about the need to enable nonbank PSPs to be part of the instant payment ecosystem for a while now, as reflected in the *G20 Cross-border Roadmap* and reinforced specifically in the AfCFTA Digital Trade Protocol, this approach has not been consistently applied across the African Union yet. Explicit barriers to nonbank participation in the form of regulations or scheme rules may be especially prevalent in early stages of IPS development, but in later stages, barriers may be more subtle, taking the form of disproportionate requirements for access and compliance that are especially onerous for nonbanks.

In the vast majority of live IPSs, including Africa, nonbank PSPs now have direct access to the systems, at least for clearing purposes. In a few cases, where the IPS is owned by banks, access criteria discriminate against nonbanks, preventing connection to the system as direct participants. These cases require action from the central bank in its role as regulator and overseer. Further, when the central bank is also the owner/operator of the IPS, it will have to ensure that the fee structure to access the system does not discriminate against nonbank PSPs, and that the fee structure is revisited periodically to reflect any changes proportionate to market evolution.

Increasingly, central banks have gone one step further to level the playing field by allowing nonbank PSPs to open settlement accounts in their RTGS, so that they are not dependent on larger players (for example, banks) for settlement. This has cost implications that may affect the business case. The World Bank's most recent Global Payment Survey (2021) found that of 15 sub-Saharan African jurisdictions reporting, just over a quarter did not allow access to the RTGS, while about half allowed only indirect access. Only four reporting jurisdictions then allowed nonbank access to a settlement account, but without access to central bank credit (World Bank 2024a, fig. 1). This proportion was in line with global norms in the sample, although higher-income nations, including Australia, Switzerland, and the United Kingdom, have increasingly enabled direct access. India is an interesting example of a developing country that has regularly revisited and revised its RTGS access policy (case 6). However, even with access to central bank settlement accounts, nonbanks might still have limitations if they cannot tap into intraday and overnight central bank liquidity. This poses issues in terms of liquidity management for nonbanks, thus imposing additional costs.

CASE 6

Allowing Direct Participation in Clearing and Settlement—India

The Reserve Bank of **India** sets the requirements for access to RTGS facilities in its RTGS regulations. The reserve bank has regularly reviewed these requirements and broadened the scope of participation for additional categories of players in the payment space. Most recently, it has recognized four categories of membership in the RTGS, where access to intraday liquidity is restricted only to certain categories according to access criteria set out in the regulations. The result of the changes is that, beyond commercial and cooperative banks, other classes of FSPs—including payment banks, small finance banks, primary dealers, clearing corporations, central counterparties, and retail payment system organizations like payments utility operator NPCI and authorized nonbank PSPs—may now also have RTGS accounts at the discretion of reserve bank.[34]

33 Drawn from the case study in BTCA (2025).

34 See https://www.rbi.org.in/commonman/english/scripts/FAQs.aspx?Id=3324.

The main considerations for a central bank to ensure equal treatment for nonbanks are summarized below:

1. **Statutory powers:** If central banks are not empowered to do so by a change in law, or if they are not authorized to change the regulations themselves, then in their role as champions, they need to advocate actively for a legal/regulatory level playing field for the different types of PSPs.

2. **Regulatory barriers:** Setting the standards for authorization for payments business affects the barriers to entry through the capital cost to comply and the time taken to apply and the delays in awaiting authorization.

3. **Scheme/system rules:** By overseeing direct versus indirect participation rules, central banks can ensure that they are risk-based and proportional, not discriminatory. In systems operated by a central bank, too, the rules need to be set appropriately for access and reviewed.

In addition, central banks can cooperate with competition authorities where they exist as outlined in section 4.2 to address anticompetitive behavior of IPS operators or participants. This can affect the degree of inclusivity of the IPS, as a recent CGAP framework suggests (Kumaraswamy and Kremnitzer 2025).

What can central banks do?

- Advocate for appropriate laws and regulations and set licensing requirements and timelines that do not discriminate based on the institutional nature of a PSP.

- Set clear policy intent to allow nonbanks to connect directly to payment systems, according to principle 18 of the Principles for Financial Market Infrastructures on fair and transparent access rules.

- While ultimately a policy decision of each central bank, central banks may reconsider the case for nonbank PSPs to open settlement accounts in the RTGS. This might come with certain limitations, such as the inability to tap into central bank liquidity.

- Consult on draft regulations and rules with nonbanks, utilizing such forums as the national payment committee and engaging with industry associations.

- Periodically review costs and pricing at the system level for both direct and indirect participants.

- Collaborate with competition authorities where they have joint or overlapping responsibility in this area.

4.6 Addressing the Barriers

These five sets of considerations place the central bank at the center of addressing the barriers to the development of mature IPSs in their jurisdiction which are under their control or influence. Many of the considerations are linked. For example, offering level playing fields for nonbanks (consideration 5) will have an important effect on the types of business cases that may benefit from instant payments (consideration 4). Equally, proactively addressing issues of digital trust (consideration 3) will require capacity in the central bank (consideration 1) and likely also coordination across other enforcement agencies (consideration 2). The overall sets may seem daunting to central banks at early stages of the IPS journey, but some considerations can be addressed over time. Capacity building inside the central bank will require ongoing effort to achieve. Others, however, require attention up front—for example, if a central bank decides to operate an IPS, then it will require a minimum threshold of operational capacity for 24/7/365 availability.

Even though specific actions like these may be prioritized and sequenced, it seems clear in general that central banks cannot avoid paying attention to IPS development because of the following considerations:

- Instant payments are becoming more systemically important as they grow and cover more use cases: retail instant payments increasingly underpin government transfers, merchant payments, remittances, and financial inclusion.
- Policy choices are path-dependent: early decisions on access, pricing, governance, and redress are often difficult to change and can shape market structure and outcomes for decades.
- Risks rise with success: as volumes grow, fraud, outages, and disputes can quickly erode public trust and participant support.

Central banks may ask five outcome-oriented questions to monitor and assess the success of their domestic IPS (see box 1). Answers to these questions may inform a dashboard of indicators that are more just than technical milestones of IPS development.

BOX 1

Indicators of IPS Success

1. ***Do households, merchants, and governments use the system daily—or only occasionally?*** Without wide and deep usage, few benefits will accrue. See section 2.
2. ***Is governance credible and insulated from conflicts of interest in terms of regulation and oversight, and especially when the central bank is also the operator of the IPS?*** Considerations 1 and 2
3. ***Is the IPS trusted?*** That is, are fraud rates low, is dispute resolution fast and fair, is consumer protection clear? Consideration 3
4. ***Is the IPS financially and operationally sustainable?*** This is both for the IPS itself and for its participants. Consideration 4
5. ***Is the IPS competitively neutral?*** Is there fair access for banks and nonbanks, and are there no hidden advantages? Consideration 5

05 Conclusion

Success in the future of both domestic and cross-border instant payments will depend on a clear focus on interoperability, standardisation, systems interlinking, and public-private collaboration, as they are necessary pillars for building trust, resilience, and seamless user experiences, regardless of geography or economic context.

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IPS implementations are spreading across Africa and around the world.[35] Strong forces propel this growth. Among them are users' mounting expectations of speed and needs for immediate payment in the digital economy and policy makers' growing appreciation of the benefits that IPSs can bring for national economies. As we have shown in this white paper, this appreciation is backed by a steadily growing body of evidence of what leads to large-scale adoption and of the positive impacts that result. IPSs are complex systems that may experience rapid, even exponential, rates of takeoff with the right combination of policies and circumstances.

Even with strong prevailing winds behind IPS development, the takeoff of instant payments is not inevitable. As this white paper has shown, interrelated barriers can block and delay progress. Even when initial barriers are overcome, new risks arise at later stages of maturity. As IPSs become embedded in digital public infrastructures critical for the economy and society, the systemwide consequences of failure grow. Scale also brings new opportunities for bad actors to take advantage of the reach of IPSs to perpetrate new types of digital fraud and scams at a large scale. As a consequence, digital trust remains fragile across IPS maturity and requires active efforts to build and sustain.

While the traditional role of the central bank as overseer of the national payment system remains important and relevant, it is seldom sufficient for a domestic IPS to thrive. Rather, central banks need to play an enhanced catalytic role to overcome the risks of coordination failure among participants and across other agencies of government. Some central banks may decide to go beyond this role alone, to own and operate the new IPS, for an initial period at least, but running a real-time system effectively on a 24/7/365 basis brings a whole additional layer of operational challenges.

35 Aurazo et al. (2025) counted over 120 IPSs that are live around the world in 2025, more than triple the 35 IPSs in 2015. See the chart in https://www.bis.org/statistics/payment_stats/commentary1911.htm.

The growing scope of all these roles, old and new, can place strain on limited human and financial resources unless central banks actively plan, train, and allocate resources to address these needs. However, increasing technical support is available, and there is increasing levels of peer experience in other African central banks from which to learn—such as through the AACB Payment System Integration Task Force. Effective coordination among central banks and continental and regional bodies like this can help provide clarity, so that domestic payment system reforms can align with the wider payment-integration agenda.

International learning, however, cannot substitute for central bank engagement with all domestic stakeholders who affect and are affected by the implementation and growth of an IPS on an ongoing basis. Only through processes of regular, structured engagement with PSPs can central banks identify which barriers are most pressing in practice and explore ways to address them. Because an IPS typically brings new types of nonbank PSPs into the payment system, maybe for the first time, it can be challenging at first to navigate this emerging sector, since nonbanks, like banks, are not homogeneous in interests or business models. Many aspirant PSPs, local and foreign, may have an interest in participation. The capacity of the central bank to engage equally with all parties may be constrained, but credible new industry bodies and umbrella associations are emerging across Africa, including those that helped to collect the views reported in chapter 3 of this white paper.[36] Bodies like these can help to consolidate industry views and diffuse good practices in the wider payment ecosystem.

Regardless of the stage of maturity of the domestic IPS, central banks should consider the following high-impact actions:

- **Clarify the policy objectives of the IPS,** such as inclusion, competition, resilience, and fiscal efficiency, and align pricing and access rules accordingly.
- **Strengthen governance and oversight,** especially where the central bank is also the operator, by establishing a clear separation of roles and transparent rule making, and by publishing performance metrics.
- **Track a small set of key performance indicators,** such as per-capita transaction volumes, system availability, fraud losses per transaction, dispute-resolution times, and merchant acceptance.
- **Enable risk-managed nonbank access,** with tiered participation, safeguarding requirements, and proportional supervision.
- **Establish minimum standards for fraud prevention and dispute resolution,** including service-level expectations and clear liability rules.
- **Adopt a sustainable funding model** for IPS operations, avoiding open-ended cross-subsidies that distort competition.

The development of an IPS offers a historic opportunity for every central bank. In those countries without an IPS, central banks can enable the establishment of one with foundations that make it most likely to scale and succeed in its objectives. For countries that already have an IPS, central banks can support the onward journey to the next stage of maturity through active oversight and vigilance. While the journey to reach a mature level of IPS development requires many barriers to be overcome, the record of an increasing number of countries around the world shows not only that it is possible to do so but that it is also highly desirable and impactful for the economy and society.

36 Both the Africa Fintech Network and the Alliance of Digital Finance and Fintech Associations are examples of umbrella networks that promote and support the development of domestic industry associations in many countries across Africa.

Appendix A:
Names of Firms and Industry Associations That Participated in Interviews and Focus Groups

COUNTRY	INDUSTRY ASSOCIATION OR FIRM INTERVIEWED
Angola	AiS Angola
Botswana	Fintech Association
Congo, Dem. Rep.	Fintech Association
Côte d'Ivoire	Digital Finance Association
Egypt	Paymob Egyptian Banks Company
Ethiopia	Kacha Chapa
Ghana	Bsystems
Guinea	LengoPay BnB
Malawi	Association of Digital Financial Services Malawi
Mauritius	Emtel
Morocco	Bank Al-Maghrib (bkam)
Mozambique	Mozambique Fintech Association (Fintech.MZ)
Niger	Ifutur Dev4Smart
Nigeria	Interswitch
Rwanda	Rwanda Fintech Association
South Africa	Ozow eccentric
Tunisia	bct
Uganda	FITSPA
Zambia	Association of Digital Finance Practitioners Zambia
Zimbabwe	Digital Finance Practitioners Association of Zimbabwe

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